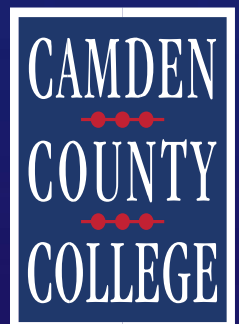
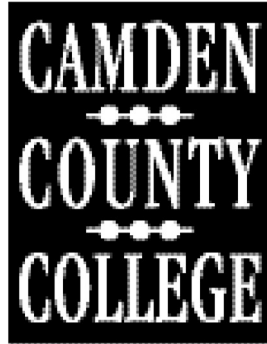


ACADEMIC PROGRAM GUIDE

2024-2025

WE ARE WHAT'S
NEXT





Academic Program Guide 2024-2025

Mission:

Camden County College is a learning community committed to the success of our diverse student population in achieving their full academic, career, and personal potential while delivering a high-quality, inclusive, affordable, and accessible education.

Vision:

Camden County College will be the regional leader in the provision of innovative academic and workforce training pathways to best serve our community.

Goals:

To accomplish its mission, Camden County College will continually assess institutional improvement through the evaluation of the following goals:

1. Provide accessible and affordable educational opportunities.
2. Foster student success through high-quality learning experiences and support services.
3. Respond to the needs of the regional labor force, collaborative partners and community members.
4. Develop and manage institutional resources focused on supporting student success and organizational effectiveness.

Values:

- Academic excellence
- Accountability
- Goal attainment
- Integrity
- Respect for individuals
- Student-centered (focused) decision making
- Student learning

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Accreditations

Camden County College is accredited by:

The Middle States Commission on Higher Education
3624 Market Street
Philadelphia, PA 19104
(267) 284-5000

The New Jersey Commission on Higher Education
20 West State Street, CN 542, Trenton, NJ 08625-0542
Phone: (856) 292-4310

The College is approved for veterans by:

The State Approving Agency of the New Jersey Department
of Military and Veteran's Affairs
Eggert Crossing Road, CN 340, Trenton, NJ 08625-0340
Phone: (856) 530-6863 | Fax: (856) 530-6970

It is a member of the American Association of Community and Junior Colleges
and the New Jersey Council of County Colleges.

In addition to institutional accreditation, the following programs are accredited by their respective bodies:

The Addictions Counseling Program is accredited by:
The Addictions Professional Certification Board of
New Jersey, Inc.

4 Cornwall Drive, Suite 103
East Brunswick, New Jersey 08816 Phone:
(732) 390-5900

The Dental Assisting and Dental Hygiene programs
are accredited by:

The Commission on Dental Accreditation of the
American Dental Association
211 E. Chicago Avenue, Chicago IL 60611-2678
Phone: (800) 232-6108

The Radiology Course in the Dental Assisting
Program is accredited by:

New Jersey Department of Environmental
Protection
Bureau of Radiological Health
PO Box 415, Trenton, New Jersey 08625-0415
Phone: (609) 984-5890
www.state.nj.us/dep/rpp/index.htm

The Dietetic Technology Program is accredited by:
The Commission on Accreditation of Dietetics
Education

120 South Riverside Plaza, Suite 200
Chicago, Illinois 60606-6995
Phone: (800) 877-1600

The Health Information Technology program is
accredited by:

The Commission on Accreditation for Health
Informatics and Information Management Education
(CAHIIM) in cooperation with the American Health
Information Management Association (AHIMA)
233 N. Michigan Avenue, Suite 2150
Chicago, Illinois 60601-5800
Phone: (312) 233-1100 | www.ahima.org

The Medical Coding Certificate Program is
accredited by:

The Approval Committee for Certificate Programs
(ACCP) a joint committee established by AHIMA and
AHDI to approve Coding Certificate Programs
233 N. Michigan Avenue, 21st floor
Chicago, Illinois 60601-5800
Phone: (312) 233-1100 | www.ahima.org

The Cooperative Nursing Program with Our Lady of
Lourdes School of Nursing is accredited by:
The National League of Nursing Accrediting
Commission

3343 Peachtree Road NE, Suite 500
Atlanta, Georgia 30326
Phone: (404) 975-5000 | Fax: (404) 975-5020
www.nlnac.org

The Commission on Accreditation of Allied Health
Education Programs (CAAHEP)

1361 Park Street, Clearwater, FL 33756
www.caahep.org

And approved by:

The NJ Board of Nursing (NJBON)
PO Box 45010, Newark, NJ 07101
Phone: (973) 504-6430

The Medical Laboratory Technology Program is
accredited by:

The National Accrediting Agency for Clinical
Laboratory Sciences
5600 N. River Road, Suite 670
Rosemont, IL 60018-5119
Phone: (847) 939-3597

The Respiratory Therapy Program is accredited by:
Committee on Accreditation for Respiratory Care
(CoARC)

1248 Harwood Road, Bedford, TX 76021-4244
Phone: (817) 283-2835.

Rutgers University (School of Health-Related
Programs), Camden County College's co-partner in
this program is accredited by the Commission on
Higher Education of the Middle States Association of
Colleges and Secondary Schools.

The Veterinary Technology Program is accredited by:
The Committee on Veterinary Technician Education
and Activities (CVTEA) of the American Veterinary

Medical Association (AVMA)
1931 North Meacham Road, Suite 100
Schaumburg IL 60173-8070
Phone: (908) 925-80709

The Practical Nursing Program is approved by:

The NJ Board of Nursing (NJBON)
PO Box 45010, Newark, NJ 07101
Phone: (973) 504-6430

ABMP

Associated Massage and Bodywork Professionals
P.O. Box 740879, Arvada, CO 80006-0879

AMTA

American Massage Therapy Association
500 Davis Street, Suite 900, Evanston, IL 60201-4695

AHHA

American Holistic Health Association
PO Box 17400, Anaheim, CA 92817

YA

Yoga Alliance
1701 Clarendon Boulevard, Suite 110,
Arlington, VA 22209

The General Motors Automotive Service Educational
Program (GM-ASEP), the Apprentice Program and
the Toyota T-TEN Programs are all certified by the
ASE Education Foundation
101 Blue Seal Drive, Suite 101,
Leesburg, Virginia 20175
Phone: (703) 669-6650

Commission on Opticianry Accreditation (COA)
229 East 85th Street #194
New York, NY, 10028
(315) 742-8066

Academic Program

Camden County College's academic program includes Associate degree programs that are designed to prepare for transfer for a Bachelor's degree, or provide the necessary skills to enter the workforce with a specialized set of skills. The College also offers a variety of vocational skill-based programs, including academic certificates, certificates of achievement, as well as specialized short-term specialized programs.

Transfer programs (AA, AS, AFA Degrees) are designed to provide students with the foundation general education courses as well as specific academic program courses required to complete baccalaureate programs of study upon transfer to colleges and universities. Career programs (AAS Degrees) provide educational experiences in the applied arts and sciences and are designed to prepare career-oriented students for job entry at the completion of the program.

Camden County College offers a number of certificate programs that fall within two categories: Academic Certificates (CT) and Certificates of Achievement (CA, CPS). Certificate programs provide training for specialized occupations. The certificate programs are discipline-intensive and most certificate courses can be applied to a corresponding associate degree program.

The Camden County Career Institute (CCCI) offers short-term training provided by industry experts. These programs are designed to prepare students to enter the workforce in an in-demand occupation. Many of these courses can be applied to a Camden County College associate degree and/or certificate program.

General Education

Camden County College is committed to promoting intellectual development, aesthetic appreciation and cultural awareness. To that end, degree programs include a general education component. This component, offering choices among a variety of courses, focuses on reading analytically, communicating ideas clearly and solving essential mathematical problems. It is designed to ensure that students develop a broad base of knowledge and become proficient in the application of skills. At

Camden County College, students have the opportunity to develop analytical, creative and ethical thinking; scientific and quantitative reasoning; technological competencies; historical consciousness; cultural awareness, and sensitivity to the world around them.

Graduation Requirements

To graduate from Camden County College with an Associate Degree, Certificate (CT), or Certificate of Achievement (CA) the following requirements must be satisfied.

1. Students must satisfactorily complete all courses and credits in an approved curriculum. Credit requirements vary by program. Developmental/ ESL courses do not count toward graduation requirements.
2. Earn a cumulative grade point average of 2.0 or higher in courses taken at Camden County College.
3. Degree seeking (AA, AS, AAS, AFA) students must complete a minimum of 30 of the required credits at Camden County College. Certificate (CT) students and Certificate of Achievement (CA) must complete at least half the required credits at the College.

Getting Started

- **Apply for Admission**
apply.camdencc.edu. Select "Create Your Account" and then "Apply to Camden County College."
- **Placement Test and Exemptions**
Placement testing schedules, sample tests, preparation materials and exemptions are provided on the Testing Center website www.camdencc.edu/testing.
- **Academic Advising**
Academic Advisors are available to help you determine your academic and career goals. Advisors will discuss your placement results, review requirements for specific academic programs, and help you create an academic plan. Visit www.camdencc.edu/advisement for additional information.
- **Additional Information**
Visit www.camdencc.edu/registration/sixsteps for additional information regarding Financial Aid, Registration, and Payment.

Policy on Non-Discrimination in Educational Programs

Camden County College complies with Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act of 1967 and New Jersey's Law Against Discrimination. These laws prohibit discrimination on the basis of race, creed, color, national origin, nationality, ancestry, age, marital status, affectional or sexual orientation, sex, familial status, domestic partnership status, disability and handicap. Decisions on admission, recruitment, financial aid programs, access to course offerings, or other aspects of its educational programs or activities, including vocational programs and vocational opportunities, are not made on the basis of any of these factors. Inquiries regarding these laws may be directed to the Dean of Students Office, Taft 236, Camden County College, P.O. Box 200, Blackwood, NJ 08012, (856) 227-7200, extension 4371; jtenuto@camdencc.edu or to the Executive Director of Human Resources, Camden County College, PO Box 200, Blackwood, NJ 08012, (856) 227-7200, ext 4221.

Understanding Placement

Academic Skills English Courses and Placement Flowchart

Workforce Track	Academic Track					Accelerated Track	College Level
ENG-005 Pathways to Reading & Writing PLA.ENG-PRW	Reading Courses	ENG-012 Reading Skills II PLA.ENG-R2	ENG-002 Reading Skills II Express PLA.ENG-RS2A		ENG-013 Reading Skills III PLA.ENG-R3	ENG-055/ ENG101 ALP Accelerated Learning Program PLA ENG-ALP	ENG-101 English Comp I PLA.ENG-CLE or 450 or higher on the SAT Evidence Based Reading/Writing
	Writing Courses	ENG-022 Writing Skills II PLA.ENG-WS2			ENG-023 Writing Skills III PLA.ENG-WS3		

Academic Skills English offers developmental courses designed to help students prepare for reading and writing in college-level courses. Placement into the various levels is determined by scores on the Accuplacer placement test and/or by exemption alternatives listed on the Testing Center exemptions page (<https://www.camdencc.edu/admissions-financial-aid/testing-center/exemptions/>). Students who test into any of the developmental levels must successfully complete the Level III courses to be eligible to register for English Composition, except in the case of ALP placement.

Department Contacts Academic Skills English:

Kaitlyn Parkhill, (856) 227-7200, ext. 4442, kparkhill@camdencc.edu
Lesley Fredericks, Coordinator, lfredericks@camdencc.edu

Academic Skills Math

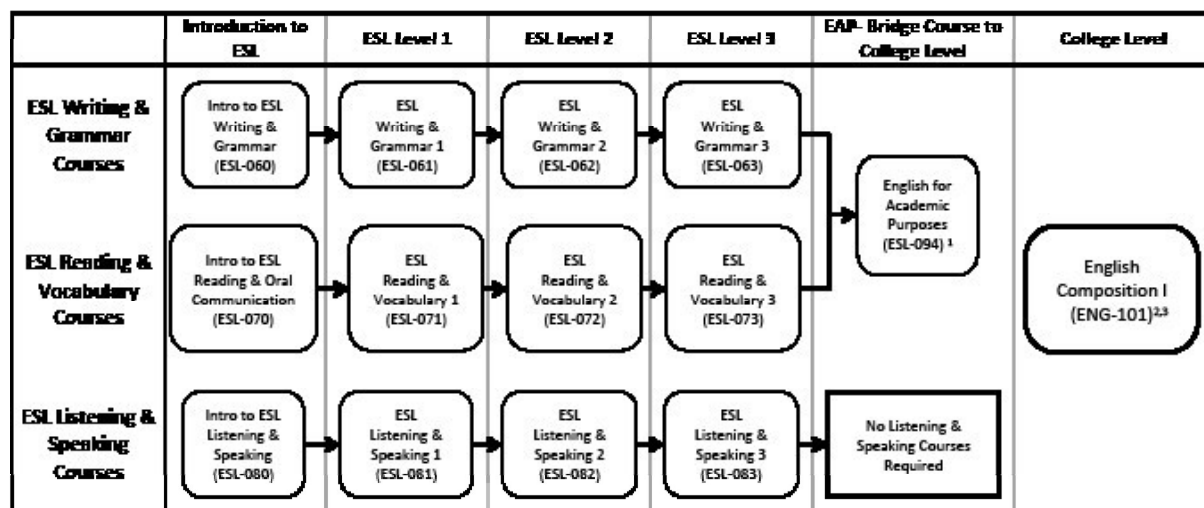
The Academic Skills Math Department offers developmental math courses designed to help students prepare for college-level math, science and business courses. Placement into the various levels is determined by scores on the Accuplacer placement test. Students who test into any of the developmental levels must successfully complete Elementary Algebra or Elementary Algebra Express to be eligible to register for any college-level math course.

Note: Basic computation is a fundamental objective of these courses. Therefore, the use of calculators is prohibited in all Academic Skills Math courses.

Department Contacts Academic Skills Math:

Sherri Bonafiglia, Administrative Assistant, (856) 227-7200, ext. 4468
Sandi Tannen, Department Chair, stannen@camdencc.edu

English as a Second Language (ESL) Course Sequence & ESL Accuplacer Placement Flowchart



1 – Student must either complete ESL-063 & ESL-073; or receive an Essay Score of 5 & a Reading Score of 105-115 in order to take ESL-094.

2 – ENG-101 is NOT part of the ESL Course Sequence.

3 – Student must either complete ESL-094; or receive an Essay Score of 6 & a Reading Score of 116+ in order to take ENG-101.

The ESL Department at Camden County College provides English language training to both United States residents who are non-native speakers of English and students from all over the world. The ESL Department provides non-native speakers of English with the linguistic and cultural skills necessary for academic achievement, integration into American society, and success in the workplace.

The curriculum of the ESL Department focuses on three major linguistic areas:

- **Academic:** Assist students who are preparing for college study in the U.S.
- **Functional:** Provide career skills for individuals in the work force
- **Cultural:** Provide English skills for those who need to adapt to the American society

Department Contacts:

Kim Reitano, Secretary, (856) 227-7200, ext. 4382

Dr. Martine Howard, Department Chair, Languages and Communications, mhoward@camdencc.edu

Programs

Associate in Art (AA)

Associate in Science (AS)

Associate in Fine Art (AFA)

Associate in Applied Science (AAS)

Certificates (CA, CT, CPS)

Career & Technical Institute (CTI)

Associate in Arts

Liberal Arts and Science: Applied & Fine Arts Option

APA.AA

FIRST YEAR/FIRST SEMESTER			
Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ART-123	Basic Drawing I - AFA	3	
ART-166	Two Dimensional Design - AFA	3	
HIS-101	World Civilization I	3	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites
FIRST YEAR/SECOND SEMESTER			
ENG-102	English Composition II	3	Prerequisite: ENG-101
ART-124 or ART-134	Basic Drawing II - AFA Life Drawing I	3	Prerequisite: ART-123 and ART-166
HIS-102	World Civilization II	3	
SOC-101	Introduction to Sociology	3	
MTH-101 or COM-105	Concepts of Mathematics Media Literacy	3	Prerequisite MTH-101: Must test into College Level Math or complete all appropriate prerequisites
SECOND YEAR/FIRST SEMESTER			
ART-111	Art History I	3	
ART-167	Three Dimensional Design - AFA	3	
PSY-101	Basic Psychology	3	
ELECTIVE	Laboratory Science General Education Elective	4	
ELECTIVE	Language Elective	3	Must take 6 credits in one language
SECOND YEAR/SECOND SEMESTER			
ART-112	Art History II	3	
ART-165	Color: Theory and Practice	3	
SPE-102	Public Speaking	3	
ELECTIVE	Language Elective	3	Must take 6 credits in one language
CIS-106	Introductory Computing using Google Apps	2	
TOTAL CREDITS		60	

PROGRAM DESCRIPTION

This program is designed to provide students with the standard core foundations classes in the visual arts while also enabling them to complete many of the required general education courses they would need in working towards completing a Bachelor of Arts (BA) degree. This program is designed for transfer. Upon completion of the program, students are expected to have developed a strong portfolio of original work.

This program is best suited for students interested in pursuing careers in Art History, Art Therapy, Architecture, Interior Design, or transferring into a BA program.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Draw from life (observational drawing).
2. Design projects in both two and three dimensions.
3. Apply the fundamentals of design to the problem solving and crafting aspects of their visual arts pursuits.
4. Make, comprehend and evaluate works of visual fine art and design.

CONTACT PERSON

Professor Gregory Brellochs, Coordinator
(856) 227-7200 ext. 4251
Email: gbrellochs@camdencc.edu

Associate in Arts

Liberal Arts and Science: Music Option

MUS.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
MUS-101 or MUS-121	Music Appreciation Fundamentals of Music	3	
MUS-123	Music Theory I	3	
MUS....	Ensemble Elective	1	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
MUS-110 or MUS-106 or MUS-113	African-American Music World Music Cultures Jazz History	3	
MUS-124	Music Theory II	3	Prerequisite: MUS-123
MUS....	Ensemble Elective	1	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/FIRST SEMESTER

MUS-225	Music Theory III	3	Prerequisite: MUS-124
SOC-101	Introduction to Sociology	3	
MUS....	Ensemble Elective	1	
HIS-101	World Civilizations I	3	
SPE-102	Public Speaking	3	
ELECTIVE	Language General Education Elective	3	Must take 6 credits in one language

SECOND YEAR/SECOND SEMESTER

MUS-129 or MUS-228	Introduction to Audio Recording Business of Music	3	
PSY-101	Basic Psychology	3	
HIS-102	World Civilizations II	3	
BIO-106 or CHM-140	Living in the Environment Chemistry and Society	4	
ELECTIVE	Language General Education Elective	3	Must take 6 credits in one language

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Camden County College music program delivers a curriculum of written, aural and piano theory designed to help each student develop mature skills in analysis, composition and ear training. In addition, after three semesters of ensemble performance and private lessons, each student participates in the development and implementation of a music recital.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze and explain the technical, cultural, and historical aspects of a diverse repertoire of music.
2. Perform a variety of musical genres.
3. Compose, arrange, and record music using digital audio workstations.
4. Propose potential career paths based on their detailed understanding of the music industry.

CONTACT PERSON

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Audio Production

MUS.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
MTH-107 or MTH-111	Mathematics for Liberal Arts Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
MUS-129	Introduction to Audio Recording	3	
MUS-133	Audio Recording Techniques I	3	
MUS-135	MIDI/Digital Audio Workstation I	3	Co-requisite: MUS-129 and MUS-133

FIRST YEAR/SECOND SEMESTER

SPE-102 or ENG-102	Public Speaking English Composition II	3	Prerequisite ENG-102: ENG-101
MUS-134	Audio Recording Techniques II	3	Prerequisite: MUS-133
MUS-136	MIDI/Digital Audio Workstation II	3	Prerequisite: MUS-135; Co-requisite: MUS-134
MUS-107	Digital Music Composition	1	
MUS-227	Live Sound Reinforcement	3	Prerequisite: MUS-129
MUS-228	Business of Music	3	

SECOND YEAR/FIRST SEMESTER

CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
MUS-121	Fundamentals of Music	3	
MUS-229 or FLM-110	Basic Studio Maintenance or Filmmaking I	3	Prerequisite MUS-229: MUS-129
MUS-230	Audio Production	3	Prerequisite: MUS-134
MUS-231	Mixing Audio	3	Prerequisite: MUS-136

SECOND YEAR/SECOND SEMESTER

MUS-101	Music Appreciation	3	
MUS-110 or MUS-106 or MUS-113	African-American Music World Music Cultures Jazz History	3	
MUS-232	Sound Design	3	Prerequisite: MUS-134 and MUS-136
MUS-233	Advanced Audio Production and Mixing	3	Prerequisite: MUS-230 and MUS-231
MUS-275	Audio Internship	3	Prerequisite: MUS-230

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Audio Production degree begins with the development of the fundamental skills needed in the field of audio production, music recording and sound engineering and gradually advances towards the procurement of an audio-based portfolio and capstone internship. Aimed at individuals interested in securing work primarily as sound engineers in a variety of media-related fields, this two-year program covers audio recording, mixing, live sound and audio-visual sound design. Also, students will learn the nuts and bolts of studio maintenance and repair, fundamentals of music theory for more effective communication with recording artists and the essentials of the music business as needed for managing a career in the field of audio production, music recording and sound engineering.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Manage, engineer and mix a full recording session.
2. Communicate effectively with clients to achieve their technical and aesthetic audio demands.
3. Critically analyze and provide constructive criticism to improve musician and ensemble performance.

CONTACT PERSON

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Music Recording

MUS.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
MUS-107	Digital Music Composition	1	
MUS-129	Introduction to Audio Recording	3	
MUS-133	Audio Recording Techniques I	3	
MUS-135	MIDI/DAW I (Digital Audio Workstation)	3	Co-requisite: MUS-129 and MUS-133

FIRST YEAR/SECOND SEMESTER

MUS-134	Audio Recording Techniques II	3	Prerequisite: MUS-133
MUS-136	MIDI/DAW II (Digital Audio Workstation)	3	Prerequisite: MUS-135; Co-requisite: MUS-134
MUS-227	Live Sound Reinforcement	3	Prerequisite: MUS-129
MUS-228	Business of Music	3	

TOTAL CREDITS

22

PROGRAM DESCRIPTION

The Music Recording certificate is designed to provide students with an opportunity to learn the skills involved with recording and editing music. Aimed at individuals interested in building their own home studios or seeking the skills required of entry-level interns in the field of music engineering, this two-semester program covers the nuts and bolts of multitrack recording, digital audio workstations and an overview of live sound. In addition, students learn basic piano skills for MIDI input/ editing, fundamentals of music theory for more effective communication with recording artists and the essentials of the music business as needed for managing a career in the field of music engineering and/or performance.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Organize, manage, engineer and edit a recording session.
2. Discuss a wide variety of equipment, hardware and software related to the recording and editing of audio files.
3. Provide sound reinforcement in a live concert setting.
4. Describe critical issues related to the music recording profession.

CONTACT PERSON

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This program is not approved for financial aid.

Liberal Arts and Science: Theatre Option

SPT.AA

FIRST YEAR/FIRST SEMESTER			
Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
THE-131	Voice and Diction	3	
THE-253	Stagecraft I	3	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites
FIRST YEAR/SECOND SEMESTER			
ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
THE-141	Acting I	3	
THE-121	Theatre Appreciation	3	
ELECTIVE	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites
SECOND YEAR/FIRST SEMESTER			
SPE-102	Public Speaking	3	
THE-233	Playwriting	3	
BIO-106 or CHM-140	Living in the Environment Chemistry & Society	4	Prerequisite CHM-140: ENG-101
ELECTIVE	Social Science General Education Elective	3	
ELECTIVE	Language General Education Elective	3	Must take 6 credits in one language
SECOND YEAR/SECOND SEMESTER			
THE-252	Children's Theatre	3	
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
ELECTIVE	Language General Education Elective	3	Must take 6 credits in one language
ELECTIVE	Diversity General Education Elective	3	
ELECTIVE	Social Science General Education Elective	3	
TOTAL CREDITS		60	

PROGRAM DESCRIPTION

The program is designed to help students demonstrate beginning competencies in speech and theatre. The program focuses on the performance aspects of theatre and on the technical aspects of set and scenery design, construction, stage management, and directing.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss the culture of theatre including the ethics, financial implications and necessary commitment.
2. Identify strengths and weaknesses of their voice, bodies and creative imaginations.
3. Produce a play.
4. Define and apply the vocabulary of theatre genres.

CONTACT PERSON

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Professor Marjorie Sokoloff
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Studio Art

STA.AFA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ART-123	Basic Drawing Design - AFA	3	
ART-166	Two Dimensional Design	3	
MTH-101 or MTH-107	Concepts of Mathematics Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites
PSY-101 or SOC-101	Basic Psychology Introduction to Sociology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ART-124	Basic Drawing II -AFA	3	Prerequisite: ART-123 and ART-166
ART-167	Three Dimensional Design - AFA	3	
ART-165	Color: Theory and Practice	3	
ART-103	Visual Culture	3	Prerequisite: ENG-101

SECOND YEAR/FIRST SEMESTER

ART-111	Art History I	3	Prerequisite: ENG-101
CGR-126	Illustration I	3	Prerequisite: ART-123 and ART-166
ELECTIVE	Studio Elective	3	
ELECTIVE	Studio Elective	3	
ELECTIVE or ELECTIVE	Humanities Arts or Humanities Literature General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

ART-112	Art History II	3	
ART-201	Visual Arts Seminar	3	Prerequisite: ENG-102
CGR-239	Animation I	3	Prerequisite: ART-123 or ART-166
ELECTIVE	Studio Elective	3	
ELECTIVE	Studio Elective	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This degree program provides students with an art intensive course of study. This program is designed to give students a broad base of studio art and design experience, with an emphasis on both the core foundations classes and more advanced studio art classes. This program is designed for transfer into a Bachelor of Fine Arts (BFA) program. Upon completion of the program, students are expected to have developed a strong portfolio of original work.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss the history of western art.
2. Design projects in both two and three dimensions.
3. Apply the fundamentals of design to the problem solving and crafting aspects of their visual arts pursuits.
4. Make, comprehend, and evaluate works of visual fine art and design.
5. Draw from life (observational drawing).

CONTACT PERSON

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Film and Television Production

FLM.AAS

FIRST YEAR/FIRST SEMESTER			
Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
FLM-201	Film Appreciation	3	
PHO-101	Photography I	3	
ART-166	Two Dimensional Design - AFA Majors	3	
MTH-101 or MTH-107	Concepts of Mathematics Mathematics for Liberal Arts	3	Must test into College Level Math or take all appropriate prerequisites
FIRST YEAR/SECOND SEMESTER			
ENG-102	English Composition II	3	Prerequisite: ENG-101
FLM-110	Filmmaking I	3	
ART-123	Basic Drawing I - AFA Majors	3	
ART-167	Three Dimensional Design - AFA Majors	3	
PSY-101	Basic Psychology	3	
SECOND YEAR/FIRST SEMESTER			
FLM-210	Filmmaking II	3	Prerequisite: FLM-110
FLM-101	Television Appreciation	3	
CGR-126 or MUS-133	Illustration I Audio Recording Techniques I	3	Prerequisites: ART-123 or ART-166
THE-253 or ART-143	Stagecraft Sculpture I	3	
ART-111 or ART-112 or PHO-111	Art History Art History II History of Photography	3	
SECOND YEAR/SECOND SEMESTER			
FLM-215 or	Production Internship I Studio Elective	3	Prerequisites: FLM-110 and FLM-210
CGR-239	Animation I	3	Prerequisite: ART-123 and ART-166
ART-201	Visual Arts Seminar	3	Prerequisite: ENG-102
ART-103	Visual Culture	3	Prerequisite: ENG-101
ART-111 or ART-112 or PHO-111	Art History Art History II History of Photography	3	
TOTAL CREDITS		60	

PROGRAM DESCRIPTION

An understanding of the role of film and television is intrinsic to an understanding of popular culture. Film and television production changes with advances in technology. This program balances introducing students to the historic/social impact of film and television with the practical hands-on application of film and television production in the 21st century.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Identify all areas of responsibility in film and television production.
2. Demonstrate an ability to participate in all areas of film and television production.
3. Demonstrate an understanding of the history and evolution of film and television production.
4. Demonstrate an understanding of film and television in popular culture.

CONTACT PERSON

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Liberal Arts and Science: Computer Graphics Option

CGR.AA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ART-123	Basic Drawing Design - AFA	3	
ART-166	Two Dimensional Design	3	
HIS-101	World Civilization I	3	
MTH-107	Mathematics for Liberal Arts	3	Must place into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ELECTIVE	Math, Science, or Technology General Education Elective	3	
HIS-102	World Civilization II	3	
SOC-101	Introduction to Sociology	3	
CGR-108	Graphic Design I	3	Prerequisite: ART-123 and ART-126

SECOND YEAR/FIRST SEMESTER

ART-111	Art History I	3	
CGR-109	Graphic Design II	3	Prerequisite: CGR-108
PSY-101	Basic Psychology	3	
ELECTIVE	Laboratory Science General Education Elective	4	
ELECTIVE	Language Elective	3	Must take 6 credits in one language

SECOND YEAR/SECOND SEMESTER

ART-112	Art History II	3	
CGR-114	Typography	3	Prerequisite: CGR-108
SPE-102	Public Speaking	3	
ELECTIVE	Language Elective	3	Must take 6 credits in one language
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This program is designed to provide students with the standard core foundations classes in the visual arts while also enabling them to complete many of the required general education courses they would need in working towards completing a Bachelor of Arts (BA) degree. This program is designed for transfer. Upon completion of the program, students are expected to have developed a strong portfolio of original work.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Apply the fundamentals of graphic design to the problem solving and crafting aspects of their visual arts pursuits.
2. Analyze client needs and create effective design solutions.
3. Utilize fundamental principles and practices required by computer graphic professionals.
4. Use a variety of specialized computer graphic software, hardware and peripherals.

CONTACT PERSON

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Computer Graphics

CGR.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ART-123	Basic Drawing I - AFA	3	
ART-165	Color: Theory and Practice	3	
ART-166	Two Dimensional Design - AFA	3	
MTH-101 or MTH-107	Concepts of Mathematics Mathematics for Liberal Arts	3	Must place into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ART-167	Three Dimensional Design - AFA Majors	3	
ART-124	Basic Drawing II - AFA Majors	3	Prerequisite: ART-123 and ART-126
CGR-108	Graphic Design I	3	Prerequisite: ART-123 and ART-126
SOC-101 or PSY-101	Introduction to Sociology Basic Psychology	3	

SECOND YEAR/FIRST SEMESTER

ART-111	Art History I	3	
CGR-109 or ART-134	Graphic Design II Life Drawing	3	Prerequisite CGR-109: CGR-108 Prerequisite ART-134: ART-123
CGR-114 or ART-145	Typography Painting I	3	Prerequisite: CGR-108
CGR-126	Illustration I	3	Prerequisites: ART-123 and ART-166
CGR-239	Animation I	3	Prerequisites: ART-123 and ART-166

SECOND YEAR/SECOND SEMESTER

ART-112	Art History II	3	
ART-103	Visual Culture	3	Prerequisite: ENG-101
ART-201	Visual Art Seminar	3	Prerequisite: ENG-102
CGR-127	Illustration II	3	Prerequisite: CGR-126
CGR-245	Animation II	3	Prerequisite: CGR-239

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This program is designed to provide students with the standard core foundations classes in the visual arts while also enabling them to complete many of the required general education courses they would need in working towards completing a Bachelor of Fine Arts (BFA) degree. This program is designed for transfer. Upon completion of the program, students are expected to have developed a strong portfolio of original work. This program is best suited for students interested in pursuing careers in Animation, Graphic Design, and Illustration.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Apply the fundamentals of graphic design, illustration, and animation to the problem solving and crafting aspects of their visual arts pursuits, as assessed by in-class, homework, and project assignments.
2. Analyze client needs and create effective design solutions, as assessed by in-class, homework, and project assignments.
3. Utilize fundamental principles and practices required by computer graphic professionals, as assessed by in-class, homework, and project assignments.
4. Use a variety of specialized computer graphic software, hardware and peripherals, as assessed by in-class, homework, and project assignments.

CONTACT PERSON

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Business Administration

ABA.AS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ACC-104	Financial Accounting	3	
CIS-105 or ELECTIVE	Computer Literacy Technology General Education Elective	3	
MGT-101	Introduction to Business	3	
ELECTIVE	General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ACC-105	Managerial Accounting	3	Prerequisite: ACC-104
ECO-101	Macroeconomics	3	
ELECTIVE	General Education Elective	3	
ELECTIVE	Laboratory Science General Education Elective	4	

SECOND YEAR/FIRST SEMESTER

ECO-102	Microeconomics	3	
HIS-101	World Civilization I	3	
MGT-102	Introduction to Management	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or take all appropriate prerequisites
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	

SECOND YEAR/SECOND SEMESTER

HIS-102	World Civilization II	3	
LAW-101	Legal Environmental/Business Law I	3	
MKT-101	Principles of Marketing	3	
ENG-271	World Literature I	3	Prerequisite: ENG-101
MTH-122	Applied Calculus	3	Must test into MTH-122 or take all appropriate prerequisites

TOTAL CREDITS
60
PROGRAM DESCRIPTION

This degree leads to an associate degree in business administration and is intended to transfer into a bachelor's degree program. Specialized fields in upper division studies include accounting, business administration, economics, finance, human resource management, marketing, computer studies, and other business-related professions.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Apply and explain the fundamentals of financial reporting and analysis.
2. Apply financial data to making business decisions.
3. Research and communicate business information using information technology.
4. Describe the legal implications of business descriptions.

CONTACT PERSON

Professor Richard Sarkisian, Coordinator
 (856) 227-7200, ext. 4492
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Sport Management

SPM.AS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HPE-130 or HPE-102	Consumer Health Decisions Health and Wellness	3	
ACC-104	Financial Accounting I	3	
ELECTIVE	Laboratory Science General Education Elective	4	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ECO-101 or ECO-102	Macroeconomics Microeconomics	3	
HPE-106	Stress Management	3	
ELECTIVE	Laboratory Science General Education Elective	4	
ELECTIVE	Free Elective	3	

SECOND YEAR/FIRST SEMESTER

MGT-102	Intro to Management	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
PSY-101	Basic Psychology	3	
HIS-101	World Civilization I	3	
HPE-201	Intro to Sport Management	3	

SECOND YEAR/SECOND SEMESTER

HPE-170	First Aid, Safety & Prevention of Injuries	3	
SOC-101	Intro to Sociology	3	
ELECTIVE	Technology General Education Elective	3	
HPE-209	Internship: Sport Management	1	Prerequisites: CIS-105, ENG-102, HPE-102, HPE-195, HPE-201, MTH-111, PSY-101, HIS-101 or HIS-111
ELECTIVE	Humanities Literature General Education Elective	3	
ELECTIVE	Humanities General Education Elective	3	

TOTAL CREDITS
60
PROGRAM DESCRIPTION

The Sport Management program prepares students to receive an Associate in Science degree and transfer to a four-year school to major in sport management. Sport management is an all-encompassing term associated with the management of sport, fitness/wellness, and leisure recreation programs. An increased growth in competitive athletics, sport participation by all segments of society, and sport-related businesses has created a need for individuals trained in sport management.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Explain the various careers in sport management.
2. Use critical analysis in solving problems and analyzing information as it relates to sport management.
3. Work effectively in a professional sport business environment.
4. Explain the key factors that led to sport evolving into business.

CONTACT PERSON

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Accounting

ACC.AAS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ACC-104	Financial Accounting	3	
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
LAW-101 LAW-102	Legal Environment/Business Law Business Law II	3	
MGT-101	Introduction to Business	3	
CIS-101 CIS-105	Personal Computer Applications Computer Literacy	3	

FIRST YEAR/SECOND SEMESTER

ACC-105	Managerial Accounting	3	Prerequisite: ACC-104
ACC-213	Computerized Accounting	3	Prerequisite: ACC-104
ENG-102	English Composition II	3	Prerequisite: ENG-101
FIN-212	Principles of Finance	3	Prerequisite: ACC-104
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/FIRST SEMESTER

ACC-214	Intermediate Accounting I	3	Prerequisite: ACC-105 (Fall Only)
ACC-223	Income Tax Accounting I	3	Prerequisite: ACC-105 (Fall Only)
CIS-102	Spreadsheets	3	
ECO-101	Macroeconomics	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/SECOND SEMESTER

ACC-216	Intermediate Accounting II	3	Prerequisite: ACC-214 (Spring Only)
ACC-224	Income Tax Accounting II	3	Prerequisite: ACC-223 (Spring Only)
ECO-102	Microeconomics	3	
MGT-102	Introduction to Management	3	
ELECTIVE	Diversity: Humanities General Education Elective	3	

TOTAL CREDITS
60
PROGRAM DESCRIPTION

Accounting clerks maintain systematic and up-to-date records of accounts and business transactions. They also prepare periodic financial statements.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Maintain systematic and up-to-date records of business transactions.
2. Prepare financial statements, including income statements, statements of owner's equity, balance sheets and statement of cash flow.
3. Use computer software to design and maintain bookkeeping and accounting systems.

CONTACT PERSON

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Management**MGT.AAS****FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ACC-104	Financial Accounting	3	
BMT-101	Business Mathematics I	3	
CIS-105	Computer Literacy	3	
MGT-101	Introduction to Business	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ACC-105	Managerial Accounting	3	Prerequisite: ACC-104
BMT-102	Business Mathematics II	3	Prerequisite: BMT-101
LAW-101	Legal Environment/Business Law I	3	
MGT-102	Introduction to Management	3	

SECOND YEAR/FIRST SEMESTER

ECO-101	Macroeconomics	3	
LAW-102	Business Law II	3	
MGT-212	Human Resource Management	3	Prerequisite: MGT-102
MKT-101	Principles of Marketing	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/SECOND SEMESTER

ECO-102	Microeconomics	3	
FIN-212 or BUS-201	Principles of Finance Co-op I: Business	3	Prerequisite FIN-212: ACC-104
MGT-213	Operations Management	3	Prerequisite: MGT-102 and MTH-111 (Spring Only)
MGT-216	Human Relations in Business & Industry	3	Prerequisite: MGT-102 (Spring Only)
ELECTIVE	Diversity General Education Elective	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

Managers direct the activities of their individual departments within the framework of the overall plans of the organizations.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss, explain and describe the general business environment.
2. Manage, communicate with and direct a diverse workforce.
3. Describe the legal implications of management decisions.

CONTACT PERSON

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Email: rsarkisian@camdencc.edu

Paralegal Studies

PAR.AAS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
CIS-105	Computer Literacy	3	
PAR-101	Introduction to Paralegal Studies	3	
PAR-201	Legal Research & Writing I	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
OST-123	Introduction to Microsoft Word	3	
PAR-102	Litigation and Civil Procedure	3	
PAR-202	Legal Research & Writing II	3	Prerequisite: PAR-201
POL-101	Introduction to Political Science	3	

SECOND YEAR/FIRST SEMESTER

PAR-210	Law Office Management	3	Prerequisite: PAR-101 and ENG-101
CRJ-105	Criminal Law	3	
LAW-101	Legal Environment/Business Law	3	
SPE-102	Public Speaking	3	
SOC-205	Social Diversity	3	

SECOND YEAR/SECOND SEMESTER

PAR-203	Family Law	3	Prerequisite: PAR-101
PAR-204	Real Estate Law	3	
PAR-207	Bankruptcy Basics	3	
PAR-205	Estate and Probate	3	
PAR-206	Paralegal Internship	3	
ELECTIVE	Humanities General Education Elective	3	

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

This program is designed to prepare students for entry-level paraprofessional positions in the legal field. A paralegal is a person qualified by education, training, or work experience; who is employed or retained by a lawyer, law office, corporation, governmental agency, or other entity, and who performs specifically delegated substantive legal work for which a lawyer is responsible. Paralegals may not give legal advice or otherwise engage in the unauthorized practice of law. Paralegal work includes developing and modifying procedures used in the legal field, preparing routine legal documents, assisting in the preparation of cases for trial, investigating facts, researching, selecting, assessing, compiling, and using information from the law library and other references, and analyzing and handling procedural problems.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss fundamental legal concepts and principles to think critically about law and social issues.
2. Evaluate the court system in both civil and criminal proceedings.
3. Conduct legal research using both primary and secondary sources in either printed or electronic versions.
4. Interact with clients of various cultures and backgrounds.

CONTACT PERSON

Professor Sondi Lee, Coordinator
(856) 227-7200, ext. 4558
Email: slee@camdencc.edu

Business

CTI

Starting your own business

Small, growing businesses need help, especially practical advice and ideas that work. These workshops are designed to give you the business management skills necessary to succeed in today's competitive market.

INTRODUCTION TO SMALL BUSINESS OWNERSHIP (1)

Participants will be introduced to what it takes to start or purchase a small business. Economic climate and other factors of business ownership are discussed with an emphasis on a positive approach to this series of seminars.

CE.BUS 001-51 *Hours: 2.5* *CEUs: .25*

THE BUSINESS PLAN PART I: PLANNING PROCESS (2)

This seminar concentrates on the organization and elements of a basic business plan. Learn the uses of a business plan and when and why it is necessary – a must for people starting their own business or business owners seeking financing.

CE.BUS 002-51 *Hours: 2.5* *CEUs: .25*

THE BUSINESS PLAN PART II: MARKETING & PROMOTION (3)

This seminar continues from Part I, the Planning Process, by focusing on the business plan and its effect on marketing and promotion for the business owner.

CE.BUS 010-51 *Hours: 2.5* *CEUs: .25*

CREATING A BUDGET FOR YOUR SMALL BUSINESS (4)

Learn to plan and forecast your cash needs in order to start, operate, or purchase a business. This step-by-step seminar concentrates on the basics of cash flow planning. Learn to plan your own cash flow from actual case studies. This seminar teaches you the proper format and purpose of this vital part of operating a small business.

CE.BUS 003-51 *Hours: 2.5* *CEUs: .25*

FINANCING A SMALL BUSINESS (5)

Learn where and how to borrow money, the do's and don'ts of borrowing, and the different sources of money available to you. Learn how to build the proper banking relationship and what is needed to secure that business loan.

CE.BUS 004-51 *Hours: 2.5* *CEUs: .25*

TAXES AND RECORD KEEPING (6)

Learn what type of business entity is right for you. Learn what legal and tax benefits are available to you in starting or owning your own business. This seminar concentrates on various legal forms of business, their costs, tax reporting, and benefits to the small business owner.

CE.BUS 005-51 *Hours: 2.5* *CEUs: .25*

Investment Institute

CTI

In these unpredictable and often turbulent times that we now face, it is more important than ever to increase your personal knowledge of investing for you and your family. In this seminar, you will learn the essentials of investing by exploring the various options and techniques commonly utilized by today's financial consultants. These courses are instructed by a highly experienced financial executive, who will guide you through the investment spectrum.

THE STOCK MARKET

This course will offer insight as to how the market operates. It will include a discussion on how to research and purchase stock, understanding dividends, PE ratios and IPO's. A review of fundamental vs. technical analysis will be included. Handouts will provide current data used to make stock selections.

CE.INV 002-71 *Hours: 2.5* *CEUs: .25*

RETIREMENT PLANNING AND FUNDING

This course will explore strategies for those planning for retirement by focusing on rollovers, social security, and estate planning. A review of how to fund retirement will include a discussion on retirement accounts including IRA's, Roth IRA and 401K's.

Although you may take these individually, for the best experience, please plan to attend all four as they are separate but related topics.

CE.INV 004-71 *Hours: 2.5* *CEUs: .25*

Various workshops are also available for non-profit management. Camden County College's workshop series on nonprofit management has been created for leadership track NPO managers and others wishing to broaden their skills and knowledge. Program participants learn to identify, understand, and apply a broad spectrum of management skills and practices in critical areas of NPO program management. The curriculum has been curated by the Board of the Nonprofit Development Center of Southern New Jersey. Class offerings fluctuate so please visit www.camdencc.edu/ce for the most recent course catalog with full details.

Cosmetology

CTI

COSMETOLOGY / HAIR STYLIST

In just 10 months students are prepared to pass the NJ State Board of Cosmetology licensure exam. Camden County College Cosmetology students have achieved an extremely high pass rate as a result of the training they receive from our industry experts.

The 1,071-hour program consists of classroom and hands-on training, performing basic designs on mannequins and patrons in a clinical salon setting, which is open to the public. Units of instruction include state laws, shop management, scalp conditioning, shampooing, hair styling and cutting, permanent waving, thermal waving, hair shaping, tinting,

coloring, shaving, make-up application, facials, and chemistry. In addition, students are offered instruction in the styling and fitting of wigs and hairpieces. Camden County College is now offering a rolling admission schedule with multiple start dates to choose from. Students will complete their training 10 months after their respective start date.

Location: Camden County Technical School, Sicklerville Campus

CE.TRD-040

Hours: 1,071

CEUs: 107.1

Real Estate

CTI

REAL ESTATE LICENSING

Real Estate Sales: This is a basic five-credit course in the principles of real estate and includes the study of property interests, contracts, financing, titles, deeds, closings, appraising leases, Federal laws, NJ statutes, and NJ Real Estate Commission rules and regulations. This course is designed to prepare students to sit for the NJ Real Estate Salesperson Exam.

Because this is a cooperative course, policies and procedures may vary from the College's standard policies governing credit classes.

FIN-215

Hours: 75

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www.camdencc.edu/ce

Automotive Technology (Apprentice)

AUT.AAS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
AUT-101	Automotive Fundamentals	3	
AUT-111	Automotive Brake Systems	3	
AUT-121	Steering & Suspension Systems	4	
CIS-105	Computer Literacy	3	
ELECTIVE	Diversity: Humanities Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
AUT-131	Automotive Heating and Air Conditioning	3	
AUT-141	Automotive Electrical/Electronic Principles	3	
MTH....	Mathematics General Education Elective	3/4	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Social Science General Education Election	3	

SECOND YEAR/FIRST SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
AUT-242	Automotive Electrical/Electronic Systems	4	
AUT-253	Automotive Engines	4	
AUT-261	Manual Drive Trains and Axles	4	
PHY-103	Physics I (for the Non-Science major)	4	

SECOND YEAR/SECOND SEMESTER

AUT-262	Automatic Transmissions & Transaxles	4	
AUT-271	Advanced Automotive Systems I	4	
AUT-272	Advanced Automotive Systems II	4	Corequisite: AUT-271
AUT-286	Automotive Capstone Practicum (360 hours)	3	

TOTAL CREDITS
66/67
PROGRAM DESCRIPTION

This open enrollment curriculum is designed to prepare students for careers as service technicians in the automotive industry.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Work safely in an automobile repair facility.
2. Perform basic techniques involved in diagnosis and repair of automobiles.
3. Explain basic principles of automotive technology.

PROGRAM REQUIREMENTS

Applicants must complete the required application form, submit official high school records and college transcripts and arrange to take the College Placement Test. Students should have good mechanical skills. Toward the end of the program, a 360-hour practicum is required.

CERTIFICATION

The Automotive Technology program at CCC is fully certified as a master training program by the ASE Education Foundation.

CONTACT PERSON

Christopher Gallo, Director
(856) 227-7200 ext. 4544
Email: cgallo@camdencc.edu

Automotive Technology:

General Motors / ASEP Option

GMA.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
AUT-101	Automotive Fundamentals	3	
AUT-111	Automotive Brake Systems	3	
AUT-141	Automotive Electrical/Electronic Principles	4	
ELECTIVE	Diversity: Humanities General Education Elective	3	

SECOND SEMESTER (SPRING) DEALERSHIP EXPERIENCE -- 1ST 9 WEEKS

AUT-181	Automotive Practicum	3	Prerequisite: Permission of instructor required
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SECOND SEMESTER (SPRING) -- 2ND 9 WEEKS

AUT-121	Automotive Steering & Suspension Systems	4	
AUT-131	Automotive Heating & Air Conditioning	3	
CIS-105	Computer Literacy	3	
ELECTIVE	Social Science General Education Elective	3	

DEALERSHIP EXPERIENCE (SUMMER) -- 9 WEEKS

AUT-182	Automotive Practicum II	3	Prerequisite: Permission of instructor required
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THIRD SEMESTER (FALL) -- 9 WEEKS

ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
AUT-242	Automotive Electrical/Electronic Systems	4	
AUT-253	Automotive Engines	4	

DEALERSHIP EXPERIENCE -- 9 WEEKS

AUT-283	Automotive Practicum III	3	Prerequisite: Permission of instructor required
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FOURTH SEMESTER (SPRING) -- 9 WEEKS

ENG-102	English Composition II	3	Prerequisite: ENG-101
AUT-271	Advanced Automotive System I	4	
AUT-272	Advanced Automotive System II	4	Corequisite: AUT-271
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

DEALERSHIP EXPERIENCE -- 9 WEEKS

AUT-284	Automotive Practicum IV	3	Prerequisite: Permission of instructor required
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FIFTH SEMESTER (SUMMER) -- 9 WEEKS

AUT-261	Manual Drive Trains & Axles	4	
AUT-262	Automatic Transmissions & Transaxles	4	
PHY-103	Physics I (for the Non-Science Major)	4	

TOTAL CREDITS**75****PROGRAM DESCRIPTION**

Camden County College, General Motors Corporation and General Motors dealerships jointly sponsor this selective admission program. It is designed specifically for automotive technicians mutually selected for the program by Camden County College and area General Motors dealerships.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Work safely in a GM repair facility.
2. Integrate social and decision-making skills with standard professional work habits.
3. Explain basic principles of automotive technology as it applies to General Motors manufactured automobiles.
4. Diagnose and repair General Motors automobiles.

SPECIAL ADMISSION REQUIREMENTS

- Applicants must complete the required application form, submit official high school records and college transcripts and, if applicable, arrange to take the College Placement Test.
- Applicants must bring an abstract of their driving record from the NJDMV.
- After being accepted by the College, students must be sponsored by a General Motors dealer before beginning the program.
- Students must purchase or possess a basic tool set before beginning their first college practicum at the sponsoring dealerships. (The College provides a list of the required tools.)
- Students must have clean driving record, and be able to pass drug and background checks.

CERTIFICATION

The Automotive Technology program at CCC is fully certified as a master training program by the ASE Education Foundation.

CONTACT PERSON

Christopher Gallo, Director
(856) 227-7200 ext. 4544
Email: cgallo@camdencc.edu

Automotive General Technician

GAT.CA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
AUT-101	Automotive Fundamentals	3	
AUT-111	Automotive Brake Systems	3	
AUT-121	Steering & Suspension Systems	4	

FIRST YEAR/SECOND SEMESTER

AUT-131	Automotive Heating and Air Conditioning	3	
AUT-141	Automotive Electrical/Electronic Principles	3	

SECOND YEAR/FIRST SEMESTER

AUT-242	Automotive Electrical/Electronic Systems	4	
AUT-253	Automotive Engines	4	
AUT-261	Manual Drive Trains and Axles	4	

SECOND YEAR/SECOND SEMESTER

AUT-262	Automatic Transmissions & Transaxles	4	
AUT-271	Advanced Automotive Systems I	4	
AUT-272	Advanced Automotive Systems II	4	Corequisite: AUT-271
AUT-286	Automotive Capstone Practicum (360 hours)	3	Prerequisite: Permission of instructor

TOTAL CREDITS**44****PROGRAM DESCRIPTION**

This open enrollment program is designed to prepare students for careers in the automotive industry as general automotive service technicians.

SPECIAL PROGRAM REQUIREMENTS

The basic skills placement test must be taken for admittance. It is highly recommended that any basic skills classes be completed by graduation.

CONTACT PERSON

Christopher Gallo, Director
(856) 227-7200 ext. 4544
Email: cgallo@camdencc.edu

Automotive General Motors Technician

GMT.CA
FIRST SEMESTER (FALL) 15 WEEKS

Course #	Course Name	Credits	Notes
AUT-101	Automotive Fundamentals	3	
AUT-111	Automotive Brake Systems	3	
AUT-141	Automotive Electrical/Electronic Principles	4	

SECOND SEMESTER (SPRING) 1ST 9 WEEKS

AUT-181	Automotive Practicum I	3	Prerequisite: Permission of instructor required
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SECOND SEMESTER (SPRING) 2ND 9 WEEKS

AUT-131	Automotive Heating and Air Conditioning	3	
AUT-121	Steering & Suspension Systems	4	
CIS-105	Computer Literacy	3	

DEALERSHIP EXPERIENCE (SUMMER)

AUT-182	Automotive Practicum II	3	Prerequisite: Permission of instructor required
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TOTAL CREDITS
20
PROGRAM DESCRIPTION

This open enrollment program is designed to prepare students for careers in the automotive industry as general automotive service technicians.

EMPLOYMENT OPPORTUNITIES

The students must complete at least one 9-week practicum at a GM dealership to meet graduation requirements. This practicum usually leads to full-time employment. The dealers have requested GM to develop this type of program.

SPECIAL ADMISSIONS REQUIREMENTS

- Applicants must complete the required application form, submit official high school records and college transcripts and, if applicable, arrange to take the College Placement Test.
- Applicants must bring an abstract of their driving record from the NJDMV.
- After being accepted by the College, students must be sponsored by a General Motors dealer before beginning the program.
- Students must purchase or possess a basic tool set before beginning their first college practicum at the sponsoring dealerships. (The College provides a list of the required tools.)
- Students must have clean driving record, and be able to pass drug and background checks.

CONTACT PERSON

Christopher Gallo, Director
(856) 227-7200 ext. 4544
Email: cgallo@camdencc.edu

THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

Automotive

AUTOMOTIVE TECHNOLOGY

This program addresses the fundamental working principles of the modern automobile. This program is designed for those who intend to make the Automotive Trades their career. Instruction is provided in an ASE (Automotive Service Excellence) certified shop with ASE certified instructors. Skills and theories in the program follow proficiencies outlined through the NATEF (National Automotive Technical Education Foundation).

Included in this program are topics in vehicle construction and design as they apply to mechanical, hydraulic, and electrical system service. These sections include: engine design and operation, brake system operation and service, steering system service, suspension systems and alignment, engine control systems, electrical and electronic systems, tires and wheels. Also covered is an introduction to hand and power tools, shop equipment, hand held test equipment, and shop safety practices. Additional instruction is provided in fasteners, gaskets, seals and sealants used in the automotive trade, measuring instruments, service manuals, sources of electronic service information and technical certification requirements.

Students will take nationally recognized competency exams in Braking System Operation and Service, Electrical System Operation and Service, Engine Performance and Steering / Suspension/ Wheel Alignment systems. These exams are supported by ASE but are NOT the voluntary ASE Technician Certification Exams taken by technicians already employed in the automotive service industry.

Includes OSHA10 certification.

Admission Requirements: There are no special requirements for admission to this program. However, a basic comprehension of reading and math is expected Location: Camden County Technical School, Sicklerville or Pennsauken Campus

CE/TRD-011

Hours: 382

CEUs: 38.2

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856-374-4955
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Fire Science Administration

FRA.AS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
FIR-101	Fundamentals of Fire Behavior/Protection	3	Certification as a Firefighter I by NJ Div. of Fire Safety is accepted an equivalent. National Board on Fire Service Professional Qualifications Firefighter I certification may be accepted as an equivalent based upon an evaluation of course hours.
FIR-102	Fundamentals of Fire Prevention/ Fire Inspection I	3	Certification as a Fire Inspector by the New Jersey Div. of Fire Safety is accepted as an equivalent. National Board on Fire Service professional Qualifications Fire Inspector I certification may be accepted as equivalent based upon an evaluation of hours.
ELECTIVE	Technology General Education Elective	2	
CHM-120	Chemistry for Fire Protection	4	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or take all appropriate prerequisites
FIR-125	Firefighter Safety and Survival	3	
FIR-202	Fire Investigation	3	Prerequisite: FIR-102; The National Fire Academy (NFA), New Jersey Division of Criminal Justice (NJDCJ), or International Association of Arson Investigators (IAAI) Fire Investigation classes may be accepted based upon evaluation of hours.
FIR-222	Fire Inspector II	3	Prerequisite: FIR-102; Certification as a Fire Inspector by the NJ Div. of Fire Safety is accepted as an equivalent. National Board on Fire Service Professional Qualifications Fire Inspector II Certification may be accepted as equivalent based upon an evaluation of hours.

SECOND YEAR/FIRST SEMESTER

FIR-201	Fire Protection Systems	3	Prerequisite: FIR-101
FIR-211	Building Construction for Fire Service	3	Prerequisite: FIR-101
FIR-225	Hydraulics	3	Prerequisite: FIR-101
SOC-101	Introduction to Sociology	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or take all appropriate prerequisites

SECOND YEAR/SECOND SEMESTER

FIR-252 FIR-212	Arson Law and Court Procedures Fire Official	3	Prerequisite FIR-252: FIR-202 Prerequisite FIR-212: FIR-222; Certification as a Fire Official by NJ Div. of Fire Safety is accepted as an equivalent.
FIR-231 or FIR-235	Organization and Management of Fire Depts. New Jersey Fire Officer I	3	Prerequisite FIR-231: FIR-101 or FIR-102 Prerequisite FIR-235: FIR-101; The National Board on Fire Service Professional Qualifications (NBFSPPQ or Pro-Board) Fire Officer I certification may be accepted as equivalent based upon an evaluation of hours.
POL-103	American Federal Government	3	
PHL-131	Introduction to Ethics	3	
ELECTIVE or ELECTIVE	Diversity: Humanities General Education Elective Diversity: Social Science General Education	3	

TOTAL CREDITS
60
PROGRAM DESCRIPTION

The Fire Science Administration option is intended for those who seek to transfer to a four-year institution for the purpose of earning a Bachelor of Science in Fire Science. The program adheres to the core requirements of the Dept. of Homeland Security guidelines for fire science in the Fire and Emergency Service Higher Education (FESHE) model curriculum. Students completing this program may also earn certifications in Fire Code Enforcement. Students transferring to a four-year school offering a bachelor of Fire Science will be entering the third-year program and will have the ability to complete the degree on a four-year plan.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Explain the method by which fire and building codes enhance fire prevention and overall safety to building occupants.
2. Discuss how organization structure in a fire department is used to deliver effective services for prevention, suppression and emergency operations.
3. Understand the key benefits for investigating fire losses and how that applies to legal requirements under state law.
4. Demonstrate knowledge of hazard and risk exposure caused by fire and the methods used

by management for effectively controlling this exposure to avoid or minimize unnecessary safety and health risks.

CONTACT PERSON

William Glassman, Director
(856) 227-7200 ext. 4022
Email: wglassman@camdencc.edu

Fire Science Technology

FIR.AAS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
FIR-101	Fundamentals of Fire Behavior/Protection	3	Certification as a Firefighter I by NJ Div. of Fire Safety is accepted an equivalent. National Board on Fire Service Professional Qualifications Firefighter I certification may be accepted as an equivalent based upon an evaluation of course hours.
FIR-102	Fundamentals of Fire Prevention/ Fire Inspection I	3	Certification as a Fire Inspector by the New Jersey Div. of Fire Safety is accepted as an equivalent. National Board on Fire Service professional Qualifications Fire Inspector I certification may be accepted as equivalent based upon an evaluation of hours.
CHM-120	Chemistry for Fire Protection	4	
PSY-101 or SOC-101	Basic Psychology Introduction to Sociology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
EMT-101	Emergency Medical Technician	6	Certification as a National Registered Emergency Medical Technician may be accepted as equivalent based upon course content and hours.
FIR-222	Fire Inspector II	3	Prerequisite: FIR-102; Certification as a Fire Inspector by the NJ Div. of Fire Safety is accepted as an equivalent. National Board on Fire Service Professional Qualifications Fire Inspector II Certification may be accepted as equivalent based upon an evaluation of hours.
FIR-125	Firefighter Safety and Survival	3	

SECOND YEAR/FIRST SEMESTER

FIR-202	Fire Investigation	3	Prerequisite: FIR-102; The National Fire Academy (NFA), New Jersey Division of Criminal Justice (NJDCJ), or International Association of Arson Investigators (IAAI) Fire Investigation classes may be accepted based upon evaluation of hours.
FIR-211	Building Construction for Fire Service	3	Prerequisite: FIR-101
FIR-225	Hydraulics	3	Prerequisite: FIR-101
FIR-251	Fire Service Instructional Techniques & Methods	3	Certification as a Fire Instructor Level I by the NJ Div. of Fire Safety is accepted as an equivalent. National Board on Fire Service Qualifications or Pro-Board Fire Inspector II certification may be accepted as equivalent based upon an evaluation of hours.
FIR-121	Firefighting Tactics and Strategy	3	Prerequisite: FIR-101

SECOND YEAR/SECOND SEMESTER

FIR-201	Fire Protection Systems	3	Prerequisite: FIR-101
PHL-131	Introduction to Ethics	3	
FIR-231 or FIR-235	Organization and Management of Fire Depts. New Jersey Fire Officer I	3	Prerequisite FIR-231: FIR-101 or FIR-102 Prerequisite FIR-235: FIR-101; The National Board on Fire Service Professional Qualifications (NBFSPQ or Pro-Board) Fire Officer I certification may be accepted as equivalent based upon an evaluation of hours.
ELECTIVE	Diversity General Education Elective	3	
ELECTIVE	Technology General Education Elective	2	

TOTAL CREDITS
60
PROGRAM DESCRIPTION

The Fire Science Technology program follows the (FEMA) national curriculum based on the National Fire Academy FESHE (Fire and Emergency Services Higher Education) model for professional training and education in fire science. This program provides advanced education for people seeking careers in the fire service and related fields. Students who are matriculated in this program may receive up to 27 credits for prior learning documented by New Jersey state certifications in prevention, suppression and Emergency Medical Services (EMS) programs.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Explain the organization and function of a fire department with emphasis on staffing and other critical resources to efficiently deliver services.
2. Articulate how the basic principles of chemistry and hazardous materials determine acceptable and effective strategy and tactics for suppressing fires.
3. Analyze the impact that construction and building codes have in determining acceptable strategies and tactics for suppressing fires.
4. Describe how effective fire investigation leads to origin and cause determination and the role of the firefighter in the process.

CONTACT PERSON

William Glassman, Director
(856) 227-7200 ext. 4022
Email: wglassman@camdencc.edu

Corrections

COR.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CRJ-101	Administration of Justice	3	
CRJ-106	Contemporary Corrections	3	
HPE-109	Physical Conditioning/Police Recruits	3	
HPE-170	First Aid, Safety, and Prevention of Injury	3	
TOTAL CREDITS		12	

PROGRAM DESCRIPTION

The Camden County Correctional Academy program prepares recruits for entry-level positions as a county correctional officer and juvenile correctional officer. Correctional Officers Recruit Training Program purpose also is to prepare recruits to develop skills and knowledge of the fundamentals of dealing with inmates within penal institutions.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss concepts of the Constitution of the United States.
2. Compare and contrast the components of the criminal justice system and various agencies involved in the administration of justice.
3. Extrapolate local criminal justice issues to global justice and security issues.
4. Analyze criminal justice practitioner problems with the public.

CONTACT PERSON

Robert Doyle
(856) 227-7200 ext. 4874
Email: rdoyle@camdencc.edu

Police Academy
(856) 374-4950

THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID

ADMISSION REQUIREMENTS

Recruits who enter the Camden County Correctional Academy as a correctional officer must be sponsored by county enforcement agency, which have been selected as a recruit by their standards or procedures and have assumed all costs of training, uniforms, salary, etc.

Fundamentals of Policing

FOP.CA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
CRJ-101	Administration of Justice	3	
CRJ-105	Criminal Law	3	
HPE-109	Physical Conditioning/Police Recruits	3	
HPE-171	Emergency Response	6	
TOTAL CREDITS		15	

PROGRAM DESCRIPTION

The Camden County Police Academy program prepares recruits for entry-level positions as a certified police officer or Special Law Enforcement Officer II (SLEO II). Recruits will develop skills and knowledge of the New Jersey criminal penal code and traffic enforcement statutes, Constitutional Amendments dealing with individual and civil rights, contemporary issues in policing, rules of evidence and criminal procedural investigation as well as other facets of law enforcement.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss concepts of the Constitution of the United States.
2. Compare and contrast the components of the criminal justice system and various agencies involved in the administration of justice.
3. Extrapolate local criminal justice issues to global justice and security issues.
4. Analyze criminal justice practitioner problems with the public.

SPECIAL ADMISSION REQUIREMENTS

Recruits who enter the Camden County Police Academy as a certified police officer or SLEO II must be sponsored by county or municipal law enforcement agency, which have been selected as a recruit by their standards or procedures and have assumed all costs of training, uniforms, salary, etc. Those individuals who have not been sponsored by a county or municipal law enforcement agency may apply for the Camden County College Police Academy Alternate Route program. Requirements are the following: must be 18 years of age but not over 35 at the completion of the program; must have completed 60 college credits or 2 years of active military service, or 1 year of active military service and 30 college credits; must be a citizen of the United States and resident of the state of New Jersey; must be of good moral character and not convicted of any criminal offense; must be able to read, write and speak the English language; and must have medical insurance. All cost is the responsibility of the candidate.

CONTACT PERSON

Robert Doyle
(856) 227-7200 ext. 4874
Email: rdoyle@camdencc.edu

Police Academy
(856) 374-4950

THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

Criminal Justice

CRJ.AS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must place into ENG-101 or complete all appropriate prerequisites
PSY-101	Introduction to Psychology	3	
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
CRJ-101	Administration of Justice	3	
CRJ-105	Criminal Law	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
MTH-107 or MTH-111	Mathematics for Liberal Arts Introduction to Statistics	3	Must place into College Level Math or complete all appropriate prerequisites
SOC-101	Introduction to Sociology	3	
CRJ-103	Legal Systems	3	Prerequisite: CRJ-101
CRJ-106	Contemporary Corrections	3	

SECOND YEAR/FIRST SEMESTER

SOC-205	Social Diversity	3	
SPE-102	Public Speaking	3	
PHL-131	Introduction to Ethics	3	
CRJ-104	Juvenile Delinquency	3	
CRJ-203	Principles of Investigation	3	Prerequisite: CRJ-103

SECOND YEAR/SECOND SEMESTER

POL-103	American Federal Government	3	
BIO-106 or CHM-140 or CHM-145 or PHY-103	Living in the Environment Chemistry and Society Introduction to Forensic Science Physics I (for Non-Science Majors)	4	Prerequisite: ENG-101
CRJ-108	Community Policing	3	
CRJ-204	Multicultural Law Enforcement	3	
CRJ-107 or CRJ-120 or CRJ-230 or CRJ-207	Introduction to Probation and Parole Introduction Homeland Security Victimology Terrorism	3	Prerequisite CRJ-107: CRJ-101 Prerequisite CRJ-120: CRJ-101 Prerequisite CRJ-207: CRJ-103

TOTAL CREDITS
60
PROGRAM DESCRIPTION

The criminal justice program prepares students for employment with municipal, county, state and federal law enforcement agencies. This program has both a career and a transfer component.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss the concepts involving the Bill of Rights of the United States, as measured by student performance on test questions.
2. Compare and contrast the components of the criminal justice system and the various types of agencies involved in the administration of justice, as measured by student performance on test questions.
3. Explain local criminal justice issues to global justice and security issues in regards to narcotic and human trafficking, as measured by student performance on test questions.
4. Analyze specific criminal justice practitioner problems with current events such as profiling, use of force and civil rights, as measured by student performance on test questions.

CONTACT PERSON

Professor Amy Pisano, Coordinator
(856) 227-7200 Ext. 4779
Email: apisano@camdencc.edu

Human Services

HSR.AS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must place into ENG-101 or complete all appropriate prerequisites
HSR-101	Introduction to Human Services	3	
PSY-101	Basic Psychology	3	
SOC-101	Introduction to Sociology	3	
MTH-107	Math for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HSR-104	Contemporary Issues in Social Welfare	3	Prerequisite: HSR-101
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits in one language
CHM-140 or BIO-106 or BIO-140	Chemistry & Society Living in the Environment The Microbial World	4	Prerequisite CHM-140: ENG-101

SECOND YEAR/FIRST SEMESTER

HSR-102	Social Work Processes	3	Prerequisite: HSR-101
HSR-103	Introduction to Counseling	3	
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
ELECTIVE	Language General Education Elective	3	Must take six credits in one language
SOC-205 or SOC-201 or ENG-271	Social Diversity Sociology of the Family World Literature I	3	Prerequisite: SOC-101 Prerequisite: ENG-101

SECOND YEAR/SECOND SEMESTER

HSR-105	Group Dynamics	3	
HSR-107	Field Work	3	Prerequisite: HSR-101 and HSR-103 or ADD-101
PHL-131 or PHL-232	Introduction to Ethics Biomedical Ethics	3	
HIS-101 or HIS-102	World Civilization I World Civilization II	3	
BIO-103	Human Biology	3	

TOTAL CREDITS
60
PROGRAM DESCRIPTION

Human services encompass a wide spectrum of community work designed to help people. Human services professionals work in mental health organizations, developmental disability services, substance abuse programs and multiservice centers.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze contemporary social welfare issues affecting American society.
2. Behave in a professional and ethical manner.
3. Explain and use elements of effective working relationships encompassing the ideals of empathy, positive communication, and active listening.
4. Differentiate between various types of services within the social welfare system.

NOTICE: Clinical placements area required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

CONTACT PERSON

Professor Fatemah Sedighi, Coordinator
(856) 227-7200, ext. 4535
Email: fsedighi@camdencc.edu

Liberal Arts and Science: Psychology Option

PSY.AA

FIRST YEAR/FIRST SEMESTER			
Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must place into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
MTH-107 or MTH-114	Mathematics for Liberal Arts College Algebra for Business & Social Science	3	Must test into College Level Math or complete all appropriate prerequisites Must test into MTH-114 or complete all appropriate prerequisites
PSY-101	Basic Psychology	3	
ELECTIVE	Language General Education Elective	3	Students must take six credits of one language
FIRST YEAR/SECOND SEMESTER			
ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
PSY-109	Developmental Psychology	3	Prerequisite: PSY-101
ELECTIVE	Language General Education Elective	3	Students must take six credits of one language
SOC-101 or POL-101 or POL-103	Introduction to Political Sociology Introduction to Political Science American Federal Government	3	
SECOND YEAR/FIRST SEMESTER			
PSY-102 or PSY-108	Psychology of Personality and Adjustment Psychology of Dying and Death	3	Prerequisite: PSY-101
ART-101 or MUS-101 or PHL-101 or PHL-131	Art Appreciation Music Appreciation Introduction to Philosophy Introduction to Ethics	3	
BIO-106 or BIO-111 or BIO-117 CHM-140	Living in the Environment Biology I - Science Basic Anatomy and Physiology I Chemistry in Society	4	Prerequisite: ENG-101
PSY-105 or PSY-106	Child Psychology Psychology of Adolescents	3	Prerequisite: PSY-101
PSY-112 or ENG-271 or SOC-201 or SOC-205 or HIS-131	Psychology of Women World Literature Sociology of the Family Social Diversity African American History I	3	Prerequisite: PSY-101 Prerequisite: ENG-101 Prerequisite: SOC-101
SECOND YEAR/SECOND SEMESTER			
SPE-102	Public Speaking	3	
MTH-111 or MTH-171	Introduction to Statistics Statistics I	3	Must test into College Level Math or complete all appropriate prerequisites Prerequisite: MTH-114 or MTH-123 or MTH-125
PSY-103 or PSY-110	Educational Psychology Social Psychology	3	Prerequisite: PSY-101
PSY-104	Abnormal Psychology	3	Prerequisite: PSY-101
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
TOTAL CREDITS		60	

PROGRAM DESCRIPTION

This program provides students with a concentration of course work in the science of psychology appropriate for a psychology major in addition to a foundation in general education.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Describe major historical contributors to the discipline of psychology.
2. Compare and contrast different schools of psychology.
3. Apply elements of non-verbal communication
4. Describe the methods of research used in psychology.

CONTACT PERSON

Dr. Michael Colbert, Chair
 (856) 227-7200, ext. 4307
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Dr. Marie English
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Dr. Allyson Meloni
 (856) 227-7200, ext. 4331
 Email: ameloni1@camdencc.edu

Addictions Counseling

ADD.AAS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must place into ENG-101 or complete all appropriate prerequisites
ADD-101	Introduction to Addictions	3	
HSR-101	Introduction to Human Services	3	
PSY-101	Basic Psychology	3	
SOC-101	Introduction to Sociology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ADD-102	Professional Development in Addictions Counseling	3	
HSR-103	Introduction to Counseling	3	
CHM-140	Chemistry & Society	4	Prerequisite: ENG-101
SPE-102	Public Speaking	3	

SECOND YEAR/FIRST SEMESTER

ADD-111	Psycho-Social Aspects of Alcoholism & Drug Addiction	3	Prerequisite: ADD-101
HSR-102	Social Work Processes	3	Prerequisite: HSR-101
HSR-105	Group Dynamics	3	
PSY-104	Abnormal Psychology	3	Prerequisite: PSY-101
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	

SECOND YEAR/SECOND SEMESTER

ADD-112	Assessment & Treatment of Alcoholism & Drug Addiction	3	Prerequisite: ADD-101
HSR-107	Field Work	3	Prerequisite: HSR-101 and HSR-103 or ADD-101
SOC-205	Social Diversity	3	
HSR-104	Contemporary Issues	3	Prerequisite: HSR-101
ADD-103 or ADD-104	Certified Peer Recovery Specialist (CARES) Certified Peer Recovery Specialist (CCART)	3	

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

Addictions counselors help individuals and families to deal with alcohol and drug treatment issues through services such as case management, assessment, prevention education, crisis intervention, community resource referrals, individual and group counseling, stress management and relapse prevention.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze contemporary preventative assessment and treatment strategies for licit and illicit substance use.
2. Imitate evidence of professional and ethical behavior in the field of addictions counseling.
3. Explain and use elements of effective working relationships encompassing the ideals of empathy, positive communication and active listening.

ACCREDITATION

The Addictions Professional Certification Board of NJ, INC.

SPECIAL PROGRAM INFORMATION

- ADD-101, ADD-102, ADD-111, ADD-112, HSR-101, HSR-102, HSR-103, HSR-105 Meets educational requirements for NJ State Certifications and Licensing in Alcohol and Drug Counseling.
- Additional clinical hours required for certification.

CONTACT PERSON

Professor LeRoy Stanford, Coordinator
(856) 227-7200 ext. 4546
Email: lstanford@camdencc.edu

Addictions Counseling

ADD.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ADD-101	Introduction to Addictions	3	
HSR-101	Introduction to Human Services	3	
HSR-103	Introduction to Counseling	3	
HSR-105	Group Dynamics	3	

FIRST YEAR/SECOND SEMESTER

ADD-102	Professional Development in Addictions Counseling	3	
ADD-111	Psycho-Social Aspects of Alcoholism & Drug Addiction	3	Prerequisite: ADD-101
ADD-112	Assessment & Treatment of Alcoholism & Drug Addiction	3	Prerequisite: ADD-101
HSR-102	Social Work Processes	3	Prerequisite: HSR-101

TOTAL CREDITS

24

PROGRAM DESCRIPTION

Addiction counselors help individuals and families to deal with alcohol and drug treatment through services such as management, assessment, prevention, education, crisis intervention, community resource referrals, individual/group counseling, stress management and relapse prevention.

SPECIAL PROGRAM INFORMATION

- ADD-101, ADD-102, ADD-111, ADD-112, HSR-101, HSR-102, HSR-103, HSR-105 Meets educational requirements for NJ State Certifications and Licensing in Alcohol and Drug Counseling.
- Additional clinical hours required for certification.

CONTACT PERSON

Professor LeRoy Stanford, Coordinator
(856) 227-7200 ext. 4546
Email: lstanford@camdencc.edu

ACCREDITATION

The addictions counseling program is an approved educational provider through:
The Addiction Professional Certification Board of New Jersey, Inc.
4 Cornwall Drive
Suite 103
East Brunswick, NJ 08816
Phone: (732) 390-5900
Email: info@certbd.com

Alzheimer's Journey Coordinator

ALZ.CA
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ALZ-101	Overview of Mild Cognitive Impairment (MCI), Alzheimer's Disease (AD), & Related Dementias (RD's)	2	
ALZ-102	Journey Coordinator: Purpose & Professionalism	2	Prerequisite: ALZ-101

FIRST YEAR/SECOND SEMESTER

ALZ-103	Individualized Approaches to Engage, Care, and Support for Persons Living with AD/RD and Care Partners	3	Prerequisite: ALZ-102
ALZ-104	Principles of System Navigation	3	Prerequisite: ALZ-103

FIRST YEAR/SUMMER SEMESTER

ALZ-105	Alzheimer's Journey Coordinator Field Work	3	Prerequisite: ALZ-101, ALZ-102, ALZ-103, ALZ-104
TOTAL CREDITS		13	

PROGRAM DESCRIPTION

The purpose of the curriculum is to provide students with the educational and clinical skills necessary to assist caregivers in recognizing and understanding the symptoms/treatment/ guidance of Alzheimer's disease (AD) and related dementias (RDs). The program will build a student's communication skills with respect to cultural sensitivity and person-centered plans. The program will provide skills to help differentiate between the multiple system and strategies to effectively navigate through various institutions including federal (to include the VA), state, county and local health and social agencies. This certificate curriculum will also assist students who are presently working for agencies that provide services to individuals with Alzheimer's disease and related dementias.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Compare and contrast Alzheimer's Diseases and related dementias as a public health crisis and the current barriers to care and services.
2. Demonstrate effective communication and relationship building skills that traverse dynamic networks of professionals, families, caregivers, and the person experiencing Alzheimer's disease and other related dementia.
3. Integrate information on the symptoms, treatment, and guidance of Alzheimer's disease and related dementias.

CONTACT PERSON

Professor Fatemah Sedighi, Coordinator
(856) 227-7200 ext. 4535
Email: fsedighi@camdencc.edu

This program is grant funded. Tuition is covered for accepted students.

Elementary/Secondary Education

EDU.AS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must place into ENG-101 or complete all appropriate prerequisites
HIS-101 or HIS-102	World Civilization I World Civilization II	3	
PSY-101	Basic Psychology	3	
SPE-102	Public Speaking	3	
MTH...	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
EDU-100	Teaching: Introduction to the Profession	3	
HIS-121 or HIS-122	United States History I United States History II	3	
PSY-105 or PSY-106	Child Psychology Psychology of Adolescence	3	Prerequisite: PSY-101
MTH...	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/FIRST SEMESTER

EDU-101	Historical Trends in American Education	3	
PSY-103	Educational Psychology	3	Prerequisite: PSY-101
ELECTIVE	Laboratory Science General Education Elective	4	
HPE-102	Health & Wellness	3	
ELECTIVE	Elective	3	

SECOND YEAR/SECOND SEMESTER

SOC-101	Introduction to Sociology	3	
GEO-101	Cultural Geography	3	
ENG-121 or ENG-281 or ENG-282 or ENG-271 or ENG-272	Introduction to Literature American Literature American Literature II World Literature I World Literature II	3	Prerequisite: ENG-101
ART-101 or ART-111 or MUS-101 or THE-121	Art Appreciation Art History I Music Appreciation I Theatre Appreciation	3	
EDU-105	Educational Technology	2	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This program is essentially the first two years of a baccalaureate degree in elementary and secondary education. The curriculum is specific in order to facilitate transfer of Camden County College credits. The curriculum is based on New Jersey state teacher certification requirements and teacher transferability to education programs in the region.

SPECIAL COURSE SELECTION INSTRUCTIONS

Elementary Education Majors Select: HIS-102, MTH-105, MTH 205, PSY-105, EDU-106

Secondary Education Majors Select:

PSY-106, MTH 205, EDU 104

ENG-271 or ENG-272 (History Coordinate)

ENG-281 or ENG-282 (American Studies Coordinate)

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Articulate an understanding of today's students in a diverse society and the societal influence on education.
2. Explain the characteristics of the teaching profession including the processes of teaching and learning.
3. Discuss the historical development of current educational issues.
4. Articulate the components of their personal philosophy of education.

CONTACT PERSON

Dr. Jane Weber, Coordinator
(856) 227-7200 ext. 4766

Email: jweber@camdencc.edu

Early Childhood Education

EED.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
PSY-101	Basic Psychology	3	
EED-112	Inclusive Class: Pedagogy & ECE Seminar	3	
SOC-101	Introduction to Sociology	3	
MTH-105	Mathematical Systems I: Structures	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
EED-115	Child Development & Learning	3	
BIO.... or MTH....	Biology General Education Elective Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Laboratory Science General Education Elective	4	

SECOND YEAR/FIRST SEMESTER

HIS-121 or HIS-122	United States History I United States History II	3	
GEO-101	Cultural Geography	3	
EDU-102	Human Exceptionality	3	
EED-205	Creative Arts in Early Childhood	3	
ELECTIVE	Language General Education Elective	3	Must take six credits in one language

SECOND YEAR/SECOND SEMESTER

EDU-101	Historical Trends in American Education	3	
ENG-271	World Literature I	3	Prerequisite: ENG-101
ELECTIVE	Language General Education Elective	3	Must take six credits in one language
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
SPE-102	Public Speaking	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Early Childhood Education, Associate in Arts degree is designed to prepare students for transfer to a four-year college to achieve a baccalaureate degree and certification in early childhood education. This program will provide the philosophical and historical foundation of early childhood education while introducing students to curriculum planning within the confines of New Jersey State Standards. The developmental focus of this program enables the student to understand the specific learning needs of children ages birth through eight years old.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Outline the stages of child development within the learning process and discuss the role of prominent early childhood development theorists within the process.
2. Discuss current and historical trends in early childhood education.
3. Articulate both New Jersey State Standards for Early Childhood Education and NAEYC Standards for effective early learning environments.
4. Design developmentally appropriate early childhood curriculum lesson plans.

CONTACT PERSON

Dr. Lisa Zappetti, Coordinator
(856) 227-7200 ext. 4280
Email: lzappetti@camdencc.edu

Preschool Teacher Education

PTE.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
EED-105	Children's Health, Nutrition, and Safety	3	
EED-112	Inclusive Class: Pedagogy and ECE Seminar	3	
PSY-101	Basic Psychology	3	
HIS....	History General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
EED-115	Child Development and Learning	3	
EED-120	Language Arts for the Preschool Child	3	
SOC-101	Introduction to Sociology	3	
SPE-102	Public Speaking	3	

SECOND YEAR/FIRST SEMESTER

EDU-102	Human Exceptionality	3	
EED-205	Creative Arts: Early Childhood Learner	3	
EED-210	Math/Science Concepts for the Preschool Child	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites
....	Diversity General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

EED-220	Behavior Management	3	
EED-230	Applied Preschool Experience	3	
EED-240	Infant/Toddler Social-Emotional Development	3	
EDU-101	Historical Trends in American Education	3	
BIO-103	Human Biology	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Preschool Teacher Education Applied Associate of Science Degree (PTE.AAS) prepares students to work with young children in a variety of settings including home day care, childcare settings, Head Start programs and private preschools. This program emphasizes the developmental needs of young children from birth to the eighth year of life. Students will learn how to design and apply developmentally appropriate activities for children ages birth to eight years through fundamental course work along with an internship in an early childhood setting.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Design developmentally appropriate early childhood curriculum and plans in five subject areas.
2. Compare and contrast early childhood development theorists such as Piaget, Vygotsky, Gardner and Erikson.
3. Identify the essentials necessary to promote a safe and healthy environment for children.
4. Apply course work to an early childhood field experience.

CONTACT PERSON

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(856) 227-7200, ext. 4280
Email: lzappetti@camdencc.edu

Diversity and Social Justice

DSJ.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must place into ENG-101 or complete all appropriate prerequisites
HIS-101 or HIS-121	World Civilization I United States History I	3	
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites
DSJ-101	Gateway to Social Justice Studies	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102 or HIS-122	World Civilization II United States History II	3	
SOC-101	Introduction to Sociology	3	
COM-145	Intercultural Communication	3	
BIO-106 or BIO-130 or CHM-140	Living in the Environment Plants & Society Chemistry & Society	4	Prerequisite: ENG-101

SECOND YEAR/FIRST SEMESTER

ELECTIVE	Language General Education Elective	3	Must take six credits in one language
SPE-102	Public Speaking	3	
HIS-131 or HIS-132	African American History I African American History II	3	
GEO-101 or ANT-101	Cultural Geography General Anthropology	3	
SOC-205	Social Diversity	3	

SECOND YEAR/SECOND SEMESTER

ELECTIVE	Language General Education Elective	3	Must take six credits in one language
ART-103 or ENG-271 or MUS-106 or MUS-110	Visual Art World Literature I World Music Cultures African American Music	3	Prerequisite: ENG-101 Prerequisite: ENG-101
ELECTIVE	Free Elective	3	
CRJ-204	Multicultural Law Enforcement	3	
DSJ-280	Service and Research for Social Justice	3	Prerequisite: DSJ-101

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Diversity and Social Justice program enables students to specialize in the study of marginalized groups and social justice. Diversity is studied not as an end in itself, but in pursuit of fundamental human rights and equity. The DSJ.AA degree will prepare students for transfer to a four-year institution in the areas of diversity, equity and inclusion industry and related fields.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss the histories and cultures of marginalized groups in the United States.
2. Identify intersecting systems of power, and their connections to privilege and oppression in everyday life.
3. Evaluate efforts to advance social justice.
4. Apply program concepts to local community service.

CONTACT PERSON

Dr. Renee Samara
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Dr. Nicole Jacobberger
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Vocational Studies

VOC.CPS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-005 or ENG-012 or ENG-022	Pathways to Reading & Writing Reading Skills II Writing Skills	3	Prerequisite: Placement Test
MTH-005 or MTH-011	Consumer Math Pre-Algebra Traditional	3	
HSR-040	Introduction to Careers	3	
HSR-050	Vocational Practicum	1	
HSR-010	Life Skills I	3	

FIRST YEAR/SECOND SEMESTER

HSR-020	Life Skills II	3	Prerequisite: HSR-010
HSR-022	Employment Basics I	3	
HSR-023	Introduction to Social Interaction	3	
HPE-141 or HPE-161 or HPE-113	Hatha Yoga Weight Training Volleyball	1	
HSR-051	Vocational Practicum I	1	Prerequisite: HSR-050

SECOND YEAR/FIRST SEMESTER

HSR-030 or ENG-012 or ENG-013 or ENG-022 or ENG-023 or MTH-011	Career Exploration Reading II Reading III Writing II Writing III Pre-Algebra Traditional	3	
HSR-033	Advanced Social Interaction I	3	
CIS-005	Computer Fundamentals	3	
HPE-141 or HPE-161 or HPE-113	Hatha Yoga Weight Training Volleyball	1	
HSR-052	Vocational Practicum II	1	Prerequisite: HSR-051

SECOND YEAR/SECOND SEMESTER

HSR-025	Employment Development	2	Prerequisite: HSR-030
HSR-001	Self-Advocacy	3	
ENG-012 or ENG-013 or ENG-022 or ENG-023 or MTH-011 or ART-104 or ASL-101 or MUS-101	Reading II Reading III Writing II Writing III Pre-Algebra Traditional Introduction to Visual Arts American Sign Language I Music Appreciation	3	
HSR-053	Vocational Practicum III	1	

TOTAL CREDITS
44
PROGRAM DESCRIPTION

The purpose of this certificate is to provide students with intellectual and/or cognitive disabilities an experience of college life while engaging in the opportunity to participate in a career training program at the College. Students will work on increasing their self-resilience, self-advocacy and learning to reach their potentials regarding career, social and life choices. The purpose of the program is to assist the individual student in becoming gainfully employed while increasing his/her independence in life skills necessary to be a contributing member of society.

The program includes classes that focus on literacy, numeracy, time management, life skills, and self-advocacy as well as career classes. Students will be required to complete all aspects of the program in

order to receive the certificate of post-secondary studies.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Develop personal and professional goals in order to complete their daily work.
2. Apply professionalism and ethical competencies in their specific work environment.
3. Identify and use appropriate social service programs and resources available in the community.
4. Advocate for themselves and on behalf of disadvantaged populations.

SPECIAL PROGRAM REQUIREMENTS

All students are required to complete 240 hours of vocational/technical work and/or internship hours over the course of the years.

CONTACT PERSON

Professor Fatemah Sedighi, Coordinator
(856) 227-7200 ext. 4535
Email: fsedighi@camdencc.edu

Teacher Education

CERTIFIED SUBSTITUTE TEACHER

Camden County College's Faculty Development Institute, in cooperation with the school districts in Camden County, offers a comprehensive training seminar to prepare individuals who seek to become substitute teachers. The Certified Substitute Teacher seminar also reinforces effective strategies for substitutes currently employed by local school districts. Topics of the seminar include: successful classroom management techniques, cultivating positive first impressions, developing rapport with students and colleagues, articulating clear lesson goals, making efficient use of instructional time and professionalism in a school setting, etc. Instructors will assist participants with the state application process, including the completion of related paperwork, and offer tips on resume development. Participants must have completed a minimum of 60 college credits and successfully undergo a criminal background check to qualify as a substitute teacher. A certificate of completion will be awarded at the end of the seminar.

CE.SUB 001

CAREER & TECHNICAL INSTITUTE OF
CAMDEN COUNTY COLLEGE
856-374-4955
tradetraining@camdencc.edu
www.camdencc.edu/ce

Liberal Arts and Science

LAS.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or take all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits in one language
ELECTIVE	Social Science General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
ELECTIVE	Technology General Education Elective	2	
ELECTIVE	Language General Education Elective	3	Must take six credits in one language
ELECTIVE	Humanities General Education Elective	3	Not a History or Language Course

SECOND YEAR/FIRST SEMESTER

SPE-102	Public Speaking	3	
ELECTIVE	Laboratory Science General Education Elective	4	
ELECTIVE	Social Science General Education Elective	3	
ELECTIVE	Diversity General Education Elective	3	
ELECTIVE	Liberal Arts Elective	3	

SECOND YEAR/SECOND SEMESTER

MTH.... or ELECTIVE	Mathematics General Education Elective Science General Education Elective	3	Must test into College Level Math or take all appropriate prerequisites
ELECTIVE	Liberal Arts Elective	3	
ELECTIVE	Liberal Arts Elective	3	
ELECTIVE	Free Elective	3	
ELECTIVE	Free Elective	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The program prepares students for transfer into four-year colleges or universities, primarily for majors in the arts, humanities or social sciences.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize tools of written and oral expression.
2. Analyze the historical process and the interaction of political, social and economic institutions that affect change in world civilization through time.
3. Speak, write, read and comprehend a foreign language and describe the cultural context for that language.
4. Utilize the vocabulary and tools for inquiry in introductory courses in a variety of academic areas, including math and science.

CONTACT PERSON

Dr. Patrick Hughes
(856) 227-7200 ext. 4319
Email: phughes@camdencc.edu

Associate in Arts

Liberal Arts and Science: English Option

ENG.AA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
MTH-105 or MTH-107	Mathematical Systems I: Structures Mathematics for Liberal Arts	3	Must test into College Level Math or take all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
PSY-101	Basic Psychology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ENG-121	Introduction to Literature	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
MTH-111 or MTH-205 or BIO-103	Introduction to Statistics Math Syst. II: Structures II Human Biology	3	Must test into College Level Math or take all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language

SECOND YEAR/FIRST SEMESTER

ENG-271 or ENG-272	World Literature I World Literature II	3	Prerequisite: ENG-101
ENG-281 or ENG-282	American Literature I American Literature II	3	Prerequisite: ENG-101
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
BIO-106 or BIO-130 or BIO-140 or CHM-140 or PHY-103	Living in the Environment Plants & Society The Microbial World Chemistry in Society Physics I	4	Prerequisite: ENG-101
GEO-101 or SOC-101	Cultural Geography Introduction to Sociology	3	

SECOND YEAR/SECOND SEMESTER

ENG-131	Shakespeare	3	Prerequisite: ENG-101
ENG-261	English Literature I	3	Prerequisite: ENG-101
SPE-102	Public Speaking	3	
ART-111 or ART-112 or MUS-106	Art History I Art History II World Music Cultures	3	
ENG-191 or MUS-101 or PHL-101	Myths of the World Music Appreciation Introduction to Philosophy	3	Prerequisite: ENG-101

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The program is designed to constitute the first two years of a baccalaureate degree in English. It prepares a student for transfer to the junior year at a four-year college or university.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss and write about literature.
2. Use the nomenclature of literary study to analyze literature.
3. Research and address literary topics.
4. Analyze the grammar of the sentence (beyond that required in composition courses).

CONTACT PERSON

Professor Lesley Fredericks
(856) 968-1246
Email: lfedericks@camdencc.edu

Professor Jacqueline Beamen, Chair
(856) 227-7200 ext. 4370
Email: jbeamen@camdencc.edu

Associate in Arts

Liberal Arts and Science: History Option

HST.AA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
MTH-111 or BIO-103	Introduction to Statistics Human Biology	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
POL-108	Introduction to International Relations	3	

SECOND YEAR/FIRST SEMESTER

HIS-121	United States History I	3	
PHL-131 or PHL-232 or PSY-101	Introduction to Ethics Biomedical Ethics Basic Psychology	3	
SPE-102	Public Speaking	3	
BIO-106 or BIO-130 or BIO-140 or CHM-140 or PHY-103	Living in the Environment Plants & Society The Microbial World Chemistry in Society Physics I	4	Prerequisite: ENG-101
GEO-101	Cultural Geography	3	

SECOND YEAR/SECOND SEMESTER

HIS-122	United States History II	3	
HIS-150 or ELECTIVE	Topics in History History Elective	3	
ART-111 or ART-112 or MUS-101	Art History I Art History II Music Appreciation	3	
ENG-271 or SOC-205 or SOC-201	World Literature I Social Diversity Sociology of the Family	3	Prerequisite: ENG-101 Prerequisite: SOC-101
ENG-282 or ENG-281 or SOC-101	American Literature II American Literature I Introduction to Sociology	3	Prerequisite: ENG-101 Prerequisite: ENG-101

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This program is designed for those students who wish to transfer to a four-year school where they will major in history.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Identify and describe the major figures, ideas and events in Western/World/ American Civilizations.
2. Analyze major movements, trends and developments in Western/World/American Civilizations.
3. Construct a historical essay that presents a clear argument and uses detailed historical evidence.

CONTACT PERSON

Dr. Patrick Hughes
(856) 227-7200 ext. 4319
Email: phughes@camdencc.edu

Liberal Arts and Science: Law, Government & Politics Option

GOV.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
POL-101	Introduction to Political Science	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
POL-103	American Federal Government	3	
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
ELECTIVE	Humanities General Education Elective	3	Not a History or Language Course

SECOND YEAR/FIRST SEMESTER

HIS-121	United States History I	3	
SPE-102	Public Speaking	3	
BIO-106 or BIO-130 or BIO-140 or CHM-140 or PHY-103	Living in the Environment Plants & Society The Microbial World Chemistry in Society Physics I	4	Prerequisite: ENG-101
ELECTIVE	Technology General Education Elective	2	
ELECTIVE	Free Elective	3	

SECOND YEAR/SECOND SEMESTER

HIS-122	United States History II	3	
POL-108 or POL-121	Introduction to International Relations Political Science Co-op	3	
MTH.... or ELECTIVE	Mathematics General Education Elective Science General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Diversity General Education Elective	3	
ELECTIVE	Free Elective	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The program is designed especially for those students who wish to pursue a career in the law, politics, or public service. As part of the program, internships are available to provide on-site training and experience in local government offices. As a transfer curriculum, this option provides the first two years of a traditional four-year baccalaureate program.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. The successful graduate will be able to display an understanding of the structure, function, history and operations of government institutions at the international, national, state and local levels.
2. The successful graduate will be able to compare and contrast the different motivations and constraints underlying political behavior.
3. The successful graduate will be able to explain the differences between developed and developing countries, compare and contrast the various challenges they face, and formulate predictions of their future behavior.

CONTACT PERSON

Dr. Patrick Hughes
(856) 227-7200 ext. 4319
Email: phughes@camdencc.edu

Liberal Arts and Science: Communications Option

COM.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
COM-101	Influence of Mass Media	3	
HIS-101	World Civilization I	3	
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
COM-106	Living in a Networked World	3	
HIS-102	World Civilization II	3	
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/FIRST SEMESTER

COM-103	News Writing & Reporting	3	Prerequisite: ENG-101
CIS-106	Introductory Computing Using Google Apps (G Suite)	2	
GEO-101 or POL-101 or POL-103 or SOC-101	Cultural Geography Introduction to Political Science American Federal Government Introduction to Sociology	3	
ART-101 or FLM-201 or FLM-101 or PHO-111	Art Appreciation Film Appreciation Television Appreciation History of Photography	3	
CHM-140 or BIO-106 or BIO-130	Chemistry & Society Living in the Environment Plants & Society	4	Prerequisite: ENG-101

SECOND YEAR/SECOND SEMESTER

COM-143	Introduction to Electronic Media	3	
COM-145	Intercultural Communications (Diversity Gen Ed	3	
SPE-102	Public Speaking	3	
COM-104 or COM-105 or COM-141	Introduction to Public Relations Media Literacy Introduction to Broadcasting I	3	
ECO-101 or POL-108 or PSY-101	Macroeconomics Introduction to International Relations Basic Psychology	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This program is designed to teach the technology, theory, and process of communication. Preparation is focused on helping students become a media worker that is a critical thinker and a well-informed media consumer.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Discuss the history and evolution of American mass media.
2. Analyze media products.
3. Explain the effects of media upon the individual, the society and culture.
4. Define communication terminology and apply it to the communication process.

CONTACT PERSON

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Email: djacobs@camdencc.edu
Professorjacobs.weebly.com

HUMANITIES**Associate in Applied Science**

CIP Code 24.0101

Esports Production**ESP.AAS****FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
ESP-101	Introduction to Esports	3	
MTH-101 MTH-107	Concepts of Math Mathematics for Liberal Arts	3	Must test into College Level Math or take all appropriate prerequisites
COM-106	Living in a Networked World	3	
COM-150	Sportscasting	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
COM-213	Multimedia Editing Lab II	2	Prerequisite: ENG-101
ESP-102	History of Esports and Gaming	3	
COM-151	Sportscasting Practicum I	1	Prerequisite: COM-150
ART-103	Visual Culture	3	Prerequisite: ENG-101
ENG-191 or ENG-121	Myths of the World Introduction to Literature	3	Prerequisite: ENG-101

SECOND YEAR/FIRST SEMESTER

MUS-133	Audio Recording Techniques I	3	
COM-143	Introduction to Electronic Media	3	
SPE-102 or ART-101 or MUS-101 or FLM-201	Public Speaking Art Appreciation Music Appreciation Film Appreciation	3	
ESP-112	Business Success in Esports	3	
ESP-113	Sociocultural Influences on Esports	3	

SECOND YEAR/SECOND SEMESTER

ESP-198	Esports Internship	3	Prerequisite: COM-150
ESP-111	Esports Event Management	3	Prerequisite: ESP-101
FLM-110	Filmmaking I	3	
ESP-114	Group Dynamics of Esports	3	Prerequisite: ESP-102
HIS-101	World Civilization I	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The eSports production degree (ESP.AAS) prepares students for careers in esports and gaming industries and develops production skills in esports. Graduates will understand the sales, marketing and economic aspects of the gaming and esports industries and also discuss social and other contemporary issues in esports and gaming.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze the impact of esports, including historical, cultural and contemporary influence on society.
2. Create an esports production, including sports casting, gameplay feeds, graphics, audio, lighting, staging, camera mixes and streaming.
3. Analyze and apply current business best practices to the esports industry
4. Integrate content knowledge from the core areas of the esports industry

CONTACT PERSON

Professor Drew Jacobs, Coordinator
(856) 227-7200 ext. 4217
Email: djacobs@camdencc.edu

Associate in Arts

Liberal Arts and Science:

Languages and International Studies Option

INT.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIS-101	World Civilization I	3	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or take all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
SOC-101	Introduction to Sociology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
MTH-111 or BIO-103	Introduction to Statistics Human Biology	3	Must test into College Level Math or take all appropriate prerequisites
ELECTIVE	Language General Education Elective	3	Must take six credits of one language
ART-111 or ART-112 or MUS-101	Art History I Art History II Music Appreciation	3	

SECOND YEAR/FIRST SEMESTER

BIO-106 or BIO-130 or BIO-140 or CHM-140 or PHY-103	Living in the Environment Plants & Society The Microbial World Chemistry in Society Physics I (for the Non-Science Major)	4	Prerequisite: ENG-101
GEO-101	Cultural Geography	3	
SPE-102	Public Speaking	3	
ELECTIVE	Language General Education Elective	3	Intermediate Level I
CIS-106	Introductory Computing Using Google Apps	2	

SECOND YEAR/SECOND SEMESTER

COM-145	Intercultural Communications	3	
ELECTIVE	Language General Education Elective	3	Intermediate Level II
ELECTIVE	Language General Education Elective	3	
ENG-271 or ENG-272	World Literature I World Literature II	3	Prerequisite: ENG-101
POL-108	Introduction to International Relations	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This program is designed for people who desire an international perspective and have an interest in foreign languages. Employment opportunities for such people are rising steadily. Degrees in this program may lead to careers in international and cross-cultural settings, language translating, communications, and teaching.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Speak and write a language other than English.
2. Interpret written and orally presented information in a language other than English.
3. Identify and/or demonstrate an understanding of the importance of a global perspective and culturally diverse people.

CONTACT PERSON

Dr. Martine Howard, Chair
(856) 227-7200 ext. 4744
Email: mhoward@camdencc.edu

Associate in Arts

Liberal Arts and Science: Deaf Studies / Pre-Interpreting Option

SLS.AA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
HIS-101	World Civilization I	3	
MTH-107	Mathematics for Liberal Arts	3	Must test into College Level Math or take all appropriate prerequisites
ASL-101	American Sign Language I	3	
SLS-202	American Deaf Culture	3	Co-requisite: ASL-101

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
HIS-102	World Civilization II	3	
MTH-111 or BIO-103	Introduction to Statistics Human Biology	3	Must test into College Level Math or take all appropriate prerequisites
ASL-102	American Sign Language II	3	Prerequisite: ASL-101
ASL-103	Fingerspelling	3	Prerequisite: ASL-101; Co-requisite: ASL-102

SECOND YEAR/FIRST SEMESTER

BIO-106 or BIO-130 or BIO-140 or CHM-140 or PHY-103	Living in the Environment Plants & Society The Microbial World Chemistry in Society Physics I (for the Non-Science Major)	4	Prerequisite: ENG-101
CIS-106	Introductory Computing Using Google Apps	2	
SOC-101	Introduction to Sociology	3	
ASL-201	American Sign Language III	3	Prerequisite: ASL-102
ASL-200	ASL Essentials	3	Prerequisite: ASL-102; Co-requisite: ASL-201

SECOND YEAR/SECOND SEMESTER

SPE-102	Public Speaking	3	
PHL-131 or THE-121	Introduction to Ethics Theatre Appreciation	3	
PSY-101	Basic Psychology	3	
ASL-202	American Sign Language IV	3	Prerequisite: ASL-201
SLS-201	ASL Linguistics	3	Prerequisite: ASL-102

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This option is designed to meet the needs of students who wish to learn about Deafness and American Sign Language and want to pursue a career working directly with deaf and hard of hearing individuals. Although the Deaf Studies Option is similar to the ASL and English Interpreting degree, it does not require that students take courses specifically designed to enhance or teach interpreting skills. Instead, the Deaf Studies Option offers a more general education in liberal arts.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Use American Sign Language fluently and express knowledge of ASL Linguistics.
2. Describe the common practices, perspectives and behavior patterns of deaf people and member of the deaf community in the deaf culture.
3. Participate in deaf-related events and activities and with members of the deaf community.

CONTACT PERSON

Dr. Martine Howard, Chair
(856) 227-7200 ext. 4744
Email: mhoward@camdencc.edu

Registration & Advisement
(856) 227-7200 ext. 4506

American Sign Language

SLS.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ASL-101	American Sign Language I	3	
SLS-202	American Deaf Culture	3	Co-requisite: ASL-101

FIRST YEAR/SECOND SEMESTER

ASL-102	American Sign Language II	3	Prerequisite: ASL-101
ASL-103	Fingerspelling	3	Prerequisite: ASL-101; Co-requisite: ASL-102

SECOND YEAR/FIRST SEMESTER

ASL-201	American Sign Language III	3	Prerequisite: ASL-102
ASL-200	ASL Essentials	3	Prerequisite: ASL-102; Co-requisite: ASL-201

SECOND YEAR/SECOND SEMESTER

ASL-202	American Sign Language IV	3	Prerequisite: ASL-201
SLS-201	ASL Linguistics	3	Prerequisite: ASL-102

TOTAL CREDITS

24

PROGRAM DESCRIPTION

This option is designed to meet the needs of students who wish to learn about deafness and sign language in-depth but may or may not wish to become professional interpreters. This option prepares students to communicate directly with deaf and hard of hearing individuals.

SPECIAL PROGRAM REQUIREMENTS

Student must obtain proof of an AA/AS degree, BA/BS degree or higher.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Use American Sign Language fluently and express knowledge of ASL Linguistics.
2. Describe the common practices, perspectives and behavior patterns of deaf people and member of the deaf community in the deaf culture.
3. Generalize on the ongoing need to participate in deaf-related events and activities and with members of the Deaf Community.

CONTACT PERSON

Dr. Martine Howard, Chair
(856) 227-7200 ext. 4744
Email: mhoward@camdencc.edu

Registration & Advisement
(856) 227-7200 ext. 4506

THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

NURSING & ALLIED HEALTH

Associate in Science, Diploma in Nursing

Nursing: Our Lady of Lourdes Cooperative Nursing Program

Nursing
CIP Code 51.3801

NOL.AS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
BIO-117	Basic Anatomy & Physiology I	4	
CHM-101	General, Organic & Biological Chemistry I	4	
PSY-101	Basic Psychology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-118	Basic Anatomy & Physiology II	4	Prerequisite: BIO-117
BIO-121	Basic Microbiology	4	
HIS-101	World Civilization I	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites

THIRD SEMESTER

NOL-110	Health Assessment	2	Prerequisite: BIO-118, BIO-121, CHM-101, ENG-102, HIS-101, MTH-111, PSY-101 Co-requisite: NOL-102
NOL-102	Nursing 1: Foundations of Practice and Mental Health Nursing	8	Prerequisite: BIO-118, BIO-121, CHM-101, ENG-102, HIS-101, MTH-111, PSY-101 Co-requisite: NOL-110
PSY-109	Developmental Psychology	3	Prerequisite: PSY-101

FOURTH SEMESTER

SOC-101	Introduction to Sociology	3	
NOL-111	Nursing 2: Health Promotion and Illness Management of the Child-bearing Family and Adult with Chronic Illness	8	Prerequisite: NOL-110, NOL-102, and PSY-109

FIFTH SEMESTER

NOL-202	Nursing 3: Management of Acute and Chronic Health Issues Across the Lifespan	8	Prerequisite: NOL-111, SOC-101
PHL-232	Biomedical Ethics	3	

SIXTH SEMESTER

NOL-211	Nursing 4: Management of Individuals and Groups with Complex Health Issues	8	Prerequisite: NOL-202, PHL-232; Co-requisite: NOL-235
NOL-235	Transition to Practice	3	Prerequisite: NOL-202, PHL-232; Co-requisite: NOL-211

TOTAL CREDITS

77

PROGRAM DESCRIPTION

The registered nurse (RN) is a health care professional academically and clinically prepared to care for patients in a variety of health care settings. Nurses help people to reach their full potential for optimal health maintenance and wellness throughout the life span.

ACCREDITATION

Our Lady of Lourdes School of Nursing is accredited by the New Jersey Board of Nursing (NJBON) and the Accreditation Commission for Education in Nursing (ACEN).

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Evaluate the effectiveness of clinical decision making by comparing observed outcomes against expected outcomes and modify solutions as needed.
2. Evaluate the effectiveness of a patient-centered plan of care, and modify as needed, for patients across the lifespan.
3. Collaborate with members of the interprofessional health care team when caring for patients across the lifespan.

4. Integrate evidence-based practice when managing care for patients across the lifespan.
5. Demonstrate effective use of risk reduction and quality improvement strategies to optimize patient outcomes.
6. Utilize electronic resources and technology to communicate relevant patient information, mitigate errors, and support decision making for diverse groups of patients across the lifespan.
7. Assimilate integrity and accountability into nursing practice that upholds established regulatory, legal, and ethical principles.
8. Integrate leadership and management skills when organizing care for individuals and groups with complex needs across the lifespan.

SPECIAL PROGRAM REQUIREMENTS

- Prerequisite courses must be completed PRIOR to the start of semester.
- Co-requisite courses must be completed BEFORE or WITH the assigned semester.
- Visit www.lourdesnursingschool.org
- A criminal background check, drug screen and health clearance are required of all students before entering Caring for Patients across the Lifespan I. Clinical affiliates may deny a student's access to their facility in the event significant

findings are discovered on the Criminal Background Check.

- To apply must have a minimum GPA of 2.5 and a minimum of 3 or the 9 prerequisites, which are the courses listed in the first 2 semesters of the curriculum. The rest of the 9 prerequisites must be completed before the start of the program.

CONTACT PERSONS

Nursing School Contact:
Susan Bowers
Coordinator of Enrollment Services
Our Lady of Lourdes School of Nursing
Rowan Medical Building Suite 3700
1 Medical Center Drive
Stratford, NJ 08084
Phone: (856) 886-5583
Email: OLOLSON@virtua.org
lourdesnursingschool.org

Camden County College Contacts:
Sherri Bonafiglia
Nursing Program Coordinator
Phone: (856) 227-7200 ext. 4573
Email: nursing@camdencc.edu
www.camdencc.edu/nursing

Liberal Arts and Science:

Nursing: Pre-Nursing Option

PRN.AS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-111	Biology I Science	4	
CHM-101	General, Organic & Biological Chemistry I	4	
CIS-105	Computer Literacy	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CHM-102	General, Organic & Biological Chemistry II	4	Prerequisite: CHM-101 or CHM-111
MTH-111	Elements of Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
HIS-101 or ENG-271	World Civilization I World Literature I	3	Prerequisite: ENG-101
BIO-211 or BIO-117	Anatomy & Physiology I Basic Anatomy & Physiology	4	Prerequisite: BIO-111

SECOND YEAR/FIRST SEMESTER

BIO-212 or BIO-118	Anatomy & Physiology II Basic Anatomy & Physiology II	4	Prerequisite: BIO-211 Prerequisite: BIO-117
PSY-101	Basic Psychology	3	
PHL-232	Biomedical Ethics	3	
ELECTIVE	Free Elective	3	

SECOND YEAR/SECOND SEMESTER

BIO-221 or BIO-121	Microbiology I Basic Microbiology	4	Prerequisite: BIO-111
FNS-105 or FNS-107	Introduction to Nutrition Nutrition for Health Care Professionals	3	
PSY-109	Developmental Psychology	3	Prerequisite: PSY-101
SOC-101	Introduction to Sociology	3	
ELECTIVE	Free Elective	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This program is designed for students who are either preparing to apply to one of Camden County College's PN or RN programs or seeking to transfer to a nursing or health science-related baccalaureate program. The successful student is academically prepared for transfer into a four-year college or university.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Communicate in both written and oral formats.
2. Apply the scientific method of inquiry to analyze problems and draw conclusions from evidence and data.
3. Identify resources, obtain and critically evaluate information.
4. Model ethical professional behaviors in the role of a health care professional.

CONTACT PERSON

Sherri Bonafiglia
Nursing Program Coordinator
(856)227-7200 ext. 4573
Email: nursing@camdencc.edu
www.camdencc.edu/nursing

SPECIAL PROGRAM REQUIREMENTS

- It is highly recommended to attend a virtual Nursing Information session. Visit <https://www.camdencc.edu/events/category/nursing/list/> to register and receive the link.
- For more information, please visit the Nursing webpage www.camdencc.edu/nursing or email nursing@camdencc.edu to request an information packet.

Nursing: LPN to RN Program

NUR.AS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-111 or CHM-101	Biology I - Science General, Organic & Biological Chemistry I	4	
NUR-219	Transition to Professional Nursing	2	Acceptance into Program
PSY-101	Basic Psychology	3	
ELECTIVE	Diversity Humanities General Education	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-211 or BIO-117	Anatomy & Physiology I Basic Anatomy & Physiology I	4	Prerequisite: BIO-111
BIO-221 or BIO-121	Basic Microbiology Basic Microbiology I	4	Prerequisite: BIO-111
NUR-220	Nursing I	6	Prerequisite: BIO-111 or Laboratory Science General Education Elective, NUR-219, PSY-101, ENG-101

SECOND YEAR/FIRST SEMESTER

NUR-221	Nursing II	7	Prerequisite: BIO-211 or BIO-117, BIO-221 or BIO-121, ENG-101, ENG-102, PSY-101, NUR-219, NUR-220; Co-requisite: NUR-222
NUR-222	Global Health and Diversity in Nursing	2	Prerequisite: BIO-211 or BIO-117, BIO-221 or BIO-121, ENG-101, ENG-102, PSY-101, NUR-219, NUR-220; Co-requisite: NUR-221
PSY-109	Developmental Psychology	3	Prerequisite: PSY-101
BIO-212 or BIO-118	Anatomy & Physiology II Basic Anatomy & Physiology II	4	Prerequisite: BIO-211 Prerequisite: BIO-117

SECOND YEAR/SECOND SEMESTER

NUR-223	Nursing III	7	Prerequisite: BIO-111 or Laboratory Science General Education Elective, BIO-211 or BIO-117, BIO-212 or BIO-118, BIO-221 or BIO-121, ENG-101, ENG-102, PSY-101, PSY-109, NUR-219, NUR-220, NUR-221, NUR-222; Co-requisite: NUR-224
NUR-224	Leadership and Role Transition	2	Prerequisite: BIO-221 or BIO-117, BIO-212 or BIO-118, BIO-221 or BIO-121, ENG-101, ENG-102, PSY-101, NUR-219, NUR-220, NUR-221, NUR-222 Co-requisite: NUR-223
SOC-101	Introduction to Sociology	3	

TOTAL CREDITS
60
PROGRAM DESCRIPTION

Camden County College has been granted provisional accreditation for the LPN to RN program by the NJ Board of Nursing. Please visit <https://www.camdencc.edu/program/licensed-practical-nurse-to-registered-nurse/> for additional information.

This program provides the education that leads to an associate degree in nursing and eligibility to sit for the National Council Licensure Examination for Registered Nursing (NCLEX-RN). The curriculum provides students with the knowledge, technical skills, interpersonal skills and values that qualify graduates for a career in professional nursing. Content includes courses in science, social science, humanities, nursing theory, lab skills training, and clinical experiences in a variety of healthcare settings. General education credits earned in this program will transfer as per existing intercollegiate agreements.

Effective November 18, 2022, this nursing program is a candidate for initial accreditation by the Accreditation Commission for Education in Nursing. This candidacy status expires on November 18, 2024. Accreditation Commission for Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326 (404) 975-5000
<http://www.acenursing.com/candidates/candidacy.asp>

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Synthesize current evidence – based research into a safe effective plan of care.
2. Collaborate with members of the interdisciplinary team, client, and the client support persons with respect to social determinants of health.
3. Apply quality improvement initiatives to improve care delivery and promote quality health outcomes.
4. Evaluate information and technology to facilitate decision making for optimal healthcare outcomes.
5. Demonstrate professionalism consistent with the standards of practice and regulatory framework of the Registered Professional Nurse.

SPECIAL PROGRAM REQUIREMENTS

- Be at least 18 years of age and a high school graduate or have a GED.
- Be at college-level Math and English following the placement requirements and/or exemptions of the Testing Center on www.camdencc.edu/testing by the start of the program.
- Provide college transcripts from all colleges attended.
- Provide proof of LPN license or complete a PN program before the start of the LPN to RN program.

- A minimum overall TEAS score of 58.7% with a minimum score of 50% in both Reading and Math is required. Results must be less than 2 years old at the time of application with at least 30 days between attempts and maximum of 4 attempts in a year. Test in-person only. Register on www.atitesting.com.
- Maintain a grade at least 75% in all nursing courses.
- Maintain a grade of C or better in all general education courses in the nursing curriculum.
- If accepted, complete a physical exam, with proof of required immunizations or titers that show immunity, proof of liability insurance, and health insurance. Must provide a clear urine drug screen and clear criminal background, within two week of program acceptance.
- The above requirements are minimum and do not guarantee acceptance into the nursing program. Applicants must meet the nursing department's criteria to receive provisional acceptance.

CONTACT PERSON

Sherri Bonafiglia, Nursing Program Coordinator
(856) 227-7200 ext. 4573
Email: nursing@camdencc.edu
www.camdencc.edu/nursing

Practical Nursing

NUR.CT

FIRST YEAR/FALL SEMESTER

Course #	Course Name	Credits	Notes
BIO-111 or CHM-101	Biology I - Science General, Organic & Biological Chemistry I	4	Must test into college-level Math and English or complete all appropriate prerequisites
NUR-108	Foundations of Practical Nursing	6	Acceptance into the Practical Nursing program
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites

FIRST YEAR/SPRING SEMESTER

PSY-101	Basic Psychology	3	
BIO-211 or BIO-117	Anatomy and Physiology I Basic Anatomy and Physiology I	4	Prerequisite: BIO-111; Must test into college-level Math and English or complete all appropriate prerequisites
NUR-109	Practical Nursing I	7	Prerequisite: NUR-108, BIO-111 and NUR-108

SECOND YEAR/SUMMER SEMESTER

BIO-212 or BIO-118	Anatomy and Physiology II Basic Anatomy and Physiology II	4	Prerequisite: BIO-211 Prerequisite: BIO-117
NUR-111	Practical Nursing II	8	Prerequisite: BIO-117 or BIO-211, ENG-101, PSY-101, NUR-108, NUR-109 Co-requisite: NUR-112
NUR-112	Trends, Issues and Advanced Concepts	3	Prerequisite: BIO-117 or BIO-211, ENG-101, PSY-101, NUR-108, NUR-109 Co-requisite: NUR-111

TOTAL CREDITS

42

PROGRAM DESCRIPTION

This program provides the education that leads to a certificate in practical nursing and eligibility to sit for the National Council Licensure Examination (NCLEX-PN) for Practical Nursing. The curriculum provides students with the knowledge, technical skills, interpersonal skills and values that qualify graduates for a career in practical nursing. Content includes courses in science, social science, humanities, nursing theory, lab skills training and clinical experiences in a variety of healthcare settings. General education credits earned in this program will transfer as per existing intercollegiate agreements. The Practical Nursing program can be completed within 4 semesters. The New Jersey Board of Nursing defines a license practical nurse (LPN) as one who performs tasks and responsibilities within the framework of case finding; reinforcing the patient and family teaching program through health teaching, health counseling and provisions of supportive and restorative care, under the direction of a registered nurse or licensed or otherwise legally authorized physician or dentist.

The Camden County College Practical Nursing Certificate Program is approved by:
The New Jersey Board of Nursing
PO Box 45010 Newark, NJ 07101

Effective November 18, 2022, this nursing program is a candidate for initial accreditation by the Accreditation Commission for Education in Nursing. This candidacy status expires on November 18, 2024. Accreditation Commission for Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326 (404) 975-5000
<http://www.acenursing.com/candidates/candidacy.asp>

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize evidence-based research to provide safe and comprehensive nursing care.
2. Identify collaborative relationships within the interdisciplinary team, inclusive of the client, and the client support persons.
3. Identify quality improvement initiatives that impact care delivery and promote quality health outcomes.
4. Utilize information and technology to communicate and guide decision making.
5. Demonstrate professional and ethical behaviors consistent with the standards of practice and regulatory frameworks of the Licensed Practical Nurse.

SPECIAL PROGRAM REQUIREMENTS

- Be at least 18 years of age and a high school graduate or have a GED.
- Be at college-level Math and English following the placement requirements and/or exemptions of the Testing Center on www.camdencc.edu/testing by the start of the program.
- Provide college transcripts.
- A minimum overall TEAS score of 55% with a minimum score of 50% in both Reading and Math is required. Results must be less than 2 years old at the time of application with at least 30 days between attempts and maximum of 4 attempts in a year. Test in-person only. Register on www.atitesting.com.
- Maintain a grade of C or better and no less than 75% in all nursing courses.

- Maintain a grade of C or better in all general education courses.
- If accepted, complete a physical exam, with proof of required immunizations or titers that show immunity, proof of liability insurance, and health insurance. Must provide a clear urine drug screen and clear criminal background, within two weeks of program acceptance.
- The above requirements are minimum and do not guarantee acceptance into the nursing program. Applicants must meet the nursing department's criteria to receive provisional acceptance.

CONTACT PERSON

Sherri Bonafiglia
Nursing Program Coordinator
(856) 227-7200 ext. 4573
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www.camdencc.edu/nursing

Veterinary Nursing

ASC.AAS
FIRST YEAR/FIRST SEMESTER (SUMMER SESSION)

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-111	Biology I - Science	4	
MTH-100	Algebraic Concepts	4	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Diversity: Humanities General Education	3	
ELECTIVE	Diversity: Social Science General Education	3	

FIRST YEAR/SECOND SEMESTER (FALL)

ENG-102	English Composition II	3	Prerequisite: ENG-101
ASC-106	Veterinary Office Practices	2	Prerequisite: ENG-101, BIO-111, MTH-100; Co-requisite: ENG-102
ASC-107	Calculations for Veterinary Technicians	2	Prerequisite: ENG-101, BIO-111, MTH-100; Co-requisite: ENG-102, ASC-106
ASC-108	Animal Anatomy and Physiology I	3	Prerequisite: ENG-101, BIO-111, MTH-100; Co-requisite: ENG-102, ASC-106, ASC-107
ASC-109	Fundamentals of Small Animal Nursing	2	Prerequisite: ENG-101, BIO-111, MTH-100; Co-requisite: ENG-102, ASC-106, ASC-107, ASC-108

FIRST YEAR/THIRD SEMESTER (SPRING)

ASC-217	Veterinary Dental Techniques	2	Prerequisite: ASC-108; Co-requisite: ASC-201
ASC-201	Veterinary Anatomy and Physiology II	3	Prerequisite: ASC-110; Co-requisite: ASC-202
ASC-202	Advanced Small Animal Nursing Techniques	3	Prerequisite: ASC-108; Co-requisite: ASC-201
ASC-213	Laboratory Animal Science	3	Prerequisite: ASC-108; Co-requisite: ASC-201 and ASC-202
ASC-236	Radiology for Veterinary Nurses	2	Prerequisite: ASC-110; Co-requisite: ASC-201 and ASC-202
ASC-218	Veterinary Parasitology	2	Prerequisite: ASC-108; Co-requisite: ASC-201

SECOND YEAR/FIRST SEMESTER (SUMMER SESSION)

ASC-110	Veterinary Clinical Rotation I	2	Prerequisite: ASC-106, ASC-107, ASC-108, ASC-109 and ENG-102 Co-requisite: BIO-221
BIO-221	Microbiology I	4	Prerequisite: BIO-111

SECOND YEAR/SECOND SEMESTER (FALL)

ASC-216	Farm Animal Medicine	3	Prerequisite: ASC-106, ASC-107, ASC-108, ASC-109, ASC-201, and ENG-102
ASC-215	Farm Animal Nursing Techniques	2	Prerequisite: ASC-110, ASC-201, ASC-202, and ASC-236
ASC-220	Hematology for Veterinary Technicians	3	Prerequisite: ASC-110, ASC-201, ASC-202, BIO-221 and MTH-100
ASC-235	Clinical Laboratory for Veterinary Technicians	2	Prerequisite: ASC-110, ASC-201, ASC-202, BIO-221 and MTH-100
ASC-219	Pathology for Veterinary Nurses	2	Prerequisite: ASC-108, ASC-201, ASC-202
ASC-270	Veterinary Pharmacology	2	Prerequisite: ASC-108, BIO-221, ASC-201, ASC-202

SECOND YEAR/THIRD SEMESTER (SPRING)

ASC-214	Veterinary Surgical Nursing	3	Prerequisite: ASC-110, BIO-221, ASC-201, ASC-202, and ASC-270
ASC-266	Veterinary Clinical Rotation II	4	Prerequisite: ASC-110, ASC-202, ASC-213, ASC-215, ASC-216, ASC-217, ASC-218, ASC-219, ASC-220, ASC-235, ASC-236, ASC-270; Corequisites: ASC-214 and ASC-267
ASC-267	Veterinary Professional Seminar	1	Prerequisite: ASC-110, ASC-202, ASC-213, ASC-215, ASC-216, ASC-217, ASC-218, ASC-219, ASC-220, ASC-235, ASC-236, and ASC-270; Corequisites: ASC-214 and ASC-266

TOTAL CREDITS
69
PROGRAM DESCRIPTION

Veterinary nurses work under the supervision of a veterinarian, performing clinical laboratory, diagnostic, and nursing procedures for animals.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Integrate and apply science and veterinary science knowledge.
2. Practice basic veterinary nursing and non-invasive medical procedures.
3. Provide humane and compassionate care to patient.
4. Present patient information in both written and oral formats.

SPECIAL ADMISSION REQUIREMENTS

After completion of the 3 prerequisite courses with a "C" or higher, applicants must submit an online application and select Veterinary Technology as the program of choice; then a separate program application will be sent from the Vet Nursing department with vaccine and document requirements. All official transcripts must be submitted to the office of Records and Registration. Applications are

accepted between September 1 and March 1 to be considered for fall acceptance. Students submitting applications between March 2 and August 31 will be considered for the following spring semester; unless seats become available. Applications not approved for fall are encouraged to re-apply after September 1; one class will be accepted per semester. All prerequisite courses and all documentation, including placement test scores and/or college transcripts must be completed prior to the deadline. After applying the following will then occur:

1. Review of applications by the Veterinary Nursing Program Director in March and September.
2. Candidates will receive written notification of the selection decision.
3. Accepted applicants are required to attend a program orientation session to review program requirements.

Admission to the program is on a competitive basis and the completion of prerequisites and core curricular courses does not guarantee admission to the program. Since there are more applicants than there are positions, admission points will be assigned according to the applicants

documented record. Criteria for selection are based on past performance and grades on core curriculum requirements. Heavy emphasis will be placed on math and science courses where applicable. Science courses that were completed five or more years prior to enrollment in the vet nursing program will not be accepted for credit. Vet nursing courses from colleges other than CCC will not be accepted.

NOTICE: Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding.

ACCREDITATION

The Veterinary Nursing program is accredited by: The Committee on Veterinary Technician Education and Activities of the American Veterinary Medical Association

CONTACT PERSON

Joan Ulrich, Director
(856) 227-7200 ext. 4328
Email: julrich@camdencc.edu

Dental Assisting

DAS.AAS

FIRST YEAR/SUMMER SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
DAS-141	Biological Science for the Dental Assistant	1	Co-requisite: DAS-143
DAS-143	Infection Control for the Dental Assistant	2	Formal Acceptance into the Dental Assisting Program
HPE-181	Basic Life Support "C" AHA	1	
PSY-101	Basic Psychology	3	

FIRST YEAR/FALL SEMESTER

DAS-111	Fundamentals of Chairside Assisting	7	Prerequisite: DAS-141 and DAS-143
DAS-120	Dental Radiology	4	Prerequisite: DAS-141 and DAS-143
DAS-150	Dental Anatomy for Dental Assisting	2	Prerequisite: DAS-141 and DAS-143
DAS-151	Dental Laboratory Procedures I	2	Prerequisite: DAS-141 and DAS-143
DAS-170	Medical Emergencies in the Dental Office	1	Prerequisite: DAS-141 and DAS-143

FIRST YEAR/SPRING SEMESTER

DAS-115	Pharmacology	1	Prerequisite: DAS-141 and DAS-170
DAS-125	Preventive Dentistry	3	Prerequisite: DAS-141, DAS-143, DAS-150, DAS-151, and DAS-170
DAS-152	Dental Laboratory Procedures II	2	Prerequisite: DAS-151 and DAS-170
DAS-160	Supervised Clinical Experience	6	Prerequisite: DAS-111, DAS-120, DAS-150, DAS-151, and DAS-170
DAS-180	Office Administration	2	
DAS-190	Oral Pathology	1	Prerequisite: DAS-141 and DAS-170

SECOND YEAR/FIRST SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ELECTIVE	Humanities General Education Elective	3	
MTH....	Mathematics General Education Elective	3/4	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE	Free Elective	3	

SECOND YEAR/SECOND SEMESTER

ELECTIVE	Diversity: Humanities General Education	3	
ELECTIVE	Laboratory Science General Education	4	

TOTAL CREDITS

60/61

PROGRAM DESCRIPTION

A dental assistant works at chairside while the dentist examines and treats patients. The dental assistant makes the patient comfortable in the chair, prepares the patient for treatment, obtains dental records, prepares impression and restorative materials, exposes and processes dental radiographs, and hands the dentist the proper instruments and materials. The assistant also sterilizes and disinfects instruments, prepares dental tray setups, and instructs the patient in postoperative and general oral health.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Perform the clinical tasks and responsibilities of a registered dental assistant under direct supervision of a dentist.
2. Provide patient education.
3. Apply technology in order to find information, take intraoral photographs, take digital radiographs and manage patient and business records.
4. Integrate and apply basic science, dental science and dental assisting knowledge and skills.
5. Explain and apply basic concepts of dental ethics and jurisprudence.

SPECIAL PROGRAM REQUIREMENTS

- Completion of the Dental Assisting Certificate program at Camden County College or

graduation from a recognized accredited dental assisting (CODA) career program.

- Physical exam, various immunizations, drug screening verification must be current and will be required prior to beginning of class.
- Interview and assessment of credentials with the program coordinator.
- Placement into college-level English and mathematics courses based on the results of the College Placement Test or other approved test.
- Proof of high school diploma.
- Application to the Dental Assisting program.
- Minimum of 2.5 GPA.
- Completion of high school biology or chemistry lab course with a "C" or better (equivalent courses may be taken at CCC).
- Must maintain a grade "C" or better in all dental assisting coursework.
- All credit assessments will be conducted by transcripts.
- Students will perform two full-mouth series on patients to pre-clinical proficiency. Although some patients may be provided by the College, the student may need, identify and schedule patients who have a clinical need for dental radiographic imaging.

NOTICE

Clinical placements are a required part of the curriculum and a requirement for graduation.

Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

Student must have adequate transportation for the clinical placement requirement.

ACCREDITATION

- The Dental Assisting Program is accredited by the Commission on Dental Accreditation. The Commission of Dental Accreditation can be reached at (800) 232-6108 or at 211 East Chicago Ave. Chicago, IL 60611.
- The Dental Assisting radiology course is accredited by the New Jersey Radiologic Technology Board of Examiners. The NJ Radiologic Technology Board of Examiners can be reached at www.nj.gov/dep/rpp/tech/dental.htm.

CONTACT PERSON

Gretchen Heller, RDH, CDA ,BSHS
Dental Assisting Program Coordinator
(856) 227-7200 ext. 4729
Email: gheller@camdencc.edu

Dental Assisting

DAS.CT

FIRST YEAR/SUMMER SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
DAS-141	Biological Science for the Dental Assistant	1	Co-requisite: DAS-143
DAS-143	Infection Control for the Dental Assistant	2	Formal Acceptance into the Dental Assisting Program
HPE-181	Basic Life Support "C" AHA	1	
PSY-101	Basic Psychology	3	

FIRST YEAR/FALL SEMESTER

DAS-111	Fundamentals of Chairside Assisting	7	Prerequisite: DAS-141 and DAS-143
DAS-120	Dental Radiology	4	Prerequisite: DAS-141 and DAS-143
DAS-150	Dental Anatomy for Dental Assisting	2	Prerequisite: DAS-141 and DAS-143
DAS-151	Dental Laboratory Procedures I	2	Prerequisite: DAS-141 and DAS-143
DAS-170	Medical Emergencies in the Dental Office	1	Prerequisite: DAS-141 and DAS-143

FIRST YEAR/SPRING SEMESTER

DAS-115	Pharmacology	1	Prerequisite: DAS-141 and DAS-170
DAS-125	Preventive Dentistry	3	Prerequisite: DAS-141, DAS-143, DAS-150, DAS-151, and DAS-170
DAS-152	Dental Laboratory Procedures II	2	Prerequisite: DAS-151 and DAS-170
DAS-160	Supervised Clinical Experience	6	Prerequisite: DAS-111, DAS-120, DAS-150, DAS-151, and DAS-170
DAS-180	Office Administration	2	
DAS-190	Oral Pathology	1	Prerequisite: DAS-141 and DAS-170

TOTAL CREDITS

41

PROGRAM DESCRIPTION

A dental assistant works at chairside while the dentist examines and treats patients. The dental assistant makes the patient comfortable in the chair, prepares the patient for treatment, obtains dental records, prepares impression and restorative materials, exposes and processes dental radiographs, and hands the dentist the proper instruments and materials. The assistant also sterilizes and disinfects instruments, prepares dental tray setups, and instructs the patient in postoperative and general oral health care.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Perform the clinical tasks and responsibilities of a registered dental assistant under direct supervision of a dentist.
2. Provide patient education.
3. Apply technology in order to find information, take intraoral photographs, take digital radiographs and manage patient and business records.
4. Integrate and apply basic science, dental science and dental assisting knowledge and skills.
5. Explain and apply basic concepts of dental ethics and jurisprudence.

SPECIAL PROGRAM REQUIREMENTS

- Physical exam, various immunizations, drug screening verification must be current and will be required prior to beginning of class.
- Interview and assessment of credentials with the program coordinator.
- Placement into college-level English and mathematics courses based on the results of the College Placement Test or other approved test.
- Proof of high school diploma.
- Application to the Dental Assisting program.
- Minimum of 2.5 GPA.
- Completion of high school biology or chemistry lab course with a "C" or better (equivalent courses may be taken at CCC).
- Must maintain a grade "C" or better in all dental assisting coursework.
- All credit assessments will be conducted by transcripts.
- Students will perform two full-mouth series on patients to pre-clinical proficiency. Although some patients may be provided by the College, the student may need, identify and schedule patients who have a clinical need for dental radiographic imaging.

NOTICE

Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

Student must have adequate transportation for the clinical placement requirement.

ACCREDITATION

- The Dental Assisting Program is accredited by the Commission on Dental Accreditation. The Commission of Dental Accreditation can be reached at (800) 232-6108 or at 211 East Chicago Ave. Chicago, IL 60611.
- The Dental Assisting radiology course is accredited by the New Jersey Radiologic Technology Board of Examiners. The NJ Radiologic Technology Board of Examiners can be reached at www.nj.gov/dep/rpp/tech/dental.htm.

CONTACT PERSON

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Dental Assisting Program Coordinator
(856) 227-7200 ext. 4729
Email: gheller@camdencc.edu

Dental Hygiene

DHY.AAS

FIRST YEAR/SUMMER SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-117	Basic Anatomy and Physiology I	4	
HPE-181	Basic Life Support "C" AHA	1	

FIRST YEAR/FALL SEMESTER

BIO-118	Basic Anatomy and Physiology II	4	Prerequisite: BIO-117
DHY-111	Dental Hygiene I Seminar	2	
DHY-120	Dental Radiology	4	
DHY-130	Dental Anatomy	2	
DHY-151	Dental Hygiene I Pre-Clinic	2	
DHY-170	Medical Emergencies in the Dental Office	1	
CHM-130	General/Organic/Biochemistry for Dental Hygiene	4	

FIRST YEAR/SPRING SEMESTER

BIO-121	Basic Microbiology	4	
DHY-122	Dental Hygiene II Seminar	2	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-151, DHY-170
DHY-142	Periodontics I	2	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-151, DHY-170
DHY-152	Dental Hygiene II Clinic	3	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-151, DHY-170
DHY-162	Dental Lab Procedures	2	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-151, DHY-170
DHY-172	Head and Neck Anatomy	2	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-151, DHY-170
FNS-106	Foundations of Nutritional Science	3	

SECOND YEAR/SUMMER SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
SOC-205	Social Diversity	3	

SECOND YEAR/FALL SEMESTER

DHY-223	Dental Hygiene III Seminar	2	Prerequisite: DHY-122 and DHY-152
DHY-233	Advanced Techniques in Periodontics	1	Prerequisite: DHY-122, DHY-142, and DHY-152
DHY-253	Dental Hygiene III Clinic	6	Prerequisite: DHY-122, DHY-142, and DHY-152
DHY-261	Pathology	2	Prerequisite: DHY-122, DHY-152, and DHY-172
DHY-271	Pharmacology and Anesthesiology	2	Prerequisite: DHY-122 and DHY-152

SECOND YEAR/SPRING SEMESTER

DHY-212	Community Dentistry	2	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-142, DHY-151, DHY-152, DHY-162, DHY-170, DHY-172
DHY-224	Dental Hygiene IV Seminar	2	Prerequisite: DHY-223
DHY-252	Local Dental Anesthesiology	2	Prerequisite: HPE-181, DHY-271, and DHY-172; Co-requisite: DHY-224
DHY-254	Dental Hygiene IV Clinic	4	Prerequisite: DHY-253
DHY-262	Ethics, Jurisprudence and Practice Management	1	Prerequisite: DHY-111, DHY-120, DHY-130, DHY-151, DHY-170
PSY-101	Basic Psychology	3	

TOTAL CREDITS

78

PROGRAM DESCRIPTION

A licensed dental hygienist is a health care professional, oral health educator and clinician who utilizes scientific knowledge and methods to provide preventative, educational and therapeutic services to support the control of oral diseases and the promotion of oral health. Under the supervision of a dentist, the hygienist records the patient's dental history, charts the mouth for evaluation and diagnosis by the dentist, scales and polishes teeth, and functions as a dental health educator. The Dental Hygiene program is a two-year, fulltime, daytime program that prepares students to take national, regional and state licensure exams in dental hygiene.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Integrate and apply basic science, dental science and dental hygiene knowledge and skills.

2. Recognize sources of information and information gathering techniques that enable them to seek and obtain information when needed.
3. Apply computer skills in order to find information, take intraoral photographs, take digital radiographs, obtain periodontal charting information, and manage patient records.
4. Provide humane and compassionate care to all patients without discrimination as outlined in the Patient's Bill of Rights.
5. Provide dental hygiene care utilizing the dental hygiene process of assessment, dental hygiene diagnosis, treatment planning, implementation and evaluation.
6. Present preventative educational programs in various settings.

ACCREDITATION

The program in Dental Hygiene is accredited by the Commission on Dental Accreditation, and recognized by

the Commission on Recognition of Post-Secondary Accreditation and by the United States Department of Education. The Dental Accreditation can be contacted at 800-232-6108 or at 211 East Chicago Avenue, Chicago, IL 60611.

SPECIAL PROGRAM REQUIREMENTS

The Office of Records and Registration will accept applications for the Dental Hygiene Program ONLY between Sept 1 and Feb 1. All prerequisite courses and documentation must be completed by to Feb 1. A class is accepted once a year in the fall semester. For more information on the special requirements of this program, visit the CCC Web page under Programs of Study-Nursing and Allied Health- Dental Hygiene.

CONTACT PERSON

Dawn Conley, RDH, M.Ed.,
Director of Dental Programs
(856) 227-7200 ext. 4681
Email: dconley@camdencc.edu

Liberal Arts and Science: Health and Exercise Science Option

HPE.AS
FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-111	Biology I: Science	4	
HPE-130	Consumer Health Decisions	3	
PSY-101 or SOC-101	Basic Psychology Introduction to Sociology	3	
HPE-175	Foundations of Fitness	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-211	Anatomy & Physiology I	4	Prerequisite: BIO-111
HPE-211	Theory/Application Physical Training I	4	
HPE-195	Concepts of Individual and Dual Sports	3	

SECOND YEAR/FIRST SEMESTER

BIO-212	Anatomy & Physiology II	4	Prerequisite: BIO-211
HIS-101	World Civilization I	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
FNS-105	Introduction to Nutrition	3	
HPE-170	First Aid Safety & Prevention of Injury	3	

SECOND YEAR/SECOND SEMESTER

HPE-178	Motor Development and Motor Learning	3	
SPE-102	Public Speaking	3	
HPE-106	Stress Management	3	
HPE-127	Exercise Techniques & Prescription	1	
ELECTIVE	Humanities Elective	3	
HPE-161	Weight Training	1	

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

The Health and Exercise Science Option prepares a student to receive an Associate in Science degree and transfer to a four-year college to major in a variety of related fields in health, fitness, physical education, pre-physical or occupational therapy, and exercise science.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Perform critical analysis in solving problems and analyzing information as it relates to health and exercise science.
2. Explain and apply basic CPR and first aid techniques.
3. Identify and discuss current health issues in the United States.
4. Identify and explain basic components of physical fitness.

CERTIFICATION

Camden County College and the Health and Exercise Science Department are recognized as Educational Partners with the American Council on Exercise (A.C.E.) www.acefitness.org

1. HPE 211 course prepares students to pass the A.C.E. National Certification exam in personal training.
2. A degree PLUS a personal training certification are now the standard for employment in the fitness industry.

CONTACT PERSON

Dr. Nicholas DiCicco, Chair
(856) 227-7200 ext. 4264
Email: ndicicco@camdencc.edu

Personal Trainer

PT.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
HPE....	HPE Elective	3	
FNS-105 or HPE-129	Introduction to Nutrition Sports Nutrition	2/3	
HPE-100	Personal Fitness	1	
HPE-161	Weight Training	1	
HPE-127	Exercise Techniques and Prescription	1	Only offered during Spring Semester.
HPE-211	Theories & Applications of Physical Training I	4	Only offered during Spring Semester.
HPE-170	First Aid, Safety, and Prevention of Injuries	3	

FIRST YEAR/SECOND SEMESTER

HPE-210	Internship: Personal Trainer Certificate	3	Prerequisite: FNS-105 or HPE-129 and HPE-100, HPE-127, HPE-161, HPE-170, and HPE-211
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TOTAL CREDITS

18/19

PROGRAM DESCRIPTION

Personal fitness trainers help clients to assess their level of physical fitness and help them to set and reach fitness goals. They demonstrate various exercises and help clients to improve their exercise techniques. They may keep records of their clients' exercise sessions in order to assess their progress towards physical fitness. Personal trainers work with clients on a one-on-one basis. 18 credits transfer from this program into the Health and Exercise Science degree (HPE.AS)

CERTIFICATION

Camden County College and the Health and Exercise Science Department are recognized as Educational Partners with the American Council on Exercise (A.C.E.) www.acefitness.org

- HPE 211 course prepares students to pass the A.C.E. National Certification exam in personal training.
- A degree PLUS a personal training certification are now the standard for employment in the fitness industry.

Students can earn this certification while obtaining an A.S. in Health and Exercise Science. All of the certification courses are part of the HPE.AS degree.

SPECIAL PROGRAM REQUIREMENTS

- Completion of an internship at a local fitness center or the College's Wellspring Fitness Center for 10-15 hours per week.
- Students entering college for the first time must take the College Placement Test before entering the program.

NOTICE

Clinical placement may be a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

CONTACT PERSON

Dr. Nicholas DiCicco, Chair
(856) 227-7200 ext. 4264
Email: ndicicco@camdencc.edu

This program is not approved for financial aid.

Health Science: Certified Medical Assistant Option

CMA.AAS

FIRST YEAR/FIRST SEMESTER			
Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
HIT-120	Medical Terminology	3	
PSY-101	Basic Psychology	3	
ELECTIVE	Laboratory Science General Education Elective	4	
ELECTIVE	Computer Information Systems Elective	3	
FIRST YEAR/SECOND SEMESTER			
ENG-102	English Composition II	3	Prerequisite: ENG-101
SOC-101	Introduction to Sociology	3	
ELECTIVE	Laboratory Science General Education Elective	4	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites
SECOND YEAR/FIRST SEMESTER			
PHL-232	Biomedical Ethics	3	
HPE-102	Health & Wellness	3	
ELECTIVE	Diversity Humanities General Education Elective	3	
ELECTIVE	Post-Secondary Work	22	Students will receive 22 credits for their post-secondary work after completing the 38 credits at Camden County College
TOTAL CREDITS		60	

PROGRAM DESCRIPTION

Medical assistants who hold a Certified Medical Assistant (CMA) certification are eligible to receive college credit for their post-secondary education. All applicants to this program must take a required core of courses consisting of a minimum of 38 college credits. Medical assistants are eligible to apply for a maximum of 22 additional college credits toward an associate in health science degree: Certified Medical Assistant Option, through portfolio assessment.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Communicate in both written and oral formats.
2. Apply the scientific method of inquiry to analyze problems and draw conclusions from evidence and data.
3. Identify resources, obtain and critically evaluate information.
4. Model ethical professional behaviors in the role of a healthcare professional.

CONTACT PERSON

Professor Marsha Patrick, MS, RD, FAND,
Coordinator
(856) 227-7200, ext. 4665
Email: mpatrick@camdencc.edu

Health Science

HSC.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-117	Basic Anatomy & Physiology I	4	
HIT-120	Medical Terminology	3	
PSY-101	Basic Psychology	3	
ELECTIVE	Diversity: Humanities Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-118	Basic Anatomy & Physiology II	4	Prerequisite: BIO-117
PHL-232	Biomedical Ethics	3	
SOC-101	Introduction to Sociology	3	
MTH-101 or MTH-111	Mathematics General Education Mathematics General Education Elective	3	Must test into College Level Math or take all appropriate prerequisites

SEMESTER

ELECTIVE	Portfolio Assessment	28	Students receiving less than 28 college credits for their post-secondary work should select additional courses from the following list to graduate with a minimum of 60 credits: Laboratory Science General Education Elective, Statistics Social Science General Education Elective, Humanities General Education Elective.
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TOTAL CREDITS

60

PROGRAM DESCRIPTION

- Allied health paraprofessionals who have earned a certificate or license may be eligible to receive college credits for their accredited, post-secondary education. Students may transfer college credit to four-year institutions or use the degree for career advancement.
- Students may earn a minimum of 22 to a maximum of 28 credits for completing a post-secondary, accredited allied health program.
- The credits awarded are based on the number of hours spent in training at an accredited allied health program recognized by Camden County College.
- To earn the Associate in Applied Science degree, students must complete the courses listed in the Health Science program curriculum at Camden County College.
- Students must review their portfolio assessment with the coordinator to be eligible to be a health science major.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Communicate in both written and oral formats.
2. Apply the scientific method of inquiry to analyze problems and draw conclusions from evidence and data.
3. Identify resources, obtain and critically evaluate information.

SPECIAL ADMISSION REQUIREMENTS

- Submission of diploma or certificate from an accredited allied health program to the allied health coordinator for evaluation.
- Graduates of an approved Camden County College non-credit program may be eligible to earn college credits for their previous experience.
- Conference with the allied health coordinator.
- Must complete all basic skills requirements prior to beginning the program.

CONTACT PERSON

Professor Marsha Patrick, MS, RD, FAND,
Coordinator
(856) 227-7200, ext. 4665
Email: mpatrick@camdencc.edu

Health Information Technology

HIT.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-117	Basic Anatomy and Physiology I	4	
CIS-105	Computer Literacy	3	
HIT-101	Introduction to Health Information	3	
HIT-120	Medical Terminology	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-118	Basic Anatomy and Physiology II	4	Prerequisite: BIO-117
HIT-132	Basic Pharmacology	3	Prerequisite: HIT-120 and BIO-103 or BIO-117 or BIO-211
HIT-205	Legal and Ethical Issues in HIT	3	Prerequisite: HIT-101
MTH-111	Introduction to Statistics I	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE or ELECTIVE	Diversity: Social Science General Education Diversity: Humanities General Education	3	

SECOND YEAR/FIRST SEMESTER

HIT-110	Health Informatics	4	Prerequisite: ENG-101, HIT-101, and CIS-101 or CIS-105; or NOL-110 and NOL-120
HIT-130	Introduction to Ambulatory Coding	3	Prerequisite: HIT-101, HIT-120, and BIO-103 or BIO-117 and BIO-118 or BIO-211 and BIO-212. This course is only offered in the Fall semester.
HIT-115	Healthcare Reimbursement	3	Prerequisite: HIT-101, HIT-120, and BIO-103 or BIO-117 or BIO-211
HIT-134	Basic Pathophysiology	3	Prerequisite: HIT-120, BIO-103 or BIO-117 or BIO-211
HIT-140	Diagnostic and Procedural Coding I	3	Prerequisite: HIT-101, HIT-120, and BIO-103 or BIO-117 and BIO-118 or BIO-211 and BIO-212. This course is only offered in the Fall semester.
HIT-150	Technical Practice	1	Prerequisite: BIO-118 or BIO-212, ENG-102, HIT-205, and CIS-101 or CIS-105; Permission of Program Director required to register for this course

SECOND YEAR/SECOND SEMESTER

HIT-202	Statistical Methods for Health Information	3	Prerequisite: HIT-110 and MTH-111. This course is only offered in the Spring semester.
HIT-215	Advanced Ambulatory Coding	3	Prerequisite: HIT-130, HIT-132, and HIT-134. This course is only offered in the Spring semester.
HIT-235	Organizational Resources, QI and PI	4	Prerequisite: HIT-110 and HIT-115. This course is only offered in the Spring semester.
HIT-240	Diagnostic and Procedural Coding II	4	Prerequisite: HIT-132, HIT-134, and HIT-140. This course is only offered in the Spring semester.
HIT-220	Professional Practice Experience	1	Prerequisite: HIT-132, HIT-150, HIT-110, HIT-130, HIT-134, and HIT-140 Permission of Program Director required prior to registering for this course. This course is only offered in the Spring semester.

TOTAL CREDITS

67

PROGRAM DESCRIPTION

The Health Information Technology (HIT) program is designed to prepare graduates for employment in the field of health information management technology. Entry-level Health Information Technicians may be employed in a variety of health care settings. These include hospitals, physician's offices, long-term care facilities, ambulatory surgical centers, home health agencies, public health departments, insurance companies and software vendors.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Compute, interpret and analyze healthcare statistics.
2. Gather, interpret, analyze and monitor data used for quality management and performance improvement programs that relate to Health

Information Technology and Health Information Management.

3. Analyze and validate coding and coding data for accuracy and compliance with federal and coding guidelines.

ACCREDITATION

The Health Information Technology program at Camden County College is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in cooperation with the American Health Information Management Association (AHIMA).

NATIONAL CERTIFICATION

Students who have graduated from this accredited program are eligible and encouraged to take the Registered Health Information Technician (RHIT) certification exam. Students can receive further

information on this exam and its requirements from the director or at the national organizational website (www.ahima.org)

NOTE

Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

Medical Coding

MDC.CT

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-103	Human Biology	3	
CIS-105	Computer Literacy	3	
HIT-101	Introduction to Health Information	3	
HIT-120	Medical Terminology	3	

FIRST YEAR/SECOND SEMESTER

HIT-115	Healthcare Reimbursement	3	Prerequisite: HIT-101, HIT-120, BIO-103 or BIO-117 or BIO-211
HIT-130	Introduction to Ambulatory Coding	3	Prerequisite: HIT-101, HIT-120, and BIO-103 or BIO-117 and BIO-118 or BIO-211 and BIO-212
HIT-134	Basic Pathophysiology	3	Prerequisite: HIT-120, BIO-103 or BIO-117 or BIO-211
HIT-140	Diagnostic and Procedural Coding I	3	Prerequisite: HIT-101, HIT-120, and BIO-103 or BIO-117 and BIO-118 or BIO-211 and BIO-212

SEMESTER

HIT-132	Basic Pharmacology	3	Prerequisite: HIT-120 and BIO-103 or BIO-117 or BIO-211
HIT-135	Medical Coding Internship	2	Prerequisite: HIT-115, HIT-130, HIT-134 and HIT-140 Permission of Program Director required prior to registering for this course.
HIT-215	Advanced Ambulatory Coding	3	Prerequisite: HIT-130, HIT-132, and HIT-134
HIT-240	Diagnostic and Procedural Coding II	4	Prerequisite: HIT-132, HIT-134, and HIT-140

TOTAL CREDITS

39

PROGRAM DESCRIPTION

This certificate prepares students for employment in a variety of areas that require coding expertise. This program is approved by the American Health Information Management Association (AHIMA).

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Assign, analyze and validate coding and coding data for accuracy and compliance with federal coding guidelines.

NOTICE

Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

PROGRAM INFORMATION

The Medical Coding certificate program can be completed online.

CONTACT PERSON

Linda Mesko, MS, RHIA, Director
(856) 968-1331
Email: lmesko@camdencc.edu

Occupational Therapy Assistant

OTA.AS

FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-117	Basic Anatomy & Physiology I	4	
PSY-101	Basic Psychology	3	
SOC-101	Introduction to Sociology	3	
ELECTIVE	Diversity Humanities General Education Elective	3	

SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-118	Basic Anatomy & Physiology II	4	Prerequisite: BIO-117
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
PHL-232	Biomedical Ethics	3	
PSY-109	Developmental Psychology	3	Prerequisite: PSY-101
TOTAL CCC CREDITS		32	
TOTAL CREDITS		74	The qualified credits earned from the occupational therapy assistant program at Rutgers-School of Health Professions (SHP) will be transferred as a block to Camden County College to complete the Associate in Science Degree. Total provided by SHP 42.

PROGRAM DESCRIPTION

Occupational Therapy Assistants (OTAs) work to provide services to persons of all ages who are challenged by disability, trauma, and/or the aging process, helping them to participate in occupations that are necessary and meaningful, and to improve their quality of life. OTAs work under the supervision of occupational therapists in all practice settings. The OTA program, offered by Camden County College in partnership with Rutgers – SHP, is committed to preparing Occupational Therapy Assistants as professionals who will contribute to the health and well-being of individuals, groups, and populations in New Jersey and beyond.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Communicate in both written and oral formats.
2. Apply the scientific method of inquiry to analyze problems and draw conclusions from evidence data.
3. Identify resources, obtain and critically evaluate information.
4. Model ethical professional behaviors of a healthcare professional.

SPECIAL PROGRAM REQUIREMENTS

- CCC applicants must complete all basic skills requirements.
- Contact SHP for complete admission requirements to the professional OTA program.
- Completion of prerequisite courses does not guarantee admission to the SHP-OTA professional program.
- Complete at least 16 of the specified pre-requisite credits before applying to SHP for the professional curriculum. All remaining credits must be complete for full acceptance.
- Must have a "C" or better in each preprofessional class at Camden and overall GPA of 2.5 or better.
- At Rutgers once enrolled, must maintain 2.3 GPA.
- Applications are due November 1 for part-time studies, and June 1 for full-time studies. Full-time and part-time studies are available on the Piscataway Campus.

NOTICE:

Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate

ACCREDITATION

The Occupational Therapy Assistant (OTA) Program at Rutgers, The State University of New Jersey is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), located at 4720 Montgomery Lane, Suite 200 Bethesda, MD 20814-3449. ACOTE's telephone number c/o AOTA is (301) 65222--AOTA. www.acoteonline.org

CONTACT PERSONS

College Contact:
Professor Marsha Patrick, MS, RD, FAND,
Coordinator
(856) 227-7200, ext. 4665
Email: mpatrick@camdencc.edu

Rutgers Contact:
Deb McKernan-Ace, Program Director Rutgers
School of Health Professions email:
dam440@shp.rutgers.edu 908-889-2474
shp.rutgers.edu/psychiatric-rehabilitation/occupational-therapy-assistant-associate-in-science-degree/

THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID

Health Science:

Surgical Technology Option

SRG.AAS

SPRING I

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-117	Basic Anatomy & Physiology I	4	
HIT-120	Medical Terminology	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

BIO-118	Basic Anatomy & Physiology II	4	Prerequisite: BIO-117
HPE-181	Basic Life Support C-AHA	1	
SPE-102	Public Speaking	3	

FALL I

BIO-121	Basic Microbiology	4	
SRG-102	Fundamentals of Surgical Technology	6	Prerequisite: ENG-101, HIT-120, BIO-117; Admission into program
SRG-113	Pharmacology for the Surgical Technologist	2	Prerequisite: ENG-101, HIT-120, BIO-117; Co-requisite: SRG-102

SUMMER II

HIT-134	Basic Pathophysiology	3	Prerequisite: HIT-120
SRG-112	Surgical Procedures I	4	Prerequisite: SRG-102
SRG-118	Clinical Rotation I	6	Prerequisite: BIO-118, BIO-121, SRG-113, SRG-102 Co-requisite: HIT-134 and SRG-112

SECOND YEAR/SECOND SEMESTER

SRG-212	Surgical Procedures II	3	Prerequisite: SRG-112
SRG-218	Clinical Rotation II	6	Prerequisite: SRG-118
SRG-220	Surgical Technology Capstone	2	Prerequisite: SRG-102, SRG-112, SRG-118; Co-requisite: SRG-212, SRG-218
ELECTIVE	Diversity: Humanities General Education	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This selective associate degree program will prepare students for a career in Surgical Technology. Surgical Technologists are an integral part of the operating room team. They prepare sterile instruments and supplies needed for procedures. The Surgical Technologist remains throughout the surgery passing the necessary items needed.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Demonstrate expertise in the theory and application of sterile and aseptic technique.
2. Integrate knowledge of human anatomy, pharmacology, microbiology, surgical procedures and implementation tools and technologies to facilitate successful performance of invasive and diagnostic procedures.
3. Effectively participate in various surgical procedures through suitable selection of instrumentation and supplies promoting effective patient care.
4. Successfully prepare for the certification examination and employment in the surgical technology field.

SPECIAL ADMISSION REQUIREMENTS

1. Complete prerequisites ENG-101, BIO-117 and MTH GE ELECT.
2. Must have a cumulative GPA of 2.5.
3. Attend a minimum of one (1) information session. Dates will be available from program representative and on the website.
4. Apply to the Surgical Tech. Program.

PROGRAM INFORMATION

1. Students must achieve a grade of "C" or better in all required courses and maintain an overall minimum GPA of 2.5.
2. Clinical rotations are conducted during the daytime. The Director assigns students to specific locations. Students must obtain a minimum of 600 hours and a specific number of surgical procedures to satisfy program completion and eligibility for the national certification examination.

CONTACT PERSONS

Wendy Witzel, Director
(856) 227-7200 ext. 4638
Email: wwitzel@camdencc.edu

Latasha Dyer, Secretary
(856) 227-7200 ext. 4247
Email: LDyer@camdencc.edu

Ophthalmic Science Technology

OPH.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
CIS-105 or CIS-101	Computer Literacy Personal Computer	3	
MTH-100	Algebraic Concepts	4	Must test into College Level Math or complete all appropriate prerequisites
OPH-104	Ophthalmic Lab I	3	Co-requisite: OPH-111
OPH-111	Ophthalmic Materials Lecture I	3	Co-requisite: OPH-104
OPH-130	Anatomy of the Eye	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
OPH-105	Ophthalmic Lab II	3	Prerequisite: OPH-104; Co-requisite: OPH-112
OPH-112	Ophthalmic Materials Lecture II	3	Prerequisite: OPH-111; Co-requisite: OPH-105
OPH-131	Introduction to Contact Lenses	3	Prerequisite: OPH-130
ELECTIVE	Laboratory Science General Education Elective	4	

SECOND YEAR/FIRST SEMESTER

OPH-203	Ophthalmic Materials Laboratory III	2	Prerequisite: OPH-105
OPH-220	Optic Principles	3	Prerequisite: OPH-105 and OPH-112
OPH-232	Contact Lens Fitting I	3	Prerequisite: OPH-131
OPH-240	Ophthalmic Dispensing I	4	Prerequisite: OPH-105 and OPH-112
OPH-250	Ophthalmic Clinic I	1	Prerequisite: OPH-105, OPH-112, and OPH-131; Co-requisite: OPH-260
OPH-260	Co-op I: Ophthalmic Science	1	Prerequisite: OPH-105, OPH-112, and OPH-131; Co-requisite: OPH-250

SECOND YEAR/SECOND SEMESTER

OPH-204	Ophthalmic Materials Laboratory IV	2	Prerequisite: OPH-203
OPH-233	Contact Lens Fitting II	3	Prerequisite: OPH-232
OPH-241	Ophthalmic Dispensing II	4	Prerequisite: OPH-240
OPH-251	Ophthalmic Clinic II	1	Prerequisite: OPH-250
OPH-270	Ophthalmic Dispensing Office Procedures	3	Prerequisite: OPH-112
ELECTIVE or ELECTIVE	Diversity: Social Science General Education Diversity: Humanities General Education	3	

TOTAL CREDITS

65

PROGRAM DESCRIPTION

Opticians dispense corrective lenses to aid patients in their visual needs. This is accomplished by using scientific and clinical procedures and applying learned skills needed to successfully produce and fit top quality eyewear.

PROGRAM GOALS

- To provide students with the skills and knowledge needed to successfully complete the New Jersey State Ophthalmic Dispensing Examination, the American Board of Opticianry Advanced Examination, and the National Contact Lens Examination.
- To prepare students for employment opportunities within the optical profession.
- To provide students with a General Education foundation.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Fabricate a complete pair of eyeglasses conforming to state and ANSI standards.
2. Interpret a doctor's prescription.
3. To dispense a complete pair of eyeglasses and contact lenses from a doctor's prescription.
4. Demonstrate knowledge of spectacle lens and contact lens design through mathematical calculations.

SPECIAL PROGRAM REQUIREMENTS

- All candidates must take the College Placement Test and complete the required courses prior to beginning course work.
- The program has an open enrollment policy; however, any applicant who does not have college-level mathematics or English must achieve satisfactory scores on the College Placement Test. All perspective students must schedule an interview with the ophthalmic science program director.
- Due to the sequential nature of the optical courses, admission is usually limited to the fall semester. General Education courses can be taken all year.
- Students must earn a grade of "C" or better in all ophthalmic courses in order to be eligible for the New Jersey Ophthalmic Dispensers Exam.
- Students must have an approved apprenticeship for 4 months after program completion to be eligible for the New Jersey Ophthalmic Dispensers Exam.
- Students registered for OPH-250 and OPH-251 must provide proof of COVID-19 vaccination prior to starting the course.

NOTICE:

Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

ACCREDITATION

The Ophthalmic Science program is accredited by the Commission on Opticianry Accreditation
229 East 85th Street #194
New York, NY 10028
(315) 742-8066

CONTACT PERSON

Daniel G. Banks, Coordinator
(856) 227-7200 ext. 5058
Email: dbanks@camdencc.edu

Ophthalmic Science Apprentice

OPH.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
OPH-104	Ophthalmic Lab I	3	Co-requisite: OPH-111; Must be taken within the first 12 months of apprenticeship
OPH-111	Ophthalmic Materials Lecture I	3	Co-requisite: OPH-104; Must be taken within the first 12 months of apprenticeship

FIRST YEAR/SECOND SEMESTER

OPH-105	Ophthalmic Lab II	3	Prerequisite: OPH-104; Co-requisite: OPH-112; Must be taken within the first 12 months of apprenticeship
OPH-112	Ophthalmic Materials Lecture II	3	Prerequisite: OPH-111; Co-requisite: OPH-105; Must be taken within the first 12 months of apprenticeship

SECOND YEAR/FIRST SEMESTER

OPH-130	Anatomy of the Eye	3	
OPH-220	Optic Principles	3	Prerequisite: OPH-105 and OPH-112

SECOND YEAR/SECOND SEMESTER

OPH-131	Introduction to Contact Lenses	3	Prerequisite: OPH-130
OPH-203	Ophthalmic Materials Laboratory III	2	Prerequisite: OPH-105

THIRD YEAR/FIRST SEMESTER

OPH-240	Ophthalmic Dispensing I	4	Prerequisite: OPH-105 and OPH-112
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THIRD YEAR/SECOND SEMESTER

OPH-241	Ophthalmic Dispensing II	4	Prerequisite: OPH-240
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TOTAL CREDITS

31

PROGRAM DESCRIPTION

Opticians dispense corrective lenses to aid patients in their visual needs. This is accomplished by using scientific and clinical procedures and applying learned skills needed to produce and fit top-quality eyewear successfully.

PROGRAM GOALS

- To provide students with the skills and knowledge needed to successfully complete the New Jersey State Ophthalmic Dispensing Examination, the American Board of Opticianry Advanced Exam, and the National Contact Lens Examination.
- To prepare students for employment opportunities within the optical profession.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

- Fabricate a complete pair of eyeglasses conforming to state and ANSI standards.
- Interpret a doctor's prescription.
- Dispense a complete pair of eyeglasses and contact lenses from a doctor's prescription.
- Demonstrate knowledge of spectacle lens and contact lens design through mathematical calculations.

SPECIAL PROGRAM REQUIREMENTS

- All candidates must take the College Placement Test and complete the required courses prior to beginning course work.
- The program has an open enrollment policy; however, any applicant who does not have college-level mathematics or English must achieve satisfactory scores on the College Placement Test.
- All perspective students must schedule an interview with the ophthalmic science program director.
- Due to the sequential nature of the optical courses, admission is usually limited to the fall semester. General Education courses can be taken all year.
- Students must earn a grade of "C" or better in all ophthalmic courses in order to be eligible for the New Jersey Ophthalmic Dispensers Exam.
- Students must have an approved apprenticeship for 36 months prior to program completion to be eligible for the New Jersey Ophthalmic Dispensers Exam.

NOTICE: Clinical placements are a required part of the curriculum and a requirement for graduation. Clinical placements may require a criminal background check, health clearance and/or drug testing before participation is allowed. Clinical sites may deny a student's participation in the event of a positive finding. Individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding eligibility may be obtained from the appropriate credentialing body.

ACCREDITATION

The Ophthalmic Science program is accredited by:
Commission on Opticianry Accreditation
229 East 85th Street #194
New York, NY 10028
(315) 742-8066

EMPLOYMENT OPPORTUNITIES

- Ophthalmology offices
- Eye clinics
- Hospital ophthalmic clinics/offices
- Universities
- Contact lens practices

CONTACT PERSON

Daniel G. Banks, Coordinator, Ophthalmic Science
Email: dbanks@camdencc.edu
(856) 374-5058

Dietetic Technology

DTT.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
FNS-100	Dietetic Foundations	3	
FNS-106	Foundations of Nutritional Science	3	
FNS-110	Food Service Management	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CHM-101	General, Organic & Biological Chemistry I	4	
FNS-130	Life Cycle Nutrition	3	Prerequisite: FNS-100 and FNS-106
HPE-102	Health and Wellness	3	
PSY-101	Basic Psychology	3	

SECOND YEAR/FIRST SEMESTER

CHM-160	Fundamentals of Food Science	4	Prerequisite: FNS-130 and CHM-101 or FNS-106 and CHM-111
FNS-200	Community Nutrition Rotation	3	Prerequisite: FNS-130
FNS-210	Food Service Operations	3	
FNS-211	Therapeutic Nutrition I	3	Prerequisite: FNS-130
ELECTIVE	Diversity: Humanities General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

FNS-212	Therapeutic Nutrition II	3	Prerequisite: FNS-211 and one 4 credit Lab Science
FNS-221	Quality Food Production	4	Prerequisite: FNS-210 or HTS-115
FNS-240	Food Service Rotation	3	Prerequisite: FNS-210
ELECTIVE	Laboratory Science General Education Elective	4	

SUMMER SEMESTER

FNS-250	Clinical Nutrition Rotation	3	Prerequisite: FNS-200, FNS-212, and FNS-240
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TOTAL CREDITS

64

PROGRAM DESCRIPTION

Dietetic technicians work in many interesting places, such as hospitals, long-term care/ assisted living facilities, health clubs, community programs, food companies, research labs, and restaurants. They assist dietitians/nutritionists and other health professionals in a variety of ways, such as teaching and counseling people about proper nutrition, planning menus, preparing budgets, purchasing foods and supplies, and maintaining food safety and sanitation.

- Field sites require a criminal background check.
- All program major courses have a no "D" grade policy.
- Academy of Nutrition and Dietetic Association student membership.
- Minimum cumulative grade point average of 3.0 for application to the Commission on Dietetic Registration (CDR) Exam
- The exam requirements are set by CDR.
- The program outcomes data are available on request.

4. Practice management and use of resources defined as application of principles of management and systems in the provision of clinical and customer services to individuals and organizations at the dietetic technician level of practice.
5. Apply concepts of chemistry, physiology, microbiology related and food safety, mathematics, fundamentals of nutrition and nutrition across the life span at the dietetic technician level of practice.

SPECIAL PROGRAM REQUIREMENTS

- High School Preparatory Diploma or equivalent.
- Placement into college level English and math.
- An interview with the Program Director is required.
- 450 hours of supervised field experience is required prior to graduation.
- The education program meets the Accreditation Council for Education in Nutrition and Dietetics (ACEND)-accredited and supervised practice sites meet ACEND'S requirements.
- Students are required to purchase lab-coats, aprons, and scrubs for field experiences, maintain student health insurance and provide reliable transportation to field sites.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Demonstrate scientific and evidence base of practice with a general understanding of scientific information and research related to the dietetic technician level of practice.
2. Implement professional practice expectations: beliefs, values, attitudes and behaviors for the dietetic technician level of practice.
3. Perform clinical and customer services: development and delivery of information, products and services to individuals, groups and populations at eh dietetic technician level of practice.

ACCREDITATION

The Dietetic Technology program is accredited by: The Accreditation Council for Education in Nutrition and Dietetics (ACEND), formerly known as the Commission on Accreditation for Dietetics Education (CADE)

120 South Riverside Plaza Suite 200
Chicago, Ill 60606-6995
Phone: 1-800-877-1600

CONTACT PERSON

Professor Marsha Patrick MS, RD, FAND,
Coordinator
(856) 227-7200 ext. 4665
Email: mpatrick@camdencc.edu

Returning Healthcare Professionals

CTI

HEALTH SCIENCE

Allied health paraprofessionals who have earned a certificate or license may be eligible to receive college credit for their accredited, post-secondary education. Students may transfer college credit to four-year institutions or use the degree for career advancement.

- Students may earn a minimum of 22 to a maximum of 28 credits for completing a post-secondary, accredited allied health program.
- The credits awarded are based on the number of hours spent in training at an accredited allied health program recognized by Camden County College.

- To earn the Associate in Applied Science degree, students must complete the courses listed in the Health Science program curriculum at Camden County College.
- Students must review their portfolio assessment with the coordinator to be eligible to be a health science major.

Contact: Professor Betty Joynes, Allied Health Coordinator

(856) 227-7200 ext. 4324

Email: bjoynes@camdencc.edu

Animal Care

CTI

VETERINARY EXAM ROOM ASSISTANT

This program is intended for anyone interested in the welfare of animals as well as those who wish to pursue exam room assisting as a career. Course content includes ethics, front desk operations, communication and client relations, medications and pharmacy protocol, exam room procedures, prep room protocols, small animal nursing, introduction to laboratory procedures and radiology.

The program also includes clinical hours each week at a local shelter.

This program is eligible for Camden County College credits, equivalent to Office Procedures for Veterinary Technicians (ASC-106) pending acceptance into the Veterinary Technician program and approval by the Director.

CE.PRO 122

Hours: 200

CEUs: 20.0

Healthcare

CTI

CERTIFIED/REGISTERED MEDICAL ASSISTANT

According to U.S. Bureau of Labor Statistics, employment of medical assistants is projected to grow 18 percent by 2030, much faster than the average for all occupations. This Certified/Registered Medical Assistant program offers an accelerated curriculum to provide all the competencies necessary to pass the RMA exam and begin a new career in the thriving healthcare field. This program is designed to train students as multi-skilled professionals who will assist the physician in patient care, management, and education. This course includes classroom and the benefit of lab instruction, as well as the real-life experience of externship in a medical office. Students will learn to perform a variety of clinical and administrative duties including: Venipuncture, vital signs, urinalysis procedures, EKG, infection control techniques, sterilization techniques, hematology, tray setups, and patient preparation. Students will also learn administrative duties such as billing, coding, medical record-keeping, diagnostic procedures, medical terminology, and anatomy and physiology. The graduates of the Medical Assistant Program at the Career & Technical Institute of Camden County College are eligible to take the RMA certification examination and upon certification will have an opportunity to receive up to 22 credits towards an Associate's degree. The RMA (Registered Medical Assistant) exam is administered by American Medical Technologists (AMT). Although some credentials use "certified" and some use "registered," all AMT members are considered "certified." *Externship days and times may vary and may not follow the class schedule. Students must request a registration packet and provide all required medical documentation prior to registration. Students may be required to pass a background check and/or drug test before being admitted to externship.

CERTIFIED HEMODIALYSIS TECHNICIAN

Are you looking for a great entry-level opportunity to enter the Healthcare field with little to no experience? Most Dialysis Technician programs are designed for individuals working within the healthcare field, this program is designed to bring you from no knowledge or experience to employable within 5 months! This program offers a five-month curriculum designed to prepare the student for an entry-level position as a Hemodialysis Technician. The program will allow the student to progress through a standard dialysis facility orientation program at an accelerated rate by providing an extensive theoretical knowledge base and clinical practice in a laboratory setting. Dialysis clinic visitations will be scheduled for the purpose of observation and clinical conference. Courses to provide basic knowledge related to Nursing Principles and Practice, Anatomy and Physiology, and Medical Terminology. The Hemodialysis Technician is an important member of the Renal Care Team. Responsibilities include performance of routine dialysis procedures and patient care under the direction of a Nephrologist and supervision of an RN. Students who complete the Dialysis Technician program at the Career & Technical Institute of Camden County College are eligible to take the internationally recognized CHT (Certified Hemodialysis Technician) exam, through Bonent. No externship or work experience is required for this certification for CCC's Dialysis graduates. In addition, students are eligible to take the CCHT (Certified Clinical Hemodialysis Technician) exam, through the Nephrology Nursing Certification Commission (NNCC) upon completion of an externship or six months of work experience.

This program is articulated with Camden County College's Associates in Applied Science- Health Science Option (HSC.AAS). Students, who successfully complete this program, are eligible to apply for up to 28 credits, via portfolio assessment, toward the CCC associates in science degree.

Location: Camden County College, Camden Campus

CE.TRD-030

Hours: 720

CEUs: 72.0

CERTIFIED NURSING AIDE (CNA)

The New Jersey Department of Health and Senior Services regulates this professional certification program, which is designed to instruct students in the fundamentals of nursing care and philosophy. The program follows a series of modules designed to build skill competency and theory within the nurse aide student. Certified Nurse Aides (CNAs) may practice in long-term care facilities, rehabilitation centers, and sub-acute facilities. Both the classroom theory and practicum components incorporate such topics as health and disease processes, therapeutic and technical procedures, vital signs, hygiene and grooming care, nutrition and hydration, infection control, restorative care, observation and reporting, psychosocial care skills, caring for residents with Alzheimer's Disease and ethical behavior.

Admission requirements (to be completed prior to registration):

- Students must be high school graduates or possess a GED
 - Students must be 18 years of age
 - Students must maintain their own health insurance.
- FORMS FOR PHYSICAL/IMMUNITIES/BACKGROUND CHECK/LIABILITY WILL BE PROVIDED AT THE SCHEDULED INFORMATION SESSION
- Students will maintain their own liability insurance.
 - Student physical must be completed by doctor or nurse practitioner indicating they are in good health and meet the requirements for the course. We cannot accept physicals that were completed over six months ago.
 - Students are expected to have several immunizations or be immune prior to registration. This can be done at your doctor's office.
 - Students must have a 7-panel drug test.
 - Students must have a 2-step PPD. The PPD must consist of the following: students must go to the doctor to receive the first injection and then return within 48-72 hours to have it read by their practitioner. The second PPD must be completed within 7-21 days after the 1st and read within 48-72 hours. There must be proof from your doctor's office of completion of both. PPD's are good for one year.
 - Students must pass criminal background checks.
 - Students are required to attend every class, lab and every clinical. Exceptions cannot be made nor are refunds given to those who violate this requirement.
 - Students must complete each module in order to progress to the next module.
 - In addition to class time, clinical pre-scheduled and must be completed. Clinical schedule will be announced at the start of class.
 - Students are expected to be professional while attending class, lab and clinical setting. Inappropriate behavior will not be tolerated and will result in the student being removed from the class, lab and clinical site and the program without refund.
 - Students are also expected to purchase the required textbook and uniform. Details will be given on these requirements at the time of registration.

Students can pick up a packet from Camden College Hall Suite 228. Information sessions are held through the semester. At these sessions the students get valuable information on the program as well as a packet with guidance. It is highly recommended that a student attend one of these sessions. Students are expected to be professional in class, lab and clinical setting. Inappropriate behavior will not be tolerated and will result in the student being removed from the program without refund. After successful completion of the program, students are eligible to take the skills and written test for state certification. The certification fee is separate from program's tuition.

The CNA registration packet is available at the Information Session. Completed packets should be returned to: College Hall if taking the course in Camden or Kevin G. Halpern Hall for Science & Health Education, Room 329 if taking the course in Blackwood.

4 college credits apply.

ALH 122

Hours: 90

CEUs: 9.0

PHARMACY TECHNICIAN

Upon completion of this course, students will be prepared to sit for the Pharmacy Technician Certification Board exam as well as be in a competitive position to seek employment in the field. Course content will include pharmacy law, interpreting prescriptions and computer entry, defining drugs by brand and generic names, ethics, inventory control, routes of administration, and side effects of medications. This course will also focus on mathematic calculations as they relate to dosage conversions and calculations and IV flow rates. It is suggested that individuals have a high school diploma or GED to enter the program due to the reading and math requirements of the course. Students are asked to bring a calculator to class.

CE.ALH 009

Hours: 144

CEUs: 14.4

CAREER & TECHNICAL INSTITUTE OF
CAMDEN COUNTY COLLEGE
856-374-4955
tradetraining@camdencc.edu
www.camdencc.edu/ce

Admission Requirements

- Students must come into Camden County College’s office of Workforce Training & Continuing Education to pick up a registration packet. Online registration will not be accepted for this program.
- Students must be high school graduates or possess a GED to enroll in the program. Prior to enrollment, students must provide proof of one of the following: High School diploma, GED, High School transcript with graduation date noted, or college transcript.
- Students must have a 2-step PPD and a note from their doctor indicating they are in good health. The College cannot accept testing that was completed over six months ago.
- Students must have a Titers Test for Hepatitis B and Hepatitis C.
- CPR Certification is mandatory and is included as part of the program.
- Students must be able to pass a Criminal background check prior to externship, if selected.
- No information session is required for admission to this program.
- Additional requirements may apply. Contact the Office of Continuing Education at 856-374-4955 to request the full registration packet.

CE.TRD-070 Hours: 600 CEUs: 60.0

PATIENT CARE TECHNICIAN (FORMERLY MST)

The Patient Care Technician Program is designed to prepare students to train for one of the fastest growing professions in the health care industry today. The program focuses on building a complete and solid foundation for students in both classroom theory and hands-on clinical components. Students will build skills in basic and complex key concepts of anatomy and physiology; cardiac function; performing EKG; growth and development; phlebotomy; nursing care; nutrition; therapeutic communication; psychology; and critical thinking. Individuals prepared through the Patient Care Technician program may seek employment in acute care hospitals, sub-acute care facilities, outpatient laboratories, cardiac rehabilitation centers, and various other healthcare providers.

Please note: students wishing to participate in a clinical experience must secure a clinical facility. Clinical experience is not a requirement for program completion. Includes NHA CPCT/A exam voucher and CPR training Admission requirements (complete prior to registration):

- Students must be high school graduate or possess a GED
- Students must be 18 years of age
- Special program admission requirements. This information is provided in the registration packet

CE.ALH 056 Hours: 187 CEUs: 18.7

Please note: Students wishing to participate in a clinical experience must secure a clinical facility. Clinical experience is not a requirement for program completion.

Culinary Arts/Restaurant Operations

CTI

CULINARY ARTS / BAKING & PASTRY

The Culinary portion of this program is designed to cover the basics of the culinary industry for employment or continuing education. Includes the following areas of study – knife skills, kitchen safety & organization, soups, sauces, cooking methods, international cuisine, food cost, menu design, catering, and recipe conversions. The Baking portion of this program is designed to cover the basic skills for baking industry employment or continuing education. Includes the following areas of study – kitchen safety, equipment usage, ingredients basics, baking mixing methods, production of cookies, pies, decorated cakes, basic bread doughs, Artisan breads, upscale specialty desserts, frozen desserts, laminated doughs & breakfast pastries, bakers' math, food cost, menu planning, sanitation & more.

*CE.TRD-050**Hours: 544**CEUs:54.4*

CAREER & TECHNICAL INSTITUTE OF
CAMDEN COUNTY COLLEGE
856-374-4955
tradetraining@camdencc.edu
www.camdencc.edu/ce

Liberal Arts and Science

LAS.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
Choose two of the following Laboratory Sciences			
BIO-111	Biology I - Science	8	Prerequisite: CHM-010 and MTH-124 or MTH-125 Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125 Prerequisite: MTH-140
or CHM-111	Chemistry I - Science		
or PHY-101	Physics I		
or PHY-201	Physics III		
MTH-124	Precalculus Mathematics	4	Must test into MTH-140 or complete all appropriate prerequisite
or MTH-125	Accelerated Precalculus		
or MTH-140	Calculus I		

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
Choose two of the following Laboratory Sciences			
BIO-112	Biology II - Science	8	Prerequisite: CHM-111 Prerequisite: PHY-101 Prerequisite: PHY-201
or CHM-112	Chemistry II - Science		
or PHY-102	Physics II		
or PHY-202	Physics IV		
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisites Prerequisite: MTH-140
or MTH-150	Calculus II		

SECOND YEAR/FIRST SEMESTER

ELECTIVE	Mathematics General Education Elective	4	
or ELECTIVE	Lab Science General Education Elective		
ELECTIVE	Mathematics General Education Elective	4	
or ELECTIVE	Lab Science General Education Elective		
ELECTIVE	Diversity: Humanities General Education Elective	3	
HIS....	History General Education Elective	3	
HPE....	Health and Exercise Science Elective	1	

SECOND YEAR/SECOND SEMESTER

ELECTIVE	Mathematics General Education Elective	4	
or ELECTIVE	Lab Science General Education Elective		
ELECTIVE	Mathematics General Education Elective	4	
or ELECTIVE	Lab Science General Education Elective		
ELECTIVE	Social Science General Education Elective	3	
ELECTIVE	Free Elective	3	
HPE....	Health and Exercise Science Elective	1	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This transfer program is for students with a high interest in an aptitude for science and mathematics. The program prepares students for transfer into four-year colleges or universities primarily as preparation for a preprofessional course of study in such areas as medicine, dentistry, veterinary medicine and physical therapy.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize tools of written and oral expression.
2. Execute basic laboratory techniques.
3. Apply mathematical skills to data interpretation and problem solving.
4. Explain scientific principles and apply scientific reasoning.

CONTACT PERSON

Professor Joseph Diaco
(856) 227-7200, ext. 4207
Email: jdiaco@camdencc.edu

Liberal Arts and Science: Biology Option

BIO.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
BIO-111	Biology I - Science	4	
CHM-111	Chemistry I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-112	Biology II - Science	4	
CHM-112	Chemistry II - Science	4	Prerequisite: CHM-111
MTH-150 or MTH-134	Calculus I Biostatistics	4	Prerequisite: MTH-140 Prerequisite: MTH-140, BIO-111, and ENG-101

SECOND YEAR/FIRST SEMESTER

PHY-101 or PHY-201	Physics I Physics III	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125 Prerequisite: MTH-140
BIO-2....	200 Level Biology Laboratory Science Course	4	
2....	200 Level Lab Sci General Education Elective	4	Students who have taken PHY-101 or PHY-102 cannot use PHY-201 or PHY-202 to fulfill the 200 level laboratory Science General Education Electives
ELECTIVE	Humanities General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

PHY-102 or PHY-202	Physics II Physics IV	4	Prerequisite: PHY-101 Prerequisite: PHY-201
BIO-255	Research Experience in Biology	4	Prerequisite: Minimum of 30 completed credits; 12 credits in BIO, 8 credits in MTH or SCI, a minimum GPA of 2.5
HIS-101	World Civilization I	3	
ELECTIVE	Social Science General Education Elective	3	
HPE....	Health & Exercise Science Elective	1	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This transfer program is designed for students who have a strong interest in biology and who plan to major in biology at a four-year college or university.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Explain the Principle of Evolution as the major unifying theme of Biology.
2. Explain cellular structure and physiology.
3. Explain the basic principles of Molecular Biology and Genetics.
4. Apply the scientific method to conduct experiments and analyze data.
5. Identify and differentiate cells and tissues using a microscope.
6. Utilize primary and secondary sources in the scientific literature to obtain biological information.

CONTACT PERSON

Dr. Nancy Gartland, Chair
(856) 227-7200, ext. 4466
Email: ngartland@camdencc.edu

Liberal Arts and Science: Chemistry Option

CHM.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CHM-111	Chemistry I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite
ELECTIVE	Social Science General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CHM-112	Chemistry II - Science	4	Prerequisite: CHM-111
MTH-150	Calculus I	4	Prerequisite: MTH-140
ELECTIVE or ELECTIVE	Mathematics General Education Elective Lab Science General Education Elective	4	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/FIRST SEMESTER

CHM-221	Organic Chemistry I	4	Prerequisite: CHM-112
PHY-201	Physics III	4	Prerequisite: MTH-140
MTH-210	Calculus III	4	Prerequisite: MTH-150
ELECTIVE	Humanities General Education Elective	3	
HPE....	Health & Exercise Science Elective	1	

SECOND YEAR/SECOND SEMESTER

CHM-222	Organic Chemistry II	4	Prerequisite: CHM-221
PHY-202	Physics IV	4	Prerequisite: PHY-201
ELECTIVE or ELECTIVE	Mathematics General Education Elective Lab Science General Education Elective	4	
ELECTIVE or ELECTIVE	Diversity Social Science General Education Diversity Humanities General Education	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This course of study is designed for students who have a strong interest in chemistry and who plan to work toward a major in chemistry or a related field.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Use the scientific method to design and perform experiments in the chemistry laboratory.
2. Explain the fundamental concepts of chemistry.
3. Analyze data using mathematical and chemical principles and present in multiple formats.

CONTACT PERSON

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Liberal Arts and Science: Environmental Science Option

ENV.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
BIO-111	Biology I - Science	4	
CHM-111	Chemistry I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-112	Biology II - Science	4	
CHM-112	Chemistry II - Science	4	Prerequisite: CHM-111
MTH-150 or MTH-134	Calculus I Biostatistics	4	Prerequisite: MTH-140 Prerequisite: MTH-140, BIO-111, and ENG-101

SECOND YEAR/FIRST SEMESTER

ANT-101	General Anthropology	3	
BIO-206	Environmental Science: Theory & Applications	4	Prerequisite: BIO-111
BIO-225	Introduction to Plant Biology	4	Prerequisite: BIO-111
PHY-101 or PHY-201	Physics I Physics III	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125 Prerequisite: MTH-140

SECOND YEAR/SECOND SEMESTER

BIO-221	Microbiology I	4	Prerequisite: BIO-111
BIO-255	Research Experience in Biology	4	Prerequisite: Minimum of 30 completed credits; 12 credits in BIO, 8 credits in MTH or SCI, a minimum GPA of 2.5
GEO-101	Cultural Geography	3	
ELECTIVE	Humanities General Education Elective	3	
HPE....	Health & Exercise Science Elective	1	

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

This transfer program is designed for students who have a strong interest in environmental science and plan to major in environmental science, ecology or biology at a four-year college or university.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize primary and secondary sources in the scientific literature to obtain information pertaining to environmental science.
2. Apply the scientific method to conduct experiments and analyze data.
3. Describe the important chemical and physical factors that have major effects on ecosystems.
4. Discuss the scientific principles of sustainability.
5. Summarize the root causes of major environmental problems.
6. Describe the major components of biodiversity and the importance of maintaining biodiversity.

CONTACT PERSON

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Liberal Arts and Science: Physics Option

PHY.AS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
HIS-101	World Civilization I	3	
CIS-105	Computer Literacy	3	
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite
ELECTIVE	Social Science General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CIS-206	Advanced Computer Concepts/Applications	3	Prerequisite: CIS-101 or CIS-105
MTH-150	Calculus I	4	Prerequisite: MTH-140
CHM-111 or BIO-111	Chemistry I - Science Biology I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125

SECOND YEAR/FIRST SEMESTER

PHY-201	Physics III	4	Prerequisite: MTH-140
MTH-210	Calculus III	4	Prerequisite: MTH-150
LFO-101 or EET-101	Introduction to Photonics & Photonics Safety Electrical & Electronic Principles	4	Co-requisite: MTH-125 Prerequisite: MTH-123 or MTH-125
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

PHY-202	Physics IV	4	Prerequisite: PHY-201
MTH-220	Differential Equations	4	Prerequisite: MTH-150; Co-requisite: MTH-210
CHM-112 or BIO-112	Chemistry II - Science Biology II - Science	4	Prerequisite: CHM-111
ELECTIVE	Humanities General Education Elective	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This program is designed for students with interest in engineering, physics, or photonics. The credits in this program are transferable to four-year colleges for majors in engineering, physics, and any other specialty where university physics is required.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Explain the fundamental concepts and applications of physics.
2. Design and conduct experiments demonstrating physics principles.
3. Apply mathematics to solve physics application problems.

CONTACT PERSON

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Biotechnology

BIT.AAS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
BIO-111	Biology I - Science	4	
BIT-102	Introduction to Biotechnology	1	
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-221	Microbiology	4	Prerequisite: BIO-111
CHM-111	Chemistry I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125
MTH-171	Statistics	3	Must test into MTH-171 or complete all appropriate prerequisite

SUMMER SEMESTER

CHM-112	Chemistry II - Science	4	Prerequisite: CHM-111
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SECOND YEAR/FIRST SEMESTER

BIO-214	Genetics	4	Prerequisite: BIO-111 and CHM-111
BIT-201	Applications to Biotechnology	4	Prerequisite: BIO-221, BIT-102 and CHM-112; Co-requisite: BIO-240
CHM-221	Organic Chemistry I	4	Prerequisite: CHM-112
HIS-101 or ENG-271	World Civilization I World Literature I	3	Prerequisite: ENG-101

SECOND YEAR/SECOND SEMESTER

BIT-214	Fundamentals of Instrumental Analysis	3	Prerequisite: CHM-221; Co-requisite: BIT-218
BIT-210	Fundamentals of Biochemistry	3	Prerequisite: CHM-221
PHL-232	Biomedical Ethics	3	
BIT-218	Combined Laboratory Techniques	3	Prerequisite: CHM-221; Co-requisite: BIT-214

SUMMER SEMESTER

BIT-205	Biotechnology Internship	3	Prerequisite: BIT-102, BIT-201 and BIT-202
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TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The Biotechnology program will prepare students for entry-level positions in industries involving the field of biotechnology. These industries include pharmaceuticals, university and private research laboratories, medical technology and biotechnology companies.

PROGRAM GOALS

- To prepare students for entry-level employment in a biotechnology area.
- To provide students with a General Education foundation.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Work safely in a laboratory.
2. Analyze samples using modern computer interfaced instrumentation.
3. Analyze and present data in multiple formats (graphic, oral and written).
4. Explain the fundamental concepts of biology and chemistry.

CONTACT PERSON

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Biotechnology: Forensic Science Option**FSC.AAS****FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
BIO-111	Biology I - Science	4	
BIT-102	Introduction to Biotechnology	1	
CHM-145	Introduction to Forensic Science	4	
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CHM-111	Chemistry I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125
FSC-110	Introduction to Forensic Osteology	4	Prerequisite: CHM-145
ELECTIVE	Diversity: Social Science General Education	3	

SUMMER SEMESTER

CHM-112	Chemistry II - Science	4	Prerequisite: CHM-111
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SECOND YEAR/FIRST SEMESTER

BIO-240	Genetics	4	Prerequisite: BIO-111 and CHM-111
BIT-201	Applications to Biotechnology	4	Prerequisite: BIO-221, BIT-102 and CHM-112; Co-requisite: BIO-240
CHM-221	Organic Chemistry I	4	Prerequisite: CHM-112
HPE....	Health & Exercise Science Elective	1	

SECOND YEAR/SECOND SEMESTER

BIT-214	Fundamentals of Instrumental Analysis	3	Prerequisite: CHM-221; Co-requisite: BIT-218
BIT-210	Fundamentals of Biochemistry	3	Prerequisite: CHM-221
FSC-200	Forensic Toxicology	3	Prerequisite: CHM-221
BIT-218	Combined Laboratory Techniques	3	Prerequisite: CHM-221; Co-requisite: BIT-214
HPE....	Health & Exercise Science Elective	1	

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

The forensic science option of the biotechnology program will prepare student for entry-level positions in forensics such as crime scene technician.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze data using mathematical and fundamental forensic science principles.
2. Explain the principles of forensic science in both written and oral formats.
3. Use computer integrated instrumentation to analyze forensic evidence.

CONTACT PERSON

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Computer Science

CSC.AA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CSC-121	Structured Programming (C++)	4	
HIS-101	World Civilization I	3	
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite
ELECTIVE	Social Science General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CSC-122	Computer Science I	4	Prerequisite: CSC-121
HIS-102	World Civilization II	3	
MTH-129	Discrete Mathematics	4	Prerequisite: MTH-140
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/FIRST SEMESTER

CSC-223	Computer Science II	4	Prerequisite: CSC-122; Co-requisite: MTH-129
ELECTIVE	Diversity General Education Elective	3	
ELECTIVE	Laboratory Science General Education Elective	4	
ELECTIVE	Language General Education Elective	3	Must take six credits in one language

SECOND YEAR/SECOND SEMESTER

CSC-225 or CSC-240	Computer Laboratory Techniques Computer Organization	3	Prerequisite: CSC-121 and CSC-122 Prerequisite: CSC-121
SPE-102	Public Speaking	3	
ELECTIVE	Language General Education Elective	3	Must take six credits in one language
ELECTIVE	Humanities General Education Elective	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The program is designed to match the first two years of a Bachelor of Art (B.A.) in computer science degree at a baccalaureate institution by providing a seamless transition to upper division computer science coursework. The curriculum emphasizes the theoretical foundations of computing, data structures and algorithms, object-oriented software design and programming, and computer architecture. Students practice analysis, design implementation, and testing of software solutions. Students graduating from the program will be awarded an associate in arts degree.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze, design, develop and test computer-based applications using problem solving and analytical skills developed throughout the program.
2. As part of a team, develop software applications that meet program requirements including the production of design and formal test plan documentation.
3. Demonstrate social awareness and analyze the global impact of computing on individuals, organizations and society.

CONTACT PERSONS

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Computer Science

CSC.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CSC-121	Structured Programming (C++)	4	
HIS-101	World Civilization I	3	
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CSC-122	Computer Science I	4	Prerequisite: CSC-121
HIS-102	World Civilization II	3	
MTH-150	Calculus II	4	Prerequisite: MTH-140
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/FIRST SEMESTER

CSC-223	Computer Science II	4	Prerequisite: CSC-122; Co-requisite: MTH-129
MTH-129	Discrete Mathematics	4	Prerequisite: MTH-140
PHY-201	Physics III	4	Prerequisite: MTH-140
CSC-240	Computer Organization	3	Prerequisite: CSC-121

SECOND YEAR/SECOND SEMESTER

CSC-225	Computer Laboratory Techniques	3	Prerequisite: CSC-122
MTH-145	Linear Algebra	4	Prerequisite: MTH-140
PHY-202	Physics IV	4	Prerequisite: PHY-201
ELECTIVE	Social Science General Education Elective	3	

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

The program is designed to match the first two years of a Bachelor in Science (B.S.) in computer science degree at a baccalaureate institution by providing a seamless transition to upper-division computer science coursework. The curriculum emphasizes the theoretical foundations of mathematics, computing, data structures and algorithms, object-oriented software design and programming, as well as computer architecture and the study of systems programming and the Linux OS. Students practice analysis, design, implementation, and testing of software solutions. Students graduating from the program will be awarded an associate in science degree.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze, design, develop and test computer-based applications using problem solving and analytical skills developed throughout the program.
2. As part of a team, develop software applications that meet program requirements including the production of design and formal test plan documentation.
3. Apply scientific and mathematical principles to study computer science.

CONTACT PERSON

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Game Design and Development

GDD.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CID-123	Interactive Interface Design	3	
CID-115	Digital Storytelling	3	
CID-125	Game Design & Development I	3	
ELECTIVE	Diversity General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CSC-111	Introduction to Programming	3	
CID-113	Web Page Design I	3	
CID-105	Podcasting	3	
CID-200	Game Design & Development II	3	Prerequisite: CID-125

SECOND YEAR/FIRST SEMESTER

ENG-221	Creative Writing	3	Prerequisite: ENG-101
CID-204	Web and Digital Publications	3	
CID-255	Game Design & Development III	3	Prerequisite: CID-200
CID-239 or CID-241	2D Interactive Animation Computer Animation I	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisite

SECOND YEAR/SECOND SEMESTER

CID-242 or CID-260	Computer Animation II Comic Book Design	3	Prerequisite: CID-241
CID-244	Special Effects	3	
CID-256	Game Design & Development Final Project	3	Prerequisite: CID-255
ELECTIVE	Humanities General Education Elective	3	
ELECTIVE	Social Science General Education Elective	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This program is designed for students interested in creating anything game related; 3D objects, to environments, to entire games themselves. Students will use a variety of design software and learn specific programming techniques involved in creating interactive games.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Create interactive 2D and 3D computer and video games individually and in a group.
2. Analyze design software, programming languages, modeling and animation skills, level design and game engines used to design and develop video and interactive games.
3. Analyze and apply market research and business concepts related to video game production and distribution processes.
4. Synthesize and explain the economic, social and cultural implications of interactive media.

CONTACT PERSONS

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Web Design and Development

WEB.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CID-123	Interactive Interface Design	3	
CID-113	Web Page Design I	3	
CIS-191	Internet Tools and Techniques	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or take all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CID-105	Podcasting	3	
CID-203	UI & UX Design	3	
CID-214	Web Page Design II	3	Prerequisite: CID-113
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/FIRST SEMESTER

CID-204	Web and Digital Publications	3	
CID-205	Graphics for Web	3	
CID-239	2D Interactive Animation	3	
ELECTIVE	Diversity General Education Elective	3	
ELECTIVE	Humanities General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

CID-215	Web Multimedia	3	
CID-220	Web Development	3	
CID-244	Special Effects	3	
CID-241	Computer Animation I	3	
CIS-192 or CSC-171	Practical Applications of Website Management Introductory Programming with Python	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The growth of the Internet has increased demand for graphic designers with web capabilities. This degree will train students to have a competitive edge in this market. It will prepare students for jobs in web and interactive media design. It focuses on the design aspects of creating interactive web pages and on the artistic development of effective websites.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Produce high-quality, web enabled graphics.
2. Develop all types of graphic media including; web pages, internet marketing material, advertising and instructional material.
3. Plan, design, implement, test and maintain effective interactive sites and animations.
4. Use industry-standard tools and languages for website and interactive media creation.
5. Create a professional portfolio of interactive and web design samples.

CONTACT PERSONS

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Computer Interactive Design/Virtual Reality

VRD.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CID-123	Interactive Interface Design	3	
CSC-111 or CSC-171	Introduction to Programming Intro Python Programming	3	
CID-223	Virtual Reality I	3	
CID-239	2D Interactive Animation	3	
CID-241	Computer Animation I	3	

SECOND YEAR/SECOND SEMESTER

CID-225	Virtual 360 World	3	
CID-244	Special Effects	3	Prerequisite: CID-241
CID-227	Virtual Reality II	3	
CID-242	Computer Animation II	3	

TOTAL CREDITS

27

PROGRAM DESCRIPTION

The Virtual Reality Certificate prepares students for entry level employment in the field of interactive virtual reality. Major areas of study include interactive interface design, 2D and 3D interactive animation, virtual reality, special effects, and programming. The courses in this certificate program combine theory and hands-on application to obtain entry-level employment as technologists in the virtual reality/augmented reality/mixed reality field.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize various AR/VR software platforms and workflows to develop immersive products.
2. Create, design and implement user experiences that utilize the interaction approaches unique to virtual/augmented reality platforms.
3. Design 3D and interactive prototype VR applications.
4. Prepare for entry-level positions developing Virtual Reality (VR) Applications.

CONTACT PERSONS

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Management of Information Systems

MIS.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
ACC-104	Financial Accounting	3	
CIS-105 or CIS-101	Computer Literacy Personal Computer Applications	3	
MGT-101	Introduction to Business	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or take all appropriate prerequisites

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ACC-105	Managerial Accounting	3	Prerequisite: ACC-104
CSC-171	Introductory Programming with Python	3	
CIS-206 or CIS-237	Advanced Computer Concepts and Apps or Relational Database Concepts	3	Prerequisite: CIS-101 or CIS-105 Offered Spring Semester Only
ELECTIVE	General Education Elective	3	

SECOND YEAR/FIRST SEMESTER

ECO-101	Macroeconomics	3	
CIS-210	Management of Information Systems	3	Prerequisite: ENG-101, MTH-111, and CIS-101 or CIS-105 or CIS-206 (Fall Semester Only)
LAW-101	Legal Environmental/Business Law I	3	
HIS-101 or HIS-102	World Civilization I World Civilization II	3	
MTH-112 or MTH-114	Elements of Statistics II College Algebra-Business & Social Science	3	Prerequisite: MTH-111 Must test into MTH-114 or take all appropriate prerequisites

SECOND YEAR/SECOND SEMESTER

ECO-102	Microeconomics	3	
CIS-112	The Technology of Smartphones	1	Prerequisite: CSC-111 or CSC-171; Spring Semester Only
CIS-231	System Analysis and Design	3	
HPE....	Health & Exercise Science Elective	1	
CHM-140 or BIO-106	Chemistry & Society Living in the Environment	4	Prerequisite: ENG-101
MTH-122	Applied Calculus	1	Must test into MTH-122 or take all appropriate prerequisites

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The Associate in Science transfer program is designed to provide the first two years of a Bachelor of Science degree in Information Systems. This forward-thinking program offers a solid background in liberal arts and sciences as well as the skills and knowledge needed to design, create, manage, and effectively use modern information systems. The information systems curriculum has no single application focus. It is directed to the art and science of managing information in all application environments. Students learn how to determine information needs, design appropriate information systems, manage those systems, and measure the systems' performance. The emphasis is on the users of computers, and on building professional-level information systems skills.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Execute the fundamental skills of business, programming, system software and application software in a business computing environment.
2. Apply analysis and design to implement system change in a business environment.
3. Communicate effectively within an organization information systems solution using both verbal and written communication.
4. Work productively as a team member as well as independently.
5. Demonstrate professionalism and ethical behavior.
6. Adapt to emerging technologies and new environments.

CONTACT PERSON

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Computer Information Systems

CIS.AAS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CIS-105	Computer Literacy	3	
CSC-171	Introductory Python Programming	3	
MGT-101	Introduction to Business	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
ACC-104	Financial Accounting	3	
CIS-206	Advanced Computer Concepts & Applications	3	Prerequisite: CIS-101 or CIS-105
CIS-181	Linux/UNIX Essentials	3	
MTH....	Mathematics General Education Elective	3	Must test into College Level Math or complete all appropriate prerequisite

SECOND YEAR/FIRST SEMESTER

ACC-105	Managerial Accounting	3	Prerequisite: ACC-104
CIS-237	Relational Database Concepts	3	(Fall only)
CST-103	Microcomputer Operating System I: Workstations	3	
ECO-101	Macroeconomics	3	
CIS-210	Management of Information Systems	3	Prerequisite: ENG-101, MTH-111, and CIS-101 or CIS-105 or CIS-206 (Fall only)

SECOND YEAR/SECOND SEMESTER

CIS-231	System Analysis and Design	3	Prerequisite: CSC-111 or CSC-171 (Spring only)
ECO-102	Microeconomics	3	
MGT-102 or FIN-212	Introduction to Management Principles of Finance	3	Prerequisite: ACC-104
CIS-102	Spreadsheets	3	
ELECTIVE	Diversity: Humanities General Education Elective	3	

TOTAL CREDITS 60**PROGRAM DESCRIPTION**

The career degree is designed to prepare students to find employment using current computer applications in a business or organizational computing environment. Students will obtain an understanding of programming, operating systems and databases as well as basic knowledge of business fundamentals such as accounting, marketing, economics and management. This degree is designed to provide a solid foundation in the fundamental skills that are generally required to analyze organizational processes and design computer information system solutions, or to support and manage information systems. Courses within this program provide students with a solid base in problem solving skills.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Perform fundamental skills of business, programming, and application software in a business/organizational computing environment.
2. Analyze and design information systems and database solutions to achieve business/organizational goals.
3. Implement a designed solution to solve business/organization information systems problems using state of the art programming techniques and applications software.
4. Present technical solutions effectively.

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Computer Information Systems

CPG.CT**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
ACC-104	Financial Accounting	3	
CIS-105 or CIS-206	Computer Literacy Advanced Computer Concepts and Applications	3	
CSC-171	Introductory Python Programming	3	
MGT-101	Introduction to Business	3	

FIRST YEAR/SECOND SEMESTER

ACC-105	Managerial Accounting	3	Prerequisite: ACC-104
CIS-102	Spreadsheets	3	
CIS-181	Linux/UNIX Essentials	3	
CST-102	Introduction to Networking	3	
MTH....	Mathematics General Education Elective	3/4	Must test into College Level Math or complete all appropriate prerequisite

TOTAL CREDITS**30/31****PROGRAM DESCRIPTION**

This certificate program develops software solutions to meet the growing demand for individuals skilled in the development and management of information systems. Students learn how to determine information needs, design appropriate information systems, manage those systems, and measure the systems' performance. It prepares students for careers in a rapidly changing technological world by training them to analyze business and organizational problems, challenges, and opportunities and to subsequently design, develop, implement and maintain computing solutions through the use of information and information technology.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Perform fundamental skills of business, programming, and application software in a business/organizational computer environment.
2. Analyze, design, and implement an information systems approach to a business/organizational environment.
3. Demonstrate an understanding of relational database principles.

CONTACT PERSON

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Database Administration Certificate

SQL.CA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
CSC-171	Introductory Python Programming	3	
CIS-103	Database Management	3	Fall Semester Only
CIS-234	SQL Server on Linux	3	
CIS-237	Relational Database Concepts	3	

FIRST YEAR/SECOND SEMESTER

CIS-225	Project Management Essentials	3	Spring Semester Only
CIS-236	SQL Fundamentals II	3	Prerequisite: CIS-234; Spring Semester Only
CIS-238	Database Security and Protection	3	Spring Semester Only
CIS-239	Database Administration Principles	3	Prerequisite: CIS-237; Spring Semester Only

TOTAL CREDITS**24****PROGRAM DESCRIPTION**

The Database Administrator Certificate develops you to work with businesses or clients to determine their information storage needs, and then utilize database software to develop a strategy most suited to those needs. Throughout the program you'll be exposed to the latest trends and industry standards. Using Microsoft SQL Server in Windows and in Linux, you will learn troubleshooting, repairing databases, testing performance, security, and permissions. While immersed in the course work, you'll also be preparing for an industry certification within Microsoft that opens doors to employment and lifelong opportunities.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Design and develop SQL for handling tasks such as extracting information, trends, insights and metrics from data stored in the database.
2. Design, develop, create and run the queries and reports needed by end users or management teams.
3. Monitor, investigate, correct, and prevent data quality problems.
4. Create and manage a project using project management tools.
5. Write applications using Python.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

Linux/UNIX Administration

UNIX.CA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
CIS-181	Linux/UNIX Essentials	3	
CST-102	Introduction to Networking	3	
CSC-171	Introduction to Python	3	

FIRST YEAR/SECOND SEMESTER

CIS-285	Linux Networking and Security	3	Prerequisite: CIS-181, CST-102, and CSC-171
CIS-288	Linux Administration	3	Prerequisite: CIS-181, CST-102, and CSC-171
CIS-289	Linux System and Services	3	Prerequisite: CIS-181, CST-102, and CSC-171

TOTAL CREDITS**18****PROGRAM DESCRIPTION**

The two-semester certificate program is career-oriented and consists of six core courses using RedHat Linux that will provide the student with a general working knowledge of the Linux/UNIX Operating System and the skill to handle the software used by the system. The goal of this certificate program is to enhance the student's computer skills with a general, practical background in Linux/UNIX to become a Linux/UNIX Administrator.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Demonstrate a comprehensive knowledge of popular versions of Linux and UNIX operating systems, commands, VI editor, processes, kernel structures and tables, and associated shells.
2. Use Python to write scripts to perform tasks.
3. Install, configure, and manage a Linux server and relevant services and applications.
4. Perform duties as a junior Linux System Administrator in managing users and groups, monitoring processes and permissions, performing backup and recovery, and evaluating basic security concepts.
5. Demonstrate a strong understanding of Linux system administration by passing a CompTIA Linux+ Certification test which is a recognized credential for IT professionals.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

Computer Systems Technology

CST.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CHM-140 or BIO-106 or PHY-103	Chemistry & Society Living in the Environment Physics for Non-Science Majors	4	Prerequisite: ENG-101
CST-102	Introduction to Networking	3	
MTH-100	Algebraic Concepts	4	Must test into College Level Math or complete all appropriate prerequisite
CIS-112 or HPE....	The Technology of Smart Phones Health and Exercise Science Elective	1	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CIM-115	Microcontroller Applications	3	
CST-103	Microcomputer Operating System I: Workstations	3	
CSC-171	Introduction to Python	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites

SECOND YEAR/FIRST SEMESTER

CST-201	Advanced Networking	3	Prerequisite: CST-102
ENG-191 or ENG-271	The Myths of the World World Literature I	3	Prerequisite: ENG-101
CIS-181	Linux/UNIX Essentials	3	
CST-109	Building, Upgrading, and Repairing Personal Computers	3	
CST-204	Computer and Network Security	3	Prerequisite: CST-102

SECOND YEAR/SECOND SEMESTER

CIS-285	Linux Networking and Security	3	Prerequisite: CIS-181, CST-102, and CSC-171
CIS-288	Linux Administration	3	Prerequisite: CIS-181, CST-102, and CSC-171
CST-106	Microcomputer Operating Systems II: Server Systems	3	Prerequisite: CST-103
CST-212	Advanced Routing and Switching	3	Prerequisite: CST-201
EET-105	Introduction to Electricity & Electronics	3	Prerequisite: MTH-100

TOTAL CREDITS	60
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PROGRAM DESCRIPTION

The CST associate degree program combines training in the design, implementation, and maintenance of microcomputer hardware with operating systems and network systems management and administration. This career-oriented degree also offers basic electrical engineering technology courses along with a diverse elective bank of computer studies and internet courses. Included is a basic general education core and a cooperative education option.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Apply the principles of modern microcomputer operating systems, network architecture, hardware architecture, and subsystems to network, repair and manage operating systems.
2. Solve basic network design and application problems using knowledge of common network architectures and network software.
3. Utilize electronic principles and digital electronics necessary to diagnose, troubleshoot, and repair computer and network hardware problems.

CONTACT PERSON

Richard Dolan, Director
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Cybersecurity

CYB.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CIS-181	Linux/UNIX Essentials	3	
CST-102	Introduction to Networking	3	
CHM-140 or BIO-106 or PHY-103	Chemistry & Society Living in the Environment Physics for Non-Science Majors	4	Prerequisite: ENG-101
MTH-100	Algebraic Concepts	4	Must test into College Level Math or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CIS-238	Database Security and Protection	3	Spring Semester Only
CST-103	Microcomputer Operating System I: Workstations	3	
MTH-111	Introduction to Statistics	3	Must test into College Level Math or complete all appropriate prerequisites
ELECTIVE or ELECTIVE	Diversity: Humanities General Education Diversity: Social Science General Education	3	

SECOND YEAR/FIRST SEMESTER

CST-110	Cyber Security Analyst	3	
CSC-171	Introduction to Python	3	
CST-109	Building, Upgrading, and Repairing Personal Computers	3	
CST-201	Advanced Networking	3	Prerequisite: CST-102
CST-204	Computer and Network Security	3	Prerequisite: CST-102

SECOND YEAR/SECOND SEMESTER

CST-210	Digital Forensic and Investigations	3	Prerequisite: CST-102
CST-220	Ethical Hacking and Penetration Testing	4	Prerequisite: CST-102
CRJ-101	Administration of Justice	3	
CIS-285	Linux Networking and Security	3	Prerequisite: CIS-181, CST-102, and CSC-171

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Cybersecurity program is designed to provide an affordable path toward a career in the fast-growing cybersecurity field, which includes: Network Forensics, Cyber Defense, Network Systems Administration or Systems Security Administration. The degree program utilizes hardware and software systems that align with those currently used in the commercial market. The CYB.AAS program is intended for students who want to enter a career directly after graduating. The curriculum is closely aligned to that of the National Science Foundation's CyberWatch degrees providing a clear path for graduates to transfer to such a program in a four-year institution.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Conduct digital forensics investigations and to investigate potential security breaches of computer data.
2. Examine professional and ethical codes of conduct with respect to cyber forensics.
3. Identify security risks and summarize possible remedies.
4. Develop solutions for networking and security problems, balancing business concerns, technical issues and security.

CONTACT PERSON

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Cybersecurity

CYB.CA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
CIS-181	Linux/UNIX Essentials	3	
CST-102	Introduction to Networking	3	
CST-109	Building, Upgrading, and Repairing	3	
CST-110	Cyber Security Analyst	3	

FIRST YEAR/SECOND SEMESTER

CIS-238	Database Security and Protection	3	Spring Semester Only
CST-210	Digital Forensic and Investigations	3	Prerequisite: CST-102
CST-220	Ethical Hacking and Penetration Testing	3	Prerequisite: CST-102

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The Cybersecurity Certificate prepares students for entry level employment in the field of information security. Major areas of study include networking fundamentals, operating systems, network defense, and computer forensics. The courses in this certificate program combine theory and application in order to develop and implement appropriate information security policies and procedures.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Demonstrate how to conduct digital forensics investigations and to investigate potential security breaches of computer data.
2. Examine professional and ethical codes of conduct with respect to cyber forensics.
3. Identify security risks and summarize possible remedies.
4. Develop solutions for networking and security problems, balancing business concerns, technical issues and security.

CONTACT PERSON

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Microsoft Office

MICROSOFT OFFICE SPECIALIST

Within this program students will become proficient in Microsoft Office products including Word, PowerPoint, Excel, Access and Outlook. The

level of expertise will afford students the opportunity to become a certified Microsoft Office Specialist (MOS).

CE.CST-034

Hours: 56

CEU's: 5.6

CTI

Information Technology

COMPUTER TECHNICIAN SUPPORT SPECIALIST

The CTSS Technology Career Track is designed to give someone with little or no computer experience entry level training. The skills learned in this track will provide students the ability to "get their foot in the door." Proficiencies gained will be used in any hands-on technology specialty. This Career Track is great for those students who enjoy hands-on activities.

**Courses included: CompTIA A+, Net+, and Security+
Certifications: A+, Network+, and Security+**

Prerequisite: None, but preferred would be basic computer navigation and comprehension of basic terms.

CE.BUN 002

Hours: 360

CEUs: 36

A+ CERTIFICATION BY COMPTIA

This CompTIA A+ Program prepares you for certification by providing instruction on system configuration, installation, upgrades, diagnosis, repair, preventive maintenance, and safety of vendor neutral PC Hardware.

- CompTIA A+ Operating Systems Certification
- CompTIA A+ Hardware Certification

CE.CST 012

Hours: 140

CEUs: 14.0

NETWORK+ CERTIFICATION BY COMPTIA

Network technicians need to be certified in order to advance in the industry. The marketplace is so starved for qualified personnel; a well-trained certified technician can easily find work in the industry. Whether you're looking to upgrade your skills, advance your career, or start a career in networking then the Network+ certification course is for you.

- CompTIA NETWORK+ Certification

CE.CST 008

Hours: 100

CEUs: 10

SECURITY+

Security+ covers the most important foundational principles for securing a network and managing risk. Access control, identity management and cryptography are important topics as well as selection of appropriate mitigation and deterrent techniques to address network attacks and vulnerabilities. Security concerns associated with cloud computing, BYOD and SCADA are addressed.

CE.CST-033

Hours: 120

CEUs: 12

WEB DESIGN & DEVELOPMENT PROJECT STUDY

The 60-hour curriculum packs an array of marketable skills in Web Design & Development. Students will gain expertise in coding skills using HTML, CSS, JavaScript and content optimization skills for websites. Courses explore software including Dreamweaver, Illustrator, Photoshop. Throughout the program, students develop advanced Internet research techniques and development of website development & design.

CE.PRO 138

Hours: 60

CEU's: 6.0

CAREER & TECHNICAL INSTITUTE OF
CAMDEN COUNTY COLLEGE
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Engineering Science

EGR.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CAD-101	Computer Aided Engineering Graphics	4	
CHM-111	Chemistry I - Science	4	Prerequisite: CHM-010 and MTH-124 or MTH-125
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite
PHY-201	Physics III	4	Prerequisite: MTH-140

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CHM-112	Chemistry II - Science	4	Prerequisite: CHM-111
MTH-150	Calculus I	4	Prerequisite: MTH-140
PHY-202	Physics IV	4	Prerequisite: PHY-201
EGR-101	Introduction to	2	

SECOND YEAR/FIRST SEMESTER

MTH-145	Linear Algebra	4	Prerequisite: MTH-140
MTH-210	Calculus III	4	Prerequisite: MTH-150
CSC-121	Structured Programming (C++)	4	
EGR-201	Statics	3	Prerequisite: MTH-140 and PHY-201
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

MTH-220	Differential Equations	4	Prerequisite: MTH-150; Co-requisite: MTH-210
EGR-211	Engineering Circuit Analysis	3	Prerequisite: MTH-150 and PHY-201
EGR-202	Dynamics	3	Prerequisite: EGR-201
ELECTIVE	Humanities General Education Elective	3	
ELECTIVE	Diversity General Education Elective	3	

TOTAL CREDITS**70****PROGRAM DESCRIPTION**

Engineering uses the physical sciences and mathematics to design and develop products and systems. It uses advanced techniques to find solutions to technical problems and other complex issues facing society. This program represents the first two years of a baccalaureate engineering program. Students must transfer to a four-year college or university that has an engineering program.

SPECIAL ADMISSION REQUIREMENTS

Students entering this program should have had above-average achievement in high school science and mathematics and should have taken one year of high school physics, chemistry, pre-calculus and English.

To begin this program, students must have had three years of academic mathematics, including pre-calculus.

CONTACT PERSON

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PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize advanced mathematics, including Calculus, to solve problems in physical and applied sciences related to engineering.
2. Work in teams to successfully analyze and propose alternate strategies to solve problems in systems, processes or products.
3. Utilize specialized computer programs to improve productivity in different engineering disciplines.
4. Compare and contrast different engineering disciplines.
5. Apply the scientific method of inquiry to analyze problems and draw conclusions from data.

Engineering Technology:

Electrical-Electronic Engineering

EET.AAS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
EET-101	Electrical/Electronic Principles	4	Prerequisite: MTH-123 or MTH-125
CIM-101	Machine Shop Practices	3	
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite
ELECTIVE	Social Science General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CAD-101	Computer Aided Engineering Graphics	4	
EET-211	Electronics I	3	Prerequisite: EET-101
PHY-101	Physics I	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125
ELECTIVE	Diversity: Humanities General Education Elective	3	

SECOND YEAR/FIRST SEMESTER

EET-201	Electrical Circuits	3	Prerequisite: EET-101
EET-221	Digital Circuits	3	Prerequisite: EET-101
CIM-115	Microcontroller Applications	3	
PHY-102	Physics II	4	Prerequisite: PHY-101

SECOND YEAR/SECOND SEMESTER

EET-212	Electronics II	3	Prerequisite: EET-211
EET-213	Electronic Communication	3	Prerequisite: EET-201 and EET-211; Co-requisite: EET-212
EET-251 or EGR-208	Electronic Project Co-op I: Engineering	3	Prerequisite: EET-201 and EET-211; Co-requisite: EET-212
MTH-132	Statistics for Technology	4	Prerequisite: MTH-100

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The program is designed to prepare students to work in engineering environments to construct, test, and maintain electronic devices and systems. The program uses current state-of-the-art electronic industrial test equipment and procedures.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Integrate, test and analyze analog and digital components and circuits in an electronic product, system or process.
2. Analyze alternate strategies to solve electrical/electronic circuit problems.
3. Use productivity and computerized circuit simulation software to analyze experimental data from analog and digital circuits.
4. Write and orally present theory, concept or analysis of an electronic-related problem or electronic project.

CONTACT PERSONS

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SPECIAL PROGRAM REQUIREMENTS

Students should have an adequate background in algebra and trigonometry.

Engineering Technology:

Electromechanical Engineering

EME.AAS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CIM-101	Machine Shop Practices	3	
EET-101	Electrical/Electronic Principles	4	Prerequisite: MTH-123 or MTH-125
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite
ELECTIVE	Social Science General Education Elective	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CAD-101	Computer Aided Engineering Graphics	4	
EET-211	Electronics I	3	Prerequisite: EET-101
PHY-101	Physics I	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125
ELECTIVE	Diversity: Humanities General Education Elective	3	

SECOND YEAR/FIRST SEMESTER

EET-221	Digital Circuits	3	Prerequisite: EET-101
EET-241	Robotics	3	Prerequisite: EET-101
CIM-211	PLC Programming	4	
PHY-102	Physics II	4	Prerequisite: PHY-101

SECOND YEAR/SECOND SEMESTER

CIM-115	Microcontroller Applications	3	
CIM-231	Motors, Controllers and Sensors	3	Prerequisite: CIM-211
CIM-251	CIM Integration Project	2	Prerequisite: CIM-101, CIM-211, and CIM-221; Co-requisite: CIM-231
MTH-132	Statistics for Technology	4	Prerequisite: MTH-100

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The program prepares graduates to work in an engineering environment and to assist with the design, development, testing, programming, installation, and maintenance of electromechanical systems.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Integrate electronic control of a mechanical system or process.
2. Analyze and solve electro-mechanical system problems.
3. Use productivity and computerized circuit simulation software to analyze experimental data from electro-mechanical systems.
4. Write and orally present theory, concept or analysis of a complex electromechanical system problem or electronic project.

SPECIAL PROGRAM REQUIREMENTS

Students should have an adequate background in algebra and trigonometry.

CONTACT PERSONS

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Engineering Technology: Mechanical Engineering

MET.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CAD-101	Computer Aided Engineering Graphics	4	
CIM-101	Machine Shop Practices	3	
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite
PHY-101	Physics I	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
EET-101	Electrical/Electronic Principles	4	Prerequisite: MTH-123 or MTH-125
MET-228	Statics for Technologists	3	Prerequisite: CIM-101, PHY-101 or PHY-201, and MTH-124
PHY-102	Physics II	4	Prerequisite: PHY-101

SECOND YEAR/FIRST SEMESTER

CIM-115	Microcontroller Applications	3	
MET-221	Quality Control	2	Prerequisite: MTH-125
MET-236	Mechanics of Materials	3	Prerequisite: MET-228
CIM-211	PLC Programming	4	
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

MTH-132	Statistics for Technology	4	Prerequisite: MTH-100
MET-233 or EGR-208	Project Design Co-op I: Engineering I	3	Prerequisite: MET-236, MTH-132, PHY-102, and CIM-101
MET-242	Design of Machine Elements	3	Prerequisite: MTH-221 and MET-236
ELECTIVE	Diversity Humanities General Education Elective	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The program produces students capable of design analysis and testing of mechanical systems. It uses prevailing industrial procedures to test current mechanical equipment used in industry.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Analyze, compare and contrast the physical and chemical properties of different materials with particular emphasis on conditions for appropriate usage in machines and structures.
2. Analyze the effectiveness of a quality control process with emphasis on continuous quality improvement.
3. Propose strategies to solve mechanical process or systems problems.
4. Write and orally present theory, concept or analysis of a complex mechanical project.

CONTACT PERSONS

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CADD: Computer Aided Drafting & Design

CAD.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CAD-101	Computer Aided Engineering Graphics	4	
CIM-101	Machine Shop Practices	3	
CST-103	Microcomputer Operating System I: Workstations	3	
EGR-103	Technical Drawing	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CAD-102	Advanced Computer Aided Engineering Graphics	3	Prerequisite: CAD-101
CAD-107	Parametric Design: Autodesk Inventor	3	
CAD-208	AutoCAD Civil 3D Level I	3	Prerequisite: CAD-101
HPE....	Health and Exercise Science Elective	1	

SECOND YEAR/FIRST SEMESTER

CAD-201	CADD Applications: MicroStation	3	
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite
PHY-103 or PHY-101	Physics I for Non-Science Majors Physics I	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125
ELECTIVE	Diversity: Humanities General Education Elective	3	
HPE....	Health and Exercise Science Elective	1	

SECOND YEAR/SECOND SEMESTER

CAD-202 or EGR-208	Advanced CADD Project Co-op I: Engineering	3	
CAD-205	Architectural CADD Using Revit	3	Prerequisite: CAD-101
CAD-206	Solids Modeling: Solid Works	3	Prerequisite: CIM-101
MTH-132	Statistics for Technology	4	Prerequisite: MTH-100
ELECTIVE	Social Science General Education Elective	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The Computer Aided Drafting and Design (CADD) associate degree program is a lab intensive, hands-on approach to training in the field of engineering graphics and computer-based drafting and design. This career-oriented major includes instruction on the use of a number of the most applications. The program has a basic general education core along with introductory manufacturing and computer courses. A cooperative education option is also available.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Solve basic and complex drafting and design application problems using industry standard 2-dimensional and 3-dimensional software and feature-based parametric design software.
2. Apply the fundamentals of computer aided drafting and design disciplines such as architectural, mechanical and electrical engineering.
3. Utilize industry standard microcomputer CADD software and the hardware, operating systems and peripherals used to facilitate them.
4. Create free-hand sketches, engineering notes and scaled drawings using American National Standards (ANSI), American Society for Mechanical Engineers (ASME), and/or International Standards Organization (ISO) specifications.

CONTACT PERSON

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Computer Aided Architectural Drafting and Design

CAR.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CAD-101	Computer Aided Engineering Graphics	4	
EGR-103	Technical Drawing	3	

FIRST YEAR/SECOND SEMESTER

CAD-208	AutoCAD Civil 3D Level I	3	Prerequisite: CAD-101
CAD-205	Architectural CADD Using Revit	3	Prerequisite: CAD-101

TOTAL CREDITS	13
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PROGRAM DESCRIPTION

Computer Aided Architectural Drafting and Design involves the 2D and 3D drafting and modeling of architectural and building structures and systems in accordance with national and international drafting standards. Both computer-assisted and manual drafting techniques will be explored. Students will explore building/zoning codes, graphical information systems (GIS), and Building Information Modeling (BIM). The student will learn to create computerized architectural models. This program is particularly well suited to those students who wish to work with the construction professionals who design and build residential and commercial architectural structures. Program completers can work on civil engineering projects including roads, parks, dams, bridges, waste water treatment facilities, etc. Software packages include Autodesk's AutoCAD, Autodesk Civil 3D, and Revit. Additionally, the CAR.CA certificate is a career ladder program and all program credits can be applied toward completion of the CAD.AAS degree.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize fundamental and advanced two-dimensional and three-dimensional CAD to produce architectural drawings and renderings.
2. Generate a personal portfolio of industry standard documents utilizing a variety of computer drafting applications.
3. Be proficient in manual, hand drafting practices and techniques.
4. Develop complete plans to meet the needs of the (AEC) Architecture, Engineering and Construction industries and explain mechanical, electrical and plumbing building systems.
5. Create 3D parametric building models and related content using BIM software and use it to extract embedded information to analyze and document building characteristics.
6. Develop plans with accurate and correct interpretation of survey data utilizing survey instruments.
7. Collect, manage and process field data in support of geospatial mapping activities.
8. Apply quantity takeoffs and calculate earthwork in civil engineering and architectural projects.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID

Computer Aided Mechanical Drafting and Design

CME.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CAD-101	Computer Aided Engineering Graphics	4	
CIM-101	Machine Shop Practices	3	
EGR-103	Technical Drawing	3	

FIRST YEAR/SECOND SEMESTER

CAD-102	Advanced Computer Aided Engineering Graphics	3	Prerequisite: CAD-101
CAD-107	Parametric Design: AutoDesk Inventor	3	Prerequisite: CAD-101
CAD-206	Solids Modeling: Solid Works	3	Prerequisite: CIM-101

TOTAL CREDITS**19****PROGRAM DESCRIPTION**

Computer Aided Mechanical Drafting and Design involves the 2D and 3D drafting and modeling of mechanical systems and components in accordance with national and international drafting standards. Students will explore 3D solid modeling, mechanism animation, and the creation of 2D and 3D schematics of machinery, equipment, and industrial systems. Software packages include Autodesk's AutoCAD, SolidWorks, and Autodesk Inventor. Students could also gain experience with our 3D printers and our CNC machines. Additionally, the CME.CA certificate is a career ladder program and all the program credits can be applied toward completion of the CAD.AAS degree.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. The graduate will be able to utilize fundamental and advanced two-dimensional and three-dimensional CAD to produce mechanical drawings and renderings.
2. The graduate will have generated a personal portfolio of industry standard documents utilizing a variety of computer drafting applications.
3. The graduate will also be proficient in manual, hand drafting practices and techniques.
4. The graduate will be skilled to create parametrically driven 3D computer models of mechanical components and assemblies using a solid modeling program.
5. The graduate will be able to explain additive and subtractive manufacturing processes.
6. The graduate will be equipped to develop mechanical detail and assembly drawings per ANSI and ASME standards that satisfy the requirements of various manufacturing industries.
7. The graduate will become skilled in blueprint reading, problem-solving and drafting effort reduction techniques, and methods for customizing drafting.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID

Technical Studies

TES.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CIS-105	Computer Literacy	3	
MTH-100	Algebraic Concepts	4	Must test into College Level Math or complete all appropriate prerequisite
ELECTIVE	Technical Studies Credit	4	
ELECTIVE	Technical Concentration	3	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
PHY-103	Physics for Non-Science Majors	4	
ELECTIVE	Technical Studies Credit	4	
ELECTIVE	Technical Concentration	3	

SECOND YEAR/FIRST SEMESTER

SPE-102 or HSR-105	Public Speaking Group Dynamics	3	
ELECTIVE	Technical Studies Credit	4	
ECO-102	Microeconomics	3	
ELECTIVE	Technical Concentration	3	

SECOND YEAR/SECOND SEMESTER

ELECTIVE	Technical Studies Credit	4	
ELECTIVE	Technical Concentration	6	
EGR-208 or ELECTIVE	Co-op I: Engineering Apprentice Co-op	3	
HIS-101	World Civilization I	3	

TOTAL CREDITS

60

PROGRAM DESCRIPTION

The Technical Studies degree program recognizes that learning can occur in a variety of forums and that this learning may be equivalent to college-level instruction. After assessment of the certified union apprenticeship, corporate, industrial or military training program, the faculty assessor will determine the number of technical credits to be awarded. The remaining program includes the College's general education requirements, advanced technical credits and career related electives (technical concentration).

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Effectively communicate technical concepts in both written and oral formats.
2. Identify resources, obtain and critically evaluate information.
3. Model ethical professional behaviors.
4. Develop an oral presentation or a theory, concept or analysis of a complex system process or product project. Students in apprenticeship programs shall focus on their individual disciplines.

CONTACT PERSON

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SPECIAL PROGRAM INFORMATION

1. Technical Studies Credit granted upon completion of union apprenticeship program.
2. Concentrations selected with the approval of the Program Coordinator.

Computer Aided Manufacturing Technician

CAM.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CIM-101 or ELECTIVE	Machine Shop Practices Technical Studies Credit	3	
CIM-221	CNC Programming and CAM	4	
CIM-222	Advanced CNC Programming and CAM	3	Prerequisite: CIM-221
CAD-206	Solids Modeling: Solid Works	3	Prerequisite: CIM-101
TOTAL CREDITS		13	

PROGRAM DESCRIPTION

The Computer Aided Manufacturing (CAM) Certificate of Achievement consists of technical courses geared toward the rapid completion of a core set of Computer Numerical Control (CNC) and CAM skills. The student will acquire the CNC set-up and programming competencies that are required to support the advanced metalworking industry. The student will complete several hands-on, machining programming exercises using our authentic, industrial-sized CNC mills and lathes. Current laboratory equipment includes Bridgeport VMCs and HAAS slant bed lathes in addition to our new HAAS office lathe and mill small capacity CNC machines. The current programming environment includes the latest versions of MasterCAM and SolidWorks applications.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Operate various machine tools both manually and computer controlled.
2. Create computer aided graphics files that represent the part being manufactured.
3. Set up the CNC machines for automatic operation.
4. Manually program machine tool path without the help of a CAM system.

CONTACT PERSONS

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THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID

Computer Integrated Manufacturing Engineering Technology

CIM.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CAD-101	Computer Aided Engineering Graphics	4	
CIM-101	Machine Shop Practices	3	
MTH-125	Accelerated Pre-calculus	4	Must test into MTH-125 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
EET-101	Electrical/Electronic Principles	4	Prerequisite: MTH-123 or MTH-125
MTH-132 or MTH-150	Statistics for Technology Calculus II	4	Prerequisite: MTH-100 Prerequisite: MTH-140
PHY-101	Physics I	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125

SECOND YEAR/FIRST SEMESTER

CIM-211	PLC Programming	4	
CIM-221	CNC Programming and CAM	4	
EET-241	Robotics	3	Prerequisite: EET-101
MET-221	Quality Control	2	Prerequisite: MTH-125
PHY-102	Physics II	4	Prerequisite: PHY-101

SECOND YEAR/SECOND SEMESTER

CIM-231	Motors, Controllers and Sensors	3	Prerequisite: CIM-211
CIM-251	CIM Integration Project	2	Prerequisite: CIM-101, CIM-211, and CIM-221; Co-requisite: CIM-231
CIM-212 or CIM-222	Advanced PLC Programming Advanced CNC & CAM	3	Prerequisite: CIM-211 Prerequisite: CIM-221
CIM-115	Microcontroller Applications	3	
ELECTIVE or ELECTIVE	Diversity Social Science General Education Diversity Humanities General Education	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

Computer Integrated Manufacturing Engineering Technology (CIMET) technicians control, design, maintain, upgrade and operate modern, computer-controlled production equipment and facilities equipment used to manufacture many of the world's goods. The CIMET program equips its graduates with an in-depth multi-disciplinary education in mathematics, physics, engineering technology, both manual and Computer Numerical Controller (CNC) machining, manufacturing processes and methods, industrial electronics, Programmable Logic Controller (PLC) programming and factory automation, as well as a broad education in computer studies, business and liberal arts.

Our highly skilled graduates go on to provide hands-on engineering and managerial service in state-of-the-art high volume and/or high precision manufacturing enterprises located in southern New Jersey, the Delaware Valley and beyond. Our graduates are currently employed in diverse industries including pharmaceutical and chemical, automotive, packaging, metalworking, aluminum extrusion, mechanical aerospace componentry, bottling and even private consulting companies. Our graduates specialize in either PLC or CNC programming.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Author and troubleshoot Computer Numerically Control (CNC) and Programmable Logic Controller (PLC), and microcontroller programs.
2. Specify and install those sensors, detectors and electromechanical drive elements that are commonly found in industrial automation settings.
3. Use manual machine shop tooling including manual lathes, mills and drill presses to fabricate and inspect mechanical parts and assemblies to a tolerance of +/- .003 inches.
4. Read and explain basic electrical, pneumatic, and hydraulic symbols and schematics.
5. Analyze, synthesize, modify and troubleshoot manufacturing processes in the field.
6. Apply mathematical Statistical Process control techniques to measure and analyze variations in manufacturing processes.

CONTACT PERSONS

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Computer Integrated Manufacturing Engineering Technology: Precision Machining Option

PMT.AAS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisite
CAD-101	Computer Aided Engineering Graphics	4	
CIM-101	Machine Shop Practices	3	
CIS-105	Computer Literacy	3	
MTH-100	Algebraic Concepts	4	Must test into College Level Math or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CIM-202	Conventional Machinist	3	Prerequisite: CIM-101
CIM-221	CNC Programming and CAM	4	
MTH-123	Pre-Calculus Mathematics I	4	Prerequisite: MTH-100
HPE....	Health & Exercise Science Elective	1	

SECOND YEAR/FIRST SEMESTER

CIM-219	CNC Machinist	3	Prerequisite: CIM-101 and CIM-222
CST-103	Microcomputer Operating System I: Workstations	3	
MET-221	Quality Control	2	Prerequisite: MTH-125
MTH-124	Pre-Calculus Mathematics II	4	Prerequisite: MTH-123

SECOND YEAR/SECOND SEMESTER

CAD-206	Solids Modeling: Solid Works	3	Prerequisite: CIM-101
CIM-222	Advanced CNC & CAM	3	Prerequisite: CIM-221
CIM-255	Precision Machining Project	2	Prerequisite: CIM-101, CIM-202, CIM-219, and CIM-221
ELECTIVE or ELECTIVE	Diversity Social Science General Education Elective Diversity Humanities General Education Elec	3	
HPE....	Health & Exercise Science Elective	1	
PHY-101	Physics I	4	Prerequisite: MTH-100; Co-requisite: MTH-124 or MTH-125

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

The Precision Machining Option of the Computer Integrated Manufacturing Engineering Technology Program (PMT) trains individuals to become machinists. The program is an engineering technology program that concentrates on the skills and concepts needed by today's machine shops. Successful graduates should be ready to take on careers which include titles such as machinist (conventional and computer numerically controlled), tool and die maker, and mold maker. The curriculum includes computer aided design and computer aided manufacturing software packages that support the industry. The program follows the NIMS Level One Machinist skills and students should be able to take and pass the NIMS requirements to become a NIMS Level one machinist by graduation.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Operate conventional machine shop equipment including mills, lathes, drill presses, grinding equipment, and various other supporting tools.
2. Create size specific mechanical parts in specified tolerances.
3. Understand how to "read" part prints, which is the schematic of the mechanical world.
4. Be proficient in the utilization of Computer Numerical Controlled equipment. This includes the operation of and the setup of Computer Numerical Controlled mills and lathes.
5. Author and troubleshoot Computer Numerical Control programs.
6. Create and manipulate Computer Aided Drafting generated print files and solid models.

CONTACT PERSONS

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Precision Machining Technology

PMT.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CIM-101	Machine Shop Practices	3	
CIM-221	CNC Programming and CAM	4	

FIRST YEAR/SECOND SEMESTER

CIM-202	Conventional Machinist	3	Prerequisite: CIM-101
CIM-219	CNC Machinist	3	Prerequisite: CIM-101 and CIM-222

TOTAL CREDITS

13

PROGRAM DESCRIPTION

The Precision Machining Technology Certificate is a series of courses with a concentration in the skill sets required to be a machinist. The four-course series is designed to follow the National Institute for Metalworking Skills Machinist Level I credential. Conventional and CNC mill and lathe concepts are covered. Students who successfully complete this certificate program should be successful in a manufacturing environment.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Demonstrate the ability to run conventional machine shop equipment.
2. Demonstrate the ability to measure with precision.
3. Understand the dangers involved with working around industrial equipment and be able to do it safely.
4. Demonstrate proficiency in reading and interpreting part prints.
5. Demonstrate the ability to read and interpret basic GDT Y14.5 symbols.

CONTACT PERSONS

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THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

Industrial Controls: Programmable Logic Controller

PLC.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CIM-221	CNC Programming and CAM	4	

FIRST YEAR/SECOND SEMESTER

CIM-212	Advanced PLC Programming	3	Prerequisite: CIM-211
CIM-231	Motors, Controllers and Sensors	3	Prerequisite: CIM-211

TOTAL CREDITS	13
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PROGRAM DESCRIPTION

The Industrial Controls: Programmable Logic Controller (PLC) Certificate of Achievement is a course of study designed to quickly train new learners and/or incumbent electrical mechanics in the skills necessary to troubleshoot and program the PLCs used in batch and/or discrete automation. A PLC is a real-time industrially-hardened computer running a specialized Operating System which is typically programmed via the Relay Ladder Logic (RLL) programming language. PLCs are used to control high-speed factory automation equipment and manufacturing processes used in packaging, sorting, chemical processing, amusement parks, textiles, animatronics, conveyor belts, mining, petrochemical, and other manufacturing enterprises to name a few.

The PLC certificate includes courses that will investigate both discrete and analog sensors, pneumatic directional control valves, AC and DC motors, and single-phase and three-phase power. The PLC used will be the Allen Bradley SLC 500 and the CompactLogix 5000-scale processor running RSLogix and Studio 5000 software. No special skills are required, however prior industrial electrical experience will prove beneficial to the student.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Specify, populate, and install a Programmable Logic Controller and its input and output modules.
2. Develop and troubleshoot RLL program code for Allen-Bradley 500 and 5000 processors
3. Identify, work with, and explain the operating principles of those inductive elements found in typical industrial settings including AC, DC, stepping, and universal motors; electromechanical and solid state relays; solenoids; and transformers.
4. Read and interpret single phase and three phase motor name plates and wiring diagrams and ISO 1219 pneumatic symbols.
5. Describe and discuss the differences and similarities between capacitive, inductive, and photoelectric proximity detectors.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID

Industrial Maintenance Technology

IMT.CA**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
CIM-120	Electricity and Controls Systems	4	
CIM-125	Hydraulics and Pneumatics	4	
CIM-130	Mechanical Systems Maintenance and Operation	4	
CIM-135	Welding and Soldering Theory	3	
CIM-140	Workplace Essentials	3	
TOTAL CREDITS		18	

PROGRAM DESCRIPTION

This one-year on-line (30 week) Certificate provides students with specialized technical knowledge in industrial maintenance. This program is designed as a pathway to obtain an Apprentice status when sponsored by a New Jersey based company. This program is credit generating; therefore, Associates degrees of programs related to the discipline may be inclined to consider completion of these courses for transfer. Upon completion, students can continue to pursue a degree in CIM.AAS or TES. AAS.

This program prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, and production machinery as a maintenance technician.

Students must register through the Workforce Development divisions registration process.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Apply industry-recognized best practices to everyday workplace situations.
2. Recall how to maintain Hydraulic and Pneumatic system components and be able to take the appropriate steps to return a malfunctioning system to a functioning state.
3. Identify a malfunctioning power transmission component and take the appropriate steps to return machine to a functioning state.
4. Explain electricity in all of its forms and how it is used to run motors and control systems of Mechatronic devices.
5. Determine and incorporate proper welding and cutting techniques to create and maintain industrial and commercial mechatronic equipment.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR
FINANCIAL AID

Certificate of Achievement

Engineering
CIP Code 48.0508

Welding Apprentice

WA.CA

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
CIM-140	Workplace Essentials	3	
CIM-141	Workplace Essentials for Welding Apprenticeship	3	
CIM-135	Welding and Soldering Theory	3	
CIM-136	Advanced Welding Theory Apprenticeship	3	
TOTAL CREDITS		12	

PROGRAM DESCRIPTION

This one-year on-line (30 week) Certificate provides students with the theory behind welding techniques. This program is designed to be used as the related technical theory for an apprenticeship program. This program is credit generating; therefore, Associates degrees of programs related to the discipline may be inclined to consider completion of these courses for transfer. Upon completion, students can continue to pursue a degree in TES.AAS.

This program prepares individuals to apply technical knowledge of welding processes to fabricate, repair and maintain manufactured weldments, industrial machinery and equipment, and motors, pneumatic tools, conveyor systems, and production machinery as a maintenance technician.

Students must register through the Workforce Development division.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Define industry-recognized best practices for everyday workplace situations
2. Identify welding system components and be able to set up the appropriate systems for standard welding processes.
3. Identify hazardous situations and be able to execute safely within the industrial welding environment.
4. Classify electricity in all of its forms used in the welding process.
5. Choose proper welding and cutting techniques to create products and maintain industrial and commercial equipment.

CONTACT PERSON

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THIS PROGRAM IS NOT APPROVED FOR FINANCIAL AID.

Returning Technical/Trade Professionals

CTI

APPRENTICESHIP PROGRAMS

Apprentice courses are designed to aid apprentices both in theory and practical experiences to meet the requirements of US and NJ Departments of Labor. Emphasis is placed on those areas not normally covered in routine job performance. The student's sponsoring employer provides the actual field (on-the-job) experience. Apprentices are required to log 8,000 hours of on-the-job experience (2,000 hours per year) with a licensed contractor (sponsor) and at least 576 hours of related technical instruction (a minimum of 144 hours per year). Students who have successfully completed a relevant Pre-Apprenticeship program may be eligible for advanced standing in an apprenticeship program. Please contact the County Apprenticeship Coordinator to determine eligibility.

Camden County College is proud to offer apprenticeship training opportunities in the areas of: Electrical, Plumbing, and HVAC. The apprentice program is a partnership between industry and educational institutions. In order to qualify for enrollment as an apprentice, it is necessary for the student to be employed in their chosen field. Apprentices MUST be registered with the US Department of Labor, Office of Apprenticeship, and with the NJ Department of Labor and Workforce Development. All registered apprentices who successfully complete the on-the-job and related classroom training requirements are eligible to receive a Certificate of Completion from the U.S. Department of Labor, Office of Apprenticeship. Registered apprentices, who successfully

complete the apprenticeship career related classroom instruction, are eligible to earn up to 17 college credits toward Camden County College's 60-credit Associates Degree in Technical Studies. Enrolling in apprenticeship courses at the College DOES NOT automatically register students as apprentices. Employers (sponsors) and employees (apprentices) must contact the County Apprenticeship Coordinator to facilitate the application process.

For information regarding the Apprenticeship application process, scheduling, pricing, and registration, call (856) 261-9462 or tradetraining@camdencc.edu

TECHNICAL STUDIES

The Technical Studies degree program recognizes that learning can occur in a variety of forums and that this learning may be equivalent to college-level instruction. After assessment of the certified union apprenticeship, corporate, industrial or military training program, the faculty assessor will determine the number of technical credits to be awarded. The remaining program includes the College's general education requirements, advanced technical credits and career related electives (technical concentration).

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Technology - Construction

CTI

CARPENTRY TECHNOLOGY

This program offers both a hands-on and textbook instruction, which requires problem solving and logical thinking skills. All phases of residential carpentry are addressed. Units included are print drawing/reading, estimation time/material, frame construction, roofing/siding, drywall and finish carpentry. Graduates are limited only by their own inventiveness. Any one or part of one unit covered during this program could be expanded into a career. Planning, estimation, drafting, framing, siding/roofing, drywall installation, trim/cabinet installation, painting, surveying, building supply or hardware store person are but a few possibilities.

Includes OSHA 10 training.

Admission Requirements: There are no special requirements for admission to this program. However, a basic comprehension of reading and math is expected.

Location: Camden County Technical School, Sicklerville or Pennsauken Campus

CE.TRD-020

Hours: 382

CEUs: 38.2

WELDING TECHNOLOGY

This program offers students the most up-to-date instruction in SMAW (Shielded Metal Arc Welding) and OxyFuel Cutting, as well as Academic instruction which includes math, blueprint reading, drawing interpretation, welding inspection, shop maintenance and most importantly, general hot work safety. Students may also have the opportunity to try GTAW (Gas Tungsten Arc Welding) with Aluminum and Stainless Steel, GMAW (GasMetal Arc Welding). Shop time focuses heavily on SMAW fundamentals with Mild Steel, although, as students progress through the program they may begin working with other processes and materials, when and if available. Students will proceed through each project at their own pace and receive individualized instruction regarding safety, quality and general welding techniques. Upon successful completion of this program, it will be possible for students to graduate with American Welding Society's welding code, D1.1 "Structural Steel" Certifications.

Upon completion of this program, students may find employment in all areas of the welding industry. In addition, they will be prepared to sit for various welding related certifications as required by their individual employers.

Includes OSHA 10 training.

Admission Requirements: There are no special requirements for admission to this program. However a basic comprehension of reading and math is expected.

Location: Camden County Technical School, Sicklerville Campus or Pennsauken Campus

CE.TRD-130

Hours: 564

CEUs: 56.4

HEATING, VENTILATION, AIR-CONDITIONING

Students will prepare for the EPA approved section 608 certification exams. Section 608 Technician Certification is required by the EPA in order to purchase CFC or HCFC containing refrigerants. Students will thoroughly study required material related to the theory of operations; including: safety, leak detection, heating systems (gas, oil, electric), combustion testing, heat pumps, refrigerant recovery and disposal, the national fuel code, oil heat servicing, hot water heat servicing, and heat pump servicing. Hands on-training will reinforce material covered in theory classes. Computer based training is also provided for self-paced study opportunities.

Additionally, students will take industry competency exams (I.C.E.) supported by NATE (North American Technician Excellence). These exams measure industry-approved standards of basic competency for entry-level technicians. Upon completion of the course, and with passing certification exam scores, students will be certified and prepared to enter the trade with confidence in their understanding of HVAC concepts. Students who successfully complete this program may be credited hours towards the affiliated apprenticeship program.

Includes OSHA10 training.

CE.TRD-090 Hours: 572 CEUs: 57.2

ELECTRICAL RESIDENTIAL

Students in this program will be taught extensive electrical theory. The core unit will be a hands-on approach emphasizing house wiring, branch circuits, wire sizing, cable layout, three and four-way switches and ground fault circuit interruption. Additional units include service entrance equipment and calculations which are coordinated with basic electrical theory.

The student will apply electrical subject units, such as: commercial-residential electrical and architectural drawings; branch circuits and feeders; appliance circuits; lamps and lighting; and panel-board selection. Students will learn math as it applies to the electrical trade, which will include: addition, subtraction, multiplication, basic algebra and some trigonometry. Students who successfully complete this program may be credited hours towards the affiliated apprenticeship program.

Includes OSHA 10 training.

Admission Requirements: A high school diploma or GED is not required for admission to this program however, it is required to be eligible for a NJ Electrical Contractors license. In addition, a basic comprehension of reading and intermediate math skills are recommended.

CE.TRD-080 Hours: 382 CEUs: 38.2

HYDRO TECHNOLOGY (PLUMBING)

This program introduces students to all facets of the plumbing trade and will provide the basic skills needed for entry-level employment. Students will learn methods of installation, repair and plumbing maintenance. Theory-based instruction includes: basic trade competencies, trade mathematics, blueprint reading and drawing, as well as the National Standard Plumbing Code. Hands-on instruction will be given with the students participating in the actual layout, installation, and repair of plumbing systems, fixtures, and appliances. The tools, materials, and supervised projects assigned in class simulate actual conditions in the domestic and commercial plumbing industries. Students who successfully complete this program may be credited hours towards the affiliated apprenticeship program. Now includes OSHA 10 Training.

CE.TRD 120 Hours: 382 CEU's: 38.2

UNIFORM CONSTRUCTION CODE PROGRAM

Regulations of the New Jersey Uniform Construction Code require that candidates for licensure complete specified educational courses. The Division of Continuing Education at Camden County College has been approved by the New Jersey Department of Community Affairs (DCA) to offer these courses, which are conducted in accordance with N.J.A.C 5:23-5.20. These courses are open to anyone with an interest in construction and mandatory for those desiring licensure. Courses must be taken in their proper sequence (RCS-ICS-HHS). Individuals who are not yet licensed at the RCS level will not be licensed at the ICS or HHS levels until the lower license requirements are fulfilled. The New Jersey State Dept. of Community Affairs offers a 75% tuition reimbursement for qualified applicants. Licensing questions and licensing application packet requests should be directed to the Licensing Unit at (609) 984-7834 or you may e-mail at codeslicensing@dca.state.nj.us. It is recommended that you review this packet before you undertake the course. Carefully review all state requirements for licensing and prior required job experience before registering for any course. Refunds on courses cannot be issued for failure to review the necessary requirements for course completion and licensing. You must pass the national exam in order to obtain the license with the DCA.

Students are required to purchase all required textbooks including the Uniform Construction Code Act and Regulations (blue book). Books can be ordered from the Department of Community Affairs at 609-984-0040. In addition, students may be eligible to apply for the tuition remission program; see your instructor for details and necessary paperwork.

BUILDING INSPECTOR RCS

This course is designed to provide students with fundamental knowledge and educational experience required by the State of New Jersey for licensure under the title. This course covers all of the code requirements, with the exception of plumbing and electrical, for one and two family homes and small commercial structures. Topics include structural design and analysis techniques, wood framing construction and foundations, material standard, field identification of requirements, inspection techniques, tools and methods, etc.

CE.PRO 027-51 Hours: 90 CEUs: 9.0

BUILDING INSPECTOR ICS

Prerequisite: Successful completion of the Building Inspector RCS course
This course is designed to provide students with knowledge on building code requirements for medium sized industrial and commercial structures. Topics covered will include building construction, foundation design, wood and steel frame construction, fire resistance rating, requirements for building subcode, testing materials, and uniform construction code.

CE.PRO 031-51 Hours: 75 CEUs: 7.5

BUILDING INSPECTOR HHS

Prerequisite: Successful completion of the Building Inspector RCS and ICS courses
This course is designed to provide students with knowledge on advanced structural systems, advanced fire protection systems, and advanced mechanical systems. This course is part of the requirement for individuals to be certified in high hazard structures.

CE.PRO 039-51 Hours: 60 CEUs: 6.0

SUBCODE OFFICIAL

This course is designed to prepare inspectors to become subcode officials. The class will cover subcode administration, legal aspects of code enforcement, and related legislation. Specific topics will include procedures and forms for permit application, stop orders, emergency situations, condemnations, case records, warrants relocation, housing maintenance, and legal rights of landlords and tenants.

CE.PRO 042-01 Hours: 48 CEUs: 4.8

ELECTRICAL INSPECTOR ICS

This course is designed to provide students with knowledge of electrical systems and system design along with specific plan review and field inspection aspects pertaining to Class II and Class III structures.

CE.PRO 040-51 Hours: 60 CEUs: 6.0

ELECTRICAL INSPECTOR HHS

Prerequisite: Electrical Inspector ICS

This course is designed to provide students with knowledge of advanced electrical systems design. Students must complete the ICS course before undertaking this course. Blackwood Location

CE.PRO 046-51 Hours: 45 CEUs: 4.5

ELEVATOR INSPECTOR HHS

This course is designed to assist individuals in meeting the requirement needed to become certified elevator inspectors or as an aide to elevator safety mechanics. Topics include inspection, testing, rules and regulations for elevators, escalators, lifts, and other lifting and elevator equipment. In addition, the course will focus on planning and review of inspection techniques.

CE.PRO 041 Hours: 90 CEU's: 9.0

CONSTRUCTION OFFICIAL

This course introduces inspectors and subcode officials to the role of the construction official. Topics will include office organization, purpose and fundamentals of code enforcement, procedures for processing cases, administrative hearings, records maintenance, and housing maintenance.

CE.PRO 048-51 Hours: 45 CEUs: 4.5

FIRE INSPECTOR ICS

This 120-hour program will give students a better understanding of the International Construction Codes as they are adopted by the New Jersey Uniform Construction Code. Student will review construction classification, building types and finishes, as well as means of egress and fire protection systems. Successful completion of this program along with a passing grade on the required test will meet the requirement for the first level of Fire Protection certification.

CE.PRO 002 Hours: 120 CEU's: 12.0

FIRE INSPECTOR HHS

Upon completion of this course the students will have a better understanding of the International Construction Codes and referenced standards as outlined in the NJ Uniform Construction Code. The students will also develop a better understanding of how to complete plan reviews and the entire review process. Upon the completion of this course the students will have met the hourly training requirement set by the UCC to be able to obtain a Fire, HHS certification. 6.0 CEU

CE.PRO 128-51 Hours: 60 CEUs: 6.0

PLUMBING INSPECTOR ICS

This course is designed to satisfy the educational requirements for licensure as a Plumbing Inspector I.C.S.; to provide instruction in technical and administrative areas as they apply to the plan review of class II and class III structures and the inspection of all structures as established at N.J.A.C. 5:23-3.

CE.PRO 104 Hours: 120 CEUs: 12.0

CONSTRUCTION PROJECT MANAGEMENT CERTIFICATE

The certificate program is designed for contractors, sub-contractors, construction workers; building and facilities managers, owners and design professionals, and others in the field of construction who would like to improve their understanding of the construction management process and develop their abilities and skills for effective management of construction projects.

The Construction Project Management Certificate program provides a descriptive breakdown of the management processes utilizing industry standard methods including the following:

- Introduction to the fundamentals of construction project management.
- Overview of the construction industry, basic understanding of a various disciplines and functions of a construction manager.
- Understanding the use and development of the construction documentation, building drawings, and specifications.
- Scheduling design and construction activity.
- Management of Design and Construction administration services.
- Construction administration services and standard practices.
- Construction Project Control Methods and Information Management; including tracking, record keeping, shop drawing and submittal review, approvals, Quality Control, Cost and Productivity analysis.

CE.PRO 044-51 Hours: 49 CEUs: 4.9

TECHNICAL ASSISTANT

This course is designed to provide students with an overview of a wide variety of matters related to the creation and maintenance of New Jersey's infrastructure with respect to issues such as the building of safe structures, maintenance and improvement of structures through the issuance of permits, Certificates of Occupancy, violation notices, and stop-work orders. Specific subject areas will include: computers, construction blue print reading, UCC law and administration, construction fundamentals and code requirements, and technical problem solving.

CE.PRO 043 Hours: 45 CEUs: 4.5

PLUMBING INSPECTOR HHS

This course will provide the knowledge of the plumbing code needed to carry out plumbing inspections. This student will gain familiarity with plumbing and mechanical systems. The student will also learn to perform plan review of commercial buildings and residential dwellings (Class I, II and III structures).

CE.PRO 104 Hours: 60 CEUs: 6.0

CNC OPERATIONS

This course is the entry level offering that trains students how to operate a CNC machine. Students will have the opportunity to physically setup both lathe and mill style machines. Machines utilized in the class are industry standard.

CE.MFG 003-51 Hours: 20 CEUs: 2.0

CNC PROGRAMMING

This course is the second level offering that trains students how to manually program a CNC machine. Students will have the opportunity to manually write a CNC program and physically cut it on the machine. There will be mill program and one lathe programming example.

CE.MFG 004-51 Hours: 20 CEUs: 2.0

MASTERCAM MILL LEVEL I

This course is the first level Computer Aided Manufacturing (CAM) offering that trains students how to graphically program a CNC machine utilizing Mastercam software. Students will have the opportunity to operate a CAM software platform to create a CNC program and physically cut it on the machine. CNC mill examples will be used.

CE.MFG 005-51 Hours: 20 CEUs: 2.0

MASTERCAM MILL LEVEL II

This course is the second level Computer Aided Manufacturing (CAM) offering that trains students how to graphically program a CNC machine utilizing Mastercam software. Students will have the opportunity to operate a CAM software platform to create a CNC program and physically cut it on the machine. CNC mill examples will be used.

CE.MFG 006-51 Hours: 20 CEUs: 2.0

CNC/CAM PROGRAMMING PROJECT STUDY

This specialized 60 hour course will focus on instruction in CNC machine setup and CNC manual programming for both mills and lathes. CAM programming concepts will be introduced using MasterCAM software. In addition, full 3D wire frames will be constructed and surfaced with all current surfacing technology.

CE.MFG 008-51 Hours: 60 CEUs: 6.0

CAREER & TECHNICAL INSTITUTE OF
CAMDEN COUNTY COLLEGE
856-374-4955
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www.camdencc.edu/ce

Liberal Arts and Science: Mathematics Option

MTH.AS**FIRST YEAR/FIRST SEMESTER**

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
BIO-111 or CHM-111	Biology I: Science Chemistry I: Science	4	
HIS-101	World Civilization I	3	
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite
HPE....	Health & Exercise Science Elective	1	

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
BIO-112 or CHM-112	Biology II: Science Chemistry II: Science	4	
MTH-129	Discrete Mathematics	4	Prerequisite: MTH-140
MTH-150	Calculus I	4	Prerequisite: MTH-140

SECOND YEAR/FIRST SEMESTER

MTH-145	Linear Algebra	4	Prerequisite: MTH-140
MTH-210	Calculus III	4	Prerequisite: MTH-150
PHY-201	Physics III	4	Prerequisite: MTH-140
ELECTIVE	Social Science General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

CSC-121	Structured Programming (C++)	4	
MTH-220	Differential Equations	4	Prerequisite: MTH-150; Co-requisite: MTH-210
PHY-202	Physics IV	4	Prerequisite: PHY-201
ELECTIVE	Humanities General Education Elective	3	

TOTAL CREDITS**60****PROGRAM DESCRIPTION**

This program constitutes the first two years of a traditional four-year curriculum. It is designed for students with a strong interest in mathematics and its applications, who plan to transfer to a four-year college or university as a mathematics major or a related field. Students gain experience in the use of graphing calculators and computer software. Graduates are highly competitive as mathematics majors at four-year institutions.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Utilize computational and analytical skills in conjunction with mathematical concepts to solve abstract mathematics problems and applied problems in the fields of science, business, engineering, and technology.
2. Use technological tools, such as graphing calculator or computers, to analyze and solve mathematical and applied problems.
3. Follow a logical, symbolic argument and apply the concept of proof, as it relates to mathematical results.

CONTACT PERSON

Professor Joseph Diaco, Chair
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Email: jdiaco@camdencc.edu

Data Science

DSC.AAS

FIRST YEAR/FIRST SEMESTER

Course #	Course Name	Credits	Notes
ENG-101	English Composition I	3	Must test into ENG-101 or complete all appropriate prerequisites
DSC-101	Data Science I	3	Prerequisite: MTH-124 or MTH-125
CSC-106	Data Security, Privacy and Ethics	3	
MTH-171	Statistics	3	Must test into MTH-171 or complete all appropriate prerequisite
MTH-140	Calculus I	4	Must test into MTH-140 or complete all appropriate prerequisite

FIRST YEAR/SECOND SEMESTER

ENG-102	English Composition II	3	Prerequisite: ENG-101
CSC-171	Introductory Python Programming	3	
DSC-102	Data Science II	3	Prerequisite: DSC-101 and CSC-106; Co-requisite: CSC-171
MTH-150	Calculus II	4	Prerequisite: MTH-140
MTH-172	Statistics II	3	Prerequisite: MTH-171

SECOND YEAR/FIRST SEMESTER

MTH-261	Introduction to Mathematical Modeling	3	Prerequisite: MTH-150
CSC-272	Data Science Programming Applications	3	Prerequisite: CSC-171 and MTH-171
ECO-101	Macroeconomics	3	
DSC-203	Data Science III	3	Prerequisite: DSC-102, MTH-172
ELECTIVE	Diversity Humanities General Education Elective	3	

SECOND YEAR/SECOND SEMESTER

DSC-230	Statistical and Machine Learning	3	Prerequisite: CSC-272 and DSC-203
DSC-250	Data Visualization and Presentation	3	Prerequisite: DSC-203
DSC-280	Data in Context - A Capstone Experience	3	Prerequisite: DSC-203; Co-requisite: DSC-230, DSC-250
MTH-262	Probabilistic Models	4	Prerequisite: MTH-261

TOTAL CREDITS

60

PROGRAM DESCRIPTION

This program prepares students for a career in Data Science or Data Analytics. Activities/ topics studied include data acquisition in both structured and unstructured formats; cleaning, modeling, visualization, and analysis of data, ethical responsibility; data security; and effective communication of informed tactical and strategic objectives. Students learn to identify patterns and relationships in large data sets and to resolve questions/problems via data driven decisions.

PROGRAM STUDENT LEARNING OUTCOMES

At the end of the program, the graduate will be able to:

1. Exhibit professionalism and adopt ethical decision-making principles for the analysis, management and presentation of data with an understanding of one's responsibilities within a professional setting.
2. Develop solid analytical reasoning, critical thinking and technical skills in order to extract, wrangle, analyze and present data for multiple disciplines to broad audiences that follow professional standards to enhance understanding and decision-making.
3. Demonstrate the ability to work independently and as a member of a team with modern technical tools to accomplish data life cycle project goals and meet deadlines.
4. Communicate technical knowledge effectively for a broad range of persons that include costumers, managers, and peers.

CONTACT PERSON

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ACCOUNTING

ACC-104 Financial Accounting (3.00 cr.)

This course is a study of financial accounting emphasizing the accounting cycle, merchandising accounting, income measurement, valuation of assets, internal controls, accounting for long-lived assets, financial statement presentation and interpretation and accounting for stockholders' equity.

Lecture (45.00)

Prerequisites: MTH-029

ACC-105 Managerial Accounting (3.00 cr.)

This course presents a study of cost systems used by management to control a business and to assist in improving operating results by use of cost accounting methods. The job order and process system will be studied as well as budgets, standard costs, cost estimates and direct costing techniques.

Lecture (45.00)

Prerequisites: ACC-101 or ACC-104

ACC-213 Computerized Accounting (3.00 cr.)

This course introduces the student to the basic concepts and principles of the components of a computerized accounting system which utilizes the general ledger, accounts receivable and accounts payable as applied to a sole proprietorship form of business enterprise (both a service and a merchandise firm.) The student will be exposed to a basic computerized payroll system, various depreciation schedules and a system of financial analysis. The course is also intended to reinforce and/or enhance present knowledge of accounting concepts and principles through a final practice set.

Lecture (45.00)

Prerequisites: ACC-101 or ACC-104

ACC-214 Intermediate Accounting I (3.00 cr.)

This course continues the study of accounting, including financial statements, analysis of working assets, fixed assets, investments, liabilities, reserves, net income determination, application of funds, and cash-flow reporting.

Lecture (45.00)

Prerequisites: ACC-102 or ACC-105

ACC-216 Intermediate Accounting II (3.00 cr.)

This course continues and treats in depth the material covered in Intermediate Accounting I.

Lecture (45.00)

Prerequisites: ACC-214

ACC-223 Income Tax Accounting I (3.00 cr.)

This course presents the study of the Internal Revenue Code and its rules and regulations as they apply to individuals, partnerships, and corporations. Accounting problems arising from the laws are emphasized and illustrated through the preparation of income tax returns and tax research. Also included is an analysis of returns and tax research. An analysis of income tax returns, corporate distributions, liquidations, reorganizations, unreasonable accumulation of earnings, and other corporate, estate and gift tax problems are studied.

Lecture (45.00)

Prerequisites: ACC-101 or ACC-104

ACC-224 Income Tax Accounting II (3.00 cr.)

This course continues Income Tax Accounting I with emphasis on researching sophisticated tax problems.

Lecture (45.00)

Prerequisites: ACC-223

ACC-225 Auditing (3.00 cr.)

This course presents a study in the examination and evaluation of financial records to determine if these records present information fairly and uniformly with generally accepted accounting principles.

Lecture (45.00)

Prerequisites: ACC-214

ADDICTIONS

ADD-101 Introduction to Addictions (3.00 cr.)

This introductory course is designed to provide the student with basic knowledge about alcoholism and drug abuse, related community resources and social agency networks, legal and ethical, issues in treatment and research, and prevention programming. An overview of bio-psychosocial issues, theories and scientific research findings about addictive disorders will be reviewed. Open to all students.

Lecture (45.00)

ADD-102 Prof Development /Addictions Counseling (3.00 cr.)

This course focuses on the development of self-regulation skills and the sharpening of time management skills in order to support the recovery process from an addiction. Scientific research and theories related to the psychology of stress will be reviewed as well as the addiction recovery process. Psychological, medical, and socio-cultural education as well as legal aspects of alcohol and drug addiction will also be studied.

Lecture (45.00)

ADD-103 Peer Addiction Recovery-CARES (3.00 cr.)

This course will promote competence and skill development in addiction crisis intervention, recovery treatment services and in non-clinical settings such as peer run recovery centers. It focuses on the following areas of health care provider development: ethics and legal standards related to direct service interventions, multiple recovery pathways and harm reduction methods, and wellness-focused outcome goals. Students who successfully complete this course will fulfill the curricular requirements for state certification as a Certified Peer Recovery Specialist.

Lecture (45.00)

ADD-104 Peer Addiction Recovery C-CART (3.00 cr.)

This course will promote competence and skill development in addiction crisis intervention, recovery treatment services in non-clinical and clinical settings such as peer run recovery centers. It focuses on the following areas of health care provider development: ethics and legal standards related to direct service interventions, multiple recovery pathways and harm reduction methods, and wellness-focused outcome goals. Students who successfully complete this course will fulfill the curricular requirements for national certification as a Certified Peer Recovery Specialist.

Lecture (45.00)

ADD-111 Psych-Soc Asp/Alcohol & Drug Addictions (3.00 cr.)

This course studies the interaction among family psychodynamics, gender, race, class issues, and the dynamics of addictive behavior. Techniques from several distinct schools of family therapy are described as appropriate for the treatment of addicted families. Alcohol and other drug addictions among various special populations will also be discussed.

Lecture (45.00)

Prerequisites: ADD-101

ADD-112 Assess/Treatment Alcohol & Drug Addictions (3.00 cr.)

This course provides an overview of basic issues in the bio-psychosocial treatment and counseling of the alcohol/drug addict. Topics covered include ethical issues in counseling, information concerning the theory and practice of individual, group, family therapy with addicts, treatment planning and case management, as well as the role of resistance and denial in recovery.

Lecture (45.00)

Prerequisites: ADD-101

ALLIED HEALTH

ALH-105 Electrocardiography (1.00 cr.)

This course will provide the skills and knowledge for course participants to perform basic EKG testing. It will include content specific medical terminology, human structure and function, placement of leads, and equipment use and supplies. Classroom lab experience will expose students to skills necessary to perform as EKG technicians. This course is

restricted to those students in the Multi-Skilled Technician (MST.CA) certificate program.

Laboratory (30.00)

ALH-115 Basic Phlebotomy Techniques (1.00 cr.)

This course is designed to educate the student in theoretical and technical aspects of the art and science of phlebotomy. A combination of lectures, demonstrations, and a student laboratory application, includes the focus of study on blood specimen collection, adult and pediatric venipuncture, and capillary collection. The student will have the knowledge to apply to a clinical experience not included in this course. This course does not result in phlebotomy certification. It is intended for Health Care students that will have venipuncture as a possible part of their profession. Examples of such persons are, but not limited to: nurses, medical laboratory technologists and radiologic technologists.

Laboratory (30.00)

ALH-116 Phlebotomy Clinical Practicum (2.00 cr.)

This is a selective course based on the student's academic performance and a recommendation by the instructor in the pre-requisite course, ALH-115. Non-native, English-speaking applicants must have completed an approved ESL program and received an iBT TOEFLE score of no less than 20 in each section of the examination. This course will include 15 hours of didactic material and the passing of a comprehensive examination. It will be followed by a 3 week, Monday through Friday daytime clinical rotation at an assigned affiliated institution. This rotation is required for the student of phlebotomy to successfully complete a 120-hour clinical assignment with a described number of successful phlebotomies; where the student will establish competency in accordance with the National Accrediting Agency of Clinical Laboratory Science's program approval committee for Camden County College's phlebotomy program. An 80% passing grade of a comprehensive academic examination is required prior to clinical practicum placement.

Lecture (15.00)

Clinical (120.00)

Prerequisites: ALH-115 and ESL-027

ALH-121 Basic Skills/Allied Health Professionals (3.00 cr.)

This introductory course presents the many facets of allied health and the diverse roles of the allied health professional and responsibilities of care within the healthcare delivery systems. The fundamental elements of the allied health professional will be covered, including: effective communication and education, professional conduct and presentation, and the skills required to perform effectively in multiple health settings. Some of the basic skills include: patient vital signs, blood pressure, temperature, respirations, pulse, and pain management. This course is restricted to those students in the Multi-Skilled Technician (MST.CA) certificate program.

Lecture (30.00)

Laboratory (30.00)

ALH-122 Certified Nurse Aide (4.00 cr.)

This course uses the mandated New Jersey curriculum for nurse aide personnel in long-term care facilities, designed and regulated by the New Jersey Department of Health. The 90-hour course consists of lecture, simulated laboratory and clinical exposure. This course exposes the student to long-term care settings that will enable them to assist residents under the direct supervision of a registered nurse.

Lecture (30.00)

Laboratory (30.00)

Clinical (45.00)

ALH-135 Homemaker Home Health Aide (1.00 cr.)

This lecture only course is designed to expand the knowledge base of our Certified Nurse Aides (CNAs) to include the duties of the Homemaker Home Health Aide. It will include, but is not limited to, providing personal care and homemaking services essential to the patient; health care and comfort at home, including shopping, errands, laundry, meal planning and preparation, activities of daily living (ADLs). The successful completion of this course will allow the student to seek

certification through the NJ Board of Nursing (BON) as a Certified Homemaker Home Health Aide. The Board Of Nursing requires applicants to show proof of offer of employment with the application for certification - CHHHA.

Lecture (15.00)

Prerequisites: ALH-122 and HPE-181

ALH-171 Health & Safety: Part I (4.00 cr.)

The primary focus of Health and Safety Part I is to provide basic emergency medical care for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care. The healthcare provider functions as part of a comprehensive EMS response, under medical oversight. Healthcare providers perform interventions with the basic equipment typically found on a fire engine or first responder apparatus. The healthcare provider is a link from the scene to the emergency health care system. This course is required in the Fire Science Technology program to satisfy the health and safety goals of the Federal Emergency Management Agency (FEMA) Fire and Emergency Services Higher Education (FESHE) model.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: HPE-181

ALH-172 Health & Safety: Part II (5.00 cr.)

The primary focus of Health and Safety Part II is to provide basic emergency medical care for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care. The healthcare provider functions as part of a comprehensive EMS response, under medical oversight. Healthcare providers perform interventions with the basic equipment typically found on a fire engine or first responder apparatus. The healthcare provider is a link from the scene to the emergency health care system. This course represents the second part of a two-course series to complete Health & Safety training. At the end of this course the student will be eligible to take the NJ State Department of Health and Senior Services certification exam for Emergency Medical Technician.

Lecture (45.00)

Laboratory (45.00)

Clinical (60.00)

Prerequisites: ALH-171

ALZHEIMER'S

ALZ-101 Overview of MCI AD & RDS (2.00 cr.)

This course provides students with an overview of the basic concepts of brain structure and function, introduction to cognitive health, Alzheimer's disease and related dementias which arise from neurocognitive disorders. This course enables students to recognize symptoms of Alzheimer's disease/dementia and understand the statistics and resources available for Alzheimer's disease/dementia, including those for diagnosis, care planning, treatment (medical/alternative), and other environmental/home/personal safety concerns in caring for these patients/families.

Lecture (30.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

ALZ-102 Journey Coord: Purpose & Professionalism (2.00 cr.)

This course provides students with an overview of the roles and responsibilities of the Alzheimer's Journey Coordinator. Students will learn about ethical standards and professionalism including HIPPA (Health Insurance Portability and Accountability Act) regarding patients' rights in different treatment settings. This course will teach students how to help clients with strategies and resources to support comfort and safety. Students will learn to navigate support systems for patients with Alzheimer's disease and their care givers to prevent further emotional and mental health difficulties.

Lecture (30.00)

Prerequisites: ALZ-101

ALZ-103 Individual Approach to Engage Care & Support (3.00 cr.)

This course will provide students with more in-depth understanding of some of the neurocognitive disorders in the Diagnostic and Statistical Manual of Mental Health Disorders, Fifth Edition (DSM-5th). Students will learn to understand and recognize the symptoms of mild, moderate, and severe levels of Alzheimer's disease and related neurocognitive disorders. Students will develop skills and learn to access resources necessary to provide care at the various stages of Alzheimer's disease and related dementias.

Lecture (45.00)

Prerequisites: ALZ-102

ALZ-104 Principles of System Navigation (3.00 cr.)

This course provides a guide to navigating the local, state, national, Medicaid/Medicare networks, and VA healthcare system. This includes an overview of care settings and transitions to care for clients with Alzheimer's disease and related dementia. Students will learn effective strategies for the provision and coordination of care with Primary Care Physician (PCP), and client care within the individual family system. This course will provide students a knowledge of disabilities resulting from Alzheimer's disease and related dementia. Students will have an understanding of how to identify and manage clients living expenses, the role of the Living Will, and quality of existing living situations.

Lecture (45.00)

Prerequisites: ALZ-103

ALZ-105 Alzheimer's Journey Coord Field Work (3.00 cr.)

Field Work experience is traditional in educational programs for Behavioral Health Care and Neurocognitive Disorders. It is the "learning by doing" under educational guidance. It usually involves giving direct service. This field work course offers the student the opportunity to observe and work directly with staff, clients with Alzheimer's Disease, and their families. Lecture time will reinforce the practicum experience. Background checks will be required for fieldwork in health care treatment facilities. A total of 90 hours fieldwork is required during the semester.

Lecture (15.00)

Field Work (90.00)

Prerequisites: ALZ-101, ALZ-102, ALZ-103 and ALZ-104

ANTHROPOLOGY**ANT-101 General Anthropology (3.00 cr.)**

This course is an introduction to the four subdivisions of anthropology, which are physical anthropology, archeology, linguistics, and ethnology. This course will study the evolution of humankind, its achievements, the capacity for, and use of, language, and the nature of culture and its variations.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

ANT-101H Honors General Anthropology (3.00 cr.)

This course is an introduction to the four subdivisions of anthropology, which are physical anthropology, archeology, linguistics, and ethnology. This course will study the evolution of humankind, its achievements, the capacity for, and use of, language, and the nature of culture and its variations. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

ART**ART-101 Art Appreciation (3.00 cr.)**

The aim of this course is to provide students with the critical abilities to appreciate art, its production, function/purpose, and aesthetic value. Students will develop an understanding of the visual language artists employ and the variety of mediums they use. During the course students will learn how to write descriptive analysis of works of art that includes both its form (visual elements and design principles) and content (iconography, themes and purposes). At the completion of the course

students will be able to enter any artistic environment (gallery or museum, etc.) and apply the classroom methodologies.

Lecture (45.00)

ART-103 Visual Culture (3.00 cr.)

This course will focus on aspects of culture that rely on visual images: the fine arts, photography, advertising, comic books, film, television and the Internet. The proliferation of visual media and the blurring of boundaries between high and low art demand active rather passive participants. The course is organized thematically and designed to encourage students to engage with a number of questions and issues that are critical to living in today's increasingly visual age. For instance do all cultures rely upon the same battery of concepts to define the aesthetic? How are perceptions of visual culture and of art shaped not only by culture but also by history? In addition students will explore connections between visual media and imagery as it relates to cultural, social, religious, political and aesthetic change.

Lecture (45.00)

Prerequisites: ENG-101

ART-103H Honors Visual Culture (3.00 cr.)

This course will focus on aspects of culture that rely on visual images: the fine arts, photography, advertising, comic books, film, television and the Internet. The proliferation of visual media and the blurring of boundaries between high and low art demand active rather passive participants. The course is organized thematically and designed to encourage students to engage with a number of questions and issues that are critical to living in today's increasingly visual age. For instance, do all cultures rely upon the same battery of concepts to define the aesthetic? How are perceptions of visual culture and of art shaped not only by culture but also by history? In addition students will explore connections between visual media and imagery as it relates to cultural, social, religious, political and aesthetic change. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

Prerequisites: ENG-101

ART-104 Introduction to Visual Arts (3.00 cr.)

This course is an introduction to the visual arts for the non-art major and is broad-based in nature. Students will learn how cultures from ancient to modern times have expressed themselves in the visual arts: painting, drawing, sculpture, installation, craft and graphic design. Concepts, materials and processes will be explored through lecture, individual and collaborative projects with a hands-on component to reinforce and expand learning.

Lecture (45.00)

ART-111 Art History I (3.00 cr.)

The course will cover different time periods in Western Art, commencing with prehistoric visual images and ending with the Rococo movement of the 18th Century. Each time frame will be discussed from a visual arts point-of view relating art to its political, social, economic, philosophical and aesthetic foundation. Course work will aid the student in developing a definition of art for one's personal use. Students will be required to visit a museum.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

ART-111H Honors Art History I (3.00 cr.)

The course will cover different time periods in Western Art, commencing with prehistoric visual images and ending with the Rococo movement of the 18th Century. Each time frame will be discussed from a visual arts point-of view relating art to its political, social, economic, philosophical and aesthetic foundation. Course work will aid the student in developing a definition of art for one's personal use. Students will be required to visit a museum. ***Only students who are accepted into the honors program are eligible to take honors.**

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

ART-112 Art History II (3.00 cr.)

The course will cover different time periods in Western Art from diverse perspectives, commencing with the 18th century and ending with contemporary art. Course material will emphasize art's relationship to the context of its creation. Each time frame will be discussed from a visual arts point-of view relating art to its political, social, economic, philosophical and aesthetic foundation. Course work will aid the student in developing a definition of art for one's personal use. Students will be required to visit a museum.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

ART-123 Basic Drawing I - AFA (3.00 cr.)

This course is intended primarily for students pursuing the Associate in Fine Art (AFA) degree in studio art. One additional hour of instruction per week is required so that students may be exposed to a more intense studio experience. This is an introductory course that is part of any foundation for studying art. It focuses on the mastery of fundamental drawing skills through various studio experiences. It encompasses perceptual and some conceptual drawing problems, concentrating on still life subject matter. Areas of concentration include composition and the use of charcoal media.

Lecture (30.00)

Laboratory (30.00)

ART-124 Basic Drawing II - AFA (3.00 cr.)

This course builds on the skills developed in Basic Drawing I and is intended primarily for students pursuing a degree in the visual arts and related fields. Students will continue to investigate the use of various drawing media and focus on skill development. Greater depth of ideas and more sophisticated technical execution are emphasized. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: ART-123

ART-134 Life Drawing I (3.00 cr.)

This is a foundation course that provides instruction in drawing the human form. Dynamics, proportion, anatomy, volume and structure are investigated through various drawing methods and selected materials. Students work from a live model.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: ART-121 or ART-123

ART-143 Sculpture I - AFA (3.00 cr.)

This course focuses on teaching students about a number of fundamental processes and materials related to the three-dimensional fine arts. Students will be given technical instruction in such areas as modeling, mold making, casting, construction and carving while working with materials such as clay, plaster, wood, wire, and metal. An emphasis will be placed on process-oriented projects that underline the importance of technical accomplishment and excellent craft. These projects are also designed to expand the student's aesthetic and conceptual understanding of sculpture. Group and individual critiques along with additional lecture material will combine to further develop each student's ability to plan, execute, discuss and analyze three dimensional arts.

Lecture (30.00)

Laboratory (30.00)

ART-145 Painting I - AFA (3.00 cr.)

This course is intended primarily for students pursuing the Associate in Fine Art (AFA) degree in studio art. One additional hour of instruction per week is required so that students may be exposed to a more intense studio experience. This course will teach the student the use of painting materials and methods using oil or acrylic paint. They will work from the still life to aid them in perfecting their methodology.

Lecture (30.00)

Laboratory (30.00)

ART-146 Painting II - AFA (3.00 cr.)

This course is intended primarily for students pursuing the Associate in Fine Art (AFA) degree in studio art or those visually oriented students. One additional hour of instruction per week is required so that students may be exposed to a more intense studio experience. The student will be working from models, still life set ups and begin to work in a more conceptual manner with different painting mediums and mixed media materials. Demonstrations and individual instruction will be given at appropriate intervals. Emphasis will be placed on student portfolio development as well as the development of a personal style. Student individuality will be emphasized.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: ART-145

ART-153 Ceramics & Pottery I - AFA (3.00 cr.)

This course is a broad-based introductory class in ceramics designed to introduce students to both the elements of art and the principles of design while also exploring historical contexts and the work of professional ceramicists. Time will be spent working on hand-building projects as well as working with the potter's wheel. Projects and techniques that will be covered in this course include, but are not limited to: pinch pots, coil building, slab building, extruding, glazing, firing, wheel throwing, and functional vs. sculptural approaches to clay. We will examine the history of ceramics and use that knowledge to inform the work that is made. By studying historical and contemporary work, students will begin to discriminate between aesthetic value and personal preference in their own work, and in the work of their fellow students.

Lecture (30.00)

Laboratory (30.00)

ART-154 Ceramics & Pottery II - AFA (3.00 cr.)

This course is intended primarily for students pursuing the Associate in Fine Art (AFA) degree in studio art. One additional hour of instruction per week is required so that students may be exposed to a more intense studio experience. Students will work with clay in a controlled and self-directed way. The last seven weeks of the semester, students will select either throwing or hand-building technique, and devote most of that semester's time to a particular ceramic forming process.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: ART-153 or ART-151

ART-165 Color: Theory and Practice (3.00 cr.)

This course will expand the student's understanding of color through a thorough exploration of Johannes Itten's fundamental color theory principles. Through lecture, demonstration, studio projects, reading assignments and analysis of work by some of the great masters of Western painting, the student will learn about the color circle and the seven color contrasts. Subjective feeling and objective color principles will also be addressed.

Lecture (30.00)

Laboratory (30.00)

ART-166 Two-Dimensional Design - AFA Majors (3.00 cr.)

This course focuses on the development of a fundamental visual art vocabulary based on design elements such as the use of line, shape, value, form, and color. An emphasis is placed on projects designed to demonstrate design principles, expose students to a variety of media, and to challenge one's conceptual and creative problem-solving abilities. Accompanying the practical application of design principles to specific design problems, reading assignments, group and individual critiques and additional lecture material will combine to further develop each student's ability to plan, execute, discuss and analyze both formal and conceptual models in the visual arts.

Lecture (30.00)

Laboratory (30.00)

ART-167 Three-Dimensional Design - AFA Majors (3.00 cr.)

This course focuses on teaching students a number of fundamental principles and processes related to the three-dimensional arts. An emphasis will be placed on planning and translating work from the two dimensional to the three dimensional. Each project will explore aspects of design such as working with form, volume, space, planes, texture, and composition. Demonstrations and technical instruction will be given on the use of different tools, processes, and materials. The projects will also work to expand each student's aesthetic and conceptual understanding of sculpture. Group and individual critiques along with additional lecture material will combine to further develop each student's ability to plan, execute, discuss and analyze three-dimensional art.

Lecture (30.00)
Laboratory (30.00)

ART-201 Visual Arts Seminar (3.00 cr.)

This course is designed to serve as a capstone for all visual arts majors. Students will learn about professional standards for presenting and promoting one's work. This will include portfolio development, documenting work in various formats, guidelines for presenting one's work through artist websites and social media, and standards for supporting documents such as an artist statement, CV/resume, artist biography, and application cover letter.

Lecture (45.00)
Prerequisites: ENG-102

VETERINARY NURSING**ASC-106 Veterinary Office Practices (2.00 cr.)**

This course is an introductory level course that will guide the students to communicate effectively with the veterinary client, to obtain pertinent information concerning the patient in order to facilitate the veterinarian-client/patient relationship, safety, facility operations, and to ensure optimal patient care and according to the AVMA CVTEA accreditation guidelines.

Lecture (30.00)
Prerequisites: BIO-111, ENG-101 and MTH-100
Corequisites: ENG-102

ASC-107 Calculations for Veterinary Technicians (2.00 cr.)

This course will provide the experience in algebraic skills, dosage calculations, concentrations, fluid therapy, flow rates, measurements, solutions, rate infusions, dilutions and parental medications according to the AVMA CVTEA accreditation guidelines.

Lecture (30.00)
Prerequisites: BIO-111, ENG-101 and MTH-100
Corequisites: ENG-102 and ASC-106

ASC-108 Animal Anatomy and Physiology I (3.00 cr.)

This course is designed to familiarize the student with the basics of anatomy and physiology of animals. Various species differences are covered in this course according to the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ENG-101, BIO-111 and MTH-100
Corequisites: ASC-106, ASC-107 and ENG-102

ASC-109 Fundamentals of Small Animal Nursing (2.00 cr.)

Introductory small animal and exotics nursing course will provide the students with a foundation of basic veterinary care and prepare them for general entry into the field of veterinary medicine. The laboratory sessions will provide students with hands-on experience according to the requirements of the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)
Laboratory (30.00)
Prerequisites: ENG-101, BIO-111 and MTH-100
Corequisites: ASC-106, ASC-107, ASC-108 and ENG-102

ASC-110 Veterinary Clinical Rotation I (2.00 cr.)

This course is the first supervised cooperative clinical course. The course awards academic credit for work-related learning experience at local shelters and animal hospitals. Tasks are validated by a program staff member as a requirement of the AVMA CVTEA accreditation. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Clinical (90.00)
Prerequisites: ASC-106, ASC-107, ASC-108, ASC-109 and ENG-102
Corequisites: BIO-221

ASC-201 Animal Anatomy and Physiology II (3.00 cr.)

This laboratory based course is designed to familiarize the veterinary technician student with advanced and specific information concerning the anatomy and physiology of animals. This class contains an added emphasis on physiology and function of anatomical structures. Various species differences are covered in this course according to the AVMA CVTEA accreditation guidelines. Information on the implications these differences pose to the practice of veterinary technology is presented to the class. Selected laboratory skills illustrate the necessary principles and develop familiarity with advanced laboratory techniques.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ASC-110
Corequisites: ASC-202

ASC-202 Advanced Small Animal Nursing Techniques (3.00 cr.)

Advanced level animal nursing course will prepare students for future clinical courses and real-world proficiency. The laboratory sessions will offer students the opportunity to experience hands-on nursing encounters according to the requirements of the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ASC-108
Corequisites: ASC-201

ASC-203 Veterinary Anatomy and Physiology II (3.00 cr.)

This laboratory based course is designed to familiarize the veterinary technician student with advanced and specific information concerning the anatomy and physiology of animals. This class contains an added emphasis on physiology and function of anatomical structures. Various species differences are covered in this course according to the AVMA CVTEA accreditation guidelines. Information on the implications these differences pose to the practice of veterinary technology is presented to the class. Selected laboratory skills illustrate the necessary principles and develop familiarity with advanced laboratory techniques.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ASC-108
Corequisites: ASC-202

ASC-213 Laboratory Animal Science (3.00 cr.)

This course is an introduction to the husbandry, restraint, and medical care of common laboratory animals. Course work is based upon the laws that regulate the use of animals in research to ensure they are treated humanely according to the Federal Animal Welfare Act of the USDA protocols as referenced by the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ASC-108
Corequisites: ASC-201 and ASC-202

ASC-214 Veterinary Surgical Nursing (3.00 cr.)

This course is an intermediate level course that will prepare students for the administration of anesthesia and assisting with surgery under the direct supervision of a licensed veterinarian and will provide students with the opportunity to induce anesthesia and assist with surgery according to

the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (60.00)

Prerequisites: ASC-110, BIO-221, ASC-201, ASC-202 and ASC-270

ASC-215 Farm Animal Nursing (2.00 cr.)

This course is designed to provide students with hands-on experience and lecture on farm animals and will include visits to off-campus farms according to the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ASC-110, ASC-201, ASC-202 and ASC-236

ASC-216 Farm Animal Medicine (3.00 cr.)

Principles of farm animal medicine, care, and management for domestic and farm animals encountered in veterinary practice are covered in this course, including: common disease processes, recognition of the functions performed by the breeds and types of domestic animals; principles of nutrition with emphasis on practical aspects of feeding; principles of breeding and reproductive cycles, including care of pregnant females, care of the sire, preparations for birth of the young, postnatal care, management practices during lactation, and weaning procedures.

Lecture (45.00)

Prerequisites: ASC-106, ASC-107, ASC-108, ASC-109, ASC-201 and ENG-102

ASC-217 Veterinary Dental Techniques (2.00 cr.)

This course will focus on clinical instrumentation for the canine and feline dental prophylaxis. Students will effectively demonstrate dental techniques according to the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ASC-108

Corequisites: ASC-201

ASC-218 Veterinary Parasitology (2.00 cr.)

This course is designed to prepare the veterinary technician to perform basic parasitological laboratory techniques and identify common parasites of domestic animals in this geographical area. The student will study life cycles with emphasis on control and prevention of infestations of parasites in common domestic and laboratory animals. The course will teach basic treatments for parasite infestations and public health concerns according to the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ASC-108

Corequisites: ASC-201

ASC-219 Pathology for Veterinary Nurses (2.00 cr.)

This lecture course describes basic pathological concepts and ends with specific diseases of organs and systems of domestic animals as required by the AVMA CVTEA accreditation requirements.

Lecture (30.00)

Prerequisites: ASC-108, ASC-201 and ASC-202

ASC-220 Hematology for Veterinary Technicians (3.00 cr.)

This course provides basic principles and procedures necessary for hematological analysis. Topics will include the complete blood count, coagulation, anticoagulants, and morphology of normal and abnormal blood cells according to the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (60.00)

Prerequisites: ASC-110, ASC-201, ASC-202, BIO-221 and MTH-100

ASC-235 Clinical Lab for Veterinary Technicians (2.00 cr.)

This course provides the principles and procedures for laboratory techniques involved in the analysis of urine and blood components. Emphasis is placed on techniques, manual skill development, instrumentation, and quality control as required by the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ASC-110, ASC-201, ASC-202, BIO-221 and MTH-100

ASC-236 Radiology for Veterinary Technicians (2.00 cr.)

This course will prepare students for an understanding of radiology producing radiographic images of the veterinary patient, safety, critiquing, and development as required by the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ASC-110

Corequisites: ASC-201 and ASC-202

ASC-237 Radiology for Veterinary Nurses (2.00 cr.)

This course will prepare students for an understanding of radiology producing radiographic images of the veterinary patient, safety, critiquing, and development as required by the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ASC-108

Corequisites: ASC-201 and ASC-202

ASC-266 Veterinary Clinical Rotation II (4.00 cr.)

This course is the accumulation of all courses in the program. The clinical rotation awards academic credit for off-campus work-related learning experience in a full-service veterinary clinic validated by the course instructor and the veterinary site supervisor as required by the AVMA CVTEA accreditation guidelines. Selected laboratory skills illustrate the necessary principles and develop familiarity with laboratory techniques.

Clinical (180.00)

Prerequisites: ASC-110, ASC-202, ASC-213, ASC-215, ASC-216, ASC-217, ASC-218, ASC-219, ASC-220, ASC-235, ASC-236 and ASC-270

Corequisites: ASC-214 and ASC-267

ASC-267 Veterinary Professional Seminar (1.00 cr.)

This capstone course utilizes all the information students learned throughout the program. Students will synthesize their knowledge of office practices, animal science, and veterinary technology to address issues relative to veterinary practice. The course includes specific didactic tasks in the lab to show mastery of the subject matter. Students will be focusing on outcomes required by the AVMA CVTEA accreditation standards.

Laboratory (30.00)

Prerequisites: ASC-202, ASC-110, ASC-213, ASC-215, ASC-216, ASC-217, ASC-218, ASC-219, ASC-220, ASC-235, ASC-236 and ASC-270

Corequisites: ASC-214 and ASC-266

ASC-270 Veterinary Pharmacology (2.00 cr.)

This course introduces the student to frequently prescribed medications, their uses, actions and common side effects. The students will become familiar with veterinary pharmacology and pharmacy practices according to the AVMA CVTEA accreditation requirements.

Lecture (30.00)

Prerequisites: ASC-108, ASC-201, ASC-202 and BIO-221

AMERICAN SIGN LANGUAGE

ASL-101 American Sign Language I (3.00 cr.)

This is an introduction to American Sign Language (ASL) as used in the deaf community. There will be a general discussion of ASL structure and an introduction to a variety of manual communication systems and philosophies. Information about the history of sign language and its existence in society today is also included. Skill focus will be on building a basic vocabulary of approximately 300 signs, both receptively and expressively, and the manual alphabet. This course requires 10 contact hours with people who are deaf.

Lecture (45.00)

ASL-102 American Sign Language II (3.00 cr.)

This class is a continuation of the basic course; expanding sign skills and exploring ASL idioms. Emphasis will be on increasing speed and fluency. This course requires 10 contact hours with people who are deaf.

Lecture (45.00)

Prerequisites: ASL-101

ASL-103 Fingerspelling (3.00 cr.)

This course is designed to enhance students' understanding and use of fingerspelling with American Sign Language. Both expressive and receptive skills will be emphasized. This course will be taught in American Sign Language and has the secondary objective of enhancing general signing skills.

Lecture (45.00)

Prerequisites: ASL-101

Corequisites: ASL-102

ASL-200 ASL Essentials (3.00 cr.)

The course is an intensive overview of American Sign Language through the use of conversations. The student will focus vocabulary, classifiers, role shifting, spatial relationships, indicating verbs, the formation of signs, non-manual signals and sentence structure.

Lecture (45.00)

Prerequisites: ASL-102

Corequisites: ASL-201

ASL-201 American Sign Language III (3.00 cr.)

This course is designed to increase receptive and expressive skills in dialogue communications. Further study of the complexities within the language will be pursued. This course requires 10 contact hours with people who are deaf.

Lecture (45.00)

Prerequisites: ASL-102

ASL-202 American Sign Language IV (3.00 cr.)

This course is a course designed to enhance students' communicative skills in American Sign Language in preparation for the Sign Language Studies Program. Students will be given opportunities to expand their vocabulary related to common experiences (both informal and formal settings with Deaf people). The student will utilize what they learned about ASL in class activities, video segments, dialogues, short stories, general conversations and class discussions. Particular attention will be placed on overall communicative ability, signing speed, accuracy, and vocabulary building.

Lecture (45.00)

Prerequisites: ASL-201

AUTOMOTIVE

AUT-101 Automotive Fundamentals (3.00 cr.)

This course is designed to provide students with a foundation in the field of automotive technology. General service and maintenance procedures are stressed in this course.

Lecture (30.00)

Laboratory (30.00)

AUT-111 Automotive Brake Systems (3.00 cr.)

This course is designed to provide the student with the theory, design, construction, inspection, diagnosis and repair of automotive brake

systems. Hands-on laboratory procedures are stressed throughout the course.

Lecture (30.00)

Laboratory (30.00)

AUT-121 Automotive Steering & Suspension Systems (4.00 cr.)

This course is designed to provide the student with the theory, design, construction, inspection, repair and testing of automotive steering and suspension systems. Practical application in the laboratory of the theoretical material covered in class is stressed throughout the course.

Lecture (30.00)

Laboratory (60.00)

AUT-131 Automotive Heating and Air Conditioning (3.00 cr.)

This course is designed to provide the student with the operation, design, diagnosis, repair and service procedures of automotive heating and air conditioning systems. Practical application in the laboratory of the theoretical material covered in class is stressed throughout the course. Recommend that AUT-141 be taken prior to or concurrently with this course.

Lecture (30.00)

Laboratory (30.00)

AUT-141 Automotive Electrical & Electronic Prin (4.00 cr.)

This course is designed to provide the student with the basic principles of electrical/electronic laws, devices, instruments, and testing equipment. Practical application in the laboratory of theoretical material covered in class is stressed throughout the course.

Lecture (30.00)

Laboratory (60.00)

AUT-181 Automotive Practicum I (3.00 cr.)

The Automotive Program's cooperative work experience courses are designed to involve the student in actual day to day work situations. These courses are designed to give classroom related hands-on experience that cannot be given on campus. The student will adhere to all work rules and regulations maintained at the service facility. Automotive instructor permission is required. The student must have completed related classroom instruction.

Field Work (300.00)

AUT-182 Automotive Practicum II (3.00 cr.)

The Automotive Program's cooperative work experience courses are designed to involve the student in actual day to day work situations. These courses are designed to give classroom related hands-on experience that cannot be given on campus. The student will adhere to all work rules and regulations maintained at the service facility. Automotive instructor permission is required. The student must have completed related classroom instruction.

Field Work (300.00)

AUT-242 Automotive Electrical/Electronic Systems (4.00 cr.)

This course is designed to provide the student with the theory, design and service of automotive engine and body electrical/electronics systems. Application of theoretical material covered in class is stressed throughout the course. Recommend that AUT 141 be taken prior to or concurrently with this course.

Lecture (30.00)

Laboratory (60.00)

AUT-253 Automotive Engines (4.00 cr.)

This course is designed to provide the student with the theory, design, construction, inspection and service of automotive engines. This course will also provide the student with diagnosis, repair and testing procedures of automotive engines.

Lecture (30.00)

Laboratory (60.00)

AUT-261 Manual Drive Trains and Axles (4.00 cr.)

This course is designed to provide the student with theory, design, construction, inspection, repair, and diagnostic testing of manual drive

trains and axles. Hands-on laboratory procedures are stressed throughout the course.

Lecture (30.00)

Laboratory (60.00)

AUT-262 Automatic Transmissions and Transaxles (4.00 cr.)

This course is designed to provide the student with the theory, design, construction, inspection, repair, and diagnostic testing of automatic transmissions and transaxles. Hands-on laboratory procedures are stressed throughout the course.

Lecture (30.00)

Laboratory (60.00)

AUT-271 Advanced Automotive Systems I (4.00 cr.)

This course is designed to explore the theory, design, service and diagnosis of advanced automotive systems. Computer controlled systems such as computer command controlled carburetors, electronic fuel injection and port fuel injection are explored in depth. It is recommended that the following courses be taken prior or concurrently to this course: AUT-242 Automotive Electrical/Electronic Systems and AUT-253 Automotive Engines.

Lecture (30.00)

Laboratory (60.00)

Laboratory (60.00)

AUT-272 Advanced Automotive Systems II (4.00 cr.)

This course is designed to provide students with the diagnosis, repair, service and testing procedures of advanced automotive systems and drivability problems. It is recommended that the following courses be taken prior or concurrently to this course: AUT-242 Automotive Electrical/Electronic Systems and AUT-253 Automotive Engines.

Lecture (30.00)

Laboratory (60.00)

Corequisites: AUT-271

AUT-283 Automotive Practicum III (3.00 cr.)

The Automotive Program's cooperative work experience courses are designed to involve the student in actual day to day work situations. These courses are designed to give classroom related hands-on experience that cannot be given on campus. The student will adhere to all work rules and regulations maintained at the service facility. Automotive instructor permission is required. The student must have completed related classroom instruction.

Field Work (300.00)

AUT-284 Automotive Practicum IV (3.00 cr.)

The Automotive Program's cooperative work experience courses are designed to involve the student in actual day to day work situations. These courses are designed to give classroom related hands-on experience that cannot be given on campus. The student will adhere to all work rules and regulations maintained at the service facility. Automotive instructor permission is required. The student must have completed related classroom instruction.

Field Work (300.00)

AUT-286 Automotive Capstone Practicum (3.00 cr.)

The Automotive Program's cooperative work experience courses are designed to involve the student in actual day to day work situations. These courses are designed to give classroom related hands-on experience that cannot be given on campus. The student will adhere to all work rules and regulations maintained at the service facility. Automotive instructor permission is required. The student must have completed related classroom instruction.

Field Work (360.00)

BEHAVIORAL HEALTH CARE

BHC-101 Brain Function Injuries & Treatment (3.00 cr.)

This course provides students with an overview of the basic concepts of brain structure and function, disabilities which arise from brain injuries, diseases and malfunction, and how people can learn to compensate and adjust to these problems. This will include the neuron, the brain stem, the

limbic system, the cerebellum and the cerebral cortex, including hemispheres of the brain. This course will also review the incidence and prevalence of brain injury.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

BHC-102 Emotional & Behavioral Disorders (3.00 cr.)

This course introduces students to the basic concepts of physical, cognitive, and emotional development across the life span. The student will learn the characteristics of disorders such as autism spectrum, as well as selective mutism, ADHD, depression, and psychotic disorders. Medical conditions such as generalized seizures, partial seizures and other complications which may be associated with neurological impairment will also be covered in this course. Students will become familiar with treatments and medications including their benefits and possible side effects.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

BHC-103 Applied Behavioral Analysis (3.00 cr.)

This course will cover the basic principles of Applied Behavior Analysis. The lab portion of this course provides hands-on learning with feedback. Students will learn to apply behavioral change techniques derived from Operant and Classical Conditioning, including positive and negative reinforcement, in order to shape desired behavior in client populations. This course will expand the students' knowledge and skills for managing client outbursts according to the guidelines for the use of seclusion and restraints.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: ENG-012 and ENG-022

BHC-104 Family Community & the Law (1.00 cr.)

This course will introduce students to issues arising in families of neurologically impaired clients. Student will learn effective strategies for the provision of client care within the individual family. This course will increase the awareness of community agencies supporting families of clients with neurological challenges. Students will comprehend and learn to apply moral principles and ethical standards in communicating with clients and their families.

Lecture (15.00)

Prerequisites: ENG-012 and ENG-022

BIOLOGY

BIO-010 Preparation for Biology (3.00 cr.)

This course is designed primarily for those students who have the desire but lack the proper background to enter science oriented programs. The course introduces basic concepts of natural science, scientific language, methods of fundamental scientific study, and basic laboratory procedures. (Credits do not apply toward graduation requirements).

Lecture (30.00)

Laboratory (30.00)

BIO-103 Human Biology (3.00 cr.)

This non-laboratory course is designed as an overview of the human organism. Cells, tissues and specifically, organ systems will be discussed. Emphasis will be placed on anatomical structures and important physiological phenomena. Some aspects of genetics and human disease may be introduced. This course does not satisfy a laboratory science elective.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

BIO-104 Principles of Environmental Science (3.00 cr.)

This course is designed as a study of humans and their relationship with the environment. It considers basic concepts of ecology and how humans have altered and modified the environment through pollution and other changes imposed by technological advances. This course does not satisfy a laboratory science elective.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

BIO-106 Living in the Environment (4.00 cr.)

The course is a study of the relationships between living organisms and their environment. It includes the examination of basic biological concepts including the scientific method, cell structure and function, metabolism, genetics and evolution. Laboratory exercises include computer modeling, field investigations and laboratory experiments. This course is designed to fulfill a laboratory science general education elective for non-science majors.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

BIO-111 Biology I-Science (4.00 cr.)

This introduction to biology covers in detail the basic biological concepts of scientific method, cell structure and function, metabolism, evolution, genetics, and ecology, accompanied by appropriate illustrations. The principles are then discussed in relation to viruses, bacteria, protozoa and plants. Laboratory exercises are chosen to complement the material presented during lecture hours.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

BIO-112 Biology II-Science (4.00 cr.)

This second semester continuation of the basic principles explored in Biology I examines members of the animal kingdom with particular emphasis on mammalian anatomy and physiology. Laboratory work complements the lecture material.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

BIO-117 Basic Anatomy & Physiology I (4.00 cr.)

This course is designed to introduce the basic principles of anatomy and physiology to nursing and allied health students. Following an introduction to the organization of the human body, basic chemistry, and basic cell biology, Basic Anatomy and Physiology (BIO 117) examines the histology, gross anatomy and functions of organs of the integumentary, skeleton, muscular, and nervous systems. Laboratories are designed to supplement the lecture material and include the use of the following materials: histology slides, models, preserved specimens and computer simulated physiology exercises.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

BIO-118 Basic Anatomy & Physiology II (4.00 cr.)

This course is designed to introduce the basic principles of anatomy and physiology to nursing and allied health students. Following an introduction to the organization of the human body in Basic Anatomy and Physiology I (BIO-117), this continuation course examines the histology, gross anatomy and functions of organs of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems. Laboratories are designed to supplement the lecture material and include the use of the following material: histology slides, models, preserved specimens and computer simulated physiology exercises.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-117

BIO-121 Basic Microbiology (4.00 cr.)

This course is designed to introduce the basic principles of microbiology to nursing and allied health students. Topics include biological concepts of cell structure, growth, reproduction, genetics, classification, beneficial microbe/human interactions, infections and host defenses. Laboratory exercises are designed to teach microscopy, staining, cultivation and identification of bacteria, control of microbial growth, aseptic technique and proper disposal of contaminated items. Lecture and Laboratory activities will emphasize analytical thinking and problem-solving ability.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

BIO-130 Plants & Society (4.00 cr.)

This laboratory based course will introduce non-science majors to scientific principles by using plants and examining how they affect society. Topics will include the scientific method, basic plant structure and the basic concepts of plant physiology. The course will explore the interdependence of plants and people. This course is designed to fulfill a laboratory science general education elective for non-science majors.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-011 and (ENG-013 and ENG-023) or ENG-046

BIO-135 Introduction to Viticulture (4.00 cr.)

Students will be introduced to current practices for establishing a commercial vineyard and maintaining its health and productivity once established. Topics covered include varietal selection, site preparation, equipment, site selection, first season establishment, vine growth development and training, trellis systems, vine propagation, weed control and vine disease control. During labs students will explore the practical applications of the above topics.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-011 and (ENG-013 and ENG-023) or ENG-046

BIO-140 The Microbial World (4.00 cr.)

This laboratory-based course is designed to introduce non-science majors to scientific principles by using the microbial world as an investigative model. Topics will include the scientific method, the cellular basis of life, and the basic concepts of microbiology. The course will illustrate the interdependence of humans and microbes, explore the role of microorganisms in establishing and maintaining the environment and examine the establishment, spread and impact of infectious diseases. Contemporary issues in microbiology such as the development of antibiotic resistance, and the use of microorganisms in genetic engineering and biological warfare will also be explored. This course is designed to fulfill the general education goals of the college, with an emphasis on improving critical thinking, and scientific literacy. This course will fulfill the laboratory science requirement for non-science majors.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-011 and (ENG-013 and ENG-023) or ENG-046

BIO-140H Honors - The Microbial World (4.00 cr.)

This laboratory-based course is designed to introduce non-science majors to scientific principles by using the microbial world as an investigative model. The course will introduce the student to the scientific method, the cellular basis of life, and the basic concepts of microbiology. The course will illustrate the interdependence of humans and microbes, explore the role of microorganisms in establishing and maintaining the environment and examine the establishment, spread and impact of infectious diseases. Contemporary issues in microbiology such as the development of antibiotic resistance, and the use of microorganisms in genetic engineering and biological warfare will also be explored. This course is designed to fulfill the general education goals of the college, with an emphasis on improving critical thinking and scientific literacy. This course will fulfill the natural science requirement for non-science majors. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-011 and (ENG-013 and ENG-023) or ENG-046

BIO-206 Environmental Sci: Theory & Applications (4.00 cr.)

The course is a study of the relationships between living organisms and their environment. It includes an in-depth examination of ecosystems, terrestrial and aquatic biodiversity, renewable and nonrenewable

resources, climate change, and waste management. Laboratory exercises include computer modeling, field investigations and laboratory experiments.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-111

Prerequisites: (ENG-013 and ENG-023) or ENG-046

BIO-210 Human Anatomy & Physiology (4.00 cr.)

This course discusses human anatomy and physiology and their inter-relationships. Lectures and laboratory exercises cover the salient features of mammalian morphology and physiology with special reference to humans. This course is designed primarily for specific programs at CCC and may not be transferable as an Anatomy & Physiology course.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-111

BIO-211 Anatomy & Physiology I (4.00 cr.)

Anatomy and Physiology I will introduce the student to the organization of the human body and histology. The course will also examine the histology, gross anatomy, and functions of the integumentary, skeletal, muscular, nervous, and endocrine systems. Laboratories are designed to supplement lecture material, and include the use of a variety of materials: histology slides, models, and preserved specimens.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-111

BIO-212 Anatomy & Physiology II (4.00 cr.)

Anatomy & Physiology II is a continuation of Anatomy & Physiology I (BIO-211). The course examines the histology, gross anatomy, and function of organs of the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Laboratories are designed to supplement lecture material and include the use of a variety of materials: histology slides, models, and preserved specimens.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-211

BIO-221 Microbiology I (4.00 cr.)

Microbiology I is a comprehensive course covering the study of bacteria, fungi, and viruses. Laboratory exercises emphasize standard techniques used for the food, health, pharmaceutical, and other industries.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: BIO-111

BIO-225 Introduction to Plant Biology (4.00 cr.)

This course is an introduction to the study of Botany, and includes a survey of the plant kingdom, emphasizing reproductive, vegetative, physiological, and evolutionary processes. Particular attention is given to Angiosperm structure and function. Laboratory exercises include microscopic observation, demonstrations of physiological processes, and local plant identification. This course is designed as a general education laboratory science elective for science majors.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-111 and MTH-029

Prerequisites: (ENG-013 and ENG-023) or ENG-046

BIO-240 Genetics (4.00 cr.)

This course is designed to give students a solid foundation in the three major areas of genetics: classical, molecular, and population. The lab component will engage the students with experiments in *Drosophila* heredity, DNA purification, restriction enzyme digests and interactive computer exercises in population biology. The course will also enhance students' abilities in information processing, critical thinking, writing, and examining complex ethical issues.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-111 and CHM-111

BIO-250 Co-op I: Science (3.00 cr.)

Cooperative Education is a program designed to award academic credit for work related to a student's major. The learning experience is defined as a combination of professional work experience, the development of measurable learning objectives based on the job description and the completion of individually tailored co-op assignments. A Co-op advisor is assigned to each student to establish the academic validity of the cooperation education credits. The key role of the advisor is to meet with the student's employer and monitor the learning experience so that it reflects the student's academic major and/or career interests. The advisor awards a letter grade at the end of the 15-week work experience. A minimum of 135 hours of work experience is required to gain 3 academic credits.

Co-Op (135.00)

BIO-255 Research Experience in Biology (4.00 cr.)

This course is a capstone course in which the students will review and expand their knowledge of basic biological principles, research methodology and professional practice in biological science. The student teams will design and complete a laboratory-based research project which demonstrates knowledge and skills gained in previous science and mathematics classes. The research project does not have to be publishable or primary research. The students will work with a faculty advisor to guide the project.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: Matriculated into a degree program offering BIO-255 as a credit option; minimum GPA of 2.5; completed 12 credits in Biology and an additional 8 credits in Mathematics or Science; Minimum of 30 credits completed at Camden County College or in transfer; Permission of Instructor.

BIOTECHNOLOGY

BIT-102 Introduction to Biotechnology (1.00 cr.)

This is a survey course for students interested in pursuing a career in biotechnology. Lecture topics are designed to introduce the scope, current advances, and societal implications of biotechnology. Students will be exposed to the diversity of career opportunities and the regional biosciences job market. Guest speakers from industry, academia, and research facilities will enable students to connect with organizations where employment opportunities may exist.

Lecture (15.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

BIT-200 Introduction to Biochemistry (4.00 cr.)

Introduction to Biochemistry will give the student a strong foundation in the basic topics and techniques used in biochemistry: proteins, carbohydrates, lipids and nucleic acids. Laboratory exercises will prepare the student to perform current techniques critical to biochemical research. These include: separation chemistry, enzyme analysis, molecule isolation and identification techniques. Data recording and analysis will be stressed.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: BIO-111 and CHM-221

Corequisites: BIO-240

BIT-201 Applications in Biotechnology (4.00 cr.)

The Applications in this Biotechnology course will detail concepts and principles of recombinant DNA techniques. Students will be exposed to the biotechnology research tools and protocols used for DNA isolation, gene mapping, DNA fingerprinting, cloning, gene expression and regulation, the production of gene libraries, and gene sequencing.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIO-221, BIT-102 and CHM-112

Corequisites: BIO-240

BIT-202 Instrumental Analysis (4.00 cr.)

Instrumental analysis will emphasize the theory and application of modern analytic instrumentation as applied to the field of biotechnology,

including techniques in spectrophotometry, chromatography, nuclear magnetic resonance, mass spectrometry and fluorescence.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: BIT-102, CHM-112 and CHM-221

BIT-205 Biotechnology Internship (3.00 cr.)

The student will integrate their academic studies and apply these principles to the internship in the professional, biotechnology industry experience they will receive during their internship assignment. The students will be placed in affiliated programs in institutions and laboratories where they will be exposed to biotechnological skills necessary for industry standards (e.g. genetics, animal handling, instrumentation).

Clinical (135.00)

Prerequisites: BIT-102, BIT-201 and BIT-202

BIT-210 Fundamentals of Biochemistry (3.00 cr.)

Introduction to Biochemistry will give the student a foundation in the basic concepts, mechanisms, pathways and structures in biochemistry.

Lecture (45.00)

Prerequisites: CHM-221

BIT-214 Fundamentals of Instrumental Analysis (3.00 cr.)

Fundamentals of Instrumental Analysis will emphasize the theory and application of modern analytic instrumentation as applied to the field of biotechnology and forensics, including techniques in spectrophotometry, chromatography, nuclear magnetic resonance, mass spectrometry and fluorescence.

Lecture (45.00)

Prerequisites: CHM-221

Corequisites: BIT-218

BIT-218 Combined Laboratory Techniques (3.00 cr.)

This is a laboratory course on the use and application of modern analytical instrumentation in the fields of biotechnology and forensics, including techniques in spectrophotometry, chromatography, nuclear magnetic resonance, mass spectrometry and fluorescence.

Laboratory (90.00)

Prerequisites: CHM-221

Corequisites: BIT-214

BUSINESS MATHEMATICS

BMT-101 Business Mathematics I (3.00 cr.)

Business Mathematics I is the study of mathematics using linear equations as a basis for solving business problems in retail management, finance and accounting. This course may not be accepted for transfer purposes at four-year institutions.

Lecture (45.00)

BMT-102 Business Mathematics II (3.00 cr.)

A continuation of Business Mathematics I, this course uses linear equations on a basis of solving more difficult mathematical problems in retail management, finance, and accounting. This course may not be accepted for transfer purposes at four-year institutions.

Lecture (45.00)

Prerequisites: BMT-101

BUSINESS

BUS-201 Co-op I: Business (3.00 cr.)

Cooperative Education is a program designed to award academic credit for work related to a student's major. The learning experience is defined as a combination of professional work experience, the development of measurable learning objectives based on the job description, and the completion of individually tailored Co-op assignments. A Co-op advisor is assigned to each student to establish the academic validity of the cooperative education credits.

Co-Op (135.00)

COMPUTER AIDED DRAFTING & DESIGN

CAD-101 Computer Aided Engineering Graphics (4.00 cr.)

Computer Aided Engineering Graphics is a course in graphical communications for engineering or high technology students. It is an introductory course in engineering graphics that emphasizes the use of the computer as a tool in the effective application of basic drafting principles, standards, and techniques. This course introduces the student to drafting and drafting standards by stressing the competent use of microcomputers, plotters, input devices, software, and other related materials.

Lecture (45.00)

Laboratory (45.00)

CAD-102 Advanced Computer Aided Eng Graphics (3.00 cr.)

This course is a continuation of Computer Aided Engineering Graphics stressing the advanced capabilities for design and drafting made possible by the use of the microcomputer. Topics covered include creating and viewing three-dimensional geometry, construction of complex drawings, block manipulation, using and editing intelligent entities (polylines), script files, attribute extraction, bill of materials generation, and the creation of custom shapes, linetypes, letter fonts, hatch patterns and menu systems. Database integration with CADD is also discussed.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CAD-101

CAD-107 Parametric Design: AutoDesk Inventor (3.00 cr.)

This course introduces the beginning and intermediate CADD student to the use of parametrically driven graphics software applications such as AutoDesk Inventor to implement advanced part and assembly modeling techniques. Students will study creation and development of complex 3-dimensional mechanical design assembly drawings from simple sketches and the use of property and parameter manipulation and modification. The course will also introduce the student to sheet metal and flat pattern drawings and design.

Lecture (30.00)

Laboratory (30.00)

CAD-201 CADD Applications: MicroStation (3.00 cr.)

This course gives the introduction to intermediate Computer Aided Drafting and Design students the skills and knowledge necessary to use the MicroStation graphics software as a tool in the effective application of drafting principles and techniques. This course consists of training in all of the two-dimensional and three-dimensional drafting and design features of MicroStation, including rendering, fly through animation, and advanced concepts for a productive design environment.

Lecture (30.00)

Laboratory (30.00)

CAD-202 Advanced CADD Project (3.00 cr.)

The Advanced CAD Project course serves as a capstone learning experience for students in the Computer Aided Drafting and Design program. The course provides students with a vehicle to showcase acquired drafting and design skills in any of a number of engineering areas including (but not limited to) the architectural, mechanical, civil, and electrical disciplines. The purpose of the course is to expose final semester students to a real-world project development experience by guiding them through all of the stages of a professional level engineering project from conception to final formal presentation. In the lab students will generate drawings that they produce using software CAD applications.

Lecture (15.00)

Laboratory (60.00)

CAD-205 Architectural CADD Using Revit (3.00 cr.)

This course is an introduction to Architectural drafting and design using the AutoDesk Revit software application on the latest Windows platform. Revit Architecture is the industry standard for building information modeling (BIM) and was designed specifically for architects and designers. This is a core curriculum course for the CADD major but it can be utilized by anyone with at least one year of drafting experience using AutoCAD.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CAD-101

CAD-206 Solids Modeling: Solids Works (3.00 cr.)

This course introduces students from the CADD and CIM programs to the use of SolidWorks as a tool in the design and manufacturing stages of the product development lifecycle. Students will be prepared to take the CSWA certification exam.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CIM-101

CAD-208 Autocad Civil 3D Level I (3.00 cr.)

This is an introductory Civil 3D course for students, draftspersons, designers, architects, engineers, contractors and others seeking professional advancement and job transition through acquiring AutoCAD Civil 3D skills. Students become familiar with the basic AutoCAD Civil 3D environment, commands and menu systems beginning with topographical survey information and culminating with design profiles and alignments. Students will explore how to organize project data, work with points, create and analyze surfaces, and generate properly formatted output. This course is intended for students who have completed CAD-101 or for those industry professionals who can demonstrate prior equivalent on-the-job experience with AutoCAD.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CAD-101

COMPUTER GRAPHICS

CGR-108 Graphic Design I (3.00 cr.)

This course is an introduction to the fundamental principles and processes of graphic design. This combined studio/lecture course will provide a foundation in the history of design and focus on cultivating technical skills while using industry standard software. Students will develop a vocabulary of design terms in order to discuss their work in a professional manner. Emphasis is placed on creating a strong foundation in visual communication, sharpening students' critical thinking and observational skills through solving elemental design problems. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ART-123 and ART-166

CGR-109 Graphic Design II (3.00 cr.)

This course builds on the foundation of Graphic Design I. It further hones the students' graphic design skills with particular emphasis on design principles and professional examples. Students will develop and deploy effective visual strategies to build brand identities, format materials, and create layouts. Emphasis is placed on visual communication, sharpening students' critical thinking and observational skills through solving contemporary design problems. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CGR-108

CGR-111 Computer Graphic Design I (3.00 cr.)

This course will provide studio experience in computer graphics art and design. This combined studio/lecture course is an introduction to the creative possibilities of graphics computing and to the historical, conceptual, technical, and contemporary background of computers and computer graphics. Emphasis is placed on the visual-problem solving process through the use of applications and equipment. Students will be able to utilize a variety of software and hardware which includes bit-mapped raster and object-oriented vectoring software programs. This course includes in-class lab time.

Lecture (30.00)
Laboratory (30.00)

Prerequisites: ENG-012 and ENG-022

CGR-112 Computer Graphic Design II (3.00 cr.)

This course builds on the foundation in Computer Graphic Design I. It further develops the student's basic computer graphic design and skills with particular emphasis on computer imagery created by various photo imaging programs. Students will study advanced manipulation tools which allow the artist to create electronic images directly on the computer screen by controlling the color and intensities of each pixel. Creative and conceptual development are emphasized throughout the course. This course includes in-class lab time.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CGR-111

CGR-114 Typography I (3.00 cr.)

This course serves as an introduction to typography and the use of text in various design contexts. Students will explore the history and evolution of type, noted typographers, the function of various letterforms, letters, words and sentences as an essential element of communication and graphic design problem solving. Students will focus on the creation of original artwork through traditional and digital media, while challenging their creative imagination and expanding their technical skills in discovering solutions to specific visual problems. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CGR-108

CGR-126 Illustration I (3.00 cr.)

This course introduces students to the field of illustration. Students will develop an understanding of the field and develop skills in a range of media and techniques relevant to the industry. Emphasis will be placed on technical skill development using contemporary technologies. Assignments will focus on visual problem solving, research and concept development, the exploration of form and composition, and techniques related to the delivery of artwork to a client. The development of a personal style, unique concepts, and solutions specific to the advertising, editorial, publishing and/or entertainment industries will be emphasized through a variety of assignments. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: ART-123 and ART-166

CGR-127 Illustration II (3.00 cr.)

This course builds on a student's knowledge of the professional field of illustration. Having completed Illustration I, students will continue to develop competency in the field through a range of media and techniques. Emphasis will be placed on developing one's skill set and using contemporary technologies relevant to the industry. Assignments will emphasize advanced visual problem solving, research and concept development, and the further development of a personal style, unique concepts, and project solutions specific to the advertising, editorial, publishing and/or entertainment industries. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: CGR-126

CGR-239 Animation I (3.00 cr.)

This course introduces students to the basics of 2D animation. Concepts and skills related to timing, rhythm, and motion will be introduced through projects designed to develop technical proficiency while challenging students in the development of a personal aesthetic. Emphasis will be placed on narrative and/or conceptual content and proper execution. Topics in animation history will be explored through relevant screenings of complete shorts and/or excerpts from feature-length

commercial and independent animated productions, which will be evaluated and discussed. This course has a lab component in which concepts covered in class will be applied in a computer lab environment.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: ART-123 and ART-166

CGR-245 Animation II (3.00 cr.)

This course is a continuation in drawn and digitally produced animation introduced in CGR-239. Concepts and skills related to timing, rhythm and motion are further developed through projects designed to develop technical proficiency while challenging students' in the development of a personal aesthetic. Emphasis will be placed on narrative and/or conceptual content and solid craftsmanship in execution. Topics in animation history will be explored through relevant screenings of complete shorts and/or excerpts from feature-length commercial and independent animation, presented for evaluation and discussion. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CGR-239

CGR-270 Computer Graphics Internship/Co-Op (3.00 cr.)

This course is a supervised work and learning experience in a professional environment under the direction of a Computer Graphics faculty member and an employee of a participating firm. Enrollment is contingent upon the availability of internships. Students are selected on the basis of personal qualifications, including GPA, courses taken, recommendations, and an interview.

Co-Op (135.00)

CHINESE

CHI-101 Elementary Chinese I (3.00 cr.)

The course is designed to students with no prior knowledge of Chinese. It aims at developing students' elementary skills in listening, speaking, reading and writing of Putonghua (Mandarin), as well as cultural understanding. The student will be able to produce Chinese sounds through learning Pinyin, write about 100 characters (simplified version), read and write simple texts/sentences. The course will also promote students' appreciation for a different culture and language. This course is not intended for native speakers.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

CHI-102 Elementary Chinese II (3.00 cr.)

This course continues to introduce students to the Mandarin (Putonghua) Chinese language and provides a basic working knowledge of the language (listening, speaking, reading, writing). It also provides cultural characteristics of the people who use the language natively. This course is not intended for native speakers.

Lecture (45.00)

Prerequisites: ENG-012, ENG-022 and CHI-101 or two years of high school Chinese

CHEMISTRY

CHM-010 Preparation for Chemistry (4.00 cr.)

This preparatory course provides the students with mathematical skills needed for basic computations and their applications in the physical sciences and introduces them to the elementary concepts of energy and matter. Also included are the basic laboratory procedures of chemistry. This course is designed to prepare students with little or no background in chemistry for college chemistry. (Credits do not apply toward graduation requirements).

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

CHM-101 General Organic & Biological Chem I (4.00 cr.)

This course is designed for allied health students such as nurses. This course is not equivalent to CHM-111 and is NOT appropriate for pre-

medical or pre-pharmacy students or for those majoring in chemistry, biology, physics or engineering. This course is an introduction to fundamental principles and concepts of general chemistry including the topics of measurements, atomic structure, the periodic table, chemical bonds, stoichiometry, oxidation-reduction, gases, solids, liquids, solutions, colloids, rates of chemical reaction, equilibrium, acids and bases, and nuclear chemistry. Laboratory experiments illustrate the listed chemical principles and develop familiarity with laboratory techniques.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-010 and MTH-029 and (ENG-013 and ENG-023) or ENG-046

CHM-102 General Organic & Biological Chem II (4.00 cr.)

This course is a continuation of General Chemistry I. The course is an introduction to organic and biological chemistry including hydrocarbons, alcohols, derivatives of carboxylic acids, and amines, as well as carbohydrates, amino acids, proteins, enzymes, lipids, and metabolism. Selected laboratory experiments illustrate the reactions and properties of the listed compounds. Also included is an introduction to qualitative and quantitative laboratory techniques. This course is designed for Allied Health students.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-101 or CHM-111

CHM-111 Chemistry I - Science (4.00 cr.)

This course is appropriate for students majoring in chemistry, biology, mathematics, physics or engineering. It also is the appropriate general chemistry course for pre-medical, pre-pharmacy, pre-dental and pre-veterinary students. This course is an introduction to the fundamental principles and concepts in chemistry: measurements, matter, atomic theory, chemical calculations, reactions, gases, atomic properties, chemical reactions, periodic table, chemical bonding, liquid, solids and intermolecular forces. Laboratory experiments illustrate chemical principles and develop laboratory skills.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-010, and MTH-124 or MTH-125

CHM-111H Honors Chemistry I - Science (4.00 cr.)

This course is appropriate for students majoring in a science such as chemistry, biology, mathematics, physics or engineering. It also is the appropriate general chemistry course for pre-medical, pre-pharmacy, pre-dental and pre-veterinary students. This course is an introduction to the fundamental principles and concepts in chemistry: measurements, matter, atomic theory, chemical calculations, reactions, gases, atomic properties, chemical reactions, periodic table, chemical bonding, liquid, solids and intermolecular forces. Laboratory experiments illustrate chemical principles and develop laboratory skills.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-124 or MTH-125 and Acceptance into the Honors Program

CHM-112 Chemistry II - Science (4.00 cr.)

This course is appropriate for students majoring in chemistry, biology, mathematics, physics or engineering. It also is the appropriate general chemistry course for pre-medical, pre-pharmacy, pre-dental and pre-veterinary students. This course is a continuation of Chemistry I Science (CHM-111). Topics include crystal structures, phase diagrams, solutions and properties, kinetics, thermodynamics, chemical equilibrium, acids and bases, electrochemistry and nuclear chemistry. Laboratory experiments illustrate chemical principles and develop laboratory skills.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-111

CHM-112H Honors Chemistry II - Science (4.00 cr.)

This course is a continuation of Honors Chemistry I Science (CHM-111H). Topics include crystal structures, phase diagrams, solutions and properties, kinetics, thermodynamics, chemical equilibrium, acids and

bases, electrochemistry and nuclear chemistry. Laboratory experiments illustrate chemical principles and develop laboratory skills.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-111H or CHM-111 with a grade of A or B and Acceptance into the Honors Program

CHM-120 Chemistry for Fire Protection (4.00 cr.)

A study of the fundamentals of chemistry directed specifically to the area of fire protection is presented. It includes measurements, matter, atomic theory, chemical reactions, solids, liquids and gases, combustion, heat of reactions, and methods of extinguishment. The laboratory experiments are selected to reinforce the lecture subject matter. Fire Science students only.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-029

CHM-130 General/Organic/Biochemistry Dental Hyg (4.00 cr.)

This course is designed specifically for those applying to, or enrolled in, the Dental Hygiene Program and may not transfer to other institutions as a chemistry course. This course is a survey of the fundamentals of inorganic chemistry, organic chemistry, and biochemistry. The laboratory experiments are designed to reinforce the lecture material and develop basic laboratory skills.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-029 (ENG-013 and ENG-023) or ENG-046

CHM-140 Chemistry & Society (4.00 cr.)

This course is designed for non-science majors. The course will present some of the fundamental concepts of chemistry and introduce students to laboratory experimentation. Interesting chemistry topics will be considered with regard to their social, environmental, and economic issues. Discussion topics may include: air pollution, the ozone layer and the impact of technology on global warming; alternative energy sources, such as solar, nuclear and biomass processes; water pollution; nutrition; the mechanism of action of various drugs, and other topics based on student interest and instructor expertise. Fundamental chemistry topics to be discussed include: experimental measurements; atomic structure, atom properties and the periodic table; bonding, structure and reactivity; the solid, liquid and gaseous states; stoichiometry of chemical reactions; properties of solutions; rates of chemical reaction and catalysis; oxidation-reduction and acid-base reactions; pH; synthetic and natural polymers, including biopolymers such as proteins, carbohydrates and nucleic acids; and electrochemistry.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: ENG-101 and MTH-029

CHM-140H Honors Chemistry & Society (4.00 cr.)

This course is designed for non-science majors. The course will present some of the fundamental concepts of chemistry and introduce students to laboratory experimentation. Interesting chemistry topics will be considered with regard to their social, environmental and economic issues. Discussion topics may include: air pollution, the ozone layer and the impact of technology on global warming; alternative energy sources, such as solar, nuclear and biomass processes; water pollution; nutrition; the mechanism of action of various drugs, and other topics based on student interest and instructor expertise. Fundamental chemistry topics to be discussed include: experimental measurements; atomic structure, atom properties and the periodic table; bonding, structure and reactivity; the solid, liquid and gaseous states; stoichiometry of chemical reactions; properties of solutions; rates of chemical reaction and catalysis; oxidation-reduction and acid-base reactions; pH; synthetic and natural polymers, including biopolymers such as proteins, carbohydrates and nucleic acids; and electrochemistry. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

Laboratory (45.00)

Prerequisites: ENG-101 and MTH-029

CHM-145 Introduction to Forensic Science (4.00 cr.)

This is an introductory course in forensic science intended for criminal justice students and others interested in a laboratory science. Basic material in chemistry, biochemistry, mathematics and physics will be presented so that students have the requisite background to understand and appreciate the role of the crime laboratory in modern forensics. Laboratory experiments demonstrate modern forensic techniques and integrate the fundamental of science.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-029 (ENG-013 and ENG-023) or ENG-046

CHM-150 Chemistry of Art Materials (4.00 cr.)

This course is designed for fine arts majors. The course will present some of the fundamental concepts of chemistry and introduce students to laboratory experimentation. Chemistry topics will be considered with particular regard to their applications in art. Fundamental chemistry topics to be discussed include experimental measurements; physical and chemical properties of materials; composition and structure of materials; the solid, liquid and gaseous states; dyes, visible spectroscopy and the perception of color; stoichiometry of chemical reactions; properties of solutions; rates of chemical reaction and catalysis; oxidation-reduction and acid-base reactions; pH; synthetic and natural polymers; and electrochemistry.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: ENG-101 and MTH 029

CHM-160 Fundamentals of Food Science (4.00 cr.)

This course introduces students to the science and technology related to foods. Topics include the structure, function and metabolism of the three primary biomacromolecules (proteins, carbohydrates and lipids) as well as the effects of enzymes, vitamins and hormones on food metabolism. The course will also include the effects of temperature on food (storage and cooking) and the laboratory techniques used in the food science industry.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: FNS-130 and CHM-101, or FNS-106 and CHM-111

CHM-221 Organic Chemistry I (4.00 cr.)

This course is an introduction to organic chemistry with an emphasis on compound structure, functional group transformations, and reaction mechanisms. Topics covered include: acid-base chemistry, alkanes, cycloalkanes, alkyl halides, alkenes, alkynes, radical reactions, conformational analysis, stereochemistry and the application of reactions in organic synthesis. Laboratory experiments focus on fundamental techniques (melting point, recrystallization, distillation, extraction, thin-layer chromatography) and representative reactions (nucleophilic substitution, hydrogenation, alkene elimination reactions).

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-112

CHM-222 Organic Chemistry II (4.00 cr.)

This course is a continuation of Organic Chemistry I. Organization is primarily by functional group: aldehydes and ketones, carboxylic acids and their derivatives, amines, enolates, conjugated dienes and aromatic compounds. Organic synthesis, reaction mechanisms, biologically interesting molecules and spectroscopy will be discussed. Laboratory experiments continue to develop analytical techniques and synthetic skills.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CHM-221

COMPUTER INTERACTIVE DESIGN

CID-105 Podcasting (3.00 cr.)

This course introduces students to the fundamentals and practical applications of Podcasting. Students will explore all types of podcasting and blogging methods so they can self-publish their content and create podcasts for a wide audience. Course content will include both audio and video tool options. Students will upload to a web server so the podcasts may be accessed from the World Wide Web. The vocabulary language associated with the podcasting process will be covered. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion to teach students the procedure to utilize audio and video tools in the creation of a podcast. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-113 Web Page Design I (3.00 cr.)

This course provides a comprehensive overview of web design & development. This combined lecture/lab course is an introduction to the creative and technical possibilities of web design and development. Students will explore vocabulary, tools, and standards used in the field. They will explore how the various facets including HTML5, CSS, JavaScript, multimedia, scripting languages HTTP, clients, servers, and databases function together in today's web environment. Emphasis is placed on the visual and technical problem solving process through the use of applications and equipment. The course will also focus on how the advertising market is changing, what is trending on-line as it related to websites and using the Internet as a tool for communication. Students will use industry standard software as well as coding skills to develop web pages. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. In the lab students will design web pages using the above listed skills with the assistance of the instructor. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-115 Digital Storytelling (3.00 cr.)

This course will focus on the planning, storyboard design and scripting of interactive media productions. Students will look at the storytelling, layout & design, and documentation. Narrative scripts and design will be developed with an emphasis on scene design, characterization, plotting, target audience, messages and script format.

Lecture (45.00)

CID-123 Interactive Interface Design (3.00 cr.)

The boundaries between hardware and software, device and user have changed dramatically and continue to change. This course examines the user-centered interactive design approach to interface development and interactive applications for general and instructional design. It provides an overview of media in historical, current and future contexts; examining the role of written and visual media from both a contextual and practical perspective. This course will introduce a systems approach to multimedia, interactive and instructional design which includes introductory information and application of skills and techniques necessary in the analysis, design, development, implementation, and evaluation of interactive instruction.

Lecture (45.00)

CID-125 Game Design and Development I (3.00 cr.)

This course will introduce the student to basic game theory, game-play, interactive concepts and strategy. Historical development of all types of games and interactive concepts as they are affected by world and market conditions will be explored. Before writing a single line of code the student will learn the importance and create a map for what they are going to build. In addition, the specific history of the video-game industry and

interactive industry will be examined, as well as the overall processes involved in developing a video-game and interactive project from basic conception to selling the proposal to production and marketing concepts. Lecture (45.00)

CID-200 Game Design & Development II (3.00 cr.)

This course will focus on the production, design and technical skills of game design. Students will learn the many aspects of a game development team and learn how each of these roles contributes to a game's overall design. The labs in this hands-on course will focus on techniques in design, and technical skills required to develop and design a computer generated interactive video game. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-125

CID-203 UI & UX Design (3.00 cr.)

The hands-on course will focus on web mock-up development and interactive design for user interfaces related to the web and mobile applications. In the lab students learn the process of planning and developing a user interface design (UI) that optimizes the user experience (UX). Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-204 Web & Digital Publications (3.00 cr.)

The course will explore the creative planning and technical execution of viewable information for a targeted audience. The digital publications (layouts, interactive and on-line) are intended to convey information and advertisements. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion related to the creation of advertisements, promotional, branding, banner designs, logo creation, and interactive multi-media publications as it relates to web and digital publications. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-205 Graphics for the Web (3.00 cr.)

An image can communicate powerful ideas and emotions; graphics can enhance a site's experience, support its content, and create a visual hierarchy. This course focuses on creating Web graphics including technical fundamentals and techniques for the wide range of graphics encountered in a typical Web design project. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work and discussion related to the fundamentals and techniques necessary to create web graphics. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-214 Web Page Design II (3.00 cr.)

This course is a continuation of Web Page Design I. It includes advanced features of web design including HTML, CSS, JavaScript and Bootstrap as well as system administration for setting up and managing a website. Students will explore front-end and back-end technologies for making interactive websites. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. Laboratory sessions will focus on the utilization of the above progress in

the creation of a website. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-113

CID-215 Web Multimedia (3.00 cr.)

This hands-on course focuses on creating multimedia Web sites. The emphasis is on using cross-platform tools to create high quality, low bandwidth media that downloads fast and works with most browsers. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion to reinforce the use of cross platform tools in multimedia websites. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-220 Web Development (3.00 cr.)

This course studies strategies for making effective use of Web architecture and programs. It emphasizes site maintenance and focuses on the technical aspects of Web development from a designer's standpoint. In lecture and labs students will learn the fundamentals of JavaScript as a method to create interactivity with text, animation, sound and graphics. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-223 Virtual Reality I (3.00 cr.)

This course will provide a comprehensive study of Virtual Reality (VR) technologies and 3D user interfaces. Students will learn how to build, create and develop virtual reality experiences through hands-on programming assignments using VR headsets. The course will cover the history of virtual reality, fundamental theory, explore interactive & immersive technologies and specific application. Students in the course will be given an opportunity to interact directly with immersive virtual environment technology in the lab. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-225 Virtual Reality 360 (3.00 cr.)

This production-oriented course will explore Virtual Reality (VR) 360-degree video, storytelling, immersive user experience, virtual reality and computer-generated scenes. Students will covers the basics of shooting and editing VR 360 video, how the technology is evolving, as well as the tools and techniques you need to plan, shoot, and edit VR 360 content and incorporate the video in a VR world. Students will be tasked with building a VR 360-degree environment and augment it with points of interactions and direction that will enhance the viewer's engagement. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-227 Virtual Reality II (3.00 cr.)

This course continues with Virtual Reality (VR) and explores Augmented Reality (AR) technologies. Emphasis is on building, designing and developing interactive virtual and augmented reality experiences. The course will explore interactive & immersive technologies and specific application. Students will be tasked with creating their own virtual or augmented reality application as a course project. The course is divided

between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-223

CID-239 2D Interactive Animation (3.00 cr.)

The course will explore the creative and technical aspects of designing 2D interactive animation. Student projects are directed toward the design of interactive environments for the web and applications. Laboratory activities will instruct the student in the design of 2D interactive environments for the web and their applications. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-241 3D Computer Animation I (3.00 cr.)

This course introduces the fundamental 3D principles of modeling and animation. Topics include; perspective and the anatomy of a figure. The student will learn the basic concepts of shape and object manipulation. Lectures include demonstration of industry leading modeling and rendering software used in assignments and class discussions designed to reinforce the fundamental 3D principles of modeling and animation. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-242 3D Computer Animation II (3.00 cr.)

This course builds on the foundation in 3D Computer Animation I. It further develops the student's basic animation skills with particular emphasis on lighting, motion and rendering. Students will study advanced computerized animation techniques, working in the three dimensional environment. Emphasis is on creative content experimentation and critical thinking. Creative and conceptual developments are emphasized throughout the course. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion to reinforce the animation skills listed above. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-241

CID-243 Computer Animation III (3.00 cr.)

This capstone course explores advanced concepts in 3-D designing and producing computer-generated animation. Students begin production of animation samples that demonstrate creativity and knowledge of sophisticated animation techniques. Students will utilize lab time to complete a number of 3D projects and assignments, research animation career opportunities and develop a video portfolio of their own work. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-242

CID-244 Special Effects (3.00 cr.)

This course explores various aspects of special effects in game design, web sites, interactive multimedia and film/video. Developers must be

familiar with the basics of applying sound and visual effects in a computer generated interactive environment. Students will learn how to composite special effects by combining the elements of graphics, animation, video, and audio using leading industry software. Students will learn some of the mysteries behind the production of special effects by reviewing case studies. In the lab students will complete various assignments and create projects that demonstrate their understanding of special effects. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

CID-255 Game Design & Development III (3.00 cr.)

This course uses lecture and lab to explore advanced production in game design and development skills. Students will produce advanced interactive video games with special effects, animation and sound effects. Students will complete a number of video game projects and assignments, research game design career opportunities and develop a video game portfolio of their own work. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-200

CID-256 Game Design & Development Final Project (3.00 cr.)

This capstone course explores advanced production in game design and development. It will expand on the higher-level techniques introduced in Game III including: interactivity, programming, special effects, animation and sound effects. Students will complete the working game that they started in Game Design III and they will develop the sales, testing and marketing materials to promote this game. These tools are needed for the student's video game portfolio. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion focused on the tools and skills necessary to create a functional game. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CID-255

CID-260 Comic Book Design (3.00 cr.)

This course will provide an introduction to current techniques for comic book design. The course involves basic instruction on storytelling by means of pictures. It deals with design, page layout, and character development. Topics will include how to create the story, characters and text balloons, to page layout/design, adding special effects and 2D and 3D design. This course combines traditional and computerized techniques. Laboratory activities will consist of demonstrations, exercises, faculty supervision of student work period and discussion to reinforce the lecture topics presented above. The course is divided between lecture and lab to help students make more direct links between what they learn during a lecture setting and what they learn during a hands-on activity.

Lecture (30.00)

Laboratory (30.00)

COMPUTER INTEGRATED MANUFACTURING

CIM-101 Machine Shop Practices (3.00 cr.)

Machine Shop Practices is an introductory course in the use of hand tools, machine tools and computer numerically controlled (CNC) machine tools used in modern machine shops and metalworking factories. Students learn basic manufacturing techniques through lecture and demonstrations and then solidify, expand and integrate this knowledge by making a series of

projects in the shop. Students may be required to work beyond classroom hours to complete assigned hands-on projects.

Lecture (30.00)

Laboratory (30.00)

CIM-115 Microcontroller Applications (3.00 cr.)

This course is designed to introduce the student to the use and application of single chip microcontrollers in the design of instrumentation, embedded control systems, and physical computing systems. The programming platform will be the Arduino family of microcontrollers and work-alike development boards with an emphasis on the Uno system. Students will author and debug several programs using the Arduino Integrated Development Environment (IDE) and the C/C++ programming language. Students will be provided a foundation for applying microcontrollers in diverse applications including home and/or factory automation, robotics, animatronics, and autonomous machines. Standard keyboard familiarity is recommended. No previous programming or electronics experience is required.

Lecture (30.00)

Laboratory (30.00)

CIM-120 Electricity & Control Systems (4.00 cr.)

This course is designed to be the Related Technical Instruction needed to work as an Industrial Maintenance Mechanic. Topics include: electrical power generation, distribution, calculations, and related theory for AC and DC circuits; industrial control system design, implementation, control, maintenance, and repair theories; related motor and other peripheral controls such as safety interlock, push buttons, light curtains will be explained.

Lecture (45.00)

CIM-125 Hydraulics & Pneumatics (4.00 cr.)

This course is designed to be the related technical instruction needed to work as an Industrial Maintenance Mechanic. Topics include the ability to read and interpret piping schematics. Identify and select proper materials for installation and replacement. Prepare material for installation or repair of piping systems. Describe assembly and disassembly methods of piping systems. Understand adjustment of actuator speed, determine and adjust system-operating pressures. Understand the proper maintenance of filters and water separators. Troubleshoot common system malfunctions.

Lecture (45.00)

CIM-130 Mechanical Systems Maintenance & Operation (4.00 cr.)

Course is designed to be the Related Technical Instruction needed to work as an Industrial Maintenance Mechanic. Topics include power transmission components and variables, springs, bearing, gears, belts, clutches, and brake applications. Hand tool types, assembly methods, and fastener designs are taught as needed maintenance component of operations.

Lecture (45.00)

CIM-135 Welding & Soldering Theory (3.00 cr.)

This course provides related technical instruction needed to work as an Industrial Maintenance Mechanic. Topics include welding safety rules, basic welding techniques and applications of an acetylene torch, part preparation, SMAW principles, GMAW principles, basic weld inspection techniques, and plasma cutter applications.

Lecture (45.00)

CIM-136 Advanced Welding Theory Apprenticeship (3.00 cr.)

This course provides related technical instruction needed to work as a welder. Topics include advanced welding principles, safety, techniques and applications of various methods. Methods included are oxi-acetylene torch, SMAW, GMAW, and GTAW. Advanced weld inspection techniques, and plasma cutting applications are also covered.

Lecture (45.00)

CIM-140 Workplace Essentials (3.00 cr.)

Course is designed to provide the essential background knowledge for workforce personnel entering the industrial manufacturing sector. The course will provide career readiness in the topics of safety, quality operations/control, inspection, rigging, and computation.
Lecture (45.00)

CIM-141 Workplace Essentials Welding Apprentice (3.00 cr.)

This course is designed to provide the essential background knowledge for workforce personnel entering the industrial welding sector. The course will provide career readiness in the topics of safety, quality operations/control, inspection, rigging, and computation specific to the welding trade.
Lecture (45.00)

CIM-202 Conventional Machinist (3.00 cr.)

This course is intended to give students the necessary machine time to complete the competencies set forth by the National Institute of Metalworking skills machinist Level I credential. Students will be shown how to use the NIMS website to register and receive their custom training guide to practice the competencies required by the Machinist Level I certification. The Machinist Level I certification has 11 competency standards that must be passed in order to receive the certification. The cost of tuition does not cover the cost of these exams. A student can still attend this class to learn the material and pass the class without registering with NIMS. The material will cover the skills required to become a conventional machinist. This course is part I of a two-part series of courses. The first 7 competencies of Machinist Level I will be addressed.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: CIM-101

CIM-211 PLC Programming (4.00 cr.)

No investigation of the modern industrial or controls environment would be complete without the study of the Programmable Logic Controller (PLC) and its attendant programming language: Relay Ladder Logic (RLL). This course is designed to achieve these ends. This introductory course will explore the history, theory, programming, and operation of the PLC. It will include wiring the PLC to real-world devices. It will cover those features common to all PLCs and briefly discuss those features offered on high-end machines. Both the capabilities and the limitations of the PLC will be discussed. Particular emphasis will be placed upon digital control with analog control applications being reserved for Advanced PLC Programming: CIM-212. The PLC used will be the Allen-Bradley SLC-5/02 and 5/04 processors. The A-B MicroLogix 1200 controller is also available for exploration. The programming environment will be Windows using the RSLogix 500 programming application and RSLinx communication software. Although the course will include a basic review of electrical principles, prior electrical/electronic and/or computer programming experience will enhance success and student persistence in this course.
Lecture (45.00)
Laboratory (45.00)

CIM-212 Advanced PLC Programming (3.00 cr.)

This course, formerly entitled Industrial Controls Systems, is a continuation of CIM-211, PLC Programming. Students will use the RS Logix-500 software package, running under the Windows operating system to investigate the advanced functions of the Allen-Bradley SLC-5/02 Programmable Logic Controller (PLC). This is chiefly a lab-oriented course. Preparatory lectures will accompany each lab assignment. Topics covered will include transitional bits, bit forcing, PLC networking and telephony, bit and data manipulation, shift registers, and analog I/O. Program control using master and zone control relays, sequencers, and subroutines will be investigated.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: CIM-211

CIM-213 Tag-Based Pro Logic Controller Program (2.00 cr.)

This course investigates IEC-61131-3 PLC programming using Relay Ladder Logic (RLL). The course intended for students who have completed both CIM-211 (PLC Programming) and CIM-212 (Advanced PLC Programming). Students who possess equivalent qualifying industrial experience with Rockwell Software's RSLogix 500 PLC programming software may petition the instructor to waive the prerequisite course. This course will utilize Rockwell's RSLogix5000 and or Rockwell's Studio5000 programming package to create, modify, upload, and download tab-based RLL PLC programs to Allen-Bradley's (AB) 5000- class of PLC's. Specifically, the course explores specialty I/O modules, sensor interfacing, advanced mathematics and scaling techniques, and advanced trouble-shooting procedures utilizing Rockwell Software's 5000-class Software and CompactLogix Hardware. The programming platform will be Windows; therefore, familiarity and hands-on experience with this Windows operating system is required.
Lecture (15.00)
Laboratory (30.00)
Prerequisites: CIM-212

CIM-219 CNC Machinist (3.00 cr.)

This course is a continuation course intended to give students the necessary machine time to complete the competencies set forth by the National Institute of Metalworking skills Machinist Level I credential. Students will be shown how to use the NIMS website to register and receive their custom training guide to practice the competencies required by the Machinist Level I certification. The Machinist Level I certification has 11 competency standards that must be passed to receive the certification. A student can still attend this class to learn the material and pass the class without registering with NIMS. The material covered will be the skills required to become a CNC machinist. This class is part two of a two-part series of classes designed to parallel the competencies set forth by NIMS. The last 4 competencies of Machinist Level I will be addressed. These are the CNC machinist portions of the certification.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: CIM-101 and CIM-221

CIM-221 CNC Programming & CAM (4.00 cr.)

This is an intensive, two-part course designed for CIM students. Part one of this course concentrates on Computer Numerical Control (CNC) Programming for milling and turning centers using EIA standard RS274D programming format. Some of the major topics covered in this first portion of the course are basic CNC Operations, Cartesian Coordinates, Preparatory Functions, Miscellaneous Functions, Canned Cycles, RS232, DNC, MS-DOS, and Off-line programming. Part two of this course is devoted to Computer Aided Manufacturing (CAM). Students will generate CNC programs for milling and turning centers using a PC-based CAM system.
Lecture (45.00)
Laboratory (45.00)

CIM-222 Advanced CNC & CAM (3.00 cr.)

This is an intensive course designed for CIM students preparing for employment as CNC Programmers. This course concentrates on three-dimensional Computer Numerical Control (CNC) Programming for machining centers using a personal computer based Computer Aided Manufacturing (CAM) software. Some of the major topics covered in this course are standard 3D surface types and definitions, Post Processor theory, planar roughing of 3D surfaces, complex surfaces, and multiple surface machining.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: CIM-221

CIM-231 Motors Controllers and Sensors (3.00 cr.)

This course is designed for CIM and Manufacturing Engineering students. It combines hands-on experiments with lecture topics. Covered topics will include AC and DC power, AC and DC motors, open and closed loop control, and stepper motors. Induction and commutation will be covered.

Photoelectric, capacitive, and inductive sensors will be discussed and used. Optoelectronics, pneumatics and solenoid valves, transformers, and motor name plate reading will be covered. Paraday's Laws will be investigated. SCR, Triac, Relay, and Pulse Width Modulated (PWM) speed control techniques are discussed. NPN and PNP transistors, current-limiting resistors, exercises are performed. Laboratory exercises will include computer control of stepper motors, PLC control of a DC motor, motor dismantling, sensor applications and identification, design and building of a photoelectric switch and lead screw pitch determination. Both mechanical and solid state relay labs will be conducted. Qualified industrial experience will fulfill the prerequisite requirement.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CIM-211

CIM-251 CIM Integration/Project (2.00 cr.)

This capstone course for the CIM.AAS degree is the culmination of the CIM curriculum. It serves as a pseudo "final exam" on the curriculum because it requires the student to integrate the knowledge gained in the preceding courses in manufacturing, electronics, robotics, computers, CADD and quality control. Students are divided into small work groups. Each group is assigned the task of manufacturing a part or a series of parts. The group designs, builds, programs, and operates a manufacturing cell to produce its "product". In addition, individual students also participate in the on-going full-scale manufacturing enterprise of the CIM Center. This is a project based lab class.

Laboratory (60.00)

Prerequisites: CIM-101, CIM-211, and CIM-221

Corequisites: CIM-231

CIM-255 Precision Machining Project (2.00 cr.)

This is a capstone (project) class that draws upon the skills learned in the prerequisite classes of the Precision Machinist Technology curriculum. The student will be able to hone their skills while preparing a portfolio of physical objects to enhance their resume. Students will use the conventional and computerized machinery to make real parts. Students will also have the option to continue their quest for more National Institute for Metalworking Skills (NIMS) credentials if so desired.

Laboratory (60.00)

Prerequisites: CIM-101, CIM-202, CIM-219 and CIM-221

COMPUTER INFORMATION SYSTEMS

CIS-005 Computer Fundamentals (3.00 cr.)

This computer course is designed to give the student basic computer and internet skills for use in their adult life. It will cover a fundamental understanding of the computer environment, use of the Windows Operating System, exploring the Internet and working with the productivity software: word processing and presentation software. Students will become familiar with the information available on the Camden County College Website, utilize the CCC Student email system, access the CCC Webadvisor to process academic information, and become acquainted with the online learning management system of Webstudy used for online enhanced classwork at CCC. Knowledge of the keyboard is recommended for this course. (Credits do not apply toward graduation requirements.).

Lecture (45.00)

CIS-101 Personal Computer Applications (3.00 cr.)

This course is an introduction to microcomputers in which the student will become familiar with the operation of the operating system, word processing, spreadsheets, database applications, presentation software and the Internet. The course will focus on helping the student logically plan the processes that are necessary to communicate with the computer to produce a desired result. During the semester, students will learn the Windows Operating System, the Microsoft Office Suite (Word, Excel, Access and PowerPoint), and a web browser to access the Internet/WWW. This course is taught in a room with computers. Students benefit by interacting with the lecture material. However, there are no graded or mandatory student computer exercises required during the class lecture.

All hands-on assignments are completed outside of class. It is recommended that students who lack keyboarding skills acquire them by taking the one-credit course OST-110: Microcomputer Keyboarding.

Lecture (45.00)

CIS-102 Spreadsheets (3.00 cr.)

This course is designed for students who will need to use spreadsheets in their career. It is a requirement for many computer fields, business field or related areas. Students will learn to use a popular spreadsheet package and learn to plan, build, test, and document spreadsheets. Emphasis is placed on real life applications using a case study approach. Topics include: formulas, charts, functions, creating and using macros, examining "what-if" alternatives, worksheet databases and integrating worksheet applications. This course is taught in a room with computers. Students benefit by interacting with the lecture material. However, there are no graded or mandatory student computer exercises required during the class lecture. All hands-on assignments are completed outside of class.

Lecture (45.00)

CIS-103 Database Management (3.00 cr.)

This course is designed for students who will need to use databases in their career. It is a requirement for many computer fields, business fields, or related areas. Students will learn to use a popular relational database management system. Basic database concepts will be introduced. Students learn how to plan, create and maintain databases. Other topics include: queries, customized forms, reports and introduction to user interface design, macros and a database programming language. SQL will be introduced as well as elementary database design concepts. This course is taught in a room with computers. Students benefit by interacting with the lecture material. However, there are no graded or mandatory student computer exercises required during the class lecture. All hands-on assignments are completed outside of class.

Lecture (45.00)

CIS-105 Computer Literacy (3.00 cr.)

This course is designed to provide the student with the knowledge and skill to use computers efficiently. Students will gain "hands-on" experience on a Windows based PC in word processing, spreadsheets, database management, a web browser, a student information system, and an operating system. Students will also learn the many facets of information technology, the way in which the world is being changed by it, and the associated risks and potential implications of technology in society. Topics will include an introduction to programming, an introduction to the hardware and software components of a computer system, the Internet, computer systems found in business, computer ethics, computer security, and the application of information technology to research information. Topics flow from the concrete to the abstract, from the present to the future. Knowledge of the keyboard is recommended for success in this course.

Lecture (45.00)

CIS-106 Intro Computing Google Apps (G Suite) (2.00 cr.)

This course provides the student with the ability to responsibly, appropriately and effectively use technology tools to access, manage, integrate, evaluate, create and communicate information independently or with others. In this course, students will learn the essential fundamentals of how to navigate the interfaces of Google Apps (G Suite), a Web-based collaborative Software as a Service (SaaS) solution that provides an integrated suite of secure, cloud-native collaboration and productivity applications. Students will use the G Suite tools of the Google Drive (cloud storage), Gmail, Calendar, Docs (Word Processor), Sheets (Spreadsheet), and Slides (Presentation Software) to store and display information. Knowledge of the keyboard is recommended for success in this course. This course is taught in a room with computers. Students benefit by interacting with the lecture material. However, there are no graded or mandatory student computer exercises required during the class lecture. All hands-on assignments are completed outside of class.

Lecture (30.00)

CIS-112 The Technology of the Smartphone (1.00 cr.)
Smartphones have become an integral part of life. This course will provide the students with an appreciation of the complexity of smartphone, the history, and the technology. It will build the student's knowledge of the smartphone to enhance the use of it and bring them to an awareness of the great impact smartphones make to business and ecommerce.
Lecture (15.00)

CIS-115 Cyberspace Ethics and Security (2.00 cr.)
This two-credit course provides an up-to-date investigation of the internet's influence on our society and our lives. As the internet use expands and new information technologies are developed worldwide, unprecedented social and moral issues continue to emerge. Students will address problems of censorship, intellectual property, information privacy, and cybersecurity, and discuss potential resolutions that may be reached through technology, law, or a combination of the two. Case studies addressing major corporate data breaches, fair use and the Crypto Wars, and the political impact of regulation and "fake news," among other recent controversies, establishes the global context. As recommended by the Association of Computing Machinery (ACM), this course serves to guide computing professionals' ethical conduct and includes anyone using computing technology "in an impactful way".
Lecture (30.00)

CIS-181 Linux/UNIX Essentials (3.00 cr.)
This course is designed to give the student a working knowledge of the Linux/UNIX operating system. It does not assume any prior knowledge of Linux and is geared toward those interested in systems administration as well as those who will use or develop programs for Linux systems. The course provides comprehensive coverage of topics related to Linux certification, including Linux distributions, installation, administration, X-Windows, networking, and security. The student will learn a variety of standard Linux/UNIX basic commands, how to work with files and directories, standard input/output and I/O redirection, standard error, pipes, basic protection/permission features for files, and use both full and relative path names in a file system. The features of the major shells will be described. The vi editor will be explored. This course is taught in a room with computers for the explicit teaching of a computer skill set using lecture. Computers are used as a lecture tool to provide demonstrations and illustrations of the technical concepts taught. Access to computers provides the students with the opportunity of interacting with the concepts presented. No graded assignments or mandatory exercises are completed during the lecture. Hands-on assignments are completed outside of class.
Lecture (45.00)

CIS-191 Internet: Tools and Techniques (3.00 cr.)
This is a theory course that provides a broad knowledge of the Internet and its capabilities. The benefit of this course, to even the most novice Internet user, is that many topics are explored and discussed. Topics include the history of the Internet, devices and basic operations of the Internet, security issues, searching and browsing, tools used for blogging, creating web pages and social networking. If the course is taught in a room with computers, the students benefit by being able to interact with the material, however, there are no graded or mandatory student computer exercises required during the lecture or lesson; therefore, there would be nothing for a student to do during any designated lab time. This course does not involve "how-to" elements that would need practice during a lab time.
Lecture (45.00)

CIS-192 Practical Applications of Website Mgt (3.00 cr.)
This course is designed for the student seeking knowledge of the business elements of the Internet. Today's business marketing efforts require an Internet presence; this course will introduce the importance of an email marketing list, search engine and social media strategies. Businesses, large and small, exist for a single reason: to make a profit. Every expense must be held accountable toward enhancing or detracting from that profit. The cost of creating and maintaining an Internet website must be justified

under this criteria. This course will be, as the title implies, based on practical application. Based on real-life experiences, it will discuss practical solutions to both technical and business problems; areas rarely covered in a text.
Lecture (45.00)

CIS-206 Advanced Computer Concepts/Applications (3.00 cr.)
This course is a continuation of Computer Literacy in which the student will learn the advanced features of Word, Excel, Access, PowerPoint, and Publisher to use in the business environment. The students will learn and use several browsers and become knowledgeable in various operating systems. Emphasis will be placed on the following topics: user tools, user programming, presentation graphics, desktop publishing, use of scanners, workbook templates and data tables, macros, onscreen forms, Pivot Tables and Pivot Chart reports, mailing labels, digital photography, various Internet resources and commercial services. The theory content consists of articles that raise questions about how computers affect society to assist the students to clarify issues, widen perspectives, arouse curiosity and conduct educated discussions about the responsible use of emerging technologies of the computer age. This course is taught in a room with computers for the explicit teaching of a computer skill set using lecture. Computers are used as a lecture tool to provide demonstrations and illustrations of the technical concepts taught. Access to computers provides the students with the advantage of interacting with the concepts presented. No graded assignments or mandatory exercises are completed during the lecture. Hands-on assignments are completed outside of class.
Lecture (45.00)
Prerequisites: CIS-101 or CIS-105

CIS-210 Management of Information Systems (3.00 cr.)
Today, information systems are an integral part of all business activities and careers. This course introduces the students to contemporary information systems and demonstrates how these systems are used throughout organizations. The focus will be on the key components of information systems - people, software, hardware, data, and telecommunications, and how these components can be integrated and managed to create competitive advantage. Ethics and security protection relating to the use of information technology will be explained. In addition to surveying the exciting topic of information systems, students will gain hands-on experience with business software tools commonly applied to business data analysis and database management as well as business process execution. As a result, students will obtain valuable information technology knowledge and skills for being successful in all areas of business.
Lecture (45.00)
Prerequisites: ENG-101, MTH-111; and CIS-101, CIS-105 or CIS-206

CIS-225 Project Management Essentials (3.00 cr.)
This course provides students with the knowledge and skills to plan and manage projects using Microsoft Project. MS Project is a powerful tool for project design and development. It documents the project from start to completion using tools to track the project schedules, costs and risks. The goal is for the student to learn and apply the basic usages of these tools preparing the way for more advanced topics, such as Project Management.
Lecture (45.00)

CIS-231 System Analysis & Design (3.00 cr.)
This course will provide students with the conceptual, technical and managerial foundations needed for effective systems analysis, design and implementation. Students will learn both traditional (structured) and object oriented approaches to analysis and design, including data modeling techniques such as data flow, entity relationship, use case, class, sequence, activity and state diagrams using tools such as Microsoft Visio. Students will also learn basic project management skills as it relates to adaptive and predictive projects typical in systems development. This course is taught in a room with computers. Students benefit by interacting with the lecture material. However, there are no graded or mandatory student computer exercises required during the class lecture. All hands-on assignments are completed outside of class.

Lecture (45.00)

Prerequisites: CSC-111 or CSC-171

CIS-234 SQL Server on Linux (3.00 cr.)

This course will guide the student to setting up and implementing a SQL Server solution on the open source Linux platform. Students will start by understanding how SQL Server can be installed on supported and unsupported Linux distributions. Then they will brush up their SQL Server skills by creating and querying database objects and implementing basic administration tasks to support business continuity, including security and performance optimization. By the end of this course, the student will be able to recognize and utilize the full potential of setting up an efficient SQL Server database solution in their Linux environment.

Lecture (45.00)

CIS-235 SQL Fundamentals I (3.00 cr.)

Relational databases often drive company-critical and web-enabled applications; therefore, database manipulation captures important data vital for a business ROI success. This course is hands-on data acquisitions working with relational databases, enabling the student to effectively analyze the business data. Popular databases use the Structure Query Language (SQL) to write and analyze queries and stored procedures. In this course, the student will learn to apply the basic SQL tools of use of the MS Sequel Server which will prepare the way for more advance topics, such as SQL Server Reporting Services (SSRS), Crystal Reports and other business intelligence tools.

Lecture (45.00)

Prerequisites: CIS-101, CIS-105 or CIS-206

CIS-236 Advanced SQL (3.00 cr.)

This course is a continuation of the first course CIS-234 SQL Server on Linux and is intended to provide the student with the detailed study of SQL data manipulations. It presents an in-depth hands-on study of the Structured Query Language (SQL) with some integration into Visual Basic. The main emphasis will be data management using Transaction SQL, stored procedures, triggers, and scripting using MS Sequel Server Tools. This course is taught in a room with computers running MS Sequel Server System.

Lecture (45.00)

Prerequisites: CIS-234

CIS-237 Relational Database Concepts (3.00 cr.)

In this course, the student will study the theory of Structured Query Language (SQL) and the Relational Database architecture and technologies. This model and design tools will be exemplified by the use of the MS Sequel Server System and its developer's tools. This course is taught in a room with computers to allow the students to benefit by being able to interact with the material, however, there are no graded or mandatory student computer exercises required during the session.

Lecture (45.00)

CIS-238 Database Security and Protection (3.00 cr.)

In the database environment, there are two realms of protection concerns (1) database (storage unit) and (2) the server (where the storage unit sits). This course emphasis is that students have an effective understanding to the importance of the business investments to protect its data. The course will cover hardware, software and human innovations to protect database environments. This course is taught in a room with computers to allow the students benefit by being able to interact with the material, however, there are no graded or mandatory student computer exercises required during the lecture.

Lecture (45.00)

CIS-239 Database Administration Principles (3.00 cr.)

This course is designed to prepare the student for the Microsoft Technology Associate Exam 98-364 Database Administration Fundamentals. This model and design tools will be exemplified by the use of the MS SQL Server and its developers tools. This course is taught in a room with computers to allow the students benefit by being able to

interact with the material, however, there are no graded or mandatory student computer exercises required during the lecture.

Lecture (45.00)

Prerequisites: CIS-237

CIS-241 Relational Database Management I (3.00 cr.)

A detailed study of the Structured Query Language (SQL), Relational Database Model, Normal Form Theories, and Forms Generation and Report Generation. This model and design tools will be exemplified by the use of the Oracle Relational Database Management System and its developers tools. This course is taught in a room with computers, the students benefit by being able to interact with the material, however, there are no graded or mandatory student computer exercises required during the lecture.

Lecture (45.00)

CIS-242 Relational Database Management II (3.00 cr.)

This course is a continuation of the first course (RDBMS-I) and is intended to provide the student with the detailed study of internet application development using the Forms Developer in the Oracle System, PL/SQL, and the Oracle Library Functions of the Structured Query Language (SQL). The main emphasis of this course is the development of internet applications using the relational database model and the Oracle tools. This course is taught in a room with computers. The students benefit by interacting with the material, however, there is no graded or mandatory student computer exercises required during the lecture. College level 3rd generation computer programming course or experience is required in this course.

Lecture (45.00)

Prerequisites: CIS-241

CIS-285 Linux/Unix Networking and Security (3.00 cr.)

This course is designed to give the student a working knowledge of Administration of the Linux/UNIX operating system in a security context. This includes the TCP/IP protocol, configurations and use of network access and data and system protection in the Linux and UNIX system. The student will learn to create Ethernet configurations in Linux and UNIX systems from a data security perspective and to configure network start ups, and services such as Telnet, FTP, and NFS as well as to use access control to develop effective firewalls and deny malicious agents in a host and to develop a mostly closed policy. Domain Name Server services will be learned as well as zoning, and secondary DNS. This course is taught in a room with computers for the explicit teaching of a computer skill set using lecture. Computers are used as a lecture tool to provide demonstrations and illustrations of the technical concepts taught. Access to computers provides the students with the advantage of interacting with the concepts presented. No graded assignments or mandatory exercises are completed during the lecture. Hands-on assignments are completed outside of class.

Lecture (45.00)

Prerequisites: CIS-181, CST-102 and CSC-171

CIS-288 Linux System Administration (3.00 cr.)

Common Linux administration topics will be covered in this course. Students will become familiar with administration tasks, and the tools used to accomplish those tasks. In addition, students will learn the various industry standards and established best practices for the efficient operation of Linux infrastructure. Students will be expected to have familiarity with the Linux command line (shell) and the VI text editor, which will be used throughout this course. This course is taught in a room with computers for the explicit teaching of a computer skill set using lecture. Computers are used as a lecture tool to provide demonstrations and illustrations of the technical concepts taught. Access to computers provides the students with the opportunity of interacting with the concepts presented. No graded assignments or mandatory exercises are completed during the lecture. Hands-on assignments are completed outside of class.

Lecture (45.00)

Prerequisites: CIS-181, CST-102 and CSC-171

CIS-289 Linux System and Services (3.00 cr.)

In this course, students who have learned basic Linux administration and networking will learn how to install, configure and manage Linux services. Students will use a virtual lab to learn how Linux can support a network with services such as the dynamic host configuration protocol, domain name system, lightweight directory access protocol (user authentication), and network time services. In addition, students will learn the LAMP stack (Linux, Apache, MySQL, PHP/Perl/Python) which is a common use of Linux servers. Students will learn how to install, configure, test and manage these services, and will learn basic syntax in protocols supported by these services (such as the hypertext markup language, structured query language, and Python). This course is the final in a series of courses that will be preparing the student for success when taking the CompTIA Linux+/LPIC-1 Exam, an industry recognized certification which demonstrates strong competence in Linux system administration. This course is taught in a room with computers for the explicit teaching of a computer skill set using lecture. Computers are used as a lecture tool to provide demonstrations and illustrations of the technical concepts taught. Access to computers provides the students with the advantage of interacting with the concepts presented. No graded assignments or mandatory exercises are completed during the lecture. Hands-on assignments are completed outside of class.

Lecture (45.00)

Prerequisites: CIS-181, CST-102 and CSC-171

COLLEGE SUCCESS**COL-010 The College Experience (3.00 cr.)**

This course is designed for students who are either taking remedial courses and are transitioning into college level courses or, returning adult students looking to familiarize themselves with strategies needed to be effective at the college level. Students will be oriented to four areas of college readiness: Individual as Self; Individual as Student; Individual as Worker; Individual as Community Member / Citizen. In addition, they will be introduced to the appropriate College resources to assist them in each area.

Lecture (45.00)

COL-011 College Success (2.00 cr.)

This course focuses on self-assessment, setting short-term and long-term goals, using college resources, and developing techniques for surviving in college. Students also participate in individualized academic and career planning and workshops on resume writing, job search, and interview techniques.

Lecture (30.00)

COMMUNICATIONS**COM-101 Influence of Mass Media (3.00 cr.)**

This course will enable the student to become familiar with the history and evolution of American mass media. The student shall recognize how and why the media operate as they do and what results they produce. The student shall develop analytical and critical skills enabling enlightened evaluation of media products and shall demonstrate an understanding of the obvious and the subtle effects of media upon the individual, the society, and the culture.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-102 Theory of Communications (3.00 cr.)

Theory of Communications is an introductory course in communications theory, principles, and applications. The student will analyze the principles and theories of communication and will apply these principles and theories to different communication situations.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-103 News Writing & Reporting (3.00 cr.)

This is a course in basic journalistic theory and practice for students interested in a career in the news media. The purpose of the course is to

provide the student with newswriting skills, reporting abilities, and an understanding of the legal and professional responsibilities of journalists.

Lecture (45.00)

Prerequisites: ENG-101

COM-104 Introduction to Public Relations (3.00 cr.)

Public relations is the values driven management of relationships with groups of people that can influence an organization's success. The course examines how organizations can ethically and systematically build productive, mutually beneficial relationships with such groups.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-105 Media Literacy (3.00 cr.)

Media messages are not always what they seem. This course offers students an opportunity to develop skills necessary to be in control of their media habits and to be media literate. Course goals are to assist students in the effort to understand why media messages are constructed, how to think critically about media messages, the effects of media messages, and how to best manage their media habits by using technology to locate, evaluate and use information. Students will use technology to present information.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-106 Living in a Networked World (3.00 cr.)

Developing a sense of self in an effort to fit into the broader world is critical. People are using the networked world (social media) for various reasons, including: "to gain a sense of freedom, to magnify their voice, to gather audiences, and to connect with others on a broader scale". This course will prepare students to present and navigate everyday communication activities with the appropriate use of technology. The course is an opportunity for students to understand themselves in both the physical and virtual worlds. Guidance will be given to locate, evaluate and use information as part of a networked world in which we live.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-055

COM-141 Introduction to Broadcasting I (3.00 cr.)

This course will give an overview of the broadcast industry, including some history and law (FCC), along with present day make-up and problems. It will also discuss the future of broadcasting and employment opportunities in an exploding information age. Students will learn about the operation of the studios at WDBK-FM and work in the station (lab) to complete assignments.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-143 Introduction to Electronic Media (3.00 cr.)

This course gives an overview of the electronic media industry including broadcast radio and TV, cable, electronic publishing, Internet, corporate and industrial telecommunications and related systems. Course goals are to provide students with an understanding of the different aspects of the electronic media industry and how they function together. The goals include discussion of historical and future concepts of the electronic media industry and career trends in the field.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-145 Intercultural Communication (3.00 cr.)

This course will provide the student with practical information regarding the problems present in communicating with people of other cultures. It also explores cross-cultural differences in the communication process in order to learn how to communicate effectively with one another across cultural boundaries.

Lecture (45.00)

COM-150 Sportscasting (3.00 cr.)

Excellent skills in sportscasting begin with preparation. Students will learn to develop general knowledge of announcing principles and techniques which include good habits for the care of the voice (including

breathing and voice exercises) and for detailed research in preparation for describing the drama, players and everyone involved in the game. In the course students will learn to sound conversational and have an acceptable visual presence while hosting a program on Twitch or coping with the stress and speed of providing play-by-play. Sportscasting is all about drawing in the listener/viewer with a compelling story conveyed through excellent skills in voice and presentation.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-151 Sportscasting Practicum I (1.00 cr.)

The course is an applied, monitored and a field-based learning experience in sportscasting. Students will gain introductory and practical experience in sportscasting as they follow a negotiated and/or directed plan of study. Emphasis is on developing a professional broadcasting style. A high level of supervision is provided by the instructor in a studio setting. Upon completion of the course, students will be able to apply techniques learned in a studio setting.

Field Work (45.00)

Prerequisites: COM-150

COM-196 Photojournalism Internship (3.00 cr.)

This is an applied course in Photojournalism. Emphasis will be on learning the proper methods of being a photographer and photojournalist for a newspaper, magazine or online media. The designation of a proper media outlet will be made final by the Communication program. One of the media outlets to be considered for the internship program is The Campus Press newspaper at Camden County College. The student is obligated to volunteer a minimum of 135 hours to complete the co-op.

Co-Op (135.00)

Prerequisites: ENG-101 and PHO-101

COM-198 Co-op I: Communications (3.00 cr.)

Cooperative Education is a program designed to award academic credit for work related to a student's major. The learning experience is defined as a combination of professional work experience, the development of measurable learning objectives based on the job description, and the completion of each individually tailored Co-op assignment. A Co-op advisor is assigned to each student to establish the academic validity of the cooperative education credits.

Co-Op (45.00)

COM-208 Public Relations: Digital Marketing (3.00 cr.)

This course gives an overview of the strategies and tools available to public relations professionals through the development of digital communications technology. This course will also provide a foundation of understanding the role of convergence and hypermedia (integrated multimedia incorporating digital audio, visual, and text information). Another goal of this course is to include discussion of historical and future concepts of public relations in the digital age.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

COM-213 Multimedia Editing Lab II (2.00 cr.)

Students will learn advanced reporting and producing techniques, intermediate skills in editing, and publishing and introductory skills in analytics. Utilizing appropriate web-based software, students will learn to appropriately, effectively and ethically report, create and edit news, information, sports and entertainment content for electronic distribution including student media. Specific skills in multimedia and cross-platform content creation will be learned. The course will also provide basic learning for use of web analytics. Students will make use of technology during the lab component of the course to evaluate and edit content and manage staff and information workflows.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: ENG-101

CRIMINAL JUSTICE

CRJ-101 Administration of Justice (3.00 cr.)

This course introduces the student to the American system of criminal justice. Its growth and development will be examined with emphasis placed on the various sub-systems of the criminal justice system and contemporary issues, which challenge its functional efficiency and effectiveness.

Lecture (45.00)

CRJ-103 Legal Systems (3.00 cr.)

This course examines the judicial process with emphasis on New Jersey and federal jurisdictions. The course provides an introduction to legal research and methodology, court administration, and judicial discretion. In addition, the course will examine the contributions of other legal systems to the American judicial process.

Lecture (45.00)

Prerequisites: CRJ-101

CRJ-104 Juvenile Delinquency (3.00 cr.)

This course provides an analysis of current sociological and psychological factors contributing to delinquent behavior that occurs during the period between childhood and adulthood and includes causation, control, and the attitudes of society toward this phenomenon.

Lecture (45.00)

CRJ-105 Criminal Law (3.00 cr.)

This course traces the historical development of criminal law from ancient times to the present. The impact of the Constitution and current judicial decisions, as well as the development of the modern penal code, will be discussed.

Lecture (45.00)

CRJ-106 Contemporary Corrections (3.00 cr.)

This is an introductory course in the study on penology, examining the development of correctional theory and practice from the custodial treatment and administrative viewpoints.

Lecture (45.00)

CRJ-107 Introduction to Probation and Parole (3.00 cr.)

This course is an examination of supervision of offenders outside a penal institution. Emphasis is placed on the utilization of community resources in the treatment process, probation and parole.

Lecture (45.00)

Prerequisites: CRJ-101

CRJ-108 Community Policing (3.00 cr.)

This course provides an overview of the concepts of Community Policing, which focuses on problem solving, community partnerships and organizational transformation. Emphasis is placed on students taking a systematic approach to community policing as a philosophy in the changing role of police in the community. Their combined efforts help to bridge the gap between the police and the community.

Lecture (45.00)

CRJ-120 Introduction to Homeland Security (3.00 cr.)

This course considers some of the challenges of maintaining the safety and security of citizens, key assets and critical infrastructure in a democratic society. Analyses of past and present efforts to strike a balance between individual rights and the prevention and control of subversive acts and terrorism shall be undertaken.

Lecture (45.00)

Prerequisites: CRJ-101

CRJ-203 Principles of Investigation (3.00 cr.)

This course provides a practical approach to the fundamental concepts and techniques of criminal investigation for the law enforcement officer and the pre-service student. The course addresses itself to such basic issues, i.e. personal conduct at the crime scene, evidence, criminal procedure, conduct of interviews and investigations, and communication of information by note taking and report writing. Finally, an examination of

investigative techniques during the conduct of specific criminal offenses of a felonious nature will be presented for discussion.

Lecture (45.00)

Prerequisites: CRJ-103

CRJ-204 Multicultural Law Enforcement (3.00 cr.)

Multiculturalism is the understanding that there are diverse cultures that co-exist within society and that these groups have different customary behaviors, cultural assumptions and values, patterns of thinking, and communicative styles that impact the criminal justice system. This course will explore the diversity of gender, racial and ethnic groups, and vulnerable populations, how such diversity of these groups can impact the criminal justice system, and ways the criminal justice system can improve interactions with multicultural and vulnerable populations.

Lecture (45.00)

CRJ-207 Terrorism (3.00 cr.)

This is a survey course in domestic and international terrorism. It addresses these subjects in both modern and historical contexts. Areas of emphasis include defining terrorism, categories of terrorism, typologies, motivations of members, role of ideology, organizational models, networking, costs of terror, threats to democratic processes, hard line and conciliatory governmental responses and legal limitations in counter-terrorism.

Lecture (45.00)

Prerequisites: CRJ-103

CRJ-230 Victimology (3.00 cr.)

Victimology allows students to examine the insight of the overlooked individuals in the criminal justice system, the victim. This course of study comprises of victims rights when interacting with law enforcement officers, judicial officials and the processes in place to achieve justice for victims. In addition, students will be able to comprehend and understand the following concepts: offender accountability; social and economic impact on victims; and programs available to crime victims.

Lecture (45.00)

COMPUTER SCIENCE

CSC-105 Fundamentals of Programming (4.00 cr.)

This is an introductory Computer Science course in which students will learn the fundamentals of object-oriented programming in a 3-dimensional, interactive, animation environment. Students will create animation projects using a special software package for creating animation in small virtual worlds using 3-dimensional models. Students will obtain a strong core of fundamental programming concepts and problem-solving techniques, providing a basis for further study in a variety of computer related fields.

Lecture (60.00)

CSC-106 Data Security Privacy and Ethics (3.00 cr.)

This course is designed to fulfill the suggested guidelines for instruction by the Association of Computing Machinery (ACM) in terms of the social and professional issues relating to computing professionals. Topics covered include the history and social context of computing, professional and ethical responsibilities of workers in computing environments, risks and reliabilities of digital systems, intellectual property, computer crime, privacy, and securing information and systems, as well as economic and cultural issues created by technological advances.

Lecture (45.00)

CSC-111 Introduction to Programming (3.00 cr.)

This course is designed to introduce students to logical thinking and basic programming aspects using mainstream programming tools and an integrated development environment. Topics include object-oriented programming concepts, designing graphical user interface (GUI), event-driven programming, assigning properties, writing, testing, and debugging code. Data types, variables, constants, sequential, conditional, and repetitive statements, menus, dialog boxes, subprograms, functions, parameters, lists and comboBoxes will be explored. Basic computer skills are expected.

Lecture (45.00)

CSC-121 Structured Programming (C++) (4.00 cr.)

This course emphasizes top-down modular program design and managing program complexity through abstraction. The fundamentals of ANSI C are covered while stressing good software engineering practices. Topics covered include data types, arithmetic, control structures, functions, recursive functions, ANSI C libraries, scope of identifiers, arrays, pointers, strings, structures, files, and simple sorting techniques.

Lecture (60.00)

CSC-122 Computer Science I (4.00 cr.)

This course emphasizes problem-solving strategies, analysis of algorithms and the use of simple data structures to formulate object-oriented programming solutions to problems. Topics include construction, friend functions, overload operators, templates, inheritance, polymorphism, standard libraries, arrays, pointers and strings. Object-oriented concepts and terminology will be presented with a focus on using classes for program specification and design. The concept of an Abstract Data Type is presented. The student will learn how classes are declared, defined, used and organized into coherent designs. Students will apply the concepts through programming assignments in an object-oriented language. Data abstractions, information hiding, software reusability and extensibility will be stressed.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CSC-121

CSC-161 Introduction to Java (3.00 cr.)

This course introduces students to the design and implementation of applications using the Java programming language. Emphasis will be placed on taking full advantage of object-oriented methodology and its ability to allow the creation of flexible, modular programs, and reusable code. Topics covered include primitive data types, control structures, classes, methods, and packages that make up the Java API. Object-oriented concepts related to data abstraction, encapsulation, information hiding, and inheritance will be presented. Pre-requisite: Some previous exposure to programming is suggested.

Lecture (45.00)

CSC-171 Introductory Python Programming (3.00 cr.)

In this course, students are introduced to programming and problem solving using the Python language. Algorithm development and basic problem solving techniques are introduced using a procedural approach. Topics covered include programming with numbers, strings, lists, tuples, sets, dictionaries, files, control structures, functions with parameter passing, scope and the Python libraries. Finding and fixing errors, using a debugger and an introduction to exception handling, are presented and implemented.

Lecture (45.00)

CSC-223 Computer Science II (4.00 cr.)

This course is the third in a three-course sequence for Computer Science majors and has a supervised, in-class computer programming laboratory component. The course expounds on recursion, analysis of algorithms (Big O), classic data structures, and the software lifecycle in order to lay a foundation for prevailing software engineering practices for large software systems as well as examining professionalism and ethics in the computing disciplines. The concepts of creating software solutions designed for high cohesion and low coupling are stressed through building reusable software components. Major topics include recursion and recursive algorithms, generics, lists, stacks, queues, trees, BSTs, heaps, sets, graphs and hash tables. Programming solutions that use dynamic data structures and standard templates will be implemented as students apply the concepts above through individual, paired, and team programming assignments in an object-oriented language.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: CSC-122

Corequisites: MTH-129

CSC-225 Computer Laboratory Techniques (3.00 cr.)

This course includes an applied introduction to the most popular hardware, software and networks used by in the computer science industry. Students will be introduced to writing and using software tools in the Unix and GNU/Linux programming environments. The course teaches students how to write C programs and Unix shell scripts. Topics include text processing, memory management, files and pipes, and processes and protocols. Students write programs to analyze data and generate reports, use shell scripts to combine tools into applications.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CSC-121 and CSC-122

CSC-240 Computer Organization (3.00 cr.)

This course is designed to provide students majoring in Computer Science with an unified view of the interrelated components of a computer system in terms of its structure and functions. This course covers the fundamental structures of logic gates, CPU, control unit, micro architecture, instruction set, I/O, and memory. Advanced topics such as RISC computers, parallel processing, and superscalar processors will also be introduced.

Lecture (45.00)

Prerequisites: CSC-121

CSC-272 Data Science Applications Programming (3.00 cr.)

This intermediate-level programming course assumes the student has a foundation in statistical methods and has successfully completed a college-level procedural programming course as prerequisite. This course is presented using the Python 3 language with a focus on developing foundational object-oriented programming skills and event-driven applications development for computing and data science majors. Topics include, secure coding techniques, testing and debugging code that uses dictionaries, tuples, strings, lists and files and performing natural language processing (NLP) tasks. Applications in big data, data mining, will be examined and practiced. Machine learning and deep learning will be explored as time permits. Students will practice the skills and concepts covered in lecture during structured, supervised laboratory time.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CSC-171 and MTH-171

COMPUTER SYSTEMS TECHNOLOGY

CST-102 Introduction to Networking (3.00 cr.)

This course will provide the student with a basic understanding of microcomputer networks and their related equipment. Students will survey the basic concepts and components of personal computer networking, such as network topologies, access methods, network protocol layers, data transmission media, network hardware, software and peripherals. Basic network management techniques will also be discussed. Lab hours will be provided to reinforce the content presented.

Lecture (30.00)

Laboratory (30.00)

CST-103 Microcomputer Operating Systems I/Workstation (3.00 cr.)

This course gives the computer technology student a comprehensive understanding of modern graphical user interface operating systems and workgroup networks through the use of the latest Microsoft Windows Workstation operating system. Topics discussed include installation and customization of the operating system, system and network security, file systems, setting up and managing local and network printing, creating and administering user and group accounts, editing and customizing the Registry, and system and network troubleshooting. Also included are peer to peer network relationships, remote services, disk drive management, sharing and managing network resources, data archiving, and network protocols.

Lecture (30.00)

Laboratory (30.00)

CST-106 Microcomputer Operating Systems II/Serv Sys (3.00 cr.)

This course will provide the student with a comprehensive understanding of the latest version of Microsoft Windows Server operating system. It

introduces the student to Active Directory Services and prepares them to plan, configure, and administer a complex, Windows based client/server network environment. Students will learn how to centrally manage user, groups, and network resources, and to administer the user environment and software applications with group policies. Installation and configuration of Dynamic Host Control Protocol services (DHCP) to automatically assign IP addresses will be studied. Configuration of Domain Name System (DNS) to manage name resolution, schema, and replication will also be covered, along with using Remote Installation Services (RIS) to deploy Windows Server.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CST-103

CST-109 Building Upgrading Repairing PCs (3.00 cr.)

This course gives the student a comprehensive understanding of the architecture and hardware subsystems of a modern microcomputer. Microcomputer assembly, repair and troubleshooting techniques will be studied along with software maintenance and installation procedures. System building and upgrading will also be studied and performed.

Lecture (30.00)

Laboratory (30.00)

CST-110 Cybersecurity Analyst (3.00 cr.)

Students will learn intermediate-level cybersecurity skills and knowledge needed to analyze, identify, monitor, and protect from cybersecurity incidents. It enables hands-on practice and skill development in software applications. This course aligns with CompTIA's Cybersecurity Analyst (CySA+) certification exam objectives. During labs students will explore security solutions for infrastructure management and risk mitigation. The student will practice incident response procedures, basic digital forensics techniques and vulnerability management activities.

Lecture (30.00)

Laboratory (30.00)

CST-201 Advanced Networking (3.00 cr.)

This course will provide the student with an advanced understanding of microcomputer networks and their related equipment. The concept of interoperation through the use of networking protocols will be discussed and demonstrated along with advanced network management and environment customization techniques. Remote access and wide area network applications will be covered. Install, configure, implement, and manage client/server based workstation and server environments as assessed by laboratory assignments.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CST-102

CST-204 Computer and Network Security (3.00 cr.)

This course introduces the core concepts of Computer Security, the main threats, attacks & mechanisms, applied computer operations & security protocols, main data transmission & storage protection methods via cryptography, ways of identifying, understanding & recovery from attacks against computer systems, various methods of security breach prevention, network systems availability, applications security, recovery & business continuation procedures and counter systems penetrations techniques. The labs will consist of, but not be limited to, configuring the following: Microsoft Defender, automatic updates, NTFS Permissions, firewalls, (QOS) Quality of Service, NAT (Network Address Translation), VPNs (Virtual Private networks), etc., in addition to Identifying Social Engineering.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CST-102

CST-210 Digital Forensics and Investigations (3.00 cr.)

This course provides students with an understanding of cybersecurity, professional intrusion, detection methods, information security tools, and preventative measures to information security risks. Students will learn how to respond to cyber breaches, which include recovery, preservation,

analysis of digital crime scene evidence, and proper incident response to cybercriminals using relevant federal statutes.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CST-102

CST-212 Advanced Routing and Switching (3.00 cr.)

The Advanced Routing and Switching course will provide the student with the knowledge and skills needed to install, configure, operate, and troubleshoot a small enterprise network. It will cover the following skills: Quality of Service (QoS) elements and understanding their applicability, how virtualized and cloud services interact and impact enterprise networks and, an overview of network programmability and the related controller types and tools that are available to support software defined network architectures. This course includes a laboratory component to further increase the students' skill and understanding. This course covers the 2nd portion of the Cisco CCNA certification.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CST-201

CST-220 Ethical Hacking & Penetration Testing (4.00 cr.)

This course is an introduction to the world of computer hacking. The primary goal is to give students an understanding of how vulnerable systems can be and how they might be better defended. The class takes a systems engineering view of hacking and emphasizes practical exposure via hands-on assignments.

Lecture (45.00)

Laboratory (30.00)

Prerequisites: CST-102

DENTAL ASSISTING

DAS-111 Fundamentals of Chair-Side Assisting (7.00 cr.)

The course consists of lectures and preclinical dental assisting procedures that are evaluated on an individual basis. Students will perform those Expanded Functions delegated by the New Jersey State Board of Dentistry to registered dental assistant in the state of New Jersey.

Lecture (45.00)

Laboratory (135.00)

Prerequisites: DAS-141 and DAS-143

DAS-115 Pharmacology (1.00 cr.)

The student will be introduced to basic pharmacological concepts as well as many of the most common drugs used by man to diagnose, prevent and treat disease. The student will study mechanisms of action, drug interactions and drug classifications as well as relating these to the course in pathology. Emphasis will be placed on the drugs used most commonly in the dental office.

Lecture (15.00)

Prerequisites: DAS-170 and DAS-141

DAS-120 Dental Radiology (4.00 cr.)

This Dental Radiology course is designed to provide the dental assisting student with the opportunity to gain knowledge of the origin, production and utilization of radiation and digital radiography. Emphasis is placed on concepts of radiation safety and patient management. Through lecture and laboratory sessions, students will achieve practical experience in exposing dental radiographs on manikins, processing, mounting, and evaluating dental radiographs of diagnostic quality. Students will attain understanding of the extra-oral panoramic survey and intraoral surveys utilizing the paralleling and bisecting techniques with image receptors, including film and digital sensors. Students will perform two full-mouth series on patients to clinical proficiency after passing both lecture and laboratory portions. Although some patients may be provided by the College, the student may need, identify and schedule patients who have a clinical need for dental radiographic imaging. Following successful completion of this course, the student will continue into the Supervised Clinical Experience Course, DAS-160, where they will complete the necessary requirements set by the New Jersey Department of Environmental Protection (DEP). Once both courses are successfully

completed and the Radiology Health and Safety (RHS) exam passed, the student will be able to finalize the steps necessary to apply to the DEP for a New Jersey Limited - Dental Radiographer License. Completion of this course does not provide the student the authority to take radiographs in a dental setting /office of any kind. This course is accredited by the New Jersey Radiographic Technology Board of Examiners.

Lecture (30.00)

Laboratory (90.00)

Prerequisites: DAS-141 and DAS-143

DAS-125 Preventive Dentistry (3.00 cr.)

The dental assisting student will demonstrate the ability to apply preventive education methods for the control of dental disease, utilizing communication skills to design an individualized plaque control program. Within this program the student will demonstrate the ability to obtain, analyze and evaluate a patient's diet, making sound recommendations based on nutritional education, risk assessment tools and institutional and motivational skills taught within the course. Dental assisting students will be familiarized with the organization, principles and issues of the public health system in the United States, and the role of dentistry within these systems. Students will be exposed to basic concepts of epidemiology, statistical and survey methodology, and program planning, implementation and evaluation. Future roles for dental auxiliaries in a changing health care system will be investigated. Smoking cessation programs and oral cancer screening techniques will be discussed.

Lecture (45.00)

Prerequisites: DAS-141, DAS-143, DAS-150, DAS-151 and DAS-170

DAS-141 Biological Science for the Dental Assistant (1.00 cr.)

This course provides a study of the fundamental, anatomical and physiological interrelationships of the various organ systems of the human body. Major emphasis is placed on the structures of the face, oral cavity, head and neck.

Lecture (15.00)

Corequisites: DAS-143

DAS-143 Infection Control for Dental Assistant (2.00 cr.)

This course is a fundamental study of sterilization and infection control protocol dealing with the transmission of infectious diseases, immunizations and applications of standard (universal) precautions in the dental office/clinic setting. Major emphasis is placed on basic microbiology and modes of precautions. This course will focus on the dental office procedures for surface asepsis techniques, instrument sterilization with steam and dry sterilizers, methods of spore monitoring, and appropriate personal protective equipment and workplace controls. FORMAL ACCEPTANCE INTO THE DENTAL ASSISTING PROGRAM REQUIRED.

Lecture (30.00)

DAS-150 Dental Anatomy for Dental Assisting (2.00 cr.)

Dental Anatomy is a first semester course for the dental assisting student. Tooth anatomy, embryology, and histology are discussed in depth, providing an understanding of the development, form and function of the structures of the oral cavity. FORMAL ACCEPTANCE INTO THE DENTAL ASSISTING PROGRAM REQUIRED.

Lecture (30.00)

Prerequisites: DAS-141 and DAS-143

DAS-151 Dental Laboratory Procedures I (2.00 cr.)

This course involves the study of the chemical and physical properties of materials used in dentistry; measurements, classifications and the application of these materials, using lecture, audiovisual presentations, demonstrations and active student participation in laboratory exercises.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: DAS-141 and DAS-143

DAS-152 Dental Laboratory Procedures II (2.00 cr.)

This course involves the study of the chemical and physical properties of materials used in dentistry; measurements, classifications and the

application of these materials, using lecture, audiovisual presentations, demonstrations and active student participation in laboratory exercises.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: DAS-151 and DAS-170

DAS-160 Supervised Clinical Experience (6.00 cr.)

This course introduces the student to the newest dental technology and how to apply pre-clinical procedures with satisfactory results as an entry level employee in the dental assisting field. Supervised Clinical Dental Assisting is a one hour lecture course, 300 clinical hours at offsite dental clinic and private practice experience required by the Commission on Dental Accreditation (CODA). The student is required to perform various procedures related to dental radiography as required by the New Jersey Department of Environmental Protection (DEP), Bureau of X-Ray Compliance. The student will obtain experience in general dentistry and specialty offices.

Lecture (15.00)

Clinical (300.00)

Prerequisites: DAS-111, DAS-120, DAS-150, DAS-151 and DAS-170

DAS-170 Medical Emergencies in the Dental Office (1.00 cr.)

This course prepares the student to recognize, manage and make the modifications necessary to prevent a medical emergency that may develop during dental therapy.

Lecture (15.00)

Prerequisites: DAS-141 and DAS-143

DAS-180 Office Administration (2.00 cr.)

The dental assisting student will demonstrate proficiency in management procedures within the general, specialty, and institutional dental settings.

Lecture (30.00)

DAS-190 Oral Pathology (1.00 cr.)

This course is designed to give the dental assisting student a background in oral pathology. An understanding of the principles of pathology and the manifestation of specific disease processes will prepare the student to better assist in the prevention, diagnosis, and treatment of oral diseases. The student will also become familiar with the vocabulary of oral pathology and gain an understanding of the relationship of dentistry to oral and systemic diseases.

Lecture (15.00)

Prerequisites: DAS-141 and DAS-170

DENTAL HYGIENE

DHY-111 Dental Hygiene I - Seminar (2.00 cr.)

Dental Hygiene I Seminar is a lecture course offering the student an opportunity to gain knowledge and understanding in the foundation of the clinical practice of dental hygiene. Through the use of lectures, demonstrations, audiovisual aids/class activities and practical experience, the student will develop his/her skills in the following areas: infection control/OSHA guidelines; legal/ethical issues; medical/dental history evaluation; patient data collection; periodontal examination; dental disease etiology & prevention; plaque control; communication skills; principles of instrumentation utilizing the mirror, probe, explorer and curets; assessment, planning, implementation and evaluation of patients using the dental hygiene care process. **FORMAL ACCEPTANCE INTO THE DENTAL HYGIENE PROGRAM IS REQUIRED.**

Lecture (30.00)

DHY-120 Dental Radiology (4.00 cr.)

Dental Radiology is a pre-clinical course designed to provide the dental hygiene student the opportunity to gain knowledge of the origin, production, and utilization of radiation in dentistry. Emphasis is placed on concepts of radiation safety and patient management. Through lecture and laboratory sessions the student will gain practical experience in exposing, processing, and mounting dental radiographs of diagnostic quality and the use of digital imaging. **FORMAL ACCEPTANCE INTO THE DENTAL HYGIENE PROGRAM IS REQUIRED.**

Lecture (30.00)

Laboratory (90.00)

DHY-122 Dental Hygiene II Seminar (2.00 cr.)

This course is a lecture/discussion period designed to impart further knowledge and understanding of the clinical practice of the dental hygienist throughout the assessment, planning, implementation, and evaluation phases of treatment. The student will acquire theoretical and clinical information in the following areas: principles of instrumentation utilizing curets and scalers, treatment planning/documentation, plaque control, tooth stains/polishing agents and techniques, topical fluoride application, instrument sharpening, evaluation and recall procedures, intraoral photography, care of prosthetic appliances, patient management, motivation and behavior modification, and nutritional counseling. **SUCCESSFUL COMPLETION OF ALL FIRST SEMESTER COURSES IS REQUIRED.**

Lecture (30.00)

Prerequisites: DHY-111, DHY-120, DHY-130, DHY-151 and DHY-170

DHY-130 Dental Anatomy (2.00 cr.)

Dental Anatomy is a first semester course for the dental hygiene/assisting student. The course is designed to provide the student with knowledge and understanding of: 1. The nomenclature used in dentistry 2. The relationship of the supporting tissues of the teeth 3. The anatomy and physiology of the primary and permanent dentition 4. The relationship of the teeth within each arch 5. The occlusion of the maxillary and mandibular teeth 6. The relationship of anatomical structures to instrumentation.

Lecture (15.00)

Laboratory (30.00)

DHY-142 Periodontics I (2.00 cr.)

In this course, the student will study the biologic structures and functions of the normal periodontium and be able to recognize and identify the clinical characteristics of the normal periodontium on patients. The student will then utilize this information in the study of periodontal disease. The student is taught to recognize periodontal pathology, including the various types of periodontal conditions. The student will also study the roles of plaque, calculus, and restorative dentistry in the etiology of periodontal disease. **SUCCESSFUL COMPLETION OF ALL FIRST SEMESTER COURSES IS REQUIRED.**

Lecture (30.00)

Prerequisites: DHY-111, DHY-120, DHY-130, DHY-151 and DHY-170

DHY-151 Dental Hygiene I Pre-Clinic (2.00 cr.)

Dental Hygiene I Pre-Clinic provides the student the opportunity to put into clinical practice the information and skills obtained during Dental Hygiene I Seminar and co-requisite courses. Under the supervision of instructors, students will perform basic dental hygiene services in a clinic setting in order to develop the educative, preventive and therapeutic skills necessary for the clinical practice of dental hygiene. **FORMAL ACCEPTANCE INTO THE DENTAL HYGIENE PROGRAM IS REQUIRED.**

Laboratory (90.00)

DHY-152 Dental Hygiene II Clinic (3.00 cr.)

Dental Hygiene II Clinic provides the student the opportunity to put into clinical practice the information and skills obtained during current and previous dental hygiene seminars. Under the supervision of instructors, students will perform basic dental hygiene services in a clinical setting in order to develop the educative, preventive and therapeutic skills necessary to practice dental hygiene through the standard of care model. **SUCCESSFUL COMPLETION OF FIRST SEMESTER COURSES IS REQUIRED.**

Clinical (135.00)

Prerequisites: DHY-111, DHY-120, DHY-130, DHY-151 and DHY-170

DHY-162 Dental Lab Procedures (2.00 cr.)

This course involves the study of the chemicals and physical properties of materials used in dentistry; their measurements and classifications and the application of these materials. Demonstrations and active student

participation in laboratory exercises provides practical application of the information received in the lecture portions of class. **SUCCESSFUL COMPLETION OF ALL FIRST SEMESTER COURSES IS REQUIRED.**

Lecture (15.00)

Laboratory (30.00)

Prerequisites: DHY-111, DHY-120, DHY-130, DHY-151 and DHY-170

DHY-170 Medical Emergencies in the Dental Office (1.00 cr.)

This course prepares the student to recognize, manage, and make the modifications necessary to prevent a medical emergency that may develop during dental therapy. **FORMAL ACCEPTANCE INTO THE DENTAL HYGIENE PROGRAM IS REQUIRED.**

Lecture (15.00)

DHY-172 Head & Neck Anatomy (2.00 cr.)

This course includes the study of the anatomy, histology, and embryology of the head, neck and oral cavity. Introductory information regarding cellular biology and general histology is presented. Other sciences are mentioned in reference to the musculature, blood and nerve supplies, bones, landmarks, sinuses and foramina of the respective areas. The significance of the various structures in dentistry is discussed.

Lecture (30.00)

Prerequisites: DHY-111, DHY-120, DHY-130, DHY-151, and DHY-170

Corequisites: DHY-122, DHY-142, DHY-152 and DHY-162

DHY-212 Community Dentistry (2.00 cr.)

This course provides an introduction to current principles and issues in public health and their relationship to delivery of dental care to the public. Dental hygiene students are familiarized with the organization of the United States and other health care systems and the role of dentistry within these systems. Students will be exposed to basic concepts of epidemiology, statistical and survey methodology, and program planning, implementation, and evaluation. Future roles for dental auxiliaries in a changing health care system are investigated. **SUCCESSFUL COMPLETION OF ALL FIRST YEAR COURSES IS REQUIRED.**

Lecture (30.00)

Prerequisites: DHY-111, DHY-120, DHY-122, DHY-130, DHY-142, DHY-151, DHY-152, DHY-162, DHY-170 and DHY-172

DHY-223 Dental Hygiene III Seminar (2.00 cr.)

Dental Hygiene III Seminar is a lecture discussion period designed to expand the student's knowledge and understanding of the clinical practice of the dental hygienist. Through the utilization of guest lecturers, slide presentation and class group activities, the student will acquire information relating to dental hygiene clinical practice. As needed, at the end of each class there will be group discussion directly related to problems and progress in clinic.

Lecture (30.00)

Prerequisites: DHY-122 and DHY-152

DHY-224 Dental Hygiene IV Seminar (2.00 cr.)

Dental Hygiene IV Seminar is a lecture/discussion period designed to expand the student's knowledge and understanding in providing dental hygiene services to the "special needs" patient. Various dental and dental hygiene specialties and practice options will be introduced to expose the student to opportunities available within the field of dental hygiene. The student will acquire theoretical and clinical information in the following areas: plaque control; nutritional counseling; physically disabled patients; mentally disabled patients, gerodontic patients; nursing home patients; special needs patients: puberty, adolescence, menopause, pregnancy; bleaching techniques, career alternatives and the Internet in Dentistry. As needed, at the end of each class, there will be group discussion directly related to problems and progress in clinic.

Lecture (30.00)

Prerequisites: DHY-223

DHY-233 Advanced Techniques in Periodontics (1.00 cr.)

The treatment of inflammatory periodontal disease is taught during this course. Various aspects of conservative as well as surgical treatment are

discussed. The student will become familiar with periodontal charting (including PSR), advanced instrumentation, chemotherapeutics, and recall as well as the various types of periodontal surgical procedures. The student is taught to recognize the limits of dental hygiene therapy in advanced periodontal cases, and to be aware of types of more complex treatment.

Lecture (15.00)

Prerequisites: DHY-122, DHY-142 and DHY-152

DHY-252 Local Dental Anesthesiology (2.00 cr.)

This course will prepare the student to safely and effectively administer local dental anesthesia as current New Jersey legislation allows. The course will include the neurophysiology and psychology of pain, pharmacology of anesthetic agents, a review of anatomy and physiology as they relate to the administration of local dental anesthesia, and management of emergencies and complications. This course will include classroom and clinical components.

Lecture (30.00)

Clinical (12.00)

Prerequisites: DHY-271, DHY-172 and HPE-181

Corequisites: DHY-224

DHY-253 Dental Hygiene III Clinic (6.00 cr.)

Dental Hygiene III provides the student the opportunity to reinforce and refine clinical techniques developed in the previous semester. Greater emphasis will be placed on the student's progression in assessment, dental hygiene diagnosis, treatment planning, implementation and evaluation of more periodontally involved patients. Additional adjunctive requirements will be assigned to allow students to develop in all areas of the dental hygiene care process.

Clinical (270.00)

Prerequisites: DHY-122, DHY-142 and DHY-152

DHY-254 Dental Hygiene IV Clinic (4.00 cr.)

Dental Hygiene IV provides the student the opportunity to reinforce and refine clinical techniques developed in the previous semester. Greater emphasis will be placed on the student's progression in assessment, dental hygiene diagnosis, and treatment planning of more periodontally involved patients. Additional adjunctive requirements will be assigned to allow students to develop in all areas of the dental hygiene care process.

Clinical (180.00)

Prerequisites: DHY-253

DHY-261 Pathology (2.00 cr.)

The student will learn the causes and treatment of many common human diseases with particular emphasis on the oral, head, and neck regions. Attention will be given to the recognition of disease processes in the oral cavity and how they relate to the patient's overall treatment. There will be many slides to show examples of the various diseases. The students are encouraged to relate what is learned in this course with their treatment of clinic patients.

Lecture (30.00)

Prerequisites: DHY-122, DHY-152 and DHY-172

DHY-262 Ethics Jurisprudence & Practice Management (1.00 cr.)

The intent of this course is to familiarize the student with the ethics, jurisprudence & practice management in the field of dentistry. Ethical and legal issues that influence the profession will be discussed. The student will learn the necessary skills valuable to the dental office team. This course is web enhanced and all outlines are to be completed prior to the class session.

Lecture (15.00)

Prerequisites: DHY-111, DHY-120, DHY-130, DHY-151 and DHY-170

DHY-271 Pharmacology & Anesthesiology (2.00 cr.)

The student will be introduced to basic pharmacologic concepts as well as many of the most common drugs used by man to diagnose, prevent and treat disease. The student will study mechanisms of action, indications for use, dosage, drug interactions and drug classifications. Emphasis will be placed on the drugs used most commonly in the dental office. In addition precautions that need to be taken with patients that are taking medications

will be discussed. The students will also learn about local anesthetics and their administration in dentistry.

Lecture (30.00)

Prerequisites: DHY-122 and DHY-152

DATA SCIENCE

DSC-101 Data Science I (3.00 cr.)

This introductory course will provide an overview of the practices and terminology of data science as a unified discipline encompassing mathematics, statistics, and computer science. The course will cover the spectrum of the data science workflow from initial investigation and data acquisition to the communication of results. Students will examine and collect a variety of media that include images, sound, video, numeric and text data and their storage formats such as csv, spreadsheets, JSON, xml, databases, and NoSQL. Through individual and team assigned case studies and projects the students will practice problem formulation, data extraction, simple wrangling, and elementary analysis using modern tools. No prior programming experience required.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

Prerequisites: MTH-124 or MTH-125

DSC-102 Data Science II (3.00 cr.)

This course is the second course in a three-course sequence that examines the core activities that a professional data scientist performs throughout the data science workflow. Building on the knowledge attained in DSC-101, this course will focus on the data preparation phase by applying standard data wrangling practices to collections of raw data gathered from a variety of sources and mapping it into a coherent form for analysis. Topics include 'dirty' raw data issues of inconsistent naming, and formatting, missing data and outliers, as well as reshaping and pivoting data as appropriate. The student will examine real-world case studies and use modern data preparation tools and programming techniques to complete data wrangling. Topics in this course are well-aligned with those of CSC-171.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: DSC-101 and CSC-106

Corequisites: CSC-171

DSC-203 Data Science III (3.00 cr.)

This course is the third course in a three-course sequence that examines the core activities that a professional data scientist performs throughout the data science workflow. Building on the knowledge attained in DSC-102, this course will focus on the data analysis phase activities of quantifying and modeling data. Topics covered include linear, logistics, and polynomial regressions, clustering and pipelines. Students will practice modeling and analysis with real-world datasets using modern software tools.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: DSC-102 and MTH-172

DSC-230 Statistical and Machine Learning (3.00 cr.)

This course blends the algorithmic perspective of machine learning in computer science and the predictive perspective of statistical thinking. The focus is on common machine learning methods and their application to problems in various disciplines. An understanding of the theoretical foundations of statistical learning is coupled with the practical skills necessary for successful application to new problems in science and industry.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CSC-272 and DSC-203

DSC-250 Data Visualization and Presentation (3.00 cr.)

Using modern data visualization software tools the student will practice design principles and techniques for presenting large, complex data sets from a variety of sources into meaningful stories and visualizations.

Topics include: creating and structuring stories to match the audience, choosing appropriate visuals including graphs, charts and color schemes, dashboards. Students will review, critique, and provide feedback to case studies and presented student work.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: DSC-203

DSC-280 Data in Context a Capstone Experience (3.00 cr.)

This capstone course will provide the student with the opportunity to apply their acquired knowledge and skills in mathematics, statistics, and computer science to the practice of data science to build a portfolio project. The course will cover the spectrum of the data science workflow from initial investigation and data acquisition to the communication of results. Completing individual and team assigned case studies and projects the students will practice problem formulation, data extraction, wrangling, analysis and visual and written presentations using professional tools and techniques.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: DSC-203

Corequisites: DSC-230 and DSC-250

DIVERSITY AND SOCIAL JUSTICE

DSJ-101 Gateway to Social Justice Studies (3.00 cr.)

This gateway course in the Diversity and Social Justice Program provides a foundation in social justice education. Students will examine the social construction of identity, power, privilege, and structural inequalities, along with their consequences. Attention will also be given to past and present efforts to resist injustice and invoke social change.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

DSJ-280 Service and Research for Social Justice (3.00 cr.)

This course will permit majors to integrate theory, knowledge, and practical experience gained in the Diversity and Social Justice program. Students will select and work with a community organization in the diversity, equity, and inclusion industry or a related field. Lecture will reinforce the service learning experience. A total of 45 hours of service learning is required.

Lecture (30.00)

Internship (45.00)

Prerequisites: DSJ-101

ECONOMICS

ECO-101 Macroeconomics (3.00 cr.)

This study of macroeconomics provides knowledge and understanding of the American economy as a whole. Topics include economic resources, the economizing program, supply and demand relationships, public and private sectors and national income accounting.

Lecture (45.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

ECO-102 Microeconomics (3.00 cr.)

This study of microeconomics is a continuation of Economics I with emphasis on the individual firm and the individual household. The course discusses the most profitable output for the firm. Topics include labor, agriculture, competition, economic growth and poverty.

Lecture (45.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

ELEMENTARY/SECONDARY EDUCATION

EDU-100 Teaching: Introduction to the Profession (3.00 cr.)

This course is designed for students considering a career in teaching. It guides students through the profession, its foundations, realities, challenges and rewards. Students will evaluate classroom practices using case studies and video methodology. They will participate in a fifteen-hour field experience observation in a local school.

Lecture (45.00)

Field Work (15.00)

EDU-101 Historical Trends in American Education (3.00 cr.)
 This course will provide an in-depth study of the prominent trends running throughout American education from 1600 to the present covering pre-school through post-secondary education. The focus will include social forces, sources of conflict, major educational figures, and patterns of schooling during each period.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

EDU-102 Human Exceptionality (3.00 cr.)
 The study of human exceptionality is important for undergraduate students to understand our pluralistic society, accept differences and develop the sensitivity and awareness that would allow them to work effectively in a diverse society. In the United States, people with disabilities are the largest growing minority group. Currently, there are over 54 million individuals with disabilities and the numbers continue to increase. Therefore, it is reasonable to conclude that our students will encounter exceptional individuals in their classes, in their community, and in their workplace. It is imperative that our students have the opportunity to learn about the nature and courses of exceptionality as well as the history of litigation that has led to increased civil rights for people with disabilities.
 Lecture (45.00)

EDU-104 Learning Communities I (3.00 cr.)
 This course introduces Elementary and Subject-matter candidates to the elements of successful, caring learning communities and builds a foundation for the course, Teaching in Learning Communities II and further educational work. Candidates study, observe, and participate in various elementary school learning communities and collaborative teaching-learning environments as they examine the interplay between planning, instruction, assessment, culture, diversity, and management within a learning community environment. A 20 hour field experience component is required.(This course only transfers to Rowan University).
 Lecture (45.00)
 Field Work (20.00)
 Prerequisites: EDU-100

EDU-105 Educational Technology (2.00 cr.)
 This education course focuses on the use of educational technology in support of student learning, and integration of technology into the P-12 curriculum in a computer lab setting. This course is designed to develop students' awareness and understanding of the many sources and uses of educational technology available to educators. Strategies to incorporate technology and the World Wide Web into the school's curriculum will be explored. Each student will participate actively in this course, practicing skills and working with others. The students will discuss and explore digital responsibility and digital citizenship.
 Lecture (15.00)
 Laboratory (30.00)

EDU-106 Inclusive Class: Pedagogy/ Elem. Seminar (3.00 cr.)
 This course introduces educational principles and pedagogies that promote the use of positive universal classroom management techniques supportive of all learners in an inclusive setting. Students will be empowered to: articulate common academic language as it relates to the cycle of teaching and learning; create connections between educational philosophies, beliefs and dispositions; and embrace universal, proactive supports and strategies for creating effective learning communities to promote a positive school climate. The field experience seminar serves as the vehicle for domain-specific application of the principles and pedagogies that promote collaboration with partners in the field to support learning and the mental and physical health of diverse learners in all settings. The seminar will integrate teaching, research and service to advance knowledge in the field to prepare and support professionals through the development of knowledge, skills and dispositions with the ultimate goal of ensuring equitable educational opportunities for all learners. Students will participate in a 40-hour field experience observation in a local school.

Lecture (45.00)
 Prerequisites: EDU-100

EARLY CHILDHOOD EDUCATION

EED-105 Children's Health Nutrition & Safety (3.00 cr.)
 The focus of this course will be on promoting a safe and healthy classroom environment for children. The student will expand his/her knowledge of important topics in child development, relating specifically to health, safety and nutrition. Current issues that affect children will be discussed with possible solutions explored. This course incorporates basic components of good health and personal care needs in day-to-day, as well as emergency situations.
 Lecture (45.00)

EED-112 Inclusive Class: Pedagogy & ECE Seminar (3.00 cr.)
 This course introduces educational principles and pedagogies that promote the use of positive, universal classroom management techniques supportive of all learners in an inclusive setting. Students will be empowered to articulate common academic language as it relates to the cycle of teaching and learning; create connections between educational philosophies, beliefs, and dispositions; and embrace universal, proactive supports and strategies for creating effective learning communities to promote a positive school climate. In addition, this course serves as a vehicle for domain-specific application of principles and pedagogies. Through case study scenarios, videos, virtual, and live field experiences, students will have multiple opportunities to reflect on and apply new learning to enhance their understanding of proactive behavior strategies and supports.
 Lecture (45.00)

EED-115 Child Development & Learning (3.00 cr.)
 This course explores the sum of the total physical, intellectual, social, emotional and behavioral changes that occur in children from the moment of conception through the adolescent years. The course explores the physical, cognitive, social and emotional development of the child from birth through the preschool years. Major theories of development are also presented.
 Lecture (45.00)

EED-120 Language Arts for the Preschool Child (3.00 cr.)
 This course is an introduction to language development in the child and those language experiences which will be most beneficial. The student will be given the opportunity to explore all aspects of pre-reading skills that are essential in early childhood programs.
 Lecture (45.00)

EED-205 Creative Arts: Early Childhood Learners (3.00 cr.)
 This course is an introduction to creative development and to its application in the Early Childhood Curriculum. The following areas of study will be included: Creative development as it relates to the total development of the young child; theories related to creativity and aesthetics; appropriate creative experiences in art, music, movement, language and sensorial activities; selection and use of appropriate materials. The importance of teacher self-concept and individuality as it relates to nurturing the creative process in young children. The course allows students to examine progressive art forms that are applied in an early childhood education setting.
 Lecture (45.00)

EED-210 Math/Science for the Preschool Child (3.00 cr.)
 This course offers the student an opportunity to explore principles, methods and materials for teaching young children math and science concepts through discovery and experimentation. Emphasis is on the planning, implementation, and evaluation of developmentally-appropriate activities utilizing a variety of methods and materials.
 Lecture (45.00)

EED-220 Behavior Management (3.00 cr.)
 The student will develop an understanding of the discipline issues that children face from birth to early elementary school years. Emphasis will

be placed on the acquisition of skills with importance on the child's developmental level. Special consideration will be taken with different theoretical approaches to understanding behavior.
Lecture (45.00)

EED-230 Applied Preschool Experience (3.00 cr.)

Field experience is traditional in higher education early childhood education programs. It is the "learning by doing" under educational guidance. Field work offers the student the opportunity to work directly with children, teachers, and administrative staff in early childhood education settings such as daycares and private and public preschools. This experience allows the student to apply his/her knowledge of the field in a practical setting. Students will use lecture time to reinforce their field work experience. Students are encouraged to find field work internships prior to registration. Background checks may be required at some schools. Field work is required for a total of 100 hours during the semester.

Lecture (15.00)

Field Work (100.00)

EED-240 Social & Emotional Development: Infant/Toddler (3.00 cr.)

This course will introduce infant/toddler mental health and the interaction process essential to promote quality infant/toddler programs in center and family based settings. The course will cover topics such as attachment, separation and loss, and separation and individual construct. The student will understand ethical and boundary issues within the infant/toddler mental health field, use self-reflection and dialogue with peers to understand one's role as an infant/toddler caregiver or related service specialist as they interact with infants, toddlers and families in a professional capacity. Students will present, document, and analyze field observations to further understanding of typical development and its variations in infants, toddlers, and families.

Lecture (45.00)

ELECTRICAL ELECTRONIC ENGINEERING

EET-101 Electrical & Electronic Principles (4.00 cr.)

This course covers the fundamental concepts that are the foundation for succeeding in electrical and electronics courses. Emphasis is on the analytical understanding of basic DC and AC circuits in mathematical terms and in laboratory situations. Laboratory test equipment is utilized to substantiate the mathematical analysis of experimental circuits.

Lecture (30.00)

Laboratory (60.00)

Prerequisites: MTH-123 or MTH-125

EET-105 Intro to Electricity and Electronics (3.00 cr.)

This course covers the fundamental concepts of electricity and electronics with particular focus on Computer Systems. Emphasis is on understanding basic DC and AC circuits and their importance in the operation of electronic circuits. Semiconductors and their importance in digital circuits will be examined. Fundamental principles of the National Electric Code will be reviewed, with a particular emphasis on safety principles. Laboratory test equipment will be utilized to introduce students to industrial testing and measuring equipment and to verify the results of academic concepts. The course consists of two (2) lecture hours and two (2) laboratory hours.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MTH-100

EET-201 Electrical Circuits (3.00 cr.)

This course covers the application of DC and AC electrical principles to electrical circuit networks. Basic network theorems and methods of analysis are combined with complementary laboratory exercises to provide a solid working foundation in electrical fundamentals.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EET-101

EET-211 Electronics I (3.00 cr.)

This course introduces the student to electronic semiconductor devices and describes the methods, basic circuits, and hardware needed to enable the devices to operate within predictable limits. The theoretical topics presented in the lectures will be supplemented with practical applications of them in laboratory exercises and experiments using current-technology industrial test equipment and test procedures.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EET-101

EET-212 Electronics II (3.00 cr.)

This course is a continuation of Electronics I. Complex circuits with discrete components (FET, OP-Amps and filters), and with linear ICs will be described and analyzed. Laboratory experiments using current technology test equipment and test procedures will be used to verify results of theoretical analysis.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EET-211

EET-213 Electronic Communications (3.00 cr.)

This course analyzes electronic circuits that perform modulation and detection of AM, FM, MN signals and pulsed waveforms. All methods of wireless communications including digital, data, and high frequency communication techniques are investigated. The theories presented in the lectures will be demonstrated with practical applications in laboratory experiments.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EET-201 and EET-211

Corequisites: EET-212

EET-221 Digital Circuits (3.00 cr.)

This course covers binary number systems: Boolean algebra, digital logic functions, implementation of simple logical operations, and utilization of the Karnaugh map for simplification of logical equations. In this course applications include multi-vibrations and switching and counting circuits, using both integrated circuits and discrete components.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EET-101

EET-241 Robotics (3.00 cr.)

This course offers students the opportunity to work with various industrial robots in programming for movements and functions. In this course the fundamental principles of operation will be covered. Topics include AC and Fluidic power, DC power and positioning, data acquisition, data handling and conversion, voice synthesis and interfacing.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EET-101

EET-251 Electronic Projects (3.00 cr.)

This is a capstone course designed to introduce the student to principles of comprehensive design of an electrical/electronic project. The student may work within a small engineering team to design and develop a project, or the student may work alone on a project, depending on class size. Students are expected to develop a complete plan from feasibility study, cost analysis and electrical design and documentation through the building of a prototype. Interaction between electrical and mechanical students will be encouraged. All students must make a formal written and verbal presentation at the completion of the course.

Lecture (15.00)

Laboratory (60.00)

Prerequisites: EET-201 and EET-211

Corequisites: EET-212

ENGINEERING SCIENCE

EGR-101 Introduction to Engineering (2.00 cr.)

This course is an introduction to the Engineering Curriculum and Profession. The emphasis is on providing the student with the tools necessary to succeed in the Engineering Curriculum and to introduce topics that graduate engineers will encounter in the workforce. Students will be presented with problem solving techniques, analytical tools, design processes, and ethical concepts and responsibilities of an engineer.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: MTH-124 or MTH-125

Corequisites: ENG-101

EGR-103 Technical Drawing (3.00 cr.)

This course is an introduction to the theories, principles, and techniques of graphical communication for the Engineering disciplines. It is a course designed for the Computer Aided Drafting and Design student but can be utilized by anyone with an interest in any field of engineering. Topics covered include 2-dimensional and isometric drafting techniques; lettering, technical sketching, dimensioning, geometric dimensioning and tolerancing; orthographic, axonometric and oblique projection; sectional and auxiliary views; drawing principles and standards for threads, fasteners, springs, gears, and cams. A survey of electric diagrams, structural, landform, and piping drawings, and welding representations are also included.

Lecture (30.00)

Laboratory (30.00)

EGR-201 Statics (3.00 cr.)

This is the first course in a two-course series introducing the subject of mechanics of rigid bodies. Statics teaches the student the effects of forces acting upon stationary (or at least non-accelerating) rigid bodies.

Lecture (45.00)

Prerequisites: MTH-140 and PHY-201

EGR-202 Dynamics (3.00 cr.)

This is the second course (after Statics) in a two-course series introducing the subject of mechanics of rigid bodies. Dynamics deals with the analysis of bodies in motion and effects of forces upon such bodies.

Lecture (45.00)

Prerequisites: EGR-201

EGR-208 Co-op I: Engineering (3.00 cr.)

This course is designed to allow the student to apply the technical skills gained during the course of study in engineering in a real-world environment. It emphasizes analytical problem solving so that solutions can be implemented that benefit industry, education or the community. Students work with Co-op advisor to help develop meaningful learning objectives at their places of employment.

Co-Op (135.00)

EGR-211 Engineering Circuit Analysis (4.00 cr.)

In this course DC and AC fundamentals are applied to the study of electrical networks. It is a core course in the Engineering Science Curriculum. The responses of varied circuits to basic input functions are analyzed by using transform methods. The integrated laboratory component is designed to introduce students to industrial test equipment and procedures. Computerized circuit simulation software is used to supplement laboratory experiments.

Lecture (45.00)

Laboratory (30.00)

Prerequisites: MTH-150 and PHY-201

EMERGENCY MEDICAL TECHNICIAN

EMT-101 Emergency Medical Technician (6.00 cr.)

The Emergency Medical Technician (EMT) course is intended to prepare the student for an entry-level career in emergency medical services at the basic provider level. The program is an intensive four-month course that addresses a variety of topics through lectures, skill labs, and evaluation sessions provided by certified EMT instructors, paramedics, nurses, and

physicians. Upon successful completion of the course, the student is eligible to take the New Jersey Department of Health examination for EMT-B certification.

Lecture (90.00)

Laboratory (90.00)

Clinical (60.00)

ACADEMIC SKILLS – ENGLISH

ENG-002 Reading II Express (1.00 cr.)

This course is designed for students who require only brief instruction in the reading required prior to the Reading III level. Preparing students for Reading Skills III in a rapid format, this course quickly covers the concepts of topic, stated main idea and implied main idea, supporting details, and general comprehension of paragraphs and essays. A segment of the curriculum is also dedicated to the identification of authorial bias and to the interpretation of charts and graphs.

Lecture (15.00)

Prerequisites: Accuplacer Placement or Teacher Recommendation

ENG-003 Writing Skills II Express (1.00 cr.)

This accelerated course is intended for students to improve their essay writing skills sufficiently for placement in ENG-023 (Writing Skills III). Students will compose multi-paragraph essays on general topics and in response to timed essay prompts. They will also review and practice formal English grammar and usage.

Lecture (15.00)

Prerequisites: Teacher recommendation

ENG-005 Pathways to Reading & Writing (3.00 cr.)

This course integrates reading and writing skills related to job-seeking and career goals. Instruction provides strategies for thinking about relevant readings and decoding meaning in them as well as expressing ideas in writing. Course instruction will be flexible, responsive, interactive, and multi-sensory across a broad spectrum of basic reading and writing exercises. Students should expect to work in a collaborative learning environment to develop reading, writing, and communication skills.

Lecture (45.00)

Prerequisites: Placed into Pathways to Reading & Writing

ENG-011 Reading Skills I (3.00 cr.)

The objective of this course is to develop the student's ability to comprehend short reading passages through the development of the most fundamental reading skills: decoding and identifying subject matter, main idea, major and minor supporting details. Students also learn to state the main idea in a standard American English sentence and to write summaries. (Credits do not apply toward graduation requirements.).

Lecture (45.00)

ENG-012 Reading Skills II (3.00 cr.)

In this course, the student will learn to do the following for multi-paragraph essays: write stated or implied main ideas; identify supporting details and describe their relationships to main ideas; answer questions requiring literal and inferential comprehension; utilize rhetorical strategies to aid comprehension; write accurate summaries; interpret charts and graphs that serve as support; demonstrate competence in ancillary readings deemed appropriate by instructors; and acquire information that will expand their general background knowledge.

Lecture (45.00)

Prerequisites: Placed into Reading Skills II

ENG-013 Reading Skills III (3.00 cr.)

This course seeks to improve the students reading comprehension skills. Instruction reviews strategies for understanding multi-paragraph non-fiction pieces by identifying topics, main ideas, and supporting details, and drawing inferences and conclusions. The course focuses on the identification and understanding of each readings standard rhetorical strategy, target audience, and purpose and concludes with syntheses among texts that take different approaches to similar subject matter.

Lecture (45.00)

Prerequisites: ENG-012 or ENG-002

ENG-021 Writing Skills I (3.00 cr.)
This course aids students whose deep anxiety about writing interferes with their ability to produce text. The course also focuses on the writing of correct sentences in the context of one paragraph essays. (Credits do not apply toward graduation requirements.).
Lecture (45.00)

ENG-022 Writing Skills II (3.00 cr.)
This course seeks to improve the students essay writing skills. Students will compose multi-paragraph essays on general topics. They will also compose timed essays in response to prompts. Additional emphasis is on review and practice of formal English grammar and usage. The course focuses on statement and support of a central controlling idea, using standard rhetorical strategies for logical organization of clear, correct sentences.
Lecture (45.00)
Prerequisites: ENG-021 or Placed into Writing II and Placed into Reading II or higher

ENG-023 Writing Skills III (3.00 cr.)
This course seeks to improve the student's essay writing skills in preparation for English Composition I. Students will compose multi-paragraph essays that summarize and respond to readings and accurately incorporate source material. They will also compose timed essays on impromptu topics. Time is allotted for review and practice of formal English grammar and usage. The course focuses on critical thinking about audience and purpose as well as language and style, using standard rhetorical strategies.
Lecture (45.00)
Prerequisites: ENG-022 or Placed into Writing III and Placed into Reading II or higher

ENG-046 Reading & Writing III Accelerated (4.00 cr.)
This course integrates reading and writing skills. By the end of the semester, students will demonstrate their comprehension of college-level readings by summarizing them, writing essays in response to them, and answering relevant exam questions on their content. During this process, students will annotate readings and compose clear, well developed papers. Upon completion of the course, they will read and write at the levels required of students placing directly into English Composition I.
Lecture (60.00)
Prerequisites: Placement Reading Score of 79-82 & Essay Score of 5

ENG-055 ALP English (3.00 cr.)
This course provides extended instruction to students enrolled in a designated ENG-101, English Composition I course. Students will be critically reading works and writing essays in a program that has been carefully synchronized with their ENG-101 class. This course is structured to enhance the corresponding ENG-101 instruction with the goal of improving college-level reading and writing skills. Analysis of information and research may be integrated into the course via computer lab assignments. In addition, non-cognitive factors will be emphasized - post secondary strategies, skills, attitudes and motivation - that are crucial to the students' academic persistence and performance in college-level academic work. This accelerated learning environment will enable students to simultaneously complete ENG-101, enroll in college-level courses during the semester, and subsequently register as returning students.
Lecture (45.00)
Prerequisites: Placement Reading Score of 77-82 & Essay Score of 5
Corequisites: ENG-101 Specialized ALP section.

ENGLISH

ENG-101 English Composition I (3.00 cr.)
This course acquaints the student with the conventions of expository writing. It offers training in clear, logical communication and encourages the student to read, analyze, discuss, and write. The "substance" of English Composition I is the essay: students study both the content and the rhetoric of selected essays and write essays which thoughtfully develop their own ideas in good rhetorical form.
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

ENG-101H Honors English Composition I (3.00 cr.)
This honors course acquaints the student with the conventions of expository writing. It offers training in clear, logical communication and encourages the student to read, analyze, discuss, and write. The "substance" of English Composition I is the essay: students study both the content and the rhetoric of selected essays and write essays which thoughtfully develop their own ideas in good rhetorical form. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

ENG-102 English Composition II (3.00 cr.)
English Composition II is the second semester of a two-semester course. Its purpose is to develop more fully the reading, writing, and speaking ability of the composition student to build on the basis of English Composition I. English Composition II will especially stress argumentative writing and will provide the student with a strong basis in the rhetoric of argumentation. In addition, the development of the student's research skills and ability to handle source material are important aspects of this course.
Lecture (45.00)
Prerequisites: ENG-101

ENG-102H Honors English Composition II (3.00 cr.)
Honors English Composition II is the second semester of a two-semester course. Its purpose is to develop more fully the reading, writing, and speaking ability of the composition student to build on the basis of English Composition I. English Composition II will especially stress argumentative writing and will provide the student with a strong basis in the rhetoric of argumentation. In addition, the development of the student's research skills and ability to handle source material are important aspects of this course. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**
Lecture (45.00)
Prerequisites: ENG-101

ENG-121 Introduction to Literature (3.00 cr.)
Introduction to Literature is a study of poetry, fiction, and drama. This course provides the student with the terminology and background necessary for the profitable study of literature; it also guides students in the application of the principles of literary criticism.
Lecture (45.00)
Prerequisites: ENG-101

ENG-131 Shakespeare (3.00 cr.)
This course is a survey of Shakespeare's art from his earliest to his last writings through the reading and discussion of his major plays.
Lecture (45.00)
Prerequisites: ENG-101

ENG-191 The Myths of the World (3.00 cr.)
Myths are among the oldest, most powerful, and most entertaining forms of literature. Participants in this course study a wide range of myths within and beyond the western tradition. The subject matter includes both the Greek and Roman myths that form a necessary background to much western literature and art and variations of those stories told in cultures uninfluenced by western civilization. Comparisons of myths from around the world demonstrate that very different but equally valid patterns of thought have been applied to answering similar questions about the human condition in a wide variety of times and places. Readings include myths from Celtic, Germanic, African, Asian, and native American traditions.
Lecture (45.00)
Prerequisites: ENG-101

ENG-210 English Grammar (3.00 cr.)
This course is intended to provide the student an understanding of English grammar from both a synchronic and a diachronic perspective. Topics

covered will include, but are not limited to; the nature and importance of grammar and the study of grammar, the history of the English language, resources for studying English grammar, the sentence, the parts of speech, phrases and clauses, sentence patterns, nouns, articles, pronouns, verbs, verbals, adjectives, adverbs, conjunctions, prepositions, sentence diagramming, changing perspectives on grammar, and traditional and non-traditional approaches to grammar, including the advent of computer technology.

Lecture (45.00)

Prerequisites: ENG-101

ENG-221 Creative Writing (3.00 cr.)

This course examines the process of writing imaginative literature; it combines lectures, discussions, and workshops. After lectures on selected topics, students read and discuss models of professional writing as well as their own works. Class time is occasionally used for performing writing assignments.

Lecture (45.00)

Prerequisites: ENG-101

ENG-225 Children's Literature (3.00 cr.)

Children's Literature studies the major genres in the field: folklore; picture storybooks; fantasy; minority literature; historical fiction; and realistic fiction. A critical study of the texts will emphasize literary and cultural interpretations. English and American works will dominate but will be supplemented by some European texts, particularly folklore.

Lecture (45.00)

Prerequisites: ENG-101

ENG-261 English Literature I (3.00 cr.)

This course is a study of selected masterpieces in English Literature from the Anglo-Saxon period through the Age of Reason. Authors, such as Chaucer, Shakespeare, Donne, Milton, Pope, Swift, and Defoe, are studied with an emphasis placed on the ideas that helped to shape Western Civilization.

Lecture (45.00)

Prerequisites: ENG-101

ENG-271 World Literature I (3.00 cr.)

Masterpieces of literature representative of various epochs, nationalities, and literary genres from ancient times to the sixteenth century form the core of this course. World Literature I explores the relationship of humanity to the world and deities in such works as the Bible, the Upanishads, Homer's epics, ancient Greek drama, Virgil's Aeneid, the poetry of Li Po and Tu Fu, and Dante's Inferno.

Lecture (45.00)

Prerequisites: ENG-101

ENG-271H Honors World Literature I (3.00 cr.)

Masterpieces of literature representative of various epochs, nationalities, and literary genres from ancient times to the sixteenth century form the core of this course. World Literature I explores the relationship of humanity to the world and deities in such works as the Bible, the Upanishads, Homer's epics, ancient Greek drama, Virgil's Aeneid, the poetry of Li Po and Tu Fu, and Dante's Inferno. ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.

Lecture (45.00)

Prerequisites: ENG-101

ENG-272 World Literature II (3.00 cr.)

World Literature II is a continuation of World Literature I. Masterpieces of literature from the sixteenth century to the present are studied with the emphasis on humanity's changing views as the modern world develops. These views are studied through the works of such writers as Moliere, Voltaire, Flaubert, Dostoevski, Lu Hsun, and Achebe.

Lecture (45.00)

Prerequisites: ENG-101

ENG-272H Honors World Literature II (3.00 cr.)

Honors World Literature II is a continuation of Honors World Literature I. Masterpieces of literature from the sixteenth century to the present are studied with the emphasis on humanity's changing views as the modern world develops. These views are studied through the works of such writers as Moliere, Voltaire, Flaubert, Dostoevski, Lu Hsun, and Achebe. ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.

Lecture (45.00)

Prerequisites: ENG-101

ENG-281 American Literature I (3.00 cr.)

American Literature I is a study of masterpieces in American literature from its beginning to 1860. The course analyzes the major social, ideological, and literary trends that contributed to the formation of the American way of life. Authors such as Irving, Poe, Emerson, Thoreau, Hawthorne, and Melville are read.

Lecture (45.00)

Prerequisites: ENG-101

ENG-281H Honors American Literature I (3.00 cr.)

American Literature I is a study of masterpieces in American literature from its beginning to 1860. The course analyzes the major social, ideological, and literary trends that contributed to the formation of the American way of life. Authors such as Irving, Poe, Emerson, Thoreau, Hawthorne, and Melville are read. ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.

Lecture (45.00)

Prerequisites: ENG-101

ENG-282H Honors American Literature II (3.00 cr.)

American Literature II is a study of masterpieces in American literature from 1860 to the present. The course analyzes the major social, ideological, and literary trends that contributed to present day American life. Students will read authors, such as Dickinson, Twain, James, Eliot, Hemingway, and Faulkner. ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.

Lecture (45.00)

Prerequisites: ENG-101

ENGLISH AS A SECOND LANGUAGE

ESL-060 Introduction to ESL Writing and Grammar (4.00 cr.)

This course focuses on the ability of non-native English speakers to express themselves in a written format in English. It is designed for students whose placement scores indicate limited or no ability to write in English. Students review the English alphabet and then write simple sentences about their own lives and experience. As they study vocabulary and the organization of writing in English, they move to writing longer simple sentences using the structures and concepts they have studied. Basic grammatical structures are introduced and practiced in class through writing.

Lecture (60.00)

Prerequisites: Placed into Intro to ESL Writing/Grammar

ESL-061 ESL Writing & Grammar 1 (4.00 cr.)

This course focuses on the development of basic writing and grammar skills for non-native speakers of English. Students will learn how to write grammatically correct sentences. Students will also be introduced to the paragraph structure. Grammatical structures relevant to this course will be addressed. (Credits do not apply toward graduation requirements.).

Lecture (60.00)

ESL-062 ESL Writing & Grammar 2 (4.00 cr.)

This course focuses on the development of intermediate writing and grammar skills for non-native speakers of English. Students will learn how to write an academic paragraph that is sound in form and content. Grammatical structures relevant to this course will be addressed. (Credits do not apply toward graduation requirements.).

Lecture (60.00)
Prerequisites: ESL-061

ESL-063 ESL Writing & Grammar 3 (4.00 cr.)
This course focuses on the development of advanced writing and grammar skills for non-native speakers of English. Students will learn how to write a multi-paragraph essay that is sound in form and content. Grammatical structures relevant to this course will be addressed. (Credits do not apply toward graduation requirements.).
Lecture (60.00)
Prerequisites: ESL-062

ESL-070 Intro to ESL Reading & Vocabulary (4.00 cr.)
This course focuses on the ability of non-native English speakers to understand written English and to expand their English vocabulary. It is designed for non-native English speaking students whose placement scores indicate limited or no ability to comprehend written English. Reading comprehension and vocabulary development skills are taught and practiced in class through reading, listening, and speaking activities.
Lecture (60.00)
Prerequisites: Placed into Intro to ESL Reading & Vocabulary

ESL-071 ESL Reading & Vocabulary 1 (4.00 cr.)
This course focuses on the development of basic reading and vocabulary skills for non-native speakers of English. Students will read a variety of reading selections in order to develop both reading and vocabulary building skills on a basic level. (Credits do not apply toward graduation requirements.).
Lecture (60.00)

ESL-072 ESL Reading & Vocabulary 2 (4.00 cr.)
This course focuses on the development of intermediate reading and vocabulary skills for non-native speakers of English. Students will read a variety of reading selections in order to develop both reading and vocabulary building skills on an intermediate level. (Credits do not apply toward graduation requirements.).
Lecture (60.00)
Prerequisites: ESL-071

ESL-073 ESL Reading & Vocabulary 3 (4.00 cr.)
This course focuses on the development of advanced reading and vocabulary skills for non-native speakers of English. Students will read a variety of reading selections in order to develop both reading and vocabulary building skills on an advanced level. (Credits do not apply toward graduation requirements.).
Lecture (60.00)
Prerequisites: ESL-072

ESL-080 Intro to ESL Listening & Speaking (4.00 cr.)
This course focuses on developing and improving the ability of non-native English speakers to express themselves orally in English. It is designed for non-native English speaking students whose placement scores indicate limited or no ability to comprehend or produce spoken English. Listening and speaking skills are taught and practiced in class through listening, and speaking activities.
Lecture (60.00)
Prerequisites: Placed into Intro to ESL Listening & Speaking

ESL-081 ESL Listening & Speaking 1 (4.00 cr.)
This course focuses on the development of basic listening and speaking skills for non-native speakers of English. Students will develop communication, presentation, and pronunciation skills on a basic level. (Credits do not apply toward graduation requirements.).
Lecture (60.00)

ESL-082 ESL Listening & Speaking 2 (4.00 cr.)
This course focuses on the development of intermediate listening and speaking skills for non-native speakers of English. Students will develop communication, presentation, and pronunciation skills on an intermediate level. (Credits do not apply toward graduation requirements.).
Lecture (60.00)

Prerequisites: ESL-081

ESL-083 ESL Listening & Speaking 3 (4.00 cr.)
This course focuses on the development of advanced academic listening and speaking skills for non-native speakers of English. Students will develop communication, presentation, and pronunciation skills on an advanced level required for success in academic classes. (Credits do not apply toward graduation requirements.).
Lecture (60.00)
Prerequisites: ESL-082

ESL-094 English for Academic Purposes (4.00 cr.)
This is an integrated reading and writing course that will develop a students ability to read academic texts, extract information from them, and respond critically in writing. This course will focus on students acquiring advanced sentence level structures necessary to be successful in College-level courses. This course will also focus on students reading a variety of reading selections in order to develop both reading and vocabulary building skills for success in College- level courses. (Credits do not apply toward graduation requirements.).
Lecture (60.00)
Prerequisites: ESL-063 and ESL-073

ESPORTS

ESP-101 Introduction to Esports (3.00 cr.)
The global community of video gaming and esports is a multibillion-dollar industry. With so many opportunities in this field, this course is geared as an overview of what makes the esports and gaming industry so unique. This course will cover topics such as defining the difference between esports and gaming, reviewing the current esports market and industry, and exploring the various job opportunities in esports.
Lecture (45.00)
Prerequisites: (ENG-023 and ENG-013) or ENG-055

ESP-102 History of Esports and Gaming (3.00 cr.)
How did we get from Bertie the Brain to The Overwatch League? Video gaming, esports and the global communities they created have an interesting history. This course will explore the origins of competitive gaming and esports with stories about the inventions, notable creators and players, companies, places and events that evolved a fun activity into a multibillion-dollar business.
Lecture (45.00)
Prerequisites: (ENG-023 and ENG-013) or ENG-055

ESP-111 Esports Event Management (3.00 cr.)
Whether it is sold out arenas with live spectators or global viewership in the hundreds of millions, esports is an events industry. These events demand skilled individuals to help plan, organize and deploy activities that result in successful esports events and tournaments. Billions of dollars are being invested in esports-related franchises, stadiums, and production facilities. This course will look at the billion-dollar esports event industry and will establish fundamental skills necessary to run an event.
Lecture (45.00)
Prerequisites: ESP-101

ESP-112 Business Success in Esports (3.00 cr.)
A billion-dollar industry, esports has its share of wildly successful and here today and gone tomorrow titles. Hundreds of new titles are issued each year but only a handful survive to reap the rewards. This course explores the foundations of the industry structure of esports. There are different measurements of financial success for new titles in esports and gaming, one of which is O.M.E.N.S., which stands Opportunities for Competition, Monetization, Ecosystem Support, Network Effects and Switching Costs. The course offers a method to measure and possibly anticipate success for gaming titles. Material for discussion will also include the financially successful individual players, franchises, and other industries that are an outgrowth of gaming and esports.
Lecture (45.00)
Prerequisites: ESP-102

ESP-113 Sociocultural Influence on Esports (3.00 cr.)

The course will feature discussion of socio-cultural issues such as race, ethnicity, class, gender, sexuality, disability, and age play in the creation of titles and in the practice of esports. The course is an examination of how these issues impact game creators and game players, including the topics of digital citizenship and toxicity in esports. The course will also explore the political and global issues that influence of the esports industry. The student will engage in research, and problem solving in order to comprehend and assess significant current issues.

Lecture (45.00)

Prerequisites: ESP-102

ESP-114 Group Dynamics of Esports (3.00 cr.)

The course is an exploration of the group dynamic of esports and an examination of fan engagement strategies. Franchise teams attract fans to arenas while millions more watch on broadcast television, cable, social media, and streaming services. Hundreds of thousands of players around the globe come together in competition. This course will also explore current and future trends in esports fan engagement, including an exploration of new ideas to connect and re-connect esports fans and ways to leverage data to boost engagement.

Lecture (45.00)

Prerequisites: ESP-102

ESP-198 Esports Internship (3.00 cr.)

The course is an applied, monitored, and supervised field-based learning experience in the esports production field. The student will work in various aspects of the esports industry including but not limited to video and/or audio production, promotions and event planning, program hosting, live events, sportscasting, etc. Students follow a negotiated and/or directed plan of study. A high level of supervision is provided by the instructor. If the internship is with an external firm, a work supervisor is also required.

Internship (135.00)

Prerequisites: COM-150

FINANCE**FIN-201 Investment Principles (3.00 cr.)**

This course introduces students to the basics of investment. It covers the mechanics of investing, investment media, the securities markets and their regulation, and an analysis of the major areas of investment, policy and practices.

Lecture (45.00)

FIN-212 Principles of Finance (3.00 cr.)

This course introduces students to the basics of financial management and finance. Emphasis is given to techniques and methods used to manage the money supply used by a business organization. Included in the subjects covered are financial analysis, planning and control, budgeting and forecasting, current asset management, sources of short-term financing, decision models used in making capital investment decisions, and failure, reorganization and liquidation.

Lecture (45.00)

Prerequisites: ACC-101 or ACC-104

FIN-215 Real Estate Sales (5.00 cr.)

This course is a basic course in the principles of real estate and includes the study of property interests, contracts, financing, titles, deeds and closing, appraising, leases, federal laws, NJ statutes and NJ Real Estate Commission rules and regulations. Students successfully completing the course with a grade of C or better will also be certified to sit for the NJ Real Estate Salesperson Examination.

Lecture (75.00)

FIRE SCIENCE**FIR-101 Fundamentals of Fire Behavior/Protection (3.00 cr.)**

This course introduces fire behavior, fire protection engineering, fire prevention control, and fire extinguishment. Students will learn the principles relevant to hazard control, structural design, limitation of loss, detection, and extinguishment. The course will create awareness of fire

protection systems, the processes to control and extinguish fires and provide the basis for a career in fire service.

Lecture (45.00)

FIR-102 Fund of Fire Prevention/Fire Inspector I (3.00 cr.)

This course provides fundamental information regarding the basic principles of fire prevention and inspection. It provides basic knowledge and understanding of building construction principles with emphasis on life safety devices, code requirements and inspection and enforcement techniques. This course has been approved to meet the Fire Inspector Certification standards as established in the Uniform Fire Code N.J.A.C. 5:71-4.4. The course prepares the student to take the ICC Certification test for Fire Inspector.

Lecture (45.00)

FIR-106 NJ Firefighter II (3.00 cr.)

This is a State of New Jersey certification course that requires a minimum of 86 hours of hands-on practical labs. Students will apply theoretical classroom learning from FIR-101 in a controlled environment through a series of scenarios and simulations developed to mirror real world incidents. FIR-101 or the NJ State Firefighter I Certification is required for success in this course.

Laboratory (90.00)

Prerequisites: FIR-101

FIR-121 Fire Fighting Tactics and Strategy (3.00 cr.)

This course covers efficient and effective utilization of manpower, equipment, and apparatus. Emphasis is on preplanning, fire-ground organization problem solving related to fire-ground decision making in fires, and attack tactics and strategy.

Lecture (45.00)

Prerequisites: FIR-101

FIR-125 Fire Fighter Safety & Survival (3.00 cr.)

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. The course is a required element of the national model Associates curriculum as developed by FEMA under the Fire and Emergency Services higher Education (FESHE) program.

Lecture (45.00)

FIR-201 Fire Protection Systems (3.00 cr.)

This course is an introduction to fire alarm and detection systems, the various extinguishing agents, protection systems for special hazards, sprinkler systems and water supplies. The student will become aware of the importance of fire protection systems and their use and design to protect life and property. The course will describe primary objectives in the different types of systems. It will cover basic design, operation, and maintenance of these systems for a lay person but does not intend to be a course for the fire protection engineers or installer of systems.

Lecture (45.00)

Prerequisites: FIR-101

FIR-202 Fire Investigation (3.00 cr.)

Introduction to the science of fire investigation and examining the proper techniques necessary to conduct fire and explosion scene investigations. Students will utilize the scientific method to accurately determine the point of origin and the potential cause of fire incidents. Also, the legal aspects of fire investigation will be explored.

Lecture (45.00)

Prerequisites: FIR-102

FIR-211 Building Construction for Fire Service (3.00 cr.)

This course is a systematic study of the evolutionary development of building construction and design with emphasis on fire protection concerns. Attention is directed to inherent fire hazards in different types of structures and the recommended degree of fire protection control.

Lecture (45.00)

Prerequisites: FIR-101

FIR-212 Fire Official (3.00 cr.)

This course is designed to ensure competence in the administration of the New Jersey Uniform Fire Code. This course will familiarize the student with various legal requirements and responsibilities established by the Uniform Fire Safety Act. This course will acquaint the student with administrative requirements associated with managing a Local Enforcing Agency, Legal rights of owners and tenants, Municipal ordinances, and Administrative Codes. It will include the use of Permit, Registration Fees penalties, and responsibilities of the Fire Official.

Lecture (45.00)

Prerequisites: FIR-222

FIR-222 Fire Inspector II (3.00 cr.)

This course builds upon course basic elements from FIR-102 and is the completion of the required training as established in the Uniform Fire Code N.J.A.C. 5:71-4.4. This course provides instruction in all specialized operations regulated as part of the New Jersey Uniform Fire Code. After completion of FIR-102 and FIR-222, the student is eligible to sit for the certification exam.

Lecture (45.00)

Prerequisites: FIR-102

FIR-225 Hydraulics (3.00 cr.)

This course covers properties, principles, and concepts of fluid materials. This includes water flows, friction loss, fluid pressures, fluid flows, and various design and capacity considerations of tanks and pumps.

Lecture (45.00)

Prerequisites: FIR-101

FIR-231 Organization & Management of Fire Depts (3.00 cr.)

This course introduces the student to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis is on fire service leadership from the perspective of the company officer.

Lecture (45.00)

Prerequisites: FIR-101 or FIR-102

FIR-235 NJ Fire Officer I (3.00 cr.)

This is a State of NJ certification courses that requires minimum 45 hours of classroom with discussion of practical applications for the firefighter. This course is intended for active firefighters who are or will be placed in supervisory roles as part of their responsibilities. The program follows a mandatory state curriculum that includes class/homework assignments, research projects, quizzes for each chapter, a mid-term, and a final exam. In addition to the final exam, the New Jersey Fire Officer I Certification exam will be administered and graded by the Division of Fire Safety. All course requirements must be met prior to taking the state exam. This program meets the course of instruction requirements of N.J.A.C. 5:73-8, Standards for Fire Service Training and Certification Fire Officers. Successful completion of this course and passing the state administered final exam are required to attain N.J. DFS Fire Officer I Certification.

Lecture (45.00)

Prerequisites: FIR-101

FIR-241 Hazardous Materials (3.00 cr.)

This course will study hazardous materials and their relationship to Public Safety Services, as said materials are transported, stored, and used. Emphasis will be given to the role of the first responder and other emergency management personnel in pre-planning for hazardous materials incidents.

Lecture (45.00)

Prerequisites: FIR-101

FIR-251 Fire Serv Instruction Techniques/Methods (3.00 cr.)

This course is designed to advance the professional development of individuals who either are, or will be, assuming instructional duties and responsibilities in the emergency services. The students will learn how to effectively plan curriculum through methods of presentation as it relates to the fire service. Most importantly, students will be able to identify learners needs and understand the management of learning. (Students who

successfully complete the course will have satisfied the New Jersey State requirements for Level I instructor and will be scheduled to take the state certification exam within the class.).

Lecture (45.00)

FIR-252 Arson/Law & Court Procedures (3.00 cr.)

This course is designed as an advanced course in fire investigation. A systematic approach and analytical process are discussed so that students will be able to carry out a successful arson/ criminal investigation. This course when combined with Fire Investigation (FIR-202) is the equivalent of the State of New Jersey and National Fire Academy course in fire investigation. Emphasis will be placed on understanding the motives for arson and different causes of arson. Students will learn proper techniques of preserving criminal evidence and its use in court. A large portion of the second half of the course will focus on preparation for a court case. Surveillance, interviews and interrogation are procedures that will be examined. The course will end with a mock trial.

Lecture (45.00)

Prerequisites: FIR-202

FILM**FLM-101 Television Appreciation (3.00 cr.)**

Television Appreciation is a survey course that aims to acquaint the student with the medium. One focus is on the way in which television chronicles and influences American life and a larger global society since the mid 20th century. The students will analyze the roles of writers, directors, pre-production, production, post-production, on-camera and voice over talent actors and "real people" in all areas of television programming content from broadcast news and news magazines, to sports, episodic television, sitcom, reality TV, placement of previously released and made for TV films, specials and commercial sales giving the student the ability to analyze the medium as both a performance art and recorded art form.

Lecture (45.00)

FLM-110 Filmmaking I (3.00 cr.)

This is an overview of film production. It includes hands-on studio work in light design, sound production and design and camera technique. Students will develop scripts, design, shoot and edit short film projects.

Lecture (30.00)

Laboratory (30.00)

FLM-201 Film Appreciation (3.00 cr.)

Film Appreciation introduces the movie as a powerful art form, in addition to exploring its familiar role as popular entertainment, with a focus on evaluating narrative as well as non-narrative styles of film. The course develops students' insight into the process of filmmaking, while engaging critical thinking skills in the analysis of the many creative choices that contribute to form a finished film. Explorations of technical developments, film history and critical analyses are presented, which will engage students who wish to deepen their understanding of film for personal enjoyment, as well as those students who are interested in pursuing further studies in cinema, communications or related mass media.

Lecture (45.00)

FLM-201H Honors Film Appreciation (3.00 cr.)

Honors Film Appreciation is a basic survey aiming to acquaint the student with the art of the form. The focus is on the narrative or story film and the approach is analytical rather than historical. Having completed the course a student should find that she/he has greater insight into the creating of films and a greater appreciation of that which is good in film. A more insightful filmgoer should be a more demanding patron. A more discerning film-going public may encourage more discerning film-making and that, perhaps, should be the focus of a theatre appreciation course. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

FLM-205 Film Animation I (3.00 cr.)

This course is intended for students who desire to work as motion graphics artists on film and television productions, as well as for other artists and filmmakers who desire to work in other aspects of filmmaking and need an understanding of motion graphics. The students will be trained in the language and techniques of motion graphics and animation for film and television. This course will familiarize students with the language and tools for motion graphics in film and television production and post production, acquaint them with the specialized equipment for motion graphics and, in conjunction with the film and television production classes, give them the opportunity to work in real-life production and post-production conditions. The techniques will include the use of live action and live compositing, keying and green screen.

Lecture (30.00)

Laboratory (30.00)

FLM-210 Filmmaking II (3.00 cr.)

As a continuation of Filmmaking I, students will continue to study video film production to script, design, shoot and edit a capstone film project.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: FLM-110

FLM-215 Production Internship I (3.00 cr.)

Students will work, for a minimum of 135 hours, directly with film and video producers in the media industry including New Media providers. Students will produce work journals and evaluations from the independent producers with a portfolio where propriety permits.

Internship (135.00)

Prerequisites: FLM-110 and FLM-210

FOOD & NUTRITION SCIENCE**FNS-100 Dietetic Foundations (3.00 cr.)**

This course is designed as a study of the various professions, career options, education requirements, and credentials in the dietetic profession. Topics include professional association membership, eligibility requirements, professional registrations, code of ethics, and the trends and predictions of the industry. Students will learn basic professional terminology and commonly used documentation abbreviations. The student will become familiar with the techniques of presenting education lessons and materials to various client groups.

Lecture (45.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

FNS-105 Introduction to Nutrition (3.00 cr.)

This course is designed as a scientific exploration of the fundamentals of nutrition. Topics include the function and sources of the macro and micronutrients needed to promote health and aid in disease prevention and treatment. Students will learn about energy metabolism, digestion, absorption and transportation of nutrients. Students will learn how cultural influences affect nutrition status and they will learn how to assess and improve nutritional health by completing a computerized diet analysis on their current eating habits. This course does not satisfy a laboratory science elective.

Lecture (45.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

FNS-106 Foundations of Nutritional Science (3.00 cr.)

This introductory course is specifically for Dietetic Technology, Dental Hygiene and Food Science program students. This course is designed to focus on chemical and biological aspects of nutrition science concepts. Topics include energy metabolism and pathways, nutrition physiology and application of the role of nutrition in prevention and treatment of health concerns throughout the lifespan. This unique course will allow students to apply assessment and counseling skills at the introductory level.

Lecture (45.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

FNS-107 Nutrition for Health Care Professional (3.00 cr.)

This course evaluates the chemical composition and reaction of the nutrients in food, digestion, absorption and metabolism of Nutrients. The nutritional needs of humans throughout the life cycle including pregnancy, lactation, infancy, childhood, adolescences and geriatrics will be explored. Students will learn how cultural influences affect nutrition status and they will learn how to assess and improve nutritional health by completing a computerized diet analysis on their current eating habits. The relationship of diet to health and disease, and the role of nursing professionals and nutrition will be emphasized.

Lecture (45.00)

FNS-110 Food Service Management (3.00 cr.)

This course introduces the principles of management within the food service operation. Management styles and theories are detailed. Procedures involved in hiring and supervision of personnel, including relevant laws and regulations, are explored. Emphasis is placed on types and flow of communication, employee training and evaluation, goal setting and quality improvement, and interactions with other professionals. Professional ethics and financial management are highlighted.

Lecture (45.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

FNS-130 Life Cycle Nutrition (3.00 cr.)

This course further evaluates the chemical composition and reaction of the nutrients in food. Students will study the nutritional needs of humans throughout the life cycle including pregnancy, lactation, infancy, childhood, adolescences and geriatrics. Case studies are used in the application of theoretical concepts to demonstrate the students ability to develop key skills such as communication, group working and problem solving. Patient interviewing and nutrition assessment tools and techniques are practiced.

Lecture (45.00)

Prerequisites: FNS-100 and FNS-106

FNS-200 Community Nutrition Rotation (3.00 cr.)

This course is designed as a "hands-on" experience in community nutrition. Students will apply knowledge and skills developed in Life Cycle Nutrition. Students will interview, counsel, plan and conduct nutrition classes, obtain screening data, evaluate food intake and food related behaviors of clients, individuals and groups of all age levels and economic backgrounds. Weekly clinical hours are assigned for a total of 135 hours during the semester.

Lecture (15.00)

Clinical (135.00)

Prerequisites: FNS-130

FNS-210 Food Service Operations (3.00 cr.)

This course focuses on the principles of procurement, production and service in food service operations. Topics include equipment selection, use and maintenance. Food quality issues and understanding the business environment in relation to food service operations are introduced. Students will learn relevant state and federal laws; recognize causes, symptoms and types of food borne illnesses; and detail critical limits for prevention measures in regards to safety and sanitation. Students will learn the proper flow of food and be able to apply HACCP procedures at each stage. Proper use of hazardous materials (MSDS) and crisis management plans are discussed.

Lecture (45.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

FNS-211 Therapeutic Nutrition I (3.00 cr.)

This course presents the physiologic and metabolic changes that occur as a result of disease development. Students will learn how to use nutrition assessment and the nutrition care process in the treatment of patients in various clinical settings. Students learn how to involve the patient in the care process in regards to dietary modification needed to meet nutrient needs during the disease process. This course focuses on the dietary management of diabetes and gastrointestinal diseases.

Lecture (45.00)
Prerequisites: FNS-130

FNS-212 Therapeutic Nutrition II (3.00 cr.)

This course continues the study of physiologic and metabolic changes that occur with disease development. Topics include nutrition and disorders of the heart, blood vessels and lungs, cancer and HIV infection, renal (kidney) diseases and severe stress including surgery, infections, and burns. Case studies will be reviewed and presented. Nutritional assessment will be emphasized.

Lecture (45.00)
Prerequisites: FNS-211 and one 4-credit Laboratory Science Elective

FNS-221 Quantity Food Production (4.00 cr.)

This course allows students to plan and prepare foods and meals for large groups. Students will learn how to use and convert standard recipes, how to order foods in quantity, and how to assess food safety.

Lecture (30.00)
Laboratory (60.00)
Prerequisites: FNS-210 or HTS-115

FNS-230 Culinary Technology Rotation (3.00 cr.)

An integration of knowledge and skills acquired in didactic courses with observation and practice of the duties of the food service personnel such as standard recipe use, menu planning, supervision of employees, sanitation and safety procedures, inventory management, regulations and standards, and writing work schedules. Students will engage in many hands-on activities and will complete case studies to demonstrate knowledge of areas covered in this field experience.

Clinical (150.00)
Prerequisites: FNS-110 and HTS-115
Corequisites: HTS-205

FNS-240 Food Service Rotation (3.00 cr.)

This course integrates the skills acquired in didactic courses with observation and practice of the duties of food service employees and director/managers. Topics covered include menu planning, supervision of employees, sanitation and safety procedures, and writing work schedules. Also covered are the duties of the consulting dietitian such as nutritional assessments, calculating diets, interviewing and counseling elderly patients, and documenting medical charts. Students will be scheduled for 135 clinical hours at affiliated sites throughout the semester.

Lecture (15.00)
Clinical (135.00)
Prerequisites: FNS-210

FNS-245 Nutrition Manager Rotation (3.00 cr.)

This course is an integration of knowledge and skills acquired in didactic courses with observation and practice of the duties of the food service director/manager. Duties include menu planning, supervision of employees, sanitation and safety procedures, writing work schedules, etc. In addition, the duties of the consulting dietitian, i.e., nutritional assessment, calculating diets, interviewing and counseling elderly patients, and documentation of the medical chart will be observed and practiced.

Lecture (15.00)
Clinical (150.00)
Prerequisites: FNS-130 and FNS-210

FNS-250 Clinical Nutrition Rotation (3.00 cr.)

This course is designed to integrate skills and knowledge obtained in course work with the practical application of nutrition care in various clinical and wellness sites. The students will be scheduled for 180 clinical hours at affiliated sites throughout the semester. Students will observe and practice the duties of the dietetic professional, such as nutritional screening and assessment, calculating diets, assessing calorie counts, counseling clients, documenting the client's record, and follow-up planning. The student develops a comprehensive patient case history for presentation during the last weeks of the semester.

Lecture (15.00)
Clinical (180.00)
Prerequisites: FNS-200, FNS-212 and FNS-240

FRENCH

FRE-101 Elementary French I (3.00 cr.)

This course introduces the student to the language and culture of the French-speaking world. It provides the student with basic working information of the language (listening, speaking, reading, writing) in order to interact and communicate with others, while gaining a greater understanding of the different francophone cultures. This course is intended for students beginning the language or for those who have received a grade below C in two years of high school French. This course is not intended for native speakers.

Lecture (45.00)
Prerequisites: ENG-012 and ENG-022

FRE-102 Elementary French II (3.00 cr.)

This course continues the basic elements of the language and the understanding of the French-speaking world. It provides the student with basic working information of the language (listening, speaking, reading, and writing) in order to interact and communicate with others at a novice-high level, while gaining a greater understanding of and respect for the different Francophone cultures. This course is not intended for native speakers.

Lecture (45.00)
Prerequisites: ENG-012, ENG-022 and FRE-101 or two years of high school French

FRE-201 Intermediate French I (3.00 cr.)

This course continues the study of the basic working structures of the language (listening, speaking, reading, and writing) at the intermediate-low level in order to interact and communicate with others, while gaining a greater understanding of and respect for the different cultures in the French-speaking world.

Lecture (45.00)
Prerequisites: FRE-102 or two years of high school French, and (ENG-013 and ENG-023) or ENG-046

FRE-202 Intermediate French II (3.00 cr.)

This course completes the study of the working structures of the language (listening, speaking, reading, and writing) at the intermediate-mid level in order to interact and communicate with others, while gaining a greater understanding of and respect for the different cultures in the French-speaking world through literature and film.

Lecture (45.00)
Prerequisites: FRE-201

FORENSIC SCIENCE

FSC-110 Introduction to Forensic Osteology (4.00 cr.)

This is an introductory course in forensic osteology intended for criminal justice students and others interested in a career in forensics. Basic material in anatomy and related disciplines will be presented so that students have the requisite background to understand and appreciate the role of the forensic osteologist. Case studies illustrate forensic applications. Laboratory experiments illustrate important material.

Lecture (45.00)
Laboratory (45.00)
Prerequisites: CHM-145 and MTH-029
Prerequisites: (ENG-013 and ENG-023) or ENG-046

FSC-120 Introduction to Forensic Toxicology (4.00 cr.)

This is an introductory course in forensic toxicology for students with an interest in forensic science or criminal justice. The course will provide the basic concepts of analytical chemistry as it applies to drug and body fluid analysis, as well as the fundamentals of pharmacology and toxicology as they apply to commonly encountered abused and toxic substances. Laboratory experiments will complement the lecture material.

Lecture (45.00)
Laboratory (45.00)
Prerequisites: CHM-145, MTH-029, and one 4-credit Chemistry Course
Prerequisites: (ENG-013 and ENG-023) or ENG-046

FSC-200 Fundamentals of Forensic Toxicology (3.00 cr.)
 This is an introductory course in forensic toxicology for students with an interest in forensic science, biotechnology or criminal justice. This course will provide a background in toxicology ideas and concepts.
 Lecture (45.00)
 Prerequisites: CHM-221

GEOGRAPHY

GEO-101 Cultural Geography (3.00 cr.)
 This course is designed to acquaint students with geography in general and with cultural geography specifically. Students will be encouraged to explore the relationships which exist between human activity and various places on the earth's surface. This will necessitate investigating such topics as population and human environment, religion, language, race, political structures and economic activities. A spatial perspective of each topic will be explored utilizing the United States and Canada as a benchmark to better understand these global distributions. Students will be encouraged to investigate the dynamic nature of these cultural elements in order to begin to understand their continuously evolving spatial and temporal characteristics.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

GERMAN

GER-101 Elementary German I (3.00 cr.)
 This course introduces the student to the language and culture of the German-speaking countries. It provides the student with basic working information of the language (listening, speaking, reading, writing) in order to interact and communicate with others, while gaining a greater understanding of the German-speaking culture. This class is intended for students beginning the language or for those who have received a grade below C in two years of high school German. This course is not intended for native speakers.
 Lecture (45.00)
 Prerequisites: ENG-012 and ENG-022

GER-102 Elementary German II (3.00 cr.)
 This course continues the basic elements of the language and the understanding of the German-speaking world. It provides the student with basic working information of the language (listening, speaking, reading, and writing) in order to interact and communicate with others at a novice high-level, while gaining a greater understanding of and respect for the German-speaking culture. This course is not intended for native speakers.
 Lecture (45.00)
 Prerequisites: ENG-012, ENG-022 and GER-101 or two years of high school German

GER-201 Intermediate German I (3.00 cr.)
 This course continues the study of the basic working structures of the language (listening, speaking, reading, and writing) at the intermediate-low level in order to interact and communicate with others, while gaining a greater understanding of and respect for the German-speaking culture.
 Lecture (45.00)
 Prerequisites: GER-102 or two years of high school German, and (ENG-013 and ENG-023) or ENG-046

HISTORY

HIS-101 World Civilization I (3.00 cr.)
 An introduction to the major cultures of the world from the ancient period to c.1500 C.E. in Africa, Asia, Europe, and Latin America, this course will analyze these cultures in their political, economic, and religious aspects. The objectives of this course are to give students a greater understanding of why the world is the way it is today, to develop within the students the necessary skills to analyze both contemporary and historical societies and their institutional components, and to cultivate an awareness of foreign cultures and societies in order to give new perspectives on our own cultural assumptions and traditions.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-101H Honors World Civilization I (3.00 cr.)
 An introduction to the major cultures of the world from the ancient period to c.1500 C.E. in Africa, Asia, Europe, and Latin America, this course will analyze these cultures in their political, economic, and religious aspects, and will also reflect the latest information on the role of women in society. The objectives of this course are to give students a greater understanding of why the world is the way it is today, to develop within the students the necessary skills to analyze both contemporary and historical societies and their institutional components, and to cultivate an awareness of foreign cultures and societies in order to give new perspectives on our own cultural assumptions and traditions.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-102 World Civilization II (3.00 cr.)
 This course is an introduction to the major cultures of the world from c 1500C.E. to the present. This course should not be taken by students who have taken HIS-112, Western Civ. II.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-102H Honors World Civilization II (3.00 cr.)
 This course is an introduction to the major cultures of the world from c 1500C.E. to the present. This course should not be taken by students who have taken HIS-112, Western Civ. II.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-111 Western Civilization I (3.00 cr.)
 This course is a comprehensive survey of the political, social, economic, intellectual and cultural developments of Western Civilizations from ancient Egypt and the Near East, Greece and Rome, the Middle Ages and Renaissance up to 1500. This course should not be taken by students who have taken HIS-101, World Civilization I.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-112 Western Civilization II (3.00 cr.)
 This course is a comprehensive survey of the political, social, economic, intellectual and cultural developments of Western Civilization from the Reformation, the Age of Absolutism, the Enlightenment, and the Age of Revolutions through the development of the modern nation-state to the present. This course should not be taken by students who have taken HIS 102 - World Civilization II, or HIS 103 - World Civilization III.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-121 United States History I (3.00 cr.)
 This is a comprehensive survey of the political, social, economic, intellectual, and cultural development of American civilization from 1607 to 1877 and includes such topics as Puritanism, republicanism, federalism, Jeffersonian and Jacksonian democracy, nationalism, sectionalism, slavery, revolution, secession reform movements, minorities and women.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-122 United States History II (3.00 cr.)
 This is a comprehensive survey of the political, social, economic, intellectual and cultural development of American civilization from 1877 to the present, including such topics as racism, ethnicity, industrialism, unionism, militarism, materialism, secularism, minorities, and women.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-127 Topics in American History (3.00 cr.)
 This course is designed to allow students to enroll in a course that investigates a specific historical topic in American history.
 Lecture (45.00)
 Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-131 African-American History I (3.00 cr.)
This course offers a comprehensive survey of political, economic, and social life of the African-American in the United States from the period of colonization through reconstruction.
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-132 African-American History II (3.00 cr.)
This course offers a comprehensive survey of political, economic, and social life of the African-American in the United States from post reconstruction to the present.
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIS-150 Topics in History (3.00 cr.)
This course is designed to allow students to enroll in a course that investigates a specific historical topic or a problem. Since the topic may change from semester to semester, a description of the course content will be available in the Office of the Dean of Liberal Arts during registration and will also be distributed to all academic advisors.
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

HEALTH INFORMATION TECHNOLOGY

HIT-101 Introduction to Health Information (3.00 cr.)
This course will examine the aspect of taking health data and presenting it as information. Focus will be on the concepts of health data that include data elements, data sets, data dictionaries, data quality management and the usages of health data. Governmental requirements for data reporting will be reviewed. Data analysis that results in application of information will be emphasized. Basics of health records, format, and documentation will also be discussed. Students will receive instruction on qualitative and quantitative analysis and abstraction with the opportunity to practice from actual health records in the lab. Chart management software will be incorporated into this course for the student to use in the lab.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

HIT-110 Health Informatics (4.00 cr.)
This course focuses on the fundamentals of information systems as they relate to the field of Health Information. This course offers a broad background in theory, which includes the application of basic computer and communication concepts, technologies, systems development and planning. Issues surrounding our healthcare delivery system's migration to the Electronic Health Record are discussed. The course will also address the concept of the EHR as it deals with the patient's continuum of care. Practical application of these and other topics will be augmented by hands-on activities.
Lecture (45.00)
Laboratory (30.00)
Prerequisites: ENG-101, HIT-101 and CIS-101 or CIS-105; or NOL-110 and NOL-120

HIT-115 Healthcare Reimbursement (3.00 cr.)
This course is designed to enhance the student's communication skills within the medical profession and to familiarize students with health records and the basics of medical coding, billing, insurance, and proper reimbursement. Introduction to various terms and concepts that are unique to the reimbursement environment including payment systems will be discussed in detail. Background and introductory information on the payer and healthcare system in the US will be discussed. Introductory information on coding classification systems will be discussed. Classroom instruction is augmented by hands-on lab activities related to medical records, medical billing and medical insurance.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: HIT-101, HIT-120, and BIO-103, BIO-117 or BIO-211

HIT-120 Medical Terminology (3.00 cr.)
This course provides the tools of word analysis which will make the understanding of medical words from the simple to the complex easier. The words are divided into basic elements- basic, suffixes, prefixes, combining forms- which will help to correlate word elements with the basic anatomy, physiology, and disease processes of the human body. In addition, the presentation will emphasize the spelling and pronunciation of medical terms.
Lecture (45.00)

HIT-130 Introduction to Ambulatory Coding (3.00 cr.)
This is an introductory course to the classification systems used in the ambulatory environment of the US healthcare system. Students will learn how to use coding manuals to locate codes for procedures, physician's services, and medical supplies. Common outpatient-based reimbursement tools and payment systems will also be discussed. Familiarity with governmental agencies and regulatory requirements as they relate to physician and outpatient-based services will be a focus of this course.
Lecture (45.00)
Prerequisites: HIT-101, HIT-120, and BIO-103, or BIO-117 and BIO-118, or BIO-211 and BIO-212

HIT-132 Basic Pharmacology (3.00 cr.)
This course introduces the student to various drug classifications, their uses, actions, contraindications, and common side effects. The regulatory environment for the pharmaceutical industry will be discussed. Medication delivery methods, documentation requirements, and common drug-related abbreviations will also be discussed.
Lecture (45.00)
Prerequisites: HIT-120, and BIO-103, BIO-117 or BIO-211

HIT-134 Basic Pathophysiology (3.00 cr.)
This course is designed to familiarize students with the multitude of clinical diseases and their respective signs, symptoms, risk factors, and treatments. Case studies will be used throughout the course. Internet information from national disease websites will be used to highlight the latest information on specific major disease processes, like diabetes, breast cancer, arthritis, lupus and colon cancer. Students will also be required to demonstrate their knowledge of human anatomy.
Lecture (45.00)
Prerequisites: HIT-120, and BIO-103, BIO-117 or BIO-211

HIT-135 Medical Coding Internship (2.00 cr.)
This is a capstone course for the Medical Coding Certificate Program. This course will integrate coding concepts covered in the classroom and allow the student apply these concepts to actual health records in a healthcare facility, either ambulatory or acute care. During this course students will be required to use approved HIPAA coding classification systems.
Co-Op (90.00)
Prerequisites: HIT-115, HIT-130, HIT-134 and HIT-140

HIT-140 Diagnostic & Procedural Coding I (3.00 cr.)
This is an introductory course to diagnostic and procedural coding using the International Classification of Diseases (ICD) coding classification system. The student will learn various coding concepts including coding conventions, practices, and guidelines. This foundation will be expanded upon in the second course that will focus on the International Classification of Diseases classification system, Diagnostic and Procedural Coding II.
Lecture (45.00)
Prerequisites: HIT-101, HIT-120, and BIO-103, or BIO-117 and BIO-118, or BIO-211 and BIO-212

HIT-150 Technical Practice Experience (1.00 cr.)
This course will provide the student with valuable time for practical application of technical aspects of the health information technology program. This course will focus on the application of concepts discussed in other health information courses such as filing, abstraction, data collection, data verification, professionalism, legal issues, HIPAA,

release of information, documentation guidelines, Electronic Health Record (EHR), record storage and imaging, Master Patient Index (MPI), and query of databases.

Clinical (45.00)

Prerequisites: BIO-118 or BIO-212, ENG-102, HIT-205 and CIS-101 or CIS-105

HIT-202 Statistical Methods / Health Information (3.00 cr.)

This course will build on the information presented in MTH-111 Introduction to Statistics. The objective of this course is to target the application of statistical methods in the field of Health Information Technology. Specific ratios and rates directly related to the acute care medical environment will be a part of classroom discussion. Practical application of class lectures will be completed. The concepts of data presentation, computerization of statistics, and the application of this information to non-acute care medical environments will also be addressed. Practical application of these and other topics will be augmented by hands on lab activities.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: HIT-110 and MTH-111

HIT-205 Legal & Ethical Issues in HIT (3.00 cr.)

This course will examine the legal and ethical environment for the field of Health Information Management. Workbook Case Studies, such as HIPAA compliance issues, will be used throughout the course in the lab to allow students to apply and analyze the content areas of the course.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: HIT-101

HIT-215 Advanced Ambulatory Coding (3.00 cr.)

This course will expand upon information covered in Introduction to Ambulatory Coding (HIT-130). During lecture and lab, students will learn how to manipulate coding software packages and utilize the CPT and HCPCS manuals to code for physician procedures and services. Advanced coding proficiency directed at surgical coding will be emphasized. Computer applications of the CPT program will be demonstrated and the students will be allowed time to use coding application.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: HIT-130, HIT-132 and HIT-134

HIT-220 Professional Practice Experience (1.00 cr.)

This is the capstone course for the degree program. This course will provide the students enrolled in the Health Information Technology degree program the opportunity for practical application of what they have learned in the classroom. The components of health information analysis, information technology, information systems, organization, and supervision are vital focus areas for this internship/experience. Students will spend 45 hours as an intern teamed with a professional in a healthcare setting in order to apply the skills they have learned and to experience a professional environment.

Clinical (45.00)

Prerequisites: HIT-132, HIT-150, HIT-110, HIT-130, HIT-134 and HIT-140

HIT-235 Organizational Resources QI & PI (4.00 cr.)

This course focuses on application and analysis in the following areas: managerial processes, clinical quality assessment, performance improvement, project management, and organizational resources. Data presentation via written formats will be emphasized. This course has a lab component, which will focus on the practical application of performance improvement and quality assurance plans in a stimulated "real-world" environment.

Lecture (45.00)

Laboratory (30.00)

Prerequisites: HIT-110 and HIT-115

HIT-240 Diagnostic & Procedural Coding II (4.00 cr.)

This course focuses on disease and procedural coding with emphasis on the advanced application of coding. It includes practical application of coding in-patient and outpatient records. Coding standards, coding

guidelines, regulatory requirements, and regulatory agencies will also be discussed. Information on the prospective payment systems will be discussed in detail. The link between medical record documentation, pathophysiology, and reimbursement will be explored through lecture presentations and the usage of actual medical charts. Students will be introduced to the 3M coding software system and allowed lab time for learning coding skills.

Lecture (45.00)

Laboratory (30.00)

Prerequisites: HIT-132, HIT-134 and HIT-140

HEALTH & EXERCISE SCIENCE

HPE-099 Lifetime Physical Activity (1.00 cr.)

This course is a general fitness class designed to meet the needs of transition to college programs as defined by the state of N.J. It is designed specifically to meet the standard requirements of these programs. During labs students will participate in physical activities to learn about the benefits of exercise.

Laboratory (30.00)

HPE-100 Personal Fitness (1.00 cr.)

The purpose of this course is to make the student aware of his/her present level of fitness and how that can affect the student throughout the life span. The student will learn how to assess the components of fitness. Areas of concern will be cardio respiratory endurance, muscle strength and endurance, body composition, and flexibility. Basic nutrition as it relates to weight control and exercise is also discussed.

Lecture (15.00)

Prerequisites: ENG-012

HPE-101 Intro to Health and Exercise Science (3.00 cr.)

This course outlines the history and philosophies that led to the development of health, physical education, and recreation as an integral part of our educational system. Important people and their contributions to various fields of study will be identified and compared. New and innovative pedagogic methods in the areas related to physical education will be contrasted. Career options of the multi-faceted fields comprising physical education and sport will be identified and students will assess and appraise several of their choices. The career choices may include, but are not limited to, the following: teaching, fitness, athletics, sport management, sport marketing, sport communication, athletic training, and administration. Settings for these career choices are schools, colleges, non-school programs, amateur and professional leagues, and industry. The course will include a field experience at several of the sites mentioned above.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

HPE-102 Health & Wellness (3.00 cr.)

This course provides students with theoretical and practical experiences on the relationship of lifestyle to productivity and quality of life. The course addresses wellness lifestyle, disease, physical fitness, weight control, nutrition, relationships, violence, stress management, addictions and lifestyle management.

Lecture (45.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

HPE-106 Stress Management (3.00 cr.)

This course is designed to prepare the student to recognize and adapt to stress, whether real or imagined. Stress symptoms are the outcome of the body's inability to respond appropriately to changing situations or signals (known as stressors). The goal of the course is to learn about stressors and how to effectively cope with their effects in managing stress.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

HPE-107 Badminton (1.00 cr.)

This course is designed for the beginning badminton student. It will contribute to the student's general education by introducing many facets

of badminton which may be used vocationally. Basic techniques will be taught, in addition to rules and regulations.

Laboratory (30.00)

HPE-109 Physical Conditioning/Police Recruits (3.00 cr.)

The Physical Conditioning Training Program is designed to develop a trainee's level of physical fitness in order to perform physically demanding police tasks, as well as to instill within the trainee a desire to maintain a high level of fitness throughout his or her lifetime. The goals of this training program are to prepare the trainee to meet the requirements of the job, educate the trainee on the importance of maintaining a health-oriented lifestyle, provide positive reinforcement for the trainee to develop and maintain a high level of physical fitness. This course is for Police Academy Recruits only.

Lecture (15.00)

Laboratory (75.00)

HPE-113 Volleyball (1.00 cr.)

This course is designed to provide the student with the basic skills, techniques, and strategies necessary to develop an understanding of volleyball. It is hoped that this course will aid and encourage men and women to become self-motivated and to gain a greater understanding and appreciation for the sport.

Laboratory (30.00)

HPE-119 Cardio Kickboxing (1.00 cr.)

This is a specialized interval fitness-training program for both men and women of all fitness levels. The program concentrates on the cardiovascular system, as well as the upper body, hips, legs and abdominals. The objective in this workout is to maintain your training heart rate throughout the entire program while using various exercise changes from high and low intensity. The program uses a variety of aerobic and martial arts movements including jogging/ walking interspersed with lying, sitting, standing, kicking and punching exercises to improve physical fitness levels of all participants.

Laboratory (30.00)

HPE-124 Tai Chi (1.00 cr.)

This is an introductory study of the Chinese martial art know as Tai Chi Chaun. Students will learn relaxing and tension-blocking techniques through proper breathing and timing. They will increase balance and coordination in both the slow form and the fast martial arts set. This class will develop a good core foundation focusing energy with the Horse Stance and Bow Step. the state of perfect balance is achieved through the Wu Chi. Strength and motion is practiced in slow kicks, Bending Bear and Pushing the Waves. This class will enhance the student's self-control, self-esteem and inner strength. Repeated full range of motion exercises benefit students with pain and joint stiffness, or discomfort due to poor circulation and posture.

Laboratory (30.00)

HPE-127 Exercise Techniques & Prescription (1.00 cr.)

This course is designed for students majoring in personal training. It covers the protocols used to prescribe cardiovascular, strength, and flexibility exercise programs. A variety of training modes and techniques are also taught. Students will be active participants in the course.

Laboratory (30.00)

HPE-129 Sport Nutrition (2.00 cr.)

This course will cover basic nutrition as it applies to sport and exercise. Topics include energy systems, macronutrients, hydration, glycemic index, supplements, ergogenic aids, body weight management, and optimizing the diet for training, competition, and recovery.

Lecture (30.00)

Prerequisites: ENG-012

HPE-130 Consumer Health Decisions (3.00 cr.)

This course uses the scientific method as the basis to critically analyze health claims related to health, nutrition, and fitness products, as well as other health-related services. The role of advertising is explored, as well

as sound principles for purchasing nutrition, fitness and other health-related products and services. Students learn important concepts related to health insurance and hospitals, traditional and alternative medical care and how to better manage the decisions they make.

Lecture (45.00)

Prerequisites: MTH-011 and(ENG-013 and ENG-023) or ENG-046

HPE-141 Hatha Yoga (1.00 cr.)

This is an elementary level course in Hatha Yoga and includes physical and mental disciplines that aim to balance different energy flows within the body through a variety of stretching exercise asanas (yoga postures).

Laboratory (30.00)

HPE-142 Intermediate Hatha Yoga (1.00 cr.)

This course is designed for students who want to take the next advanced step to complete a life- cycle of interpersonal well-being. Relaxation response, progressive relaxation, sound mantra, as well as image visualization are part of this course.

Laboratory (30.00)

Prerequisites: HPE-141

HPE-145 Wellspring Fitness Lab I (1.00 cr.)

This course is designed for individuals interested in improving their physical fitness and obtaining healthier lifestyles. Course design allows freedom in individualized scheduling of thirty hours of activity in the Wellspring Fitness Lab during any of the open hours.

Laboratory (30.00)

HPE-146 Wellspring Fitness Lab II (1.00 cr.)

An intermediate course designed for individuals interested in improving and maintaining their health and physical fitness levels, this course allows freedom in individualized scheduling of thirty hours of activity in the Wellspring Fitness Lab during any of the open hours. The course will include individual fitness evaluation, computerized analysis of results, and a prescribed exercise program. Emphasis will continue in the health related fitness components: muscular strength and endurance, flexibility, cardiorespiratory endurance, and body composition. Wellspring Fit Lab I is not a prerequisite for this course.

Laboratory (30.00)

HPE-161 Weight Training (1.00 cr.)

An introduction to weight training, this course is intended to give the student an understanding of the basic principles involved in weight training. The specific techniques should enable the novice weight trainer to initiate a weight training program that is scientifically sound and easy to follow.

Laboratory (30.00)

HPE-170 First Aid Safety & Prevention of Injury (3.00 cr.)

First aid knowledge helps to develop an awareness of potential accident situations and the emergency care needed to aid victims of accidents or sudden illnesses. This knowledge and skill often means the difference between life and death, temporary and permanent disability, and between a rapid recovery or a long hospitalization. Students successfully completing the course will be eligible for the appropriate American Red Cross course certification cards or the National Safety Council certification cards.

Lecture (45.00)

Prerequisites: ENG-012

HPE-171 Emergency Response (6.00 cr.)

The American Red Cross Emergency Response course is to provide the participant with the knowledge and skills that are necessary as a first responder in any emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until more advanced medical help can arrive. The course content and activities are designed to help the participants make the appropriate decisions about the care they will render in an emergency. The skills learned in this course enable the first responder to act as a crucial link in the emergency medical

services (EMS) system. This course is restricted to Police Academy Recruits only.

Lecture (75.00)
Laboratory (30.00)

HPE-175 Foundations of Fitness (3.00 cr.)

This course is designed to provide students with the skills and knowledge to be able to design, implement, and assess a fitness program for K-12 students. Content will focus on health and skill related fitness and include designing fitness programs for individuals with differing needs and abilities.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

HPE-178 Motor Development & Motor Learning (3.00 cr.)

This is an introductory course that includes the study of locomotor and non-locomotor movement, manipulative skills, and developmental and environmental factors that affect learning in these motor skill areas. The course will focus on motor behavior changes. Students will also be introduced to motor learning theories and concepts, assessment, and development of motor skills in various settings.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

HPE-181 Basic Life Support (BLS)-"C" Course-AHA (1.00 cr.)

This course is designed for those students who are entering the allied health field. The students will learn about the factors that make up prudent heart living and how to incorporate these factors into their everyday lives. After correctly demonstrating one and two person CPR and obstructed airway skills for infants, children and adults, the student will receive a card signifying successful completion of the course. The class is the American Heart Association's "C" level course.

Lecture (15.00)

Laboratory (15.00)

HPE-195 Concepts of Individual and Dual Sports (3.00 cr.)

This course is designed to prepare health and exercise science majors to successfully teach specific sport activities. Students are exposed to rules, strategies, organization, and skill development in individual and dual sports. Sports taught may vary from each semester. Some of the sports, which may be the subject of this course include tennis, badminton, self-defense, bowling, volleyball, gymnastics and others.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MTH-011 and ENG-012 and ENG-022

HPE-201 Introduction to Sport Management (3.00 cr.)

This course is designed to introduce the student to the different managerial and administrative components of the sport industry. Class discussion and requirements will focus on assisting the student in establishing a conceptual understanding of the fundamental skills of planning, organizing, leading and evaluating within a sports contest. The principles of budgeting, marketing, strategic planning, ethics, as well as techniques of personnel, facility and sport event management will be discussed. In addition, the student will be exposed to the different sport career opportunities and their entrance requirements. Trends in the industry will also be discussed.

Lecture (45.00)

Prerequisites: ENG-013

HPE-209 Internship: Sports Management (1.00 cr.)

This course is a requirement in the Sports Management option. The course is designed to provide opportunity to gain on-the-job experience in the field of sport management. Under the supervision of the internship coordinator and the site supervisor, the internship will enhance the student's understanding and development of the competencies necessary to manage, promote and plan the daily operation and functions of a sports-related business. Students will keep a portfolio of their experiences, a daily log of their activities and meet personally with the internship coordinator before, during and after the completion of the internship.

Co-Op (150.00)

Prerequisites: CIS-105, ENG-102, HPE-102, HPE-195, HPE-201, MTH-111, PSY-101 and HIS-101 or HIS-111

HPE-210 Internship: Personal Trainer Certificate (3.00 cr.)

The internship is a requirement in the Personal Trainer Certificate Program. The course is designed to provide opportunity to gain on-the-job experience. Under the supervision of the Internship coordinator, this internship will enhance the student's development of the competencies necessary to design, develop and implement a variety of health and fitness programs. The Internship will include a mandatory seminar on liability, ethics, professional appearance and behavior which must be completed before the student is placed at a site.

Laboratory (225.00)

Prerequisites: FNS-105 or HPE-129 and HPE-100, HPE-127, HPE-161, HPE-170, HPE-211 and MTH-011

Prerequisites: (ENG-013 and ENG-023) or ENG-046

HPE-211 Theory/Application Physical Training I (4.00 cr.)

This course will focus on the theories and applied principles of physical training as it relates to individuals of all ages. The course is designed to offer sound, systematic training programs for those who wish to apply strength and conditioning techniques to achieve higher levels of fitness and health. The student will be required to assist in a fitness lab for a total of 6 hours per semester. An additional 14 hours will involve laboratory instruction including rudimentary equipment maintenance. At the conclusion of the course, the student will have the knowledge to design a comprehensive strength training program, teaching biomechanically correct and safe weight training techniques, and be prepared to sit for a national certification exam in personal training.

Lecture (45.00)

Laboratory (30.00)

Prerequisites: ENG-012

HUMAN SERVICES

HSR-001 Self Advocacy Individual Developmental Disabilities (3.00 cr.)

People with intellectual and/or developmental disabilities must be able to exercise their basic Human Rights by speaking and standing up for themselves. This course will provide students ways to be included in decisions about their clients lives and in public policy decisions affecting this population. The course is designed to provide students with knowledge and understanding of self-advocacy issues and opportunities for effectively participating in activities addressing these issues. Students will be exposed to materials about self-advocacy, individuals who are acting as self-advocates, and organizations comprised of individuals with disabilities who are active in advocacy endeavors.

Lecture (30.00)

Laboratory (30.00)

HSR-010 Life Skills I (3.00 cr.)

Life Skills is an introductory course for the student seeking to enhance their independence while creating a realistic life plan. This course is designed for students in Postsecondary Studies certificate programs. Course instruction will be flexible, responsive, and multi-sensory. The course is designed to help students focus on building coping skills in order to be as independent as possible in their lives.

Lecture (45.00)

HSR-015 Academic Development (2.00 cr.)

This course is designed for students in the Certificate of Vocational Studies (VOC.CPS). This course will promote practical strategies and resources to be effective in college, as well as in careers. This course is part one of a four part series oriented to four areas of college/vocational readiness: Academic Development; Employment Development; Career Development; Advocacy Development. In addition, the students will have the opportunity to work directly with their mentors who will assist them in each area.

Lecture (15.00)

Laboratory (30.00)

Corequisites: ENG-005

HSR-020 Life Skills II (3.00 cr.)

Life Skills II is a continuation of Life Skills I which is an introductory course for the student seeking to enhance their independence while creating a realistic life plan. This course is designed for students in Postsecondary Studies certificate program. Course instruction will be flexible, responsive, and multi-sensory. The course is designed to help students acquire the necessary daily living skills to allow for independent function in a variety of environmental (home, vocational community).

Lecture (45.00)

Prerequisites: HSR-010

HSR-022 Employment Basics (3.00 cr.)

Employment Basics is an introductory course for the student seeking employment. This course is designed for students in a Postsecondary Studies certificate program. Course instruction will be flexible, responsive, and multi-sensory. The course is designed to help students focus on basic understanding of employers' expectations as well as employee responsibilities.

Lecture (45.00)

HSR-023 Introduction to Social Interaction (3.00 cr.)

The course is designed to introduce and provide practice in the social graces. Students will learn and practice appropriate verbal and non-verbal expression. Units of study will include everyday etiquette, communication and protocol, dining and entertaining, celebrations and ceremonies and workplace etiquette.

Lecture (30.00)

Laboratory (30.00)

HSR-025 Employment Development (2.00 cr.)

This course is designed for students in the Certificate of Vocational Studies (VOC.CPS). This course will promote practical strategies and resources to improve employability skills. This course is part two of a four part series oriented in the areas of college/vocational readiness: Academic Development; Employment Development; Career Development; Advocacy Development. In addition, the students will have the opportunity to work directly with their mentors who will assist them in each area.

Lecture (15.00)

Laboratory (30.00)

Corequisites: HSR-022

HSR-030 Career Exploration (3.00 cr.)

This course is designed for students in the Certificate of Vocational Studies (VOC.CPS). This course will promote practical strategies and resources to gain competencies in career planning.

Lecture (45.00)

HSR-033 Advanced Social Interaction (3.00 cr.)

This course is a continuation of SPE-001 Social Interaction and is designed to introduce and provide practice in the social graces as they pertain to the workplace. Students will learn and practice appropriate verbal and non-verbal expression. Units of study will include ritual and behavior in job search, resume writing, writing cover letters, acquiring references, making appointments for interviews, interviewing, appropriate job search courtesies, appropriate interview and workplace wardrobe and grooming and all facets of workplace behavior once hired for a position.

Lecture (30.00)

Laboratory (30.00)

HSR-035 Career Development (2.00 cr.)

This course is designed for students in the Certificate of Vocational Studies (VOC.CPS). This course will promote practical strategies and resources to improve employability skills. This course is part three of a four part series oriented in the areas of college/vocational readiness: Academic Development; Employment Development; Career Development; Advocacy Development. In addition, the students will have the opportunity to work directly with their mentors who will assist them in each area.

Lecture (15.00)

Laboratory (30.00)

Corequisites: HSR-030

HSR-040 Introduction to Careers (3.00 cr.)

This course is designed for students in the Certificate of Vocational Studies (VOC.CPS). This course will promote practical strategies and resources to help the students understand the relationship between career self-assessment and career selection.

Lecture (45.00)

HSR-045 Advocacy Development (2.00 cr.)

This course is designed for students in the Certificate of Vocational Studies (VOC.CPS). This course will promote practical strategies and resources to improve employability skills. This course is part four of a four part series oriented in the areas of college/vocational readiness: Academic Development; Employment Development; Career Development; Advocacy Development. In addition, the students will have the opportunity to work directly with their mentors who will assist them in each area.

Lecture (15.00)

Laboratory (30.00)

Corequisites: HSR-040

HSR-050 Vocational Practicum (1.00 cr.)

This course is designed as a first step toward preparing those seeking entry-level jobs for the workplace, by developing the skills and knowledge that are essential for success. This introductory course will enable students to learn broad aspects of work-readiness. All students must complete 60 hours of job-shadowing or formal employment for this course. Students are required to complete 240 hours of practicum hours over the course of the two years to receive their certification. Students will also begin assembly of their unique GSP portfolio that will build throughout the curriculum.

Field Work (60.00)

HSR-051 Vocational Practicum I (1.00 cr.)

This course provides students the opportunity to apply the skills they have developed in an employment setting. It is "learning by doing" under vocational guidance that is the hallmark of this course. Students will begin to reflect their learning experiences in weekly journals. Job-shadowing offers the student the opportunity to observe professional staff and other helping individuals in the workplace. Students are required to complete 60 hours minimum in job-shadowing hours for this course.

Field Work (60.00)

Prerequisites: HSR-050

HSR-052 Vocational Practicum II (1.00 cr.)

This course is designed to prepare those seeking entry-level jobs for the workplace, by developing the skills and knowledge that are essential for success. It is "learning by doing" under vocational guidance that is the hallmark of this course. Job-shadowing offers the student the opportunity to observe professional staff and other helping individuals in the workplace. Students will continue to build on their vocational reflections and writing, and will assemble elements of their GSP portfolio. Students are required to complete 60 hours minimum in job-shadowing hours for this course.

Field Work (60.00)

Prerequisites: HSR-051

HSR-053 Vocational Practicum III (1.00 cr.)

This course is designed to provide students continuous learning opportunities to apply advanced skills and knowledge in job-shadowing field work. Job-shadowing offers the student the opportunity to observe professional staff and other helping individuals in the workplace. Students will be provided the necessary skills to apply, interview and secure formal employment, such as face-to-face and virtual interviewing, and modeling role-play exercises. Students will complete their GSP portfolio at the conclusion of the program. Students are required to complete 60 hours minimum in job-shadowing for this course.

Field Work (60.00)
Prerequisites: HSR-052

HSR-101 Introduction to Human Services (3.00 cr.)
This course surveys the basic principles, scope, and functions of the various "settings" in human services. A broad view of the field of human services is presented, and an effort is made to link learning to experience. The philosophy of human services is discussed, and the history of social welfare is explored.
Lecture (45.00)
Prerequisites: ENG-012 and ENG-022

HSR-102 Social Work Processes (3.00 cr.)
This course surveys the practices, concepts, and methods, as well as the current trends, in human services work. Basic skills inherent in casework, group work, and community organization are stressed.
Lecture (45.00)
Prerequisites: HSR-101

HSR-103 Introduction to Counseling (3.00 cr.)
This course emphasizes the role that counseling activities play in the human services field. It also studies the characteristics of a workable counseling and guidance program and the techniques used to collect, record, interpret, and employ guidance data.
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

HSR-104 Contemporary Issues in Social Welfare (3.00 cr.)
This course will introduce the student to current issues being addressed within the social work field. The student will be given the opportunity to develop their knowledge in the area of contemporary social welfare. Historical perspectives will be explored with a comparison to current issues. Critical debate will be used to heighten an understanding of the issues, which will allow contradictions to be resolved. Critical thinking is encouraged.
Lecture (45.00)
Prerequisites: HSR-101 and ENG-012 and ENG-022

HSR-105 Group Dynamics (3.00 cr.)
To understand and learn concepts of group effectiveness. Focus will be on the history of group theory and an analysis of the forces, which bring about group interaction. This course will introduce the beginning student to the group experience, which will be necessary in developing an understanding of group skills.
Lecture (45.00)
Prerequisites: (ENG-013 and ENG-023) or ENG-046

HSR-107 Field Work (3.00 cr.)
Field experience is traditional in educational programs for Community and Human Services. It is the "learning by doing" under educational guidance. It usually involves giving direct service. Field work offers the student the opportunity to work directly with people, staff, and other helping individuals. It allows the student to test his/her interest and aptitude for a career in the Human Services field. Students will use lecture time to reinforce their field work experience. Students are encouraged to find field work internships prior to registration. Background checks may be required at some agencies or schools. Field work is required for a total of 100 hours during the semester.
Lecture (15.00)
Field Work (100.00)
Prerequisites: HSR-101 and HSR-103 or ADD-101

HSR-151 Survey in Developmental Disabilities (3.00 cr.)
This course provides an in-depth understanding of the many ways in which developmental disabilities affect the lives of individuals and families. It also prepares direct support professionals for a variety of roles in the field, and examines the history of the systems that have evolved to support persons with developmental disabilities and their families.
Lecture (45.00)

HSR-152 Health Issues Across the Lifespan (3.00 cr.)
This course discusses theoretical etiologies of developmental disabilities, current thinking, and current trends in the field of health and wellness of the developmentally disabled. Its intent is to provide students with comprehensive information about health problems often linked to specific disabilities and quality health care and/or lifestyles that promote health and wellness.
Lecture (45.00)
Prerequisites: HSR-151

HSR-153 Developmental Disabilities Program Plan (3.00 cr.)
The intent of this course is to explore the range of services and support that people with disabilities and their families currently use, and the laws and regulations that both establish and manage those services. The course will discuss best practices in the provision of family support, residential and vocational services. Particular attention will be paid to assessment, planning, implementation and evaluation of services.
Lecture (45.00)
Prerequisites: HSR-151

HSR-154 Critical Issues in Developmental Disabilities (3.00 cr.)
This course provides an overview of the most significant, current issues in the field of Developmental Disabilities. The specific issues to be examined will reflect the most current topics in the field, such as Self-Determination, Public Policy, and Positive Behavior Supports. This course is recommended for direct support professionals working in the areas of family support and respite, self-determination, residential, and vocational settings. The course will also be relevant to persons with disabilities and their families, as well as supervisors in the Developmental Disabilities field. The course will be formatted into modules relating to specific current issues under discussion and will utilize weekly reading, lecture and discussions, group activities, video presentations, and guest speakers with expertise in specific areas.
Lecture (45.00)
Prerequisites: HSR-151

HOSPITALITY TECHNOLOGY

HTS-101 Introduction Hospitality Technology (3.00 cr.)
This course provides an overview of elements and segments of the hospitality industry. Students will be introduced to different career pathways and the organizational structure within the hospitality spectrum. Discussion will include the history of and current issues facing all segments of the hotel industry. Students will be exposed to the factors that affect and influence industry customers. Students will engage in career exploration activities and identify appropriate specialty tracks. Guest speakers, field trips, industry publications and web site review will enhance learning opportunities for students.
Lecture (45.00)
Prerequisites: ENG-012 and ENG-022

HTS-105 Housekeeping Management (3.00 cr.)
This course provides current and potential managers with professional concepts and skills to achieve the world-class standards expected by guests in modern lodging and food service establishments. Essential technical information is provided for individuals who will make housekeeping decisions on a daily basis and others desirous of entering the specialty. Competencies developed include planning, organizing, budgeting and supervising. Activities are conducted in the classroom and in a field experience setting.
Lecture (45.00)
Prerequisites: HTS-101

HTS-115 Food Safety Training (1.00 cr.)
This comprehensive seminar course is designed for food handlers and managers in the food and hospitality industries. The course is designed as a study of the principles of food-borne illness, sanitation, safety, personal hygiene, rodent and insect controls, regulations, and equipment affecting safe food handling in all operations. Students will study common pathogens and learn how pathogenic organisms can contaminate foods,

principles of safe and sanitary food handling, and safety principles used to select, preserve, thaw, cook, and store foods. The course will highlight the many benefits that safe food handling offers for facilities and their guests. The course is designed to meet the requirements of local, state and national certification exams.
Lecture (15.00)

HTS-201 Front Desk Management (3.00 cr.)

This course develops skills in effective management responsibilities as front desk, guest service representatives, the primary contact between guests and the hotel organization. Students learn a systematic approach to front office procedures, from the reservations process through checkout and account settlement. Particular attention is paid to effective interactions between hotel guests and the lodging organization's services. Front desk human resources management is placed within the context of the overall operation of the hotel, including monitoring of revenue streams and occupancy status.

Lecture (45.00)

Prerequisites: HTS-101

HTS-205 Meeting and Special Event Planning (3.00 cr.)

This function of hotel operations coordinates the activities of various departments to accommodate meetings, conventions and special events. Event planners meet with representatives of groups or organizations to plan the number of rooms to reserve, the configurations of meeting spaces, and the banquet services. During the event, the planners resolve unexpected problems and monitor activities to ensure that hotel operations confirm to the expectations of the group.

Lecture (45.00)

Prerequisites: HTS-101

LIBERAL STUDIES/INTERDISCIPLINARY

IDY-209 Academic Interest Workshop (1.00 cr.)

This course is designed for students who are interested in expanding their knowledge and understanding of the subject matter that they teach. They will be offered an array of subject-matter workshops that will provide them with an in-depth study of topics in disciplines related to the New Jersey Department of Education's Core Curriculum Content Standards. Upon completion of this course students (teachers) will be able to meet the New Jersey Core Curriculum Standard in related academic areas and to partially fulfill the 100 hours of State-approved professional development.

Lecture (15.00)

INTERPRETER EDUCATION

IEP-201 American Sign Language for Interpreters (3.00 cr.)

This course is designed to enhance students skills in American Sign Language in preparation for the ASL English Interpreting Program. Particular attention will be placed on contrastive linguistics. In addition, attention will be given to students' overall ability to use ASL, including accuracy and advanced vocabulary through translations of English text into ASL.

Lecture (45.00)

Prerequisites: ASL Proficiency Test

IEP-202 Consecutive Interpreting (3.00 cr.)

This course is designed to give the student a base in the practical aspects of consecutive interpretation. Specific subtasks, for focused skills development, will be assigned in this course to prepare the student in the performance of interpretation tasks in prepared (rehearsed) and spontaneous consecutive interpretation. This is a lecture/class discussion course with lab assignments outside of class.

Lecture (45.00)

Prerequisites: IEP-201 with a grade of C or higher

Corequisites: IEP-204

IEP-203 Simultaneous Interpreting (3.00 cr.)

This course is designed to introduce students to the tasks involved in simultaneous interpretation. Unlike consecutive interpretation, simultaneous interpretation requires processing information and

transmitting that information into a second language within the same time frame. Particular attention will be given to the process involved in transition from consecutive to simultaneous interpreting. The advantages and limitations of both types of interpretation will be compared. This is a lecture / class discussion course with lab assignments outside of class.

Lecture (45.00)

Prerequisites: A grade of C or higher in IEP-202 and IEP-204

IEP-204 Interpreting Seminar (3.00 cr.)

This course provides students in the Interpreter Education Program information regarding various interpreting career opportunities. Students will be exposed to a variety of specialized interpreting situations such as legal, deaf-blind, medical, mental health, rehabilitation, and educational environments. Students will have the opportunity to interact with professional interpreters who have in-depth experience in the above mentioned environments.

Lecture (45.00)

Prerequisites: A grade of C or higher is required in IEP-201

Corequisites: IEP-202

IEP-205 Voicing (3.00 cr.)

This course introduces the student to the theory and practice of processing a signed message into spoken English. The course emphasizes appropriate vocabulary selection, use of syntactically correct English sentences, and the development of an appropriate voicing register.

Lecture (45.00)

Prerequisites: A grade of C or higher is required in IEP-202 and IEP-204

Corequisites: IEP-203

IEP-206 Interpreting Overview (3.00 cr.)

This course provides students with the opportunity to enhance interpreting / transliterating skills. Students will review and apply knowledge learned in previous interpreting courses to their experiences in Practicum. This knowledge will enhance strengths and minimize weaknesses that become evident during the practicum.

Lecture (45.00)

Prerequisites: A grade of C or higher in IEP-203 and IEP-205

Corequisites: IEP-207

IEP-207 Interpreting Practicum (3.00 cr.)

Under the supervision of experienced interpreters, students will interpret for deaf clients in a variety of settings. The student, employer, and practicum supervisor will jointly establish learning objectives to meet the needs of the students learning experience. Students will meet with the instructor one hour each week for discussion of issues, which arise during the practicum and to receive feedback on their performance. Class discussions with clinical assignments are included.

Lecture (15.00)

Field Work (90.00)

Prerequisites: A grade of C or higher is required in IEP-203 and IEP-205

Corequisites: IEP-206

IEP-209 Interpreting in Specialized Settings (3.00 cr.)

This course will explore various types of sign language interpreting. Special emphasis will be placed on specific vocabulary, ethical concerns, client needs and strategies in various interpreting situations. Topics will include medical interpreting, legal interpreting, educational interpreting, mental-health interpreting, interpreting for AA and NA, theatrical interpreting, and deaf-blind interpreting.

Lecture (45.00)

Prerequisites: ASL Proficiency Test

IEP-211 Language Development/Educational Interpreter (3.00 cr.)

This course is designed to provide educational interpreters with an understanding of the principles and theories of childhood language development and will compare the development of language for children with various degrees of hearing loss with the language development of children without educational disabilities. Students will survey language intervention models for students who are deaf and hard of hearing. Additional issues impacting language development in children with hearing loss will also be discussed, including, but not limited to,

alternative forms of communication, bilingual/bicultural issues, assistive technology and cochlear implants.
Lecture (45.00)

IEP-212 Legal/Ethical Issues Education Interpreting (3.00 cr.)
This course will look at the unique roles and responsibilities of the educational interpreter and the various interpreter assignments within multiple educational settings. Particular attention will be paid to ethics of the educational interpreter and federal and state laws that outline the provision of educational interpreting as a related service.
Lecture (45.00)

IEP-213 Curr. Dev & Methods of Instruct/Edu Inter (3.00 cr.)
This course is designed to provide educational interpreting students with a basic knowledge of curriculum development and instructional Strategies based on the learning theories of students as they are used in the classroom for primary and secondary age students. Students will review the New Jersey Core Curriculum Content Standards (CCCS), and the unique curricula designed for students who are deaf/hard of hearing in the content areas. Instructional strategies for the educational interpreters with an emphasis on vocabulary acquisition and language comprehension for the students will be addressed. Collaborative strategies for educational interpreters working with regular teachers and special education teachers and the related services personnel in a variety of educational settings will be discussed. This course will present assessment of academic materials and completion of learning objectives according to established criteria in the students' individualized educational programs (IEP).
Lecture (45.00)

IEP-214 Deaf-Blind Inter Strategies/Edu Interpretation (3.00 cr.)
This course is designed to provide a strong foundation and build the knowledge and skills of interpreters in the area of deaf-blindness and deaf-blind interpreting strategies. The course will address physiological, linguistic, environmental and cultural components that affect the interpreting process. The roles and expectations of the interpreter and effective communication strategies will also be covered.
Lecture (45.00)

ITALIAN

ITA-101 Elementary Italian I (3.00 cr.)
This course introduces the student to the language and culture of the Italian-speaking world. It provides the student with basic working information of the language (listening, speaking, reading, writing) in order to interact and communicate with others, while gaining a greater understanding of the different Italian-speaking cultures. This course is intended for students beginning the language or for those who have received a grade below C in two years of high school Italian. This course is not intended for native speakers.
Lecture (45.00)
Prerequisites: ENG-012 and ENG-022

ITA-102 Elementary Italian II (3.00 cr.)
This course continues the basic elements of the language and the understanding of the Italian-speaking world. It provides the student with basic working information of the language (listening, speaking, reading, and writing) in order to interact and communicate with others at a novice high-level, while gaining a greater understanding of and respect for the Italian-speaking cultures. This course is not intended for native speakers.
Lecture (45.00)
Prerequisites: ENG-012, ENG-022 and ITA-101 or two years of high school Italian

ITA-201 Intermediate Italian I (3.00 cr.)
This course continues the study of the basic working structures of the language (listening, speaking, reading, and writing) at the intermediate-low level in order to interact and communicate with others, while gaining a greater understanding of and respect for the Italian-speaking cultures.
Lecture (45.00)
Prerequisites: ITA-102 or two years of high school Italian, and (ENG-013 and ENG-023) or ENG-046

LATIN

LAT-101 Elementary Latin I (3.00 cr.)
This course introduces students to the Classical Latin language and provides him/her with a basic working knowledge of the language (listening, speaking, reading, writing). It also introduces the student to the Roman history and the influence of the classical world on Western civilization. This course is intended for students beginning the language or for those who have received a grade below C in two years of high school Latin.
Lecture (45.00)
Prerequisites: ENG-012 and ENG-022

LAT-102 Elementary Latin II (3.00 cr.)
This course is a continuation of Elementary Latin I. Students are introduced to the basic elements of the grammar and syntax of the language. Students will also be exposed to Roman history, Greco-Roman civilization, and the influence of the Classical world on Western civilization.
Lecture (45.00)
Prerequisites: ENG-012, ENG-022 and LAT-101 or two years of high school Latin

LAT-201 Intermediate Latin I (3.00 cr.)
This course, a continuation of Elementary Latin II, emphasizes the translation of Latin texts. Students will read Latin prose and poetry, paying careful attention to accurate translation. The principles of grammar and syntax presented in Elementary Latin are reinforced during the translation of texts. Students will also develop and advanced understanding of Roman history and institutions, Greco-Roman civilization, and the influence of the classical world on Western civilization.
Lecture (45.00)
Prerequisites: LAT-102 or two years of high school Latin, and ENG-013 and ENG-023 or ENG-046

LAW

LAW-101 Legal Environment/Business Law I (3.00 cr.)
This course is an introduction to law in general and of legal issues involved in the business world. Topics covered include Rights, Sources of Law - Administrative Agencies - Torts - Crime Consumer Protection, Protection, Employment Law, Governmental Regulations of Business, Environmental Law and Basic Contract Law. Suggested optional topics include Ethics and Social Forces of the Law and International Trade.
Lecture (45.00)
Prerequisites: ENG-013

LAW-102 Business Law II (3.00 cr.)
This course covers the major areas of business law, including security devices, commercial papers, agency, employment, business organizations, property and estates, and government regulation of business.
Lecture (45.00)

LAW-104 Hospitality Law (3.00 cr.)
This course is designed to acquaint the student with the types of liabilities restaurateurs and hotel proprietors find in today's litigation-oriented society and the types of insurances necessary to protect their businesses and themselves. After an introduction to law and legal systems, students will learn the many types of laws applicable to the hospitality industry. By learning these laws, students learn how to prevent legal problems from escalating, the importance of their positions in preventing legal catastrophes, and the roles of all parties involved in potential and actual legal situations. This course is not designed to make students into lawyers or to make them managers who attempt to handle legal problems on their own.
Lecture (45.00)

PHOTONICS (LASER & FIBER OPTICS)

LFO-101 Intro to Photonics & Photonic Safety (4.00 cr.)

This course introduces the elements of a laser, operation of a helium-neon gas laser, laser physics, optical-cavities, properties of laser light, and a survey of laser systems. Safety procedures concerning lasers and related equipment are presented in this course.

Lecture (45.00)

Laboratory (45.00)

Corequisites: MTH-125

MECHANICAL ENGINEERING TECHNOLOGY

MET-221 Quality Control (2.00 cr.)

Quality Control covers the fields of statistical process control, nondestructive testing, automated measurement and corrective feedback.

Lecture (15.00)

Laboratory (30.00)

Prerequisites: MTH-125

MET-228 Statics for Technologists (3.00 cr.)

This course introduces the subject of mechanics of rigid bodies. Statics teaches the effects of forces acting upon stationary (or at least non-accelerating) rigid bodies.

Lecture (45.00)

Prerequisites: CIM-101, PHY-101 or PHY-201, and MTH-124 or MTH-125

MET-233 Project Design (3.00 cr.)

This is a capstone course designed to introduce the student to principles of comprehensive design in a mechanical engineering technology project. The student may work within a small engineering team to design and develop a project, or the student may work alone on a project, depending on class size. Students are expected to develop a complete plan from feasibility study, cost analysis and mechanical design and documentation through the building of a prototype. Interaction among students with different disciplines is desired. All students must make a formal written and verbal presentation at the completion of the course.

Lecture (15.00)

Laboratory (60.00)

Prerequisites: MET-236, MTH-132, PHY-102 and CIM-101

MET-236 Mechanics of Materials (3.00 cr.)

This course is an analytical study of the effects of applied forces acting on structural members. Topics in this course include stress and strain, torsion, shear and moment diagrams, stresses in and deflection of beams, column connections, and the properties of materials. In this course, verification and theoretical analysis is conducted through laboratory experiments involving both destructive and non-destructive testing procedures.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MET-228

MET-237 Manufacturing Methods (3.00 cr.)

This course involves a classroom, laboratory, and field study of the basic methods of producing materials and products in the industrial community and a comprehensive view of the latest processes used in manufacturing. Topics in this course include technological properties of materials, the various cutting and noncutting processes, automation, safety, and the economics of manufacturing processes. Laboratory experience in this course involves the actual production of a product using mass production techniques.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: CIM-101, PHY-101 or PHY-201, and MTH-124 or MTH-125

MET-242 Design of Machine Elements (3.00 cr.)

This course concerns itself with the basic principles of the mechanics and strength of materials applied to the mechanical design of various machine elements, integrating groups of elements for unified mechanical systems, and the analysis and design of various detailed machine elements by mathematical and graphical methods. Also included in this course is the

design of tools, jigs, and fixtures for basic manufacturing processes; functional specifications and economic analyses will be discussed.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MET-221 and MET-236

MANAGEMENT

MGT-101 Introduction to Business (3.00 cr.)

This course surveys the internal and functional complexity of business organizations. Emphasis is placed upon examining the ethical issues and demographic diversity faced by organizations, the understanding of business terminology, and the impact of technology upon business.

Lecture (45.00)

MGT-102 Introduction to Management (3.00 cr.)

This course introduces the basic principles and major theoretical approaches as well as the application of these theories and contemporary philosophies as related to current managerial situations. Areas such as employee motivation, leadership, organizational structure and change, planning and control methods will be discussed.

Lecture (45.00)

MGT-212 Human Resource Management (3.00 cr.)

This course covers those areas which are crucial to the effective management of the human resources within an organization. Topics covered include: organizational philosophy of personnel management, administrative policies and processes, recruitment and selection, evaluation, training and development, promotion, wage and salary administration, safety, motivation, union-management relations, grievance handling and discipline administration. The emphasis is placed upon developing and maintaining a positive atmosphere for the mutual benefit of the employees, and the organization. Case studies and practical examples are used to illustrate the application of basic concepts and principles.

Lecture (45.00)

Prerequisites: MGT-102

MGT-213 Operations Management (3.00 cr.)

This course presents an analysis of the management of planning as applied in the design of production and operations systems, with emphasis on location, layout, methods study, product design, and product line determination. Analysis is also made of the control functions of the enterprise, including inventory control, purchasing, quality maintenance, materials and work measurement.

Lecture (45.00)

Prerequisites: MGT-102 and MTH-111

MGT-216 Human Relations in Business & Industry (3.00 cr.)

This course consists of the study of behavior in organizational and work settings and the application of the methods, facts, and principles of psychology to individual and groups in organizational and work settings. Drawing from several areas of behavioral science, this course is designed for students in business and technical fields.

Lecture (45.00)

Prerequisites: MGT-102

MGT-221 Small Business Management I (3.00 cr.)

This course is designed to provide the student with practical knowledge about starting a small business and establishing its market function. The subjects covered include how to select the type of business, planning the legal, financial, and administrative structure of the business, marketing strategies, sales promotion and pricing.

Lecture (45.00)

MGT-222 Small Business Management II (3.00 cr.)

This course continues the study of small business management techniques. Emphasis is placed on planning physical facilities, purchasing and controlling materials and inventory size, planning personnel requirements (recruitment and selection), dealing with unions and

collective bargaining, evaluating the financial health of the business, what accounting records are needed, and safeguarding the assets.

Lecture (45.00)

Prerequisites: MGT-221

MARKETING

MKT-101 Principles of Marketing (3.00 cr.)

The goal of this course is to introduce students to the complexities faced by a company/organization as it markets its goods, services, and/or ideas. The course will explore the nature, function, and scope of modern marketing; analysis of the market, the product, and the distributions structure from producer to consumer; principles, practices, and policies of the price system; promotional activities; including the sales and advertising program; planning and evaluating the marketing system.

Lecture (45.00)

Prerequisites: ENG-013

MKT-102 Retail Management (3.00 cr.)

The fundamental principles of retailing and their application in small, medium-sized, and large retail organizations are presented. Problems of store location, layout, organization, employment, training, merchandising, management and control, e-commerce and current trends in global retailing are discussed.

Lecture (45.00)

MKT-123 Introduction to Promotion (3.00 cr.)

Media selection for retail stores is developed as well as concepts which help to determine effective ads and websites, and advertising budget, and the target market for a stores advertising campaign. The promotion aspect of the course concentrates on in-store displays, display windows and other layout considerations which encourage consumers to buy.

Lecture (45.00)

MKT-124 Fundamentals of Selling (3.00 cr.)

Selling in the marketing and retailing fields is developed through a survey of principles of salesmanship and techniques of effective selling.

Lecture (45.00)

MKT-125 Principles of E-Commerce (3.00 cr.)

This course provides an introduction to the market of electronic commerce. Real world examples, case studies and on-line observations will be used to explain technical and business aspects of this technology and their impact on traditional business models. The Internet will be used extensively to allow students to link the concepts in the text and current literature with real life situations. Business strategies and legal issues of electronic commerce will also be discussed. The course will emphasize the development and expansion of the students understanding of the importance of the following skill sets for business persons competing in this newly emerging economy: Communication, Critical Thinking, Self-Directed Learning, Information Technology Skills, Internet Skills, Documentation, Management Information Systems, Problem Solving.

Lecture (45.00)

Prerequisites: MGT-101 and CIS-105

MKT-212 Strategies in Marketing (3.00 cr.)

This course teaches the application of the case method to actual marketing problems with an emphasis on independent and group planning for problem solving.

Lecture (45.00)

Prerequisites: MKT-101

ACADEMIC SKILLS – MATHEMATICS

MTH-005 Consumer Math (3.00 cr.)

This course is designed for the college student who needs training in basic numerical processes with whole numbers, fractions, decimals, ratios, proportions and percents, and their applications. (Credits do not apply toward graduation requirements).

Lecture (45.00)

MTH-011 PreAlgebra Traditional (3.00 cr.)

This course is designed for the college student who needs training in basic numerical processes with whole numbers, fractions, decimals, ratios, proportions, percentages, signed numbers and linear equations. (Credits do not apply toward graduation requirements). Basic computation is a fundamental objective of this course. Therefore the use of calculators is prohibited.

Lecture (45.00)

MTH-016 PreAlgebra Express (1.00 cr.)

This course is designed for the college student who needs training in basic numerical processes with whole numbers, fractions, decimals, ratios, proportions, percentages, signed numbers, and linear equations. (Credits do not apply toward graduation requirements). Basic computation is a fundamental objective of this course. Therefore, the use of calculators is prohibited.

Lecture (15.00)

Prerequisites: Accuplacer Placement or Teacher Recommendation

MTH-029 Elementary Algebra Traditional (4.00 cr.)

This course is designed for students who require a background of elementary algebra before taking further college mathematics courses. The course provides the students a familiarity with mathematical symbols and operations in order to formulate and solve first-degree and second-degree equations, graph equations and systems of equations, and work with polynomials, rational expressions, and radicals. Students will apply appropriate mathematical and statistical concepts and operations to interpret data and to solve problems. (Credits do not apply toward graduation requirements.) Basic computation is a fundamental objective of this course. Therefore, the use of calculators is prohibited.

Lecture (60.00)

Prerequisites: MTH-011

MTH-035 Elementary Algebra Express (1.00 cr.)

This course is designed for students who require a background of elementary algebra before taking college mathematics courses. The course provides the students a familiarity with mathematical symbols and operations in order to formulate and solve first-degree and second-degree equations, graph equations and systems of equations, and work with polynomials, rational expressions, and radicals. Students will apply appropriate mathematical techniques to solve problems. (Credits do not apply toward graduation requirements.) Basic computation is a fundamental objective of this course. Therefore, the use of calculators is prohibited.

Lecture (15.00)

Prerequisites: Accuplacer Placement or Teacher Recommendation

MTH-050 Prep for Statistics (1.00 cr.)

This is a preparatory course for students who lack prerequisite algebra and calculator skills necessary for enrollment in MTH-111, Introduction to Statistics.

Lecture (15.00)

MTH-095 Accelerated Adaptive Algebra (2.00 cr.)

This course is designed for students who require support in elementary algebra skills while taking MTH-100, Algebra Concepts. The course provides the students a familiarity with mathematical symbols and operations in order to formulate and solve first-degree and second-degree equations, graph equations and systems of equations, and work with polynomials, and rational expressions. Students will apply appropriate mathematical techniques to solve problems. (Credits do not apply toward graduation requirements.) Basic computation is a fundamental objective of this course. Therefore, the use of calculators is prohibited.

Lecture (30.00)

Prerequisites: Placed into MTH-095

Corequisites: MTH-100

MATHEMATICS

MTH-100 Algebraic Concepts (4.00 cr.)

This course covers the study of algebraic concepts with emphasis on algebraic manipulations and problem solving. Topics include factoring & special factorizations; rational expressions; rational exponents; solving rational, radical, and quadratic equations; solving systems of equations; graphing linear functions; linear inequalities; functions and relations; complex numbers; function composition and inverse functions; graphs of exponential and logarithmic functions; and solving exponential and logarithmic equations. Students are required to have a scientific, non-graphing calculator for Unit VII.

Lecture (60.00)

Prerequisites: MTH-029 and ENG-013

MTH-101 Concepts of Mathematics (3.00 cr.)

Concepts of Mathematics is designed for students intending to major in a Liberal Arts area other than Math or the Physical Sciences. The course consists of a core of problem solving and mathematical modeling, sets and logic. In addition to this core, at least one of the following will be incorporated: Topics in Geometry, Probability, Discrete Mathematics.

Lecture (45.00)

Prerequisites: MTH-029 and ENG-013

MTH-105 Mathematical Systems I: Structures (3.00 cr.)

This course is designed for students majoring in a Liberal Arts area other than Mathematics or the Physical Sciences as well as education majors, with the exception of students intending to become secondary math or science teachers. Topics include problem solving techniques; sets; numeration systems; properties of counting numbers, whole, integers, rational and real numbers; number theory; equations and functions.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-029 or MTH-035

MTH-106 Mathematical Systems II: Geometry (3.00 cr.)

This course is designed for students majoring in a Liberal Arts area other than Mathematics or the Physical Sciences as well as education majors, with the exception of students intending to become secondary math or science teachers. This course introduces a series of different but related concepts in geometry. Geometric relationships and their corresponding mathematical arguments are studied with the goal of analyzing characteristics of two and three-dimensional geometric shapes. An introduction to probability and statistics is also covered.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-029 or MTH-035

MTH-107 Mathematics for Liberal Arts (3.00 cr.)

Mathematics for the Liberal Arts is designed for students intending to major in a Liberal Arts area other than Mathematics or the Physical Sciences. Students taking this course will be exposed to an assortment of mathematical methods and ideas and will examine their significance and interconnection, historical development, and applicability.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-029 or MTH-035

MTH-111 Introduction to Statistics (3.00 cr.)

This course provides students majoring in health, criminal justice, or liberal arts with a basic introduction to statistical concepts and methods. Topics covered include: frequency distributions; measures of central tendency and variability; linear regression and correlation; fundamentals of probability; binomial and Normal distributions; sampling distributions and the Central Limit Theorem; confidence intervals; and hypothesis testing on a single population. Many majors require a more rigorous introductory statistics course and students are advised to check their major requirements prior to registration. Students are required to purchase a Texas Instruments TI-83/84 or TI-83/84 Plus calculator.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-029 or MTH-035

MTH-112 Elements of Statistics II (3.00 cr.)

This course is designed to follow Introduction to Statistics. It will provide additional elementary statistical research tools and techniques. Topics covered include: hypothesis testing on two populations, Chi-square and F distributions, analysis of variance, regression, correlation, and nonparametric tests.

Lecture (45.00)

Prerequisites: MTH-111

MTH-114 College Algebra / Business & Soc Science (3.00 cr.)

This college algebra course is designed for business and social science majors. Topics include operations on algebraic and exponential expressions; linear equations; using technology for linear, polynomial, exponential, and logarithmic regression; inverse functions; theory and applications of polynomial, rational, exponential, and logarithmic functions; solving exponential and logarithmic equations; graphs and transformations; mathematics of finance; and an introduction to limits. The use of graphing calculators is an integral part of the course; their use throughout the course will facilitate understanding of salient concepts. Students are required to purchase a Texas Instruments TI-83/84 or TI-83/84 Plus calculator.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-100

MTH-117 Explorations in Mathematical Thoughts (3.00 cr.)

This is a general education mathematics course in which students are exposed to basic concepts and principles in the philosophy of mathematics and mathematical logic; including set theory; axiomatic systems and algebraic structures; the concept of infinity; number theory; and proof; among other topics. This course is for the student majoring in liberal arts; it is not intended for students majoring in mathematics or science.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-100

MTH-117H Honors Exploration/Mathematical Thoughts (3.00 cr.)

This is a general education mathematics course in which students are exposed to basic concepts and principles in the philosophy of mathematics and mathematical logic; including set theory; axiomatic systems and algebraic structures; the concept of infinity; number theory; and proof; among other topics. This course is for the student majoring in liberal arts; it is not intended for students majoring in mathematics or science. ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.

Lecture (45.00)

Prerequisites: ENG-013 and MTH-100

MTH-122 Applied Calculus (3.00 cr.)

This course was developed for business and social science majors. Topics include functions, limits, derivatives, maxima and minima problems, integration, and the application of the calculus to problems in business and social sciences. Students are required to purchase a Texas Instruments TI-83/84 or TI-83/84 Plus calculator.

Lecture (45.00)

Prerequisites: ENG-013, and MTH-114 or MTH-123 or MTH-125

MTH-123 Pre-Calculus Mathematics I (4.00 cr.)

As the first of a two semester pre-calculus sequence, this is a rigorous course designed for science, technology, engineering, and mathematics majors. Topics include functions and graphs, theory of polynomial equations, polynomial, rational, logarithmic, and exponential functions and applications, linear systems and matrices. The teaching and use of graphing calculators are an integral part of the course to facilitate understanding of salient concepts. Students are encouraged to purchase a Texas Instruments TI-83/84 Plus calculator.

Lecture (60.00)

Prerequisites: ENG-013 and MTH-100

MTH-124 Pre-Calculus Mathematics II (4.00 cr.)

This course is a continuation of Pre-calculus Mathematics I for science, technology, engineering and mathematics majors. In addition to

trigonometry, other topics covered include conics, sequences, polar coordinates, parametric equations, vectors in plane, the dot product, and an introduction to limits. The teaching and use of graphing calculators are an integral part of the course to facilitate understanding of salient concepts. Students are encouraged to purchase a Texas Instruments TI-83/84 Plus calculator.

Lecture (60.00)

Prerequisites: ENG-013 and MTH-123

MTH-125 Accelerated Precalculus (4.00 cr.)

This is a fast-paced, rigorous precalculus course designed for science, technology, engineering, and mathematics majors. Topics include algebraic equations; functions; graphing; and exponential, logarithmic, and trigonometric functions; vectors and the complex plane; sequences, series, and limits. Students are required to have a calculator in their possession for all class meetings and are encouraged to purchase a TI-83/84 calculator. **STUDENTS WHO FAIL TO MEET THE MATHEMATICS PREREQUISITE MUST REGISTER FOR THE TWO SEMESTER SEQUENCE--MTH-123 & MTH-124.**

Lecture (60.00)

Prerequisites: ENG-013, and earned an "A" in MTH-100 or proper Mathematics

Placement Exam Score

MTH-129 Discrete Mathematics (4.00 cr.)

This is an introductory course to the principles, concepts, and applications of discrete mathematics intended for mathematics and computer science students. Topics such as logic and proof; sets, functions and relations; graphs and trees; and combinatorics will be presented. The study and use of algorithms will be emphasized.

Lecture (60.00)

Prerequisites: MTH-140

MTH-132 Statistics for Technology (4.00 cr.)

This course is designed for technology students who need a basic knowledge of statistical and elementary research techniques. Topics covered include: frequency distributions, sigma notation, measures of central tendency, measures of variability, fundamentals of probability, binomial distribution, normal distribution, sampling distributions, Central Limit Theorem, confidence intervals, sample size determination, hypothesis testing on a single population, regression and correlation, and Statistical Process Control (SPC).

Lecture (60.00)

Prerequisites: ENG-013 and MTH-100

MTH-134 Biostatistics (4.00 cr.)

This course emphasizes experimentation and application of statistical methods to the biological sciences. Topics include exploring, describing, and organizing data; discrete and continuous random variables and probability distributions; one and two sample estimation and hypothesis testing; linear regression and correlation; contingency tables; analysis of variance; and non-parametric methods. A statistical software package will be used to manipulate data, carry out statistical analyses and formally present results. Biology majors will comprise most of the students registering for this course. Lab sessions are taught by a member of the Biology department.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-140, BIO-111 and ENG-101

MTH-140 Calculus I (4.00 cr.)

This is the first course of the calculus sequence intended for science, technology, engineering, and math majors. Topics covered include: limits and continuity of functions, differentiation of algebraic, and transcendental functions, applications of the derivative, anti-differentiation of algebraic and transcendental functions.

Lecture (60.00)

Prerequisites: MTH-124 or MTH-125

MTH-140H Honors Calculus I (4.00 cr.)

This is the first course of the calculus sequence intended for science, technology, engineering, and math majors. Topics covered include: limits

and continuity of functions, differentiation of algebraic, and transcendental functions, applications of the derivative, anti-differentiation of algebraic and transcendental functions. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (60.00)

Prerequisites: MTH-124 or MTH-125

MTH-145 Linear Algebra (4.00 cr.)

This course covers topics including matrices, determinants, solutions of linear systems, vectors, vector spaces, linear transformations, eigenvalues and eigenvectors, orthogonality, least-squares, applications and inner product spaces.

Lecture (60.00)

Prerequisites: MTH-140

MTH-150 Calculus II (4.00 cr.)

This course is a continuation of Calculus I. Topics include: applications of the definite integrals including areas, volumes, lengths of curves, work, fluid pressure and forces, center of mass; derivatives and integrals of Hyperbolic functions, techniques of integration, improper integrals, sequences, series, (parametric and polar curves, if time permits).

Lecture (60.00)

Prerequisites: MTH-140

MTH-171 Statistics I (3.00 cr.)

This course is designed for business, social science, and other majors requiring knowledge of the basic principles and methods of statistics and elementary research techniques. Topics include measures of central tendency and dispersion; probability theory; descriptive methods in linear regression and correlation; random variables and probability distributions; binomial, normal, and t-distributions; sampling distributions and the central limit theorem; confidence intervals; 1-sample and 2-sample hypothesis testing for means and proportions. Students will learn to use a statistical software package through assigned projects.

Lecture (45.00)

Prerequisites: ENG-013, and MTH-114 or MTH-123 or MTH-125

MTH-172 Statistics II (3.00 cr.)

This course is a continuation of Statistics I. Topics covered include a review of confidence intervals and hypothesis testing, type I and type II errors, power of the test; F distributions and analysis of variance; chi-square tests for goodness-of-fit, independence, and homogeneity; nonparametric tests; time series, forecasting, and index numbers. Students will use a statistical software package for assigned projects.

Lecture (45.00)

Prerequisites: MTH-171

MTH-205 Mathematical Systems III: Structures II (3.00 cr.)

This course is designed primarily for elementary and early childhood education majors. The course will require students to investigate problems in order to deepen their conceptual and procedural understanding in the areas of algebra, data analysis, probability, geometry, measurement, and systematic listing and counting. Students in the course will use physical materials and models to explore topics in algebra, geometry, probability, and statistics. They will use mathematics to describe real-world relationships and develop conjectures and intuitive proofs. A TI-108 (or any basic four function calculator) is required.

Lecture (45.00)

Prerequisites: MTH-029 and ENG-013

MTH-210 Calculus III (4.00 cr.)

This course is a continuation of MTH-150 (Calculus II). Topics include: Calculus of polar and parametric equations, differential calculus of several variables, multiple integration, two and three-dimensional vectors, vector valued functions and vector analysis.

Lecture (60.00)

Prerequisites: MTH-150

MTH-220 Differential Equations (4.00 cr.)
Topics covered include solution of first order differential equations, higher order linear differential equations and applications; undetermined coefficients; Laplace transforms; systems of differential equations; and numerical techniques to solve initial value differential equations.
Lecture (60.00)
Prerequisites: MTH-150
Corequisites: MTH-210

MTH-261 Intro to Mathematical Modeling (3.00 cr.)
This course introduces relevant concepts from Calculus III and Linear Algebra for linear modeling and optimization, providing mathematical foundations as they are needed and motivated by applications. The focus is neither on proof nor excessive hand computations; instead, it is on employing and relating the mathematics to real-world ideas. Concepts are made concrete through numerical computation. Topics covered include vectors, dot product, distance, projection, matrix algebra, techniques of solving linear algebra systems, the derivative of multivariate functions and its applications, optimization and gradient method of steepest descent, and matrix factorization.
Lecture (45.00)
Prerequisites: MTH-150

MTH-262 Probabilistic Models (4.00 cr.)
This course introduces probability theory and data-generating processes that lead to building probability distributions from empirical data, and density functions from histograms. Topics of integration are motivated by probabilistic ideas and the transition from discrete data to continuous functions. Topics covered include single and multivariable integration techniques, random variables, sample spaces and events, sets, counting, Venn diagrams, simulation, conditional probability and independence, binomial, geometric, normal, and other distributions, sampling distributions, the Central Limit Theorem, joint probability and marginal distributions.
Lecture (60.00)
Prerequisites: MTH-261

MUSIC

MUS-100 Beginner Music Lessons (1.00 cr.)
Beginner Music Lessons are private instrumental or vocal music lessons required for music majors. This course is required for students who do not meet the minimal score in their placement audition. Technique and repertoire lesson material is generated from beginner-level methodology.
Laboratory (30.00)

MUS-101 Music Appreciation I (3.00 cr.)
Music Appreciation I is a course designed to assist students in more effectively analyzing, interpreting, and evaluating music. This course explores music from a diverse range of popular, folk and art traditions in an effort to help students better appreciate the role that music serves in their own lives as well as the lives of humans across the nation and around the world. While this class has been designed as a general education humanities elective with the non-music major in mind, it is more than appropriate for audio and music majors to enroll in this course as well.
Lecture (45.00)

MUS-101H Honors Music Appreciation I (3.00 cr.)
Music Appreciation I is a course designed to assist students in more effectively analyzing, interpreting, and evaluating music. This course explores music from a diverse range of popular, folk and art traditions in an effort to help students better appreciate the role that music serves in their own lives as well as the lives of humans across the nation and around the world. While this class has been designed as a general education humanities elective with the non-music major in mind, it is more than appropriate for audio and music majors to enroll in this course as well. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**
Lecture (45.00)

MUS-103 Intermediate Music Lessons (1.00 cr.)
Intermediate Music Lessons are private instrumental or vocal music lessons required for music majors. It is the first semester in a required sequence of three semesters of music lessons. Technique and repertoire lesson material is generated from intermediate-level methodology.
Laboratory (30.00)

MUS-104 Aural Theory I (2.00 cr.)
Aural Theory I is an advanced course for music majors designed to develop more critical ear-training and sight-singing skills. Students will be expected to extensively practice aural skills outside of class time and during labs. Students are recommended to take this course in conjunction with Music Theory I (MUS 123) and Class Piano I (MUS 125). Students entering into the class should understand key signatures, time signatures and how to read music in treble and bass clefs. Otherwise, it is seriously recommended that the student take Fundamentals of Music (MUS-121) before entering Aural Theory I.
Lecture (15.00)
Laboratory (30.00)

MUS-105 Advanced Music Lessons I (1.00 cr.)
Advanced Music Lessons I are private instrumental or vocal music lessons required for music majors. It is the second semester in a required sequence of three semesters of music lessons.
Laboratory (30.00)
Prerequisites: MUS-103

MUS-106 World Music Cultures (3.00 cr.)
World Music Cultures is a broad-based music course that examines social usages, both current and historical, of music throughout the diverse cultures of our world. Another major aim of this course is to explore the role of music in forming communities. Students will study practical music traditions ranging from those associated with major life events such as birth, marriage and death to those more commonly associated with daily routines such as socialization, expression, and passing time. Course activities include studying Western and non-Western cultures, their diverse social practices and analyzing the music and musical practices associated with each social tradition.
Lecture (45.00)

MUS-107 Digital Music Composition (1.00 cr.)
Digital Music Composition is a course designed to assist students in composing music using digital programs such as Logic, ProTools and MuseScore. Students will learn basic theory concepts and discuss the aesthetic components of a wide variety of music. This course is primarily a hands-on course in music technology with required lab hours.
Laboratory (30.00)

MUS-108 Digital Media Music Production (3.00 cr.)
Digital Media Music Production is a course designed to assist students in composing, arranging and scoring music using software for a variety of digital mediums such as film, television, YouTube, podcasting, NO, game design, etc. Students will learn basic theory, composition, scoring and arranging concepts and techniques while also discussing and analyzing the technical and aesthetic components of music used in various digital media. During class lab hours, students will work collaboratively and independently to refine their understanding of composition techniques, digital audio workstation tools and standard audio production procedures.
Lecture (30.00)
Laboratory (30.00)

MUS-110 African-American Music (3.00 cr.)
This course will examine the various roles and values of African-American music from a variety of diverse perspectives. Drawing on historical and critical readings and a plethora of sound and visual media, students will explore concepts such as authenticity, representation, recognition, cultural ownership, and appropriation. Also, students will examine the various social, political and aesthetic contexts in which African-American music has been composed (produced), performed (re-produced) and heard (consumed). This course can be used to satisfy a

humanities general education elective or a humanities-diversity general education elective.

Lecture (45.00)

MUS-111 Music History I (3.00 cr.)

This course treats music as an integral part of the western intellectual heritage. The subject is treated primarily as a history of musical style. The first semester covers from ancient Greece to the age of the Baroque.

Lecture (45.00)

MUS-113 Jazz History (3.00 cr.)

Jazz History is the study of how a variety of world cultures assembled on American soil to create an entirely original art form. Using a highly rhythmic and spontaneous music as its instrument, Jazz History gathers sounds, people and traditions from around the world and examines how they influenced one another over the course of 250 years.

Lecture (45.00)

MUS-120 Music and the Child (3.00 cr.)

Music and the Child is designed to provide future parents, caregivers and teachers a better understanding of the various ways in which children learn music and an overview of developmentally appropriate musical activities for children in all types of learning situations. Students will explore musical repertoire aimed at enhancing children's receptive and expressive systems and design tools that will allow children to utilize music as a means towards numerous personal and social benefits. The learning outcomes of this course are achieved through class discussions, academic readings and engagement with relevant musical repertoire. This course is a required arts elective for all Early Childhood Education and Inclusive Education majors at Rowan University.

Lecture (45.00)

MUS-121 Fundamentals of Music (3.00 cr.)

Fundamentals of Music is a general education course that explores the various ways that popular music genres achieve their unique sounds. This course is designed to broaden the student's humanistic perspective of music production through the analysis and discussion of iconic musical works from a variety of popular music genres such as blues, hip hop, pop, gospel, R&B, rock, electronic music, etc. Within each course topic, students will better understand the musical techniques composers, songwriters, producers and/or beatmakers employ within their music making and the extent to which these techniques were influenced by cultural factors. Some topics students will explore are sampling, the 12-bar blues progression, popular song structures, and the D.A.W., the digital audio workstation. While this course has been designed for the non-music major, it is entirely appropriate for music and audio majors to elect this course to satisfy general-education humanities credits.

Lecture (45.00)

MUS-123 Music Theory I (3.00 cr.)

Music Theory I is an advanced course for music majors in diatonic music analysis. The course covers advanced concepts of key signatures, rhythmic values, time signatures, major/minor scales, triads, seventh chords, inversion figured bass, popular music symbols, cadences, melodic principles, harmonic analysis and nonharmonic tones. Students entering into the class should understand basic key signatures and time signatures, as well as, how to read music in treble and bass clefs. Otherwise, it is seriously recommended that the student take Fundamentals of Music (MUS 121) before entering Music Theory I.

Lecture (45.00)

MUS-124 Music Theory II (3.00 cr.)

Students will learn to identify and construct triads on each step of major and minor scales, primary and secondary triads, rules governing doubling and spacing of root position and 1st and 2nd inversion, phase structure, six cadences, and basic harmonic progressions and substitutions.

Lecture (45.00)

Prerequisites: MUS-123

MUS-125 Class Piano I (1.00 cr.)

Class Piano I is an elementary course in piano instruction designed for a group setting. The class covers basic piano technique and a simple repertoire. Outside piano practice is required. Students interested in taking this class should have prior knowledge of, and experience with, all major key signatures and reading rhythms in both simple and compound meters. Otherwise, it is seriously recommended that the student take Fundamentals of Music (MUS-121) before entering Class Piano I (MUS 125).

Laboratory (30.00)

MUS-127 Fundamentals of Music/Sound Engineers (3.00 cr.)

Fundamentals of Music for Sound Engineers is a course in aural skills development and music theory. Focus is placed on fundamental skills and knowledge necessary for working in a recording studio. This course includes study of pitches and rhythms, the grand staff, various historical styles of music, acoustic and electronic instrument timbres, general instrument ranges and sonic properties, analysis and application of melodic and rhythmic constructions, chord progressions and song forms, harmonic techniques used in commercial music, modern chord notation and chord voicing, tools of the recording process, balance, equalization, panning, reverb, compression and limiting.

Lecture (45.00)

MUS-129 Introduction to Audio Recording (3.00 cr.)

Introduction to Audio Recording is an introduction to the physical properties of sound and to the various technologies used to record and reproduce sound. This course includes a study of the physical attributes of sound and the physics of musical instruments, acoustic properties of the ear and of closed environments, the interrelationships and differences of physical acoustics and psychoacoustics. This course also includes a study of the fundamentals of sound recording techniques and methodology, a general history of recording, acoustics, basic electronics, the decibel, magnetism, tape recorders and tape formats, mixers, signal processing, monitoring systems, acoustic, electronic and wave-form analysis concepts, microphone characteristics, selection, and placement, proper studio etiquette, and professionalism. This course also emphasizes the importance of sound aesthetics and ethics in the sound recording process, signal routing, tape machine operation techniques, console and tape machine theory and operation concepts, studio production procedures including recording, overdubbing, mixing, and editing, reaction of sound to surfaces and time delays. No previous musical background or recording experience required. However, an active interest in digital audio, recording techniques, sound reinforcement and sound studio maintenance is necessary.

Lecture (45.00)

MUS-133 Audio Recording Techniques I (3.00 cr.)

Audio Recording Techniques I is a hands-on exploration of the fundamental practice of audio engineering. Emphasis is placed on signal flow, session procedures/setup, microphone placement and multi-track recording. This course is designed for students who are interested in pursuing careers in music recording, audio production, live sound and/or broadcast audio (e.g. film, television, podcasting/VO, eSports, etc.). All learning outcomes are supported by weekly, hands-on lab experiences in our live sound room.

Lecture (45.00)

Laboratory (15.00)

MUS-134 Audio Recording Techniques II (3.00 cr.)

Audio Recording Techniques II continues the study and application of recording techniques begun in Audio Recording Techniques I. Emphasis is placed on multi-track recording and mix-down, microphone placement and patch bay function. Students will create high quality recordings using advanced techniques, as well as critical and musical listening skills. This course is designed for students who are interested in pursuing careers in music recording and production.

Lecture (45.00)

Laboratory (15.00)

Prerequisites: MUS-133

MUS-135 MIDI/DAW I (Digital Audio Workstation) (3.00 cr.)

This course is an introduction to the techniques of computer-based music recording and editing and advanced MIDI topics using digital audio sequencing software packages on the Macintosh computing platform, principally Logic Pro and GarageBand. This course is designed to give the aspiring student a sound pedagogical foundation in the theory and application of computer-based music technologies, principally MIDI and digital audio recording. Students also explore sequencing, sampling, and synthesis techniques on today's most advanced MIDI synthesizers, samplers, and sound modules. MIDI instruments, operation, and interconnection are also explored in lecture and lab.

Lecture (30.00)

Laboratory (30.00)

Corequisites: MUS-129 and MUS-133

MUS-136 MIDI/DAW II (Digital Audio Workstation) (3.00 cr.)

This course is a continuation of MIDI and the Digital Audio Workstation (DAW) I, expanding upon and adding to the skills learned in the previous semester in the areas of MIDI and digital audio recording. Digital Audio Workstation prepares the students for the real world use of Logic in the music production industries. Students apply previous knowledge of MIDI/DAW I, mixing, tracking, and go fully digital and non-linear with Logic. All aspects of digital editing, clocking, tracking, mixing, mastering, surround / DTS encoding, and MIDI production are explained in detail, and students have their own studio for hands-on training during their labs.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MUS-135

Corequisites: MUS-134

MUS-141 Ensemble I (1.00 cr.)

This course provides the opportunity for instrumentalists to learn and perform with others the skills of performing in the jazz, pop and classical style. Emphasis will be on acquiring the technique to play scales, cord voicing and styles appropriate to the pieces being studied. Students will learn proper performance styles. Solo opportunities for improvisation are afforded each performer. Skill on an instrument and music reading ability are required.

Lecture (7.50)

Laboratory (30.00)

MUS-142 Ensemble II (1.00 cr.)

This course provides the opportunity for instrumentalists to learn and perform with others the skills of performing in the jazz, pop and classical style. Emphasis will be on acquiring the technique to play scales, cord voicing and styles appropriate to the pieces being studied. Students will learn proper performance styles. Solo opportunities for improvisation are afforded each performer. Skill on an instrument and music reading ability are required.

Lecture (7.50)

Laboratory (30.00)

MUS-161 College Choir I (1.00 cr.)

This choir program is designed to give students the opportunity to sing the great choral music of various eras. Appropriate style, phrasing, vocal production, and musicianship are taught. Performances are required. Open to all students, no audition required.

Laboratory (30.00)

MUS-162 College Choir II (1.00 cr.)

This choir program is designed to give students the opportunity to sing the great choral music of various eras. Appropriate style, phrasing, vocal production, and musicianship are taught. Performances are required. Open to all students, no audition required.

Laboratory (30.00)

Prerequisites: MUS-161

MUS-181 Concert Band I (1.00 cr.)

Acceptance by audition is required for all students who want to rehearse and perform standard and contemporary concert band literature and observe rehearsal methods and techniques. Interpretation, phrasing, and musicianship are taught. Performances at concerts are required.

Lecture (30.00)

MUS-182 Concert Band II (1.00 cr.)

Acceptance by audition is required for all students who want to rehearse and perform standard and contemporary concert band literature and observe rehearsal methods and techniques. Interpretation, phrasing, and musicianship are taught. Performances at concerts are required.

Lecture (30.00)

Prerequisites: MUS-181

MUS-200 Aural Theory II (2.00 cr.)

Aural Theory II is the second level in a sequence designed to develop ear training and sight singing skills as they apply to music theory and performance.

Lecture (15.00)

Laboratory (30.00)

MUS-202 Advanced Music Lessons II (1.00 cr.)

Advanced Music Lessons II are private instrumental or vocal lessons required for music majors. It is the third semester in a required sequence of three semesters of music lessons culminating with a music recital. Participants are required to attend one additional student recital during the course of the semester.

Laboratory (30.00)

Prerequisites: MUS-105

MUS-225 Music Theory III (3.00 cr.)

Students will learn to read alto and tenor clef, demonstrate writing and analyzing skills in part writing, write simple melodies with basic harmonies, write four part harmony, identify non-harmonic tones, write dominant and non-dominant seventh chords, secondary chords, and compose music using the Sonata Allegro form.

Lecture (45.00)

Prerequisites: MUS-124

MUS-227 Live Sound Reinforcement (3.00 cr.)

The Live Sound Recording course is designed to give students practical experience in the setup and operation of the audio equipment used for major concert productions. The different positions in a live sound event are introduced, as well as, the differences between studio and live sound engineering. Sound reinforcement, live sound mixing, and engineering live concerts that contain multiple genres of music are explored.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MUS-129

MUS-228 Business of Music (3.00 cr.)

Business of Music focuses on the history, procedures, standard practices, and economics of the music industry. Students in this course will explore and discuss independent and major record labels, record promotion, distribution and retailing, contracts, music publishing and copyrights, music licensing, music on the radio, television, movies and internet, career planning and development, and historical perspectives of the music industry.

Lecture (45.00)

MUS-229 Basic Studio Maintenance (3.00 cr.)

Basic Studio Maintenance teaches routine maintenance and troubleshooting skills for use in a recording studio environment. The class discusses issues of grounding, intermittency, equipment failure and system architecture. It also includes a thorough discussion of computer-related issues such as backup, data recovery, installation and hardware integration.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MUS-129

MUS-230 Audio Production (3.00 cr.)
Audio Production bridges the world of audio engineering and audio production. It continues to practice fundamental audio recording techniques as well as fine tune critical listening and analytic skills in lab settings. During the course of the semester, students will practice hands-on application of production in conjunction with volunteer artists and bands.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: MUS-134

MUS-231 Mixing Audio (3.00 cr.)
Mixing Audio is a dedicated class to the art and craft of mixing audio productions. This class will approach fundamental mix techniques from styles as diverse as rock, hip-hop, jazz and punk. Because of the nature of mixing being both art and craft; the class will not only approach fundamental uses of various mixing tools, but also aesthetic choice and artistic vision.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: MUS-136

MUS-232 Sound Design (3.00 cr.)
Sound Design acts as both an introduction and practice lab for the art of creating and manipulating sound for film, television and internet accompaniment. The class will cover the logistical aspect of synchronization and scoring as well as advanced mix techniques based around sonic manipulation.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: MUS-134 and MUS-136

MUS-233 Advanced Audio Production and Mixing (3.00 cr.)
Advanced Audio Production and Mixing continues the hands-on exploration of the record production process with an even more detailed hands-on experience. Students will explore more advanced mixing techniques that have evolved in modern music, as well as, participate in a thorough survey of mastering. Mastering will be used collaboratively between students to foster communication skills and critical listening. The class will also shed light on the modern hybrid studio setup and discuss concepts of analog summing, external inserts and combining the digital and analog mediums.

Lecture (30.00)
Laboratory (30.00)
Prerequisites: MUS-230 and MUS-231

MUS-243 Ensemble III (1.00 cr.)
This course provides the opportunity for instrumentalists to learn and perform with others the skills of performing in the jazz, pop and classical style. Emphasis will be on acquiring the technique to play scales, cord voicing and styles appropriate to the pieces being studied. Students will learn proper performance styles. Solo opportunities for improvisation are afforded each performer. Skill on an instrument and music reading ability are required.

Lecture (7.50)
Laboratory (30.00)

MUS-244 Ensemble IV (1.00 cr.)
This course provides the opportunity for instrumentalists to learn and perform with others the skills of performing in the jazz, pop and classical style. Emphasis will be on acquiring the technique to play scales, cord voicing and styles appropriate to the pieces being studied. Students will learn proper performance styles. Solo opportunities for improvisation are afforded each performer. Skill on an instrument and music reading ability are required.

Lecture (7.50)
Laboratory (30.00)

MUS-263 College Choir III (1.00 cr.)
This choir program is designed to give students the opportunity to sing the great choral music of various eras. Appropriate style, phrasing, vocal

production, and musicianship are taught. Performances are required. Open to all students, no audition required.

Laboratory (30.00)
Prerequisites: MUS-162

MUS-264 College Choir IV (1.00 cr.)
This choir program is designed to give students the opportunity to sing the great choral music of various eras. Appropriate style, phrasing, vocal production, and musicianship are taught. Performances are required. Open to all students, no audition required.

Laboratory (30.00)
Prerequisites: MUS-263

MUS-275 Audio Production Internship (3.00 cr.)
Audio Production Internship provides the student with work experience within the recording studio, live sound, broadcast or post production fields. The student, with guidance from a mentoring professor, will find an appropriate internship in his/her chosen field. This unpaid position for the duration of the final spring semester aims to give the student practical experience in their chosen field.

Lecture (45.00)
Prerequisites: MUS-230

MUS-283 Concert Band III (1.00 cr.)
Acceptance by audition is required for all students who want to rehearse and perform standard and contemporary concert band literature and observe rehearsal methods and techniques. Interpretation, phrasing, and musicianship are taught. Performances at concerts are required.

Laboratory (30.00)
Prerequisites: MUS-182

MUS-284 Concert Band IV (1.00 cr.)
Acceptance by audition is required for all students who want to rehearse and perform standard and contemporary concert band literature and observe rehearsal methods and techniques. Interpretation, phrasing, and musicianship are taught. Performances at concerts are required.

Laboratory (30.00)
Prerequisites: MUS-283

NURSING: OUR LADY OF LOURDES

NOL-102 Nursing 1: Foundations Practice/Mental (8.00 cr.)
This course introduces the student to the foundations of nursing practice and the role of the nurse when caring for adults with medical and mental health disorders. A conceptual approach to learning is utilized to examine the characteristics of individuals seeking care, factors affecting health and illness, and the roles of a professional nurse. Program concepts of patient-centered care, clinical judgement, safety, teamwork and collaboration, professionalism, leadership, evidence-based practice and health informatics are introduced. The student will have the opportunity to apply these concepts when caring for adult patients in medical-surgical and mental health units and in a simulated laboratory setting.

Lecture (60.00)
Clinical (184.00)
Prerequisites: BIO-118, BIO-121, CHM-101, PSY-101, ENG-102, HIS-101 and MTH-111
Corequisites: NOL-110

NOL-110 Health Assessment (2.00 cr.)
This course will allow students to develop a strong foundation in health assessment skills needed to care for diverse individuals across the lifespan. Emphasis is placed on obtaining a health history, performing a comprehensive assessment and identifying health risks. The concepts related to health care recipient, health and illness, and professional nursing will be correlated to the corresponding assessments of these concepts. The course supports achievement of the program outcomes related to patient-centered care, clinical judgment, safety and informatics. Laboratory experiences will provide the student the opportunity to demonstrate assessment skills, identify alterations in health, communicate findings, and develop an appropriate teaching plan to promote health.

Lecture (15.00)
Laboratory (30.00)
Prerequisites: CHM-101, ENG-102, HIS-101, MTH-111, PSY-101, BIO-118 and BIO-121

Corequisites: NOL-102

NOL-111 Nursing 2: Health Promotion/Illness Mgmt (8.00 cr.)

The course focuses on the care of the child-bearing family and the adult with chronic illness. The student's knowledge of professional nursing practice is progressed through the application of the program concepts of clinical judgment, patient-centered care, teamwork and collaboration, evidence-based practice, safety, informatics, leadership, and professionalism. The concepts related to individuals seeking care, health and illness, and the roles of a professional nurse are utilized to achieve a deeper understanding of the health promotion and illness management of these clients. The student will have the opportunity to apply these concepts when caring for clients in medical-surgical and maternal/infant clinical areas and in a simulated laboratory setting.

Lecture (60.00)

Clinical (184.00)

Prerequisites: NOL-110, NOL-102 and PSY-109

NOL-202 Nursing 3: Mgmt Acute and Chronic Health (8.00 cr.)

The course focuses on the nursing care of the children and adults with acute and chronic illness. The student's knowledge of professional nursing practice is progressed through the application of the program concepts of clinical judgment, patient-centered care, teamwork and collaboration, evidence-based practice, safety, informatics, leadership, and professionalism. The concepts related to individuals seeking care, health and illness, and the roles of a professional nurse are utilized to achieve a deeper understanding of the health promotion and illness management of these patients. The student will have the opportunity to apply these concepts when caring for patients in medical-surgical, perioperative, and pediatric clinical areas and in a simulated laboratory setting.

Lecture (60.00)

Clinical (184.00)

Prerequisites: NOL-111 and SOC-101

NOL-211 Nursing 4: Mgmt Individuals/Groups (8.00 cr.)

The course focuses on the nursing care of individuals and groups of patients with complex health issues. The student's knowledge of professional nursing practice is progressed through the application of the program concepts of clinical judgment, patient-centered care, teamwork and collaboration, evidence-based practice, safety, informatics, leadership, and professionalism. The concepts related to individuals seeking care, health and illness, and the roles of a professional nurse are utilized to achieve a deeper understanding of the illness management of these patients. The student will have the opportunity to apply these concepts when caring for groups of patients in medical-surgical areas, critical care and emergency department and in a simulated laboratory setting. The clinical experience culminates in a final capstone experience where the student experiences the full scope of professional nursing.

Lecture (60.00)

Clinical (184.00)

Prerequisites: NOL-202 and PHL-232

Corequisites: NOL-235

NOL-235 Transition to Practice (3.00 cr.)

This course will allow students to discuss the role of professional nursing in a dynamic health care environment. Students will examine professional, practice, legislative, licensure, and legal issues affecting nursing practice. The course will provide the knowledge and skill to allow students to effectively transition into the role of the Registered Professional nurse. Concepts of communication, evidence based practice, leadership, quality improvement, teamwork and collaboration, and professionalism are emphasized.

Lecture (45.00)

Prerequisites: NOL-202 and PHL-232

Corequisites: NOL-211

NURSING

NUR-108 Foundations of Practical Nursing (6.00 cr.)

In this course students will be introduced to the basic concepts of the practical nurse. This course presents the roles specific to the Licensed

Practical Nurse according to the New Jersey Board of Nursing. Basic Theoretical concepts are presented which serve as the groundwork from which higher -level critical thinking and decision-making capabilities will evolve. The basic concepts of patient safety, patient-centered care, teamwork and collaboration, evidence-based practice, informatics and quality improvement (QSEN) will be introduced. In addition: medical terminology effective communication, the nursing process, legal and ethical aspects, multiculturalism, health and wellness, physiologic homeostasis, pain management, vital signs and will be addressed. Basic skills will be performed in the nursing and simulation labs to achieve competency. **ACCEPTANCE INTO THE PRACTICAL NURSING PROGRAM IS REQUIRED.**

Lecture (45.00)

Laboratory (30.00)

Clinical (90.00)

Prerequisite: Acceptance into Practical Nursing Program

NUR-109 Practical Nursing I (7.00 cr.)

This course provides an overview of the student's basic understanding of fundamental principles of the nursing process which supports the development of the individualized plan of care for clients in a healthcare setting. Specific medical-surgical content and procedural techniques are introduced. The focus is on effective interventions and evaluation, which addresses the physiologic, psychological and socio-cultural impact on health in the adult/geriatric community. Additional emphasis is placed on the role of the Practical Nurse in data collection, the planning and implementation of care for patients from diverse backgrounds experiencing equally diverse healthcare needs. Topics include medical-surgical nursing, alterations in the gastrointestinal system, Integumentary System, respiratory system, cardiovascular system and the urinary system. Students will have the opportunity to practice these skills in the skills laboratory. Students will have the opportunity to use their acquired knowledge to demonstrate their competency in the application of the nursing process and skills during clinical practicum.

Lecture (60.00)

Laboratory (30.00)

Clinical (130.00)

Prerequisites: BIO-111 or CHM-101

Corequisites: NUR-108

NUR-110 Maternal/Child Practical Nursing (4.00 cr.)

This course presents an overview of the specialized health care needs of women and children, with content including family health promotion, economic and sociocultural issues influencing the family, the process, and potential problems of the childbearing cycle, newborn and pediatric care standards, and common childhood pathologies. Students will apply previously learned human biology, basic psychological, and basic adult health concepts to reinforce the nursing care plan for patient education, physical care requirements, and basic interventions for the treatment of common maternal, neonatal and pediatric health alterations. The classroom instruction is augmented by hands-on lab and clinical settings.

Lecture (30.00)

Laboratory (30.00)

Clinical (90.00)

Prerequisites: ENG-101, HIT-132, NUR-106 and PSY-101

Corequisites: FNS-105, NUR-116 and BIO-121

NUR-111 Practical Nursing II (8.00 cr.)

This course allows the student to apply basic theoretical principles learned in previous courses throughout the Practical Nursing Curriculum to provide evidenced-based practice to the patient in multiple care settings. Emphasis is on the role of the Practical Nurse in the safe and effective care for a diverse patient population with complex health problems. Theory includes pain management strategies, and interventions, diagnostic tests, perioperative nursing care, and alterations in the following systems: immune, sensory, hematologic, neurological, musculoskeletal, urinary, endocrine, and reproductive as well as emergency and disaster management and mental health nursing of the adult client. Theory is enhanced with clinical and lab simulation experiences.

Lecture (60.00)
Laboratory (30.00)
Clinical (175.00)

Prerequisites: BIO-211 or BIO-117

Prerequisites: ENG-101, PSY-101, NUR-108, and NUR-109

Corequisites: NUR-112

NUR-112 Trends/Issues/Advanced Practical Nursing (3.00 cr.)

This course presents an overview of the specialized health care needs of women and children, with content including family health promotion, economic and sociocultural issues influencing the family, the process, and potential problems of the childbearing cycle, newborn and pediatric care standards, and common childhood pathologies. Students will apply previously learned human biology, basic psychological, and basic adult health concepts to reinforce the nursing care plan for patient education, physical care requirements, and basic interventions for the treatment of common maternal, neonatal and pediatric health alterations. Current nursing trends and concepts of practical nursing leadership and management will also be discussed. The classroom instruction is augmented by hands-on laboratory and simulated activities.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: BIO-111 or 1 Laboratory Science Gen Ed Elective

Prerequisites: ENG-101, PSY-101, NUR-108 and NUR-109

Corequisites: NUR-111

NUR-116 Practical Nursing: Mental Health (3.00 cr.)

This course builds on the student's basic understanding of the foundational principles of psychology and their direct application to the care of individuals experiencing mental health deviations. Throughout this course the student will explore the role of the Practical Nurse as an integral member of the multidisciplinary team. Course content focuses on the application of previously mastered physical care skill sets and critical thought concepts in conjunction with the active employment of techniques in therapeutic communication. Consistent with the holistic thread that connects this curriculum, the student will continue to expand their knowledge of the ethical, legal, sociocultural and developmental needs which impact the response of all humans to actual or potential threats to their well-being. Clinical experiences may include various levels of mental health care provision - inpatient and outpatient.

Lecture (30.00)

Clinical (90.00)

Prerequisites: ENG-101, HIT-132, NUR-106 and PSY-101

Corequisites: BIO-121, FNS-105 and NUR-110

NUR-219 Transition to Professional Nursing (2.00 cr.)

This course is designed to facilitate entry of Licensed Practical Nurses into the role of professional nurse. This course reinforces foundational nursing knowledge and skills and incorporates QSEN throughout to reinforce knowledge skills and attitudes toward safe nursing practice. Students will demonstrate proficiency in health assessment skills in the laboratory setting and apply critical thinking through the development of client plans of care and will demonstrate proficiency in the use of the nursing process to inform clinical decision making. Aspects of professionalism such as delegation, communication and evidence - based practice will be explored. The differences between the scope of practice of the LPN and the RN will be discussed. This course focuses on preparing the Licensed Practical Nurse for transition into the registered nursing program; therefore, students must successfully complete this course for eligibility to continue in the program.

Lecture (15.00)

Laboratory (30.00)

NUR-220 Nursing I (6.00 cr.)

This course is designed to be a foundational course and introduces the concept of health and nursing care. The course focusing on health and self-care utilizing QSEN, The Nursing Process, Maslow, and Orem in the management, maintenance and promotion of optimal health of the adult client including clients with mental health disorders. In addition to theory, this course includes a Laboratory component with skills demonstration

and return demonstration and clinical experiences that occur in a variety of health care settings.

Lecture (60.00)

Laboratory (30.00)

Clinical (120.00)

Prerequisites: CHM-101 or BIO-111 or 1 Laboratory Science Gen Ed Elective

Prerequisites: ENG-101, NUR-219 and PSY-101

NUR-221 Nursing II (7.00 cr.)

This course focuses on health and self-care utilizing QSEN, The Nursing Process, Maslow, and Orem in the management, maintenance and promotion of optimal health of the adult client, the obstetrical client and the pediatric client. In addition to theory, this course includes a Laboratory component and clinical experiences that occur in a variety of health care settings.

Lecture (60.00)

Laboratory (30.00)

Clinical (150.00)

Prerequisites: BIO-211 or BIO-117, BIO-221 or BIO-121, NUR-219, NUR-220, ENG-101, ENG-102 and PSY-101

Corequisites: NUR-222

NUR-222 Global Health and Diversity in Nursing (2.00 cr.)

This course is designed as a foundational course that explores various issues in nursing that affect a diverse patient population. Students are introduced to global nursing and the impact of globalization on nursing practice. Discussions will include human rights, social justice, equity, inclusion and multiculturalism.

Lecture (30.00)

Prerequisites: BIO-211 or BIO-117, BIO-221 or BIO-121, NUR-219, NUR-220, ENG-101, ENG-102 and PSY-101

Corequisites: NUR-221

NUR-223 Nursing III (7.00 cr.)

This course focuses on health and self-care utilizing QSEN, The Nursing Process, Maslow, and Orem in the management, maintenance and promotion of optimal health of the adult client with complex needs with emphasis on clinical judgement. In addition to theory, this course includes skills, laboratory, and clinical experiences that occur in a variety of health care settings.

Lecture (60.00)

Laboratory (30.00)

Clinical (150.00)

Prerequisites: CHM-101 or BIO-111 or 1 Laboratory Science Gen Ed Elective

Prerequisites: BIO-211 or BIO-117, BIO-212 or BIO-118, BIO-221 or BIO-121, NUR-219, NUR-220, NUR-221, NUR-222, ENG-101, ENG-102, PSY-101, and PSY-109

Corequisites: NUR-224

NUR-224 Leadership and Role Transition (2.00 cr.)

This course is designed to introduce the student to the concept of leadership and management in the health care arena. The course focuses on current trends and issues in nursing including legal and ethical issues, interprofessional collaboration, evidence - based practice, and delegation. Personal and professional development is emphasized.

Lecture (30.00)

Prerequisites: BIO-111 or CHM-101, BIO-211 or BIO-117, BIO-212 or BIO-118, BIO-221 or BIO-121, and NUR-219, NUR-220, NUR-221, NUR-222, ENG-101, ENG-102, PSY-101 and PSY-109

Corequisites: NUR-223

NUR-230 Pharmacology for Nursing (3.00 cr.)

This course will enhance the current knowledge of a broad spectrum of pharmacologic agents. Emphasis is on the administration of drugs using QSEN competencies for safe, effective, and therapeutic drug therapy. Drug classifications studied are about safe drug administration, nursing implications and effects and precautions, drug interactions, and the potential for toxicity. Pharmacologic considerations that involve, but are not limited to, the legal, ethical, age, cultural, and risk for dependence are discussed in the current context of our time.

Lecture (45.00)

Prerequisites: BIO-118 and CHM-101

OPHTHALMIC MEDICAL TECHNICIAN

OMT-101 Medical History Taking (1.00 cr.)

This lecture class will offer demonstrations and practice sessions to introduce students to techniques of medical history taking. Course emphasizes history taking in relationships to medical terminology, systemic diseases and general anatomy and physiology. This course introduces the fundamentals of legal relationships of the patient and doctor as well as managed care. Medical ethics relating to the practice of ophthalmic assisting is discussed.

Lecture (15.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

OMT-103 Ophthalmic Optics for Medical Technician (4.00 cr.)

This laboratory and lecture course encompasses the study of optical principles and ophthalmic optics and includes hands-on lens and lensometry practice. It examines the theory of light as related to the use of lenses, prisms and optical instruments. Visual errors and the lenses used to correct them are discussed. Lensometry and lens verification is practiced in depth. Students will validate finished eyewear to meet all prescription specifications.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

OMT-104 Clinical Procedures I (3.00 cr.)

This course will introduce students to the basic concepts of an ophthalmic exam. Skills will include: visual acuity, color vision, Amsler, Confrontation fields, pupil exam, extra ocular movements exam, instillation of diagnosis topical medications, stereopsis, assisting visually or physically impaired patients, measurement of intraocular pressure, anterior segment examination, and minor instrument repair and maintenance.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

Corequisites: BIO-103

OMT-105 Clinical Observation (1.00 cr.)

Students are placed in Ophthalmology offices where they will observe practical work experiences. During the rotation students will observe experienced technicians and physicians. Weekly hours are assigned for a total of 100 during the semester.

Clinical (100.00)

Corequisites: OMT-104

OMT-201 Ocular Pharmacology (1.00 cr.)

This course presents the basic principles of ocular pharmacology. The sympathetic and parasympathetic systems are explained, and how ocular drugs affect these systems. Ocular toxicity of commonly used systemic drugs is discussed.

Lecture (15.00)

Prerequisites: OMT-101, OMT-103, OMT-104 and OPH-130

Corequisites: OPH-131, OMT-203 and OMT-204

OMT-203 Clinical Rotation I (3.00 cr.)

Students are placed in Ophthalmology offices where they are exposed to practical work experiences. During the rotation the students will assist experienced technicians and physicians. Weekly clinical hours are assigned for a total of 300 hours during the semester.

Clinical (300.00)

Prerequisites: OMT-101, OMT-103, OMT-104, and OPH-130

Corequisites: OPH-131, OMT-201 and OMT-204

OMT-204 Clinical Procedures II (3.00 cr.)

This course is a continuation of Clinical Procedures I. This course will review all concepts learned in Clinical Procedures I, as well as introduce advanced clinical procedures used in Ophthalmology practices. Lab skills for this course include advanced slit lamp techniques, applanation tonometry, retinoscopy, and refractometry.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: OMT-104

OMT-213 Clinical Rotation II (3.00 cr.)

This course is a continuation of OMT-203. Students are placed in Ophthalmology offices where they are exposed to practical work experiences. During the rotation the students will assist experienced technicians and physicians. Weekly clinical hours are assigned for a total of 350 hours during the semester.

Clinical (350.00)

Prerequisites: OMT-203

OPHTHALMIC SCIENCE

OPH-104 Ophthalmic Lab I (3.00 cr.)

This lab-based course will teach students how to prepare laboratory orders prior to edging lenses. Students will receive practice in neutralizing and duplicating ophthalmic lenses by means of the vertometer/lensometer; identification of spectacle frames and patterns; practice in hand edging and fitting spherical and compound lenses into plastic (zyl) frames.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

Corequisites: OPH-111

OPH-105 Ophthalmic Lab II (3.00 cr.)

In this lab-based course, students will receive practice in spectacle lens edging by use of focimeters and semi-automatic edging equipment. They will also practice neutralization of single vision and bifocal lenses. Students will learn the process of creating ophthalmic lenses through lens generating, surfacing and polishing.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: OPH-104

Corequisites: OPH-112

OPH-111 Ophthalmic Materials Lecture I (3.00 cr.)

This course discusses the history and development of glass and plastic, basic optical terminology. Ophthalmic lens types, calculation of lens curvature, powers, thickness and prisms.

Lecture (45.00)

Prerequisites: MTH-029 and (ENG-013 and ENG-023) or ENG-046

Corequisites: OPH-104

OPH-112 Ophthalmic Materials Lecture II (3.00 cr.)

In this course the theory of lens design and its use in correcting visual deficiencies in conformity with the refractionist's prescription is discussed. The principles and study of neutralization and duplication of lenses by use of the lensometer/vertometer, and optical standards and tolerances are studied.

Lecture (45.00)

Prerequisites: OPH-111

Corequisites: OPH-105

OPH-130 Anatomy of the Eye (3.00 cr.)

This course is a study of the anatomy of the human eye and its accessory structures. Topics include learning the individual parts of the eye, how the parts work together as a whole, and the role the eye plays in producing the sense of sight. Anatomical and physiological causes of refractive errors and common eye disorders, diseases of the eye, and their treatments are discussed.

Lecture (45.00)

Prerequisites: MTH-029

Prerequisites: (ENG-013 and ENG-023) or ENG-046

OPH-131 Introduction to Contact Lenses (3.00 cr.)

An introduction to the fitting of contact lenses for correction of visual problems, this course covers patient selection, advantages and disadvantages of different contact lens materials, and the basic theory and design of contact lenses. Emphasis is placed on the optical principles behind contacts, and the introduction of instrumentation used in contact lens fitting. Insertion, removal, and care procedures are included.

Lecture (45.00)
Prerequisites: OPH-130

OPH-203 Ophthalmic Materials Laboratory III (2.00 cr.)
In this course students discuss the operation of automatic edging and blocking equipment, interpretation and analysis of shop orders, preparation of compound lenses and creation of prism through decentration to fit prescription specification. The edging of bifocal lenses is introduced.
Laboratory (60.00)
Prerequisites: OPH-105

OPH-204 Ophthalmic Materials Laboratory IV (2.00 cr.)
Throughout this course students will focus on edging and neutralization of bifocals, trifocals and progressive lenses. Advanced techniques for handling plastic lenses including drilling and mounting of rimless glasses will also be completed. Students will use neutralization skills to duplicate eyewear according to New Jersey prescription tolerances.
Laboratory (60.00)
Prerequisites: OPH-203

OPH-220 Optic Principles (3.00 cr.)
This course examines the nature of light and how light behaves when it encounters various refractive and reflective surfaces. This behavior is then related to the use of lenses, prisms, and optical instruments.
Lecture (45.00)
Prerequisites: OPH-105 and OPH-112

OPH-232 Contact Lens Fitting I (3.00 cr.)
This course concentrates on the fundamentals of fitting patients with spherical contact lenses, both soft and rigid. Proper procedures for patient care are presented, from the prefitting examination to follow-up visits. Special attention is given to evaluation of fit, problem solving, practice management, and instrumentation. Lab skills for this course include lensometry, use of the radiuscope, keratometry, corneal topography, and basic slit-lamp techniques.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: OPH-131

OPH-233 Contact Lens Fitting II (3.00 cr.)
Special ocular problems and the special contact lens designs and fitting techniques needed to correct these problems are studied. Additional use of instrumentation and practice management techniques raises lab skills to an intermediate level of proficiency for lensometry, keratometry, corneal topography, and slit-lamp applications.
Lecture (30.00)
Laboratory (30.00)
Prerequisites: OPH-232

OPH-240 Ophthalmic Dispensing I (4.00 cr.)
This course examines ethics, practices and responsibilities of the ophthalmic dispenser; determination of patient needs; prescription analysis and interpretation of single vision, multifocal and prism lenses; consideration in making glasses for occupational use; and tinted lenses and their uses. Lab skills the student will also learn include ocular measurements, use of various measuring instruments, principles and techniques of skillful fitting and adjusting of spectacles by means of optical pliers and other equipment and the evaluation of completed spectacles for accuracy and quality.
Lecture (45.00)
Laboratory (45.00)
Prerequisites: OPH-105 and OPH-112

OPH-241 Ophthalmic Dispensing II (4.00 cr.)
This course is a continuation of OPH-240: In this course, students will learn the psychology of dispensing along with challenges of the low vision patient. Additional scenarios concerning obliquely crossed prisms, front and back vertex powers, anisometropic prescriptions, and spectacle magnification are also discussed. Lab skills the students will also learn include dispensing procedures relating to bifocals and complex

prescriptions, techniques of fitting and adjusting plastic, metal and rimless spectacles and occupational eyewear.
Lecture (45.00)
Laboratory (45.00)
Prerequisites: OPH-240

OPH-250 Ophthalmic Clinic I (1.00 cr.)
In the on-campus Optical Clinic, students shall work with a licensed optician in a controlled environment. They will become experienced in all aspects of the retail optical environment including but not limited to edging, adjustments, ordering, working with a budget, purchasing, record keeping and people skills.
Clinical (45.00)
Prerequisites: OPH-105, OPH-112 and OPH-131 **Students must show proof of COVID-19 Vaccination for OPH-250**
Corequisites: OPH-260

OPH-251 Ophthalmic Clinic II (1.00 cr.)
In the on-campus Optical Clinic, students shall work with a New Jersey licensed optician in a controlled environment. Students are expected to display advances skills in all aspects of the retail optical environment including but not limited to troubleshooting visual acuity issues, customer service, sales, measurements, adjustments, ordering products, fabrication, and record keeping.
Clinical (45.00)
Prerequisites: OPH-250 **Students must show proof of COVID-19 Vaccination for OPH-251**

OPH-260 Co-Op I: Ophthalmic Science (1.00 cr.)
Students are placed in retail optical establishments where they are exposed to practical work experiences. Experience in retail eyeglass sales, business practices, eyeglass fabrication and spectacle adjustments will also be covered. Students will engage with patients under the direct supervision of a licensed optician or licensed Optometrist. Students will be required to submit weekly evaluation forms as completed by their mentor, and will submit a minimum of one journal entry per week throughout the semester.
Co-Op (60.00)
Prerequisites: OPH-105, OPH-112 and OPH-131
Corequisites: OPH-250

OPH-261 Co-Op II: Ophthalmic Science (1.00 cr.)
Students are placed in retail optical establishments where they continue to be exposed to practical work experiences. Students continue to apply knowledge and skills learned in previous ophthalmic courses to display a high level of proficiency with retail eyeglass sales, business practices, eyeglass fabrication and spectacle adjustments. Student will continue to be evaluated weekly by a licensed optician at their co-op location and by their assigned instructor.
Co-Op (60.00)
Prerequisites: OPH-260 and OPH-250
Corequisites: OPH-251

OPH-270 Ophthalmic Dispensing Office Procedures (3.00 cr.)
This is a capstone course designed to assist students to use the knowledge and skills learned in the Ophthalmic Science Technology program to make sound decisions while practicing the art of Ophthalmic Dispensing. Information presented will include business practices, patient interactions, office procedures, and management considerations. New Jersey Rules and Regulations for Ophthalmic Dispensing and American National Standards Institute (ANSI) standards will be compared and applied to ethical decisions made in regards to filling and dispensing prescriptions for optical devices. This course will encompass the instructor's experience and perspective, as well as the experiences and perspective of the students. Professional organizations, licensure, and certification of Ophthalmic Dispensers will also be reviewed.
Lecture (45.00)
Prerequisites: OPH-112

OFFICE SYSTEMS TECHNOLOGY

OST-110 Microcomputer Keyboarding (1.00 cr.)

Microcomputer Keyboarding is a beginning keyboarding course designed for persons who interact with microcomputers and need to do so effectively. It is the goal of this course to prepare students for future computer classes by building input skills confidence. Students will be provided with an opportunity to master the skill of entering alphabetic, numeric and symbolic information on a keyboard and a ten-key pad using the touch method of key stroking. Emphasis is placed on development of speed and accuracy, proper technique and correct fingering. The student will also develop skill in formatting basic business documents.

Lecture (15.00)

Laboratory (15.00)

OST-113 Keyboarding & Document Processing (3.00 cr.)

This is an introductory keyboarding course designed for students with little or no previous keyboarding experience. Students are provided with an opportunity to master the skill of entering alphabetic, numeric and symbolic information on a keyboard and a ten-key pad using the touch method of keystroking. Emphasis is placed on development of speed and accuracy, proper techniques and correct fingering. Building on these skills, students are then guided through a variety of mini-simulations that incorporates skills such as proofreading, grammar, spelling, punctuation and capitalization rules. Students must demonstrate their ability to make decisions, abstract information, set priorities, and maintain a smooth work flow under pressure.

Lecture (45.00)

Laboratory (15.00)

OST-123 Introduction to Microsoft Word (3.00 cr.)

This course is designed to provide students with the basic functions and features of one of the most popular word processing programs available. Students will explore the essential functions and features of the software through a step-by-step, project-based approach to develop a mastery-level competency in MS Word. This introductory course focuses not only on concepts, but how to apply those concepts in the workplace, in an academic setting, and for personal use. Students will learn to create, edit, format and customize a range of document types and styles; add and modify graphics and other visual elements, and organize content into tables, lists and other structures that promote reader understanding and efficient management in a collaborative work environment. Students are provided with opportunities to practice learned material using problem-solving and creative abilities to plan, research, write, revise and publish documents to meet specific information needs.

Lecture (45.00)

Laboratory (15.00)

OST-151 PowerPoint (3.00 cr.)

PowerPoint is a program used as a tool for information analysis, presentation and illustration. This course will teach students to understand how information is used to present, reinforce and illustrate concepts. Students will have the opportunity to develop and execute strategies for solving information-processing problems. Given a scenario requiring a presentation solution, students will assess the information requirements and then prepare the materials that achieve the goal efficiently and effectively. Decision-making and problem-solving skills are integrated throughout the course.

Lecture (45.00)

Laboratory (15.00)

OST-224 Adv Microsoft Word & Desktop Publishing (3.00 cr.)

This course is designed for students who are already familiar with the basics of Microsoft Word. Students will become familiar with the advanced capabilities of word processing, and then progress to the desktop publishing tools necessary for completing the publication of professional looking documents. Design elements will be utilized and reinforced throughout the course, including the appropriate use of focus, balance, proportion, contrast, directional flow, consistency, color, and

page layout. An overview of Microsoft Publisher software will also be provided.

Lecture (45.00)

Laboratory (15.00)

Prerequisites: OST-123

OST-241 Administrative Office Procedures (3.00 cr.)

This course will provide students with a comprehensive coverage of administrative principles, policies and procedures governing the office environment. Basic skills in typewriting (keyboarding) and word processing are assumed, and the emphasis is then placed on the decision-making aspects of executive and administrative office work. Simulated activities will acquaint students with the knowledge and abilities to succeed in the office environment including a review of language skills; proofreading, grammar, punctuation and spelling rules, document creation and distribution, and standard filing procedures. Case problems and projects will help prepare the prospective office professional to meet the challenges he or she will encounter in today's workplace: research and organization of business reports, travel and conference planning, financial and legal procedures, and employment and career advancement are integrated throughout the course.

Lecture (45.00)

PARALEGAL STUDIES

PAR-101 Intro to Paralegal Studies (3.00 cr.)

This course is an introduction to the theory and practical aspects of the legal system. It includes the study of jurisprudence, its history, philosophy and current trends. Students will develop an understanding of the overall role of the paralegal in law offices, corporations and agencies. This course also emphasizes the ethical aspects associated with paralegals. The course also looks into the responsibilities of the legal court structures and recognized court procedures.

Lecture (45.00)

PAR-102 Litigation & Civil Procedures (3.00 cr.)

This is an introductory course designed to provide the student with the fundamentals necessary to begin a career as a litigating paralegal. Theory and practical aspects of basic civil litigation, including preliminary investigation, pleadings, motions, discovery, trials, appeals, administrative law, arbitrations and alternative dispute resolution will be introduced. Emphasis will be placed on the requirements and restrictions of the Federal Rules of Civil Procedure which apply throughout the United States. The New Jersey Rules of Civil Procedure will also be examined. With this knowledge, the student can develop a solid foundation in the fundamental principles of litigation.

Lecture (45.00)

PAR-201 Legal Research & Writing I (3.00 cr.)

This course provides students with an introduction to case analysis and the fundamentals of legal writing. Students learn how to analyze legal opinions for use as legal precedent. Students also learn how to distinguish various legal opinions and draft persuasive arguments. Emphasis is placed on the identification of key facts, issues, holdings and reasoning in a legal opinion. An understanding of the basic Bluebook citation format will be taught as well as how to prepare client correspondence, legal briefs and memorandums of law. The students are introduced to the concept of legal research through manual means and computer-assisted devices such as Westlaw and Lexis-Nexis.

Lecture (45.00)

PAR-202 Legal Research & Writing II (3.00 cr.)

This course provides a more in-depth look at the paralegal's expectation relative to legal research and writing. Emphasis is placed on providing students with hands-on training in the use of both primary and secondary legal sources including reported court decisions, constitutions, statutes, administrative regulations, ordinances, court rules restatements, treaties, legal encyclopedias and legal periodicals. Various legal and non-legal finding tools such as digests, annotations, citators, annotated statutes, legal dictionaries, legal thesauruses, loose-leaf services and form-books

are also discussed. The students will receive training on Westlaw, a computer-assisted legal research device.

Lecture (45.00)

Prerequisites: PAR-201

PAR-203 Family Law (3.00 cr.)

This course introduces the students to the procedural and substantive law affecting the family and domestic relations. The law affecting prenuptial agreements, separation, divorce, annulments, spousal support, alimony, spousal abuse, custody, child support and adoption is discussed. Emphasis is placed on the preparation of relevant legal documents and procedures for various court filings.

Lecture (45.00)

Prerequisites: PAR-101

PAR-204 Real Estate Law (3.00 cr.)

This course provides an introduction to real property law. Emphasis is placed on real estate transactions and the tasks performed by lawyers and their legal representatives in representing buyers and sellers in the transfer of real property interest. Discussions include the possession and ownership of property, attractive nuisances, present and future estates, marital estates, landlord and tenant rights and obligations, easements, conveyancing, recording, land-title assurances, vendor and purchaser rights and obligations, and zoning controls.

Lecture (45.00)

PAR-205 Estate and Probate (3.00 cr.)

This task-oriented course emphasizes the terminology, forms and procedures of probate and estate administration. Students will learn to draft a simple trust and a will.

Lecture (45.00)

PAR-206 Paralegal Internship (3.00 cr.)

Students have the opportunity to obtain practical experience while working as an intern in a law office, governmental agency, non-profit agency or another entity which employs paralegals for legal support.

Lecture (135.00)

PAR-210 Law Office Management (3.00 cr.)

This course is designed to provide students with an understanding of how a law office is managed from a practical perspective. A wide range of topics that affect paralegals/legal assistants and their interactions in the law office environment will be discussed, including, but not limited to, ethics and client relations, billing and financial management, and law office systems and procedures. By the end of the course, students will have gained a general overview of the basic principles and structure of management, and administrative and substantive systems as they apply to managing today's law office.

Lecture (45.00)

Prerequisites: PAR-101 and ENG-101

PARAMEDIC EDUCATION & MANAGEMENT

PEM-260 Topics in Paramedic Care (6.00 cr.)

This course is designed to enhance the core knowledge of the experienced Paramedic through the application of knowledge and experience in expanding critical thinking skills. The course will discuss the varied roles and responsibilities of the field provider to include leadership, lifelong learning, the guiding principles of the Oath of Geneva and the EMT Oath, and the role of the field preceptor; the ethical situations peculiar to EMS to include Out-of-Hospital DNR orders, patient confidentiality and HIPAA regulations; medical-legal issues such as informed and implied consent, malfeasance, negligence, and strategies to care for both patients and survivors in the case of death and dying.

Lecture (90.00)

PEM-265 Emergency Medical Services Education (3.00 cr.)

This course is intended to give the student an understanding of the guidelines that are essential to the development, implementation, and coordination of an EMS education program. Topics covered will include, but are not limited to, characteristics of the adult learner, instruction

techniques, lesson plans, evaluations, counseling, record keeping, instructor qualifications, media, and course evaluations.

Lecture (45.00)

Prerequisites: PEM-260

PEM-270 Emergency Medical Services Management (3.00 cr.)

This is a lecture course that can be modified for on-line and independent study. This course is designed to provide the student an understanding of the management issues in the administration of an EMS System. Topics covered will include, but are not limited to, management qualifications, medical direction, quality assurance, equipment, vehicles, budgeting, staff retention, and communications.

Lecture (45.00)

Prerequisites: PEM-260

PHILOSOPHY

PHL-101 Introduction to Philosophy (3.00 cr.)

This course introduces students to some of the problems addressed in four main branches of philosophy: logic, metaphysics, epistemology and ethics. Primary texts from both classic and contemporary sources will be read and analyzed.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

PHL-121 Logic & Reasoning (3.00 cr.)

This is a course in informal logic in which students both analyze the arguments of other authors and create arguments of their own. The tools of analysis to be mastered include: argument structure, validity, deductive/inductive forms, fallacies, argument diagrams, modal terms and their implications for argument strength. Students will be able to articulate and give reasons to support a position about a debatable topic in both oral and written form.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

PHL-131 Introduction to Ethics (3.00 cr.)

The course requires students to read from primary sources which introduce major ethical theories, both classic and contemporary. Students will then analyze contemporary articles which offer opposing views about ethical dilemmas such as: euthanasia, affirmative action, pornography, abortion, world hunger, capital punishment, etc. This course is not to be taken by students who have taken PHL-232, Biomedical Ethics; credit will not be given for both courses.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

PHL-131H Honors Introduction to Ethics (3.00 cr.)

The course requires students to read from primary sources which introduce major ethical theories, both classic and contemporary. Students will then analyze contemporary articles which offer opposing views about ethical dilemmas such as: euthanasia, affirmative action, pornography, abortion, world hunger, capital punishment, etc. This course is not to be taken by students who have taken PHL-232, Biomedical Ethics; credit will not be given for both courses. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

PHL-232 Biomedical Ethics (3.00 cr.)

This course is an examination of influential ethical theories, both classic and contemporary, and the application of those theories to current dilemmas in the field of medicine. This course is not to be taken by students who have taken PHL-131, Introduction to Ethics; credit will not be given for both courses.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

PHL-232H Honors Biomedical Ethics (3.00 cr.)

This course is an examination of influential ethical theories, both classic and contemporary, and the application of those theories to current

dilemmas in the field of medicine. This course is not to be taken by students who have taken PHL-131, Introduction to Ethics; credit will not be given for both courses. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONOR COURSES.**

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

PHOTOGRAPHY

PHO-101 Photography I (3.00 cr.)

This course is an introduction to the technical and artistic aspects of digital photography. Course instruction and material will concentrate on the technical aspects of the medium along with an emphasis placed on the photographic image as a means of visual expression and communication. Students will learn to properly, save, export, edit, and print files while also learning about photographers from the past and present as a way to understand how to create images that communicate their ideas visually.

Lecture (30.00)

Laboratory (30.00)

PHO-102 Photography II (3.00 cr.)

This course is a continuation of Photography I and emphasizes the development of advanced techniques and ideas in photography. Students will begin to realize their personal vision (experimentation is encouraged) and begin to develop a cohesive body of work for their portfolio. Course instruction and material will concentrate on advanced technical aspects of the medium along with an emphasis placed on the photographic image as a means of visual expression and communication.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: PHO-101 or PHO-106

PHO-106 Beginning Digital Photography (3.00 cr.)

This course is an introduction to the basics of digital photography. The course will concentrate on the technical aspects of the medium along with emphasis placed on the potential of the photographic image as a means of visual expression and communication. Students will learn about photographers from the past and present as a way to understand how to create images that communicate their ideas visually. A DSLR camera is required. Photography majors must take PHO-101 as part of the photography curriculum.

Lecture (30.00)

Laboratory (30.00)

PHO-111 History of Photography (3.00 cr.)

This course traces the history of the photographic process from its inception to contemporary developments. The course will examine the relationship between photography and society in Europe and the United States as well as approaches to evaluating and interpreting photographs.

Lecture (45.00)

PHO-221 Studio Photography (3.00 cr.)

This course is an introduction to artificial light and large format cameras. Students are expected to gain a working knowledge of lenses and camera functions, exposure techniques, the processing and printing of large format negatives, and studio lighting techniques.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: PHO-101

PHO-226 Photo Illustration (3.00 cr.)

This course will introduce the computer as a powerful tool for the photographer. We will discuss the ethical, philosophical and practical considerations regarding the digital image process as it shapes our lives, both as members of a rapidly changing society and as photography professionals. This course will cover multiple ways to digitize images, image editing software, and different forms of outputting the digitized image. We will also discuss image making in the context of contemporary photography art practice.

Lecture (30.00)

Laboratory (30.00)

PHO-291 Independent Study-Photography (3.00 cr.)

Goals and objectives must be established for an Independent Study in Photography which is not substituting for an existing course. The faculty member conducting the Independent Study must periodically meet with the student to guide the study.

Lecture (15.00)

Field Work (90.00)

Prerequisites: PHO-102

PHYSICS

PHY-101 Physics I (4.00 cr.)

This is the first course of a four-semester physics program. The first two semesters are algebra based and the second two are calculus based. Areas covered in the course are elementary mechanics, heat and conservation laws. Topics include scalar and vector quantities, translational, and rotational motion, work, energy and momentum; molecular forces in solids and liquids: heat, temperature, phase changes, and behavior of gases.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-100

Corequisites: MTH-124 or MTH-125

PHY-102 Physics II (4.00 cr.)

This is the second course of the four-semester Physics program. The first two semesters are algebra based and the last two are calculus based. Areas covered in this course are wave motion, electricity, magnetism and optics. Topics include electromagnetic and sound wave propagation, properties of electric charge, field, force, work, potential, potential difference, current and resistance, nature of magnetism, causes for magnetism, properties of light and its interaction with matter.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: PHY-101

PHY-103 Physics I (for the Non-Science Major) (4.00 cr.)

This is the introductory Physics course for Liberal Arts majors. It examines basic Physics concepts qualitatively, with limited mathematics and introduces students to laboratory experimentation. The physical principles taught in the course are illustrated with realistic life examples and laboratory experiments. The topics include the place of Physics among other sciences and why knowledge of Physics is necessary to understand technological achievements and real-life phenomena. Areas covered are different states of matter, physics of motion, light and optics, energy as a physical concept, and different sources of energy. Students also learn how to measure different physical quantities, analyze experimental results, and draw scientific conclusions.

Lecture (30.00)

Laboratory (60.00)

PHY-201 Physics III (4.00 cr.)

This is a course for engineering students and physics majors. It is essential to have high school physics or algebra based physics to take this course. It uses calculus in developing laws as they are applied to mechanical systems. The course covers mechanical motion involving non-uniform acceleration in both rectilinear and curvilinear cases, elastic and non-elastic collisions and conservation of linear and angular momentum; mechanical waves, fluid dynamics and thermodynamics including the heat and heat transfer. Related experiments are performed.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: MTH-140

PHY-202 Physics IV (4.00 cr.)

This is the final semester course of the four-semester Physics program. The first two semesters are algebra-based and the second two are calculus-based. Areas covered in this course are electricity, with detailed discussion of Gauss' Law, electrostatics and electric current, capacitance

and dielectrics, magnetism, with origin of magnetism, electro-magnetic induction and RL and LC-circuits, electromagnetic waves, geometric and physical optics with emphasis on Interference and Diffraction; Modern Physics and fundamentals of quantum mechanics and atomic Physics are studied.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: PHY-201

POLITICAL SCIENCE

POL-101 Introduction to Political Science (3.00 cr.)

The purpose of this course is to introduce students to the central concepts, debates, and methods of Political Science. In so doing, the student will have a greater understanding of political phenomena as well their role in both local and global politics. In order to achieve this goal, this course is divided into four parts and is intended to give the student an introduction to as many aspects of political science as possible. The first section introduces students to the basic concepts, terminology, methods and debates within the field of political science. The second part exposes students to political phenomena that originate from society and the more informal sources of political power. The third part introduces students to the more formal institutions of politics and details their function and histories. The final section of the course focuses on politics at a global level. This includes the world economic and security environments and how states and nations behave within it.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

POL-101H Honors Introduction to Political Science (3.00 cr.)

The purpose of this course is to introduce students to the central concepts, debates, and methods of Political Science. In so doing, the student will have a greater understanding of political phenomena as well their role in both local and global politics. In order to achieve this goal, this course is divided into four parts and is intended to give the student an introduction to as many aspects of political science as possible. The first section introduces students to the basic concepts, terminology, methods and debates within the field of political science. The second part exposes students to political phenomena that originate from society and the more informal sources of political power. The third part introduces students to the more formal institutions of politics and details their function and histories. The final section of the course focuses on politics at a global level. This includes the world economic and security environments and how states and nations behave within it. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

POL-103 American Federal Government (3.00 cr.)

The purpose of this course is to introduce students to the foundations, processes, institutions, and actions of the United States' government. Upon completion of the course, students will also have a better understanding of the broader themes and debates within the study of American government such as the struggle between freedom and power. A major objective of the course is to convince students that democracy requires knowledgeable citizens. Ideally, knowledge gained in this course will encourage students to participate in government and be aware of how government action can affect their lives. In order to achieve these goals and to present the course information in a coherent manner, the course is divided into four parts. The first part introduces students to the basic foundations of the American federal system giving them a basic context for all subsequent material. The second section focuses upon informal political phenomena that originate from the people and help link citizens to the formal institutions of government. The third section introduces students to the formal institutions of American government detailing their functions and histories. The final section covers the policies that government produces and how those policies are formulated.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

POL-108 Introduction to International Relations (3.00 cr.)

The purpose of this course is to introduce students to the terminology, debates, processes, dilemmas and methods of the field of International Relations. Two central goals will guide the learning process in this course. First, students will become familiar with both the causes and results of global change. Second, students will be equipped to assess the ethical ramifications of this change. Upon completion, students will be able to better assume their role as responsible citizens of the world. In order to accomplish these goals the course is divided into five parts. The first unit serves a primer on the basic concepts of International Relations and the historical evolution of the global system. The second part of the course provides students with insight as to how to approach the study of International Relations. The third part exposes students to explanations for one of the most pressing problems of global politics: the persistence of war and international violence. The fourth part of the course focuses upon the complex economic interactions that take place between states and the consequences that those interactions can have on prosperity and the overall quality of life. The last section of the course addresses the future of global politics by focusing upon emerging issues of importance and the new global entities that increasingly deal with these issues.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

POL-111 Public Administration (3.00 cr.)

This course introduces the student to the art and science of public sector management. Administrative principles, policy making, and decision-making in public organizations are among the topics covered. Particular emphasis is placed on understanding the organizational culture of public agencies.

Lecture (45.00)

Prerequisites: POL-101 or POL-103

POL-112 Public Personnel Administration (3.00 cr.)

This course examines the history, development, and current practice in public sector personnel management. Students will be introduced to specific techniques for the management of human resources. Among the issues reviewed are: recruitment and selection, rewards systems, productivity, leadership, motivation, interpersonal relations and cultural diversity.

Lecture (45.00)

Prerequisites: POL-111

POL-121 Co-op I: Political Science (3.00 cr.)

Cooperative Education is a program designed to award academic credit for work related to a student's major. The learning experience is defined as a combination of professional work experience, the development of measurable learning objectives based on the job description, and the completion of individually tailored Co-op assignments. A Co-op advisor is assigned to each student to establish the academic validity of the cooperative education credits.

Co-Op (135.00)

PARAMEDIC SCIENCE

PRM-100 Introduction to Paramedic Care (5.00 cr.)

This course prepares the student to develop an understanding of the roles and responsibilities of the paramedic, EMS Systems, communications, laws that effect EMS, well-being, injury and illness prevention, ethics and stress management. It will also introduce the paramedic student to emergency pharmacology, the history of pharmacology, the sources of drugs, their classifications and various preparations used. Students will learn the basics of pharmacokinetics and pharmacodynamics. They will understand the role of fluids, electrolytes and intravenous therapy. The laboratory component of this course provides hands-on use of necessary medical equipment. Dosing and drug calculations and administration will be learned. Students will learn the use of disease specific medications.

Lecture (60.00)

Laboratory (30.00)

Prerequisites: EMT-101

Corequisites: BIO-117

PRM-103 Theory of Paramedic Care (3.00 cr.)

This course prepares the student to develop an understanding of the Roles and Responsibilities of the Paramedic, EMS Systems, Communications, laws that effect EMS, well-being, injury and illness prevention, ethics and stress management. The laboratory portion of this course provides hands-on training in patient assessment and EMS communication and systems.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EMT-100

Corequisites: BIO-103 and PRM-104

PRM-104 Paramedic Pharmacology (3.00 cr.)

The course introduces the paramedic student to the complex and critical discipline of emergency pharmacology. The course will discuss the role of awareness of blood borne pathogens, the history of pharmacology, the sources of drugs, their classifications and various preparations used. Students will learn the basics of pharmacokinetics and pharmacodynamics. They will understand the role of fluids, electrolytes and intravenous therapy. During the laboratory component, drug dosing and drug calculations and administration will be learned. Students will learn the use of disease specific medications.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: EMT-100

Corequisites: BIO-103 and PRM-103

PRM-105 Principles of Paramedic Care I (6.00 cr.)

The course prepares the student to recognize and manage medical emergencies and render appropriate patient care. The course will discuss the pathophysiology, assessment, and management of the most frequently encountered medical emergencies. The laboratory component of the course includes, but is not limited to, patient assessment, oxygen therapy, basic and advanced airway management, cardiac monitoring, medication administration, intravenous therapy, needle thoracotomy, pulse oximetry, patient management for; cardiac arrest, respiratory emergencies, cardiac emergencies, and medical emergencies.

Lecture (60.00)

Laboratory (60.00)

Prerequisites: BIO-103, PRM-103 and PRM-104

Corequisites: PRM-106 and PRM-107

PRM-106 Paramedic Electrocardiography (3.00 cr.)

The course introduces the paramedic student to the complex and critical discipline of emergency electrocardiography (ECG). The course will discuss the history and role of the ECG in care of the pre-hospital emergency patient. Students will learn the basics of waveforms, segments, and complexes. They will understand the meaning of normal and abnormal ECG tracings. Students will learn the application and use of ECG monitoring leads versus diagnostic 12 lead ECG's.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: PRM-103 and PRM-104

Corequisites: PRM-105 and PRM-107

PRM-107 Paramedic Clinical Practice I (2.00 cr.)

The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills.

Clinical (96.00)

Prerequisites: PRM-103 and PRM-104

Corequisites: PRM-105 and PRM-106

PRM-108 Paramedic Clinical Practice II (5.00 cr.)

This course will provide the educational and clinical experience required to prepare the student to achieve certification as an Emergency Medical Technician-Paramedic. Clinical practice allows the paramedic student to apply learned theory and skills while under the guidance of a preceptor. Skills include, but are not limited to, patient assessment, oxygen therapy, basic and advanced airway management, cardiac monitoring, medication administration, intravenous therapy, needle thoracotomy and pulse oximetry. Students will utilize their patient management skills for cardiac

arrest, respiratory emergencies, cardiac emergencies, and medical emergencies.

Clinical (225.00)

Prerequisites: PRM-105, PRM-106 and PRM-107

PRM-115 Paramedic Clinical I (1.00 cr.)

The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills. Students will attend clinical shifts in the intensive care unit and will attend various sites to practice the techniques of intravenous cannulation and phlebotomy.

Clinical (45.00)

Corequisites: PRM-100 and BIO-117

PRM-120 Paramedic Care I (6.00 cr.)

The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills. Students will attend clinical shifts in the intensive care unit, operating room, respiratory therapy department, cardiac catheterization lab and cardiac stress lab.

Lecture (60.00)

Laboratory (60.00)

Prerequisites: PRM-100 and PRM-115

Corequisites: PRM-125 and BIO-118

PRM-125 Paramedic Clinical II (2.00 cr.)

The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills. Students will attend clinical shifts in an intensive care unit and emergency department.

Clinical (90.00)

Prerequisites: PRM-100 and PRM-115

Corequisites: PRM-120 and BIO-118

PRM-130 Paramedic Clinical III (2.00 cr.)

The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills. Students will attend clinical shifts in pediatrics, labor and delivery, a trauma center and a psychiatric crisis unit.

Clinical (100.00)

Prerequisites: PRM-120 and PRM-125

PRM-200 Paramedic Care II (5.00 cr.)

The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills. Students will attend clinical shifts in the intensive care unit, operating room, respiratory therapy department, cardiac catheterization lab and cardiac stress lab.

Lecture (60.00)

Laboratory (30.00)

Prerequisites: PRM-130

Corequisites: PRM-215

PRM-203 Principles of Paramedic Care II (5.00 cr.)

The course prepares the student to recognize and manage medical emergencies and render appropriate patient care. The course will discuss the pathophysiology, assessment, and management of the most frequently encountered medical emergencies. The laboratory component covers, but is not limited to, patient assessment, oxygen therapy, basic and advanced airway management, cardiac monitoring, medication administration, intravenous therapy, needle thoracotomy, pulse oximetry, patient management for environmental emergencies, psychiatric emergencies, pediatric emergencies, geriatric emergencies, obstetrical and gynecological emergencies, and neonatal emergencies.

Lecture (60.00)

Laboratory (45.00)

Prerequisites: PRM-108

Corequisites: PRM-204 and PRM-205

PRM-204 Principles of Paramedic Trauma Care (3.00 cr.)
 The course prepares the student to recognize and manage the trauma patient. The laboratory component includes the evaluation of the mechanism of injury to assess the underlying potential for serious injury and comprehensive trauma assessment.
 Lecture (30.00)
 Laboratory (30.00)
 Prerequisites: PRM-108
 Corequisites: PRM-203 and PRM-205

PRM-205 Paramedic Clinical Practice III (2.00 cr.)
 This course will provide the educational clinical experience required to prepare the student to achieve certification as an Emergency Medical Technician-Paramedic. Clinical practice allows the paramedic student to apply learned theory and skills while under the guidance of a preceptor. Skills include, but are not limited to patient assessment, oxygen therapy, basic and advanced airway management, cardiac monitoring, medication administration, intravenous therapy, needle thoracotomy and pulse oximetry. Skills also include patient management for cardiac arrest, respiratory emergencies, cardiac emergencies, and medical emergencies.
 Clinical (96.00)
 Prerequisites: PRM-108
 Corequisites: PRM-203 and PRM-204

PRM-206 Paramedic Field Internship (7.00 cr.)
 This course will provide the educational field experience required to prepare the student to achieve certification as an Emergency Medical Technician-Paramedic. Field Internship allows the paramedic student to apply learned theory and skills while under the guidance of a certified paramedic preceptor. Every action and skill performed by the student will be closely monitored and/or assisted by the preceptor. Students will progress through carefully scripted phases with definite cognitive and psychomotor skill sets to be mastered.
 Clinical (320.00)
 Prerequisites: PRM-203, PRM-204 and PRM-205

PRM-207 Paramedic Field Residency (4.00 cr.)
 The course is structured to prepare and evaluate the student's ability to demonstrate leadership characteristics in the identification and implementation of patient treatment plans, initial and continued care; and to select and appropriately transfer patient care to a receiving facility. This course functions as a summary of all prior learning during the preceding four semesters of coursework, clinical rotations, and the field internship.
 Clinical (180.00)
 Prerequisites: PRM-206

PRM-215 Paramedic Clinical IV (2.00 cr.)
 The course prepares the student to recognize the need for and the management of appropriate patient care via clinical observation and the practical application of learned skills. Students will continue their field clinical shifts on paramedic vehicles and preparation for their certification examination.
 Clinical (90.00)
 Prerequisites: PRM-130
 Corequisites: PRM-200

PRM-220 Paramedic Clinical V (6.00 cr.)
 To provide the educational field experience required to prepare the student to achieve certification as an Emergency Medical Technician-Paramedic. Field internship allows the paramedic student to apply learned theory and skills while under the guidance of a certified paramedic preceptor. Every action and skill performed by the student will be closely monitored and/or assisted by the preceptor. Students will progress through carefully scripted phases with definite cognitive and psychomotor skill sets to be mastered.
 Clinical (270.00)
 Prerequisites: PRM-215

PRM-235 Paramedic Clinical VI (3.00 cr.)
 The course is structured to prepare and evaluate the student's ability to demonstrate leadership characteristics in the identification and implementation of patient treatment plans, initial and continued care; select and appropriately transfer patient care to a receiving facility. This course functions as a summative clinical practice and evaluation of all prior learning including the preceding five semesters of coursework, clinical rotations, and the field internship.
 Clinical (135.00)

PSYCHOLOGY

PSY-101 Basic Psychology (3.00 cr.)
 This introductory course covers the major principles and scientific research underlying behavior and mental processes. Topics include history and schools of psychology, careers in psychology, research methods and ethics, biological foundations of behavior, sensation and perception, basic principles of learning, thinking, memory, language, intelligence, motivation, emotion, personality, social behavior, mental disorders, and therapies.
 Lecture (45.00)

PSY-101H Honors Basic Psychology (3.00 cr.)
 This introductory course covers the major principles and scientific research underlying behavior and mental processes. Topics include history and schools of psychology, careers in psychology, research methods and ethics, biological foundations of behavior, sensation and perception, basic principles of learning, thinking, memory, language, intelligence, motivation, emotion, personality, social behavior, mental disorders, and therapies. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**
 Lecture (45.00)

PSY-102 Psychology of Personality & Adjustment (3.00 cr.)
 This course encourages personal growth through a study of personality adjustment and maladjustment, utilizing lectures, class discussions and experimental exercises. Theories of personality, ego adjustment mechanisms, love and intimacy, effective communication, managing emotions, identity and self-esteem, developing good human relations, problem solving, and ways of tapping one's potential are among the topics examined. Related research findings are reviewed.
 Lecture (45.00)
 Prerequisites: PSY-101

PSY-103 Educational Psychology (3.00 cr.)
 This course examines scientific research regarding the learning process and the application of psychology principles to the problems of learning and teaching. Student entry characteristics; tasks of instruction; problem-solving; creative behavior; teaching children who are behavior-disordered; learning disabled; intellectually disabled or gifted; classroom management; measuring learning outcomes; and teacher accountability are among the areas examined.
 Lecture (45.00)
 Prerequisites: PSY-101

PSY-104 Abnormal Psychology (3.00 cr.)
 This course presents a descriptive and interpretive summary of the theories and scientific research on abnormal behavior. Tension-induced body disorders, sexual problems, loneliness, depression, irrational fears, repetitive ideas and actions, dissociative identity disorder split personality, mood and thought disturbances, paranoia, anorexia nervosa, antisocial behavior and violence, disorders of childhood, adolescence and old age are among the topics considered as well as preventive strategies.
 Lecture (45.00)
 Prerequisites: PSY-101

PSY-105 Child Psychology (3.00 cr.)
 Child behavior and development are studied with reference to theories and research findings concerning physical growth, sensorimotor development, intelligence, language, cognition, identity, personality, sex role

development, and emotional and social development. Early experiences are related to later personality, methods of child rearing, and power-oriented versus love-oriented patterns of disciplining. Special problems of childhood, adolescence, and parenting are also considered.

Lecture (45.00)

Prerequisites: PSY-101

PSY-106 Psychology of Adolescence (3.00 cr.)

This course examines the theory and research on the adolescent years including physical, emotional, intellectual, social, vocational, and cultural development. Teen alcoholism and drug abuse, their causes, consequences, and treatment will be emphasized. Drug education and prevention relevant to adolescence will also be studied.

Lecture (45.00)

Prerequisites: PSY-101

PSY-108 Psychology of Dying & Death (3.00 cr.)

This course looks at dying and death as loss and a challenge for personal growth and a greater awareness of life. Psychological theories and research on topics such as concepts and attitudes, emotional reactions, disease, disaster, accident, or suicide as causes of death, near death experiences, hopes for immortality, Hospice care, and euthanasia will be examined.

Lecture (45.00)

Prerequisites: PSY-101

PSY-109 Developmental Psychology (3.00 cr.)

This course covers the process of psychological development throughout the life span - from conception through death. It reviews current theories and scientific research related to psychological development and covers topics including maturation, intellect, the role of genetics, social and emotional adjustment, and learning factors in the development of motivation.

Lecture (45.00)

Prerequisites: PSY-101

PSY-109H Developmental Psychology Honors (3.00 cr.)

This course covers the process of psychological development throughout the life span- from conception through death. It reviews current theories and scientific research related to psychological development and covers topics including maturation, intellect, the role of genetics, social and emotional adjustment, and learning factors in the development of motivation. *Only students who are accepted into the Honors Program are eligible to take Honors courses.

Lecture (45.00)

Prerequisites: PSY-101

PSY-110 Social Psychology (3.00 cr.)

This course focuses on how people think about, influence, and relate to one another in their physical and socio-cultural environments. Theories and research relating to attitude development and change, interpersonal and group processes such as attraction, aggression, conformity and obedience, impression formation, attribution, social perception, prejudice, and social expectations, will be among the areas considered. Methods used in scientific research will be emphasized.

Lecture (45.00)

Prerequisites: PSY-101

PSY-112 Psychology of Women (3.00 cr.)

This course presents a look at current research on the nature and origins of women's experience and behavior; the meaning of sexuality, performance and achievement differences between men and women; and special problems of aging, career choices, singlehood, divorce, and widowhood.

Lecture (45.00)

Prerequisites: PSY-101

SIGN LANGUAGE

SLS-201 ASL Linguistics (3.00 cr.)

This course is designed to introduce the student to the concepts and vocabulary used in the linguistic analysis of American Sign Language.

This introduction course includes an examination of the essential features of all languages, types of variation, the physical dynamics and role of intonation, and the basic distinctions made in semantic, morphological, and syntactic analyses.

Lecture (45.00)

Prerequisites: ASL-102

SLS-202 American Deaf Culture (3.00 cr.)

American Deaf Culture is an overview course, which examines the cultural attributes and views unique to the Deaf community. Key concepts include Deaf history, rules of social interaction, values, language and traditions, group norms, and identity as defined in Deaf culture. Particular emphasis will be in accordance with various internal and external forces that influence the social, linguistic, and political norms of the D/d community.

Lecture (45.00)

Corequisites: ASL-101

SLS-203 Introduction Interpreting Profession (3.00 cr.)

This course provides an introduction to interpreting as a profession. The course will include history of sign language interpreting, specialized terminology, interpreting processes and models, and interpreter evaluation. There will be a strong emphasis on interpreter ethics and etiquette, roles and responsibilities, and interpreting in a variety of specialized settings.

Lecture (45.00)

Prerequisites: ASL-201, ASL-202, ASL-203 or successful completion of the ASL Proficiency Exam

SOCIOLOGY

SOC-101 Introduction to Sociology (3.00 cr.)

Sociology is the scientific study of human societies and social interaction. This course provides an overview of the discipline of sociology, including sociological concepts, methods, perspectives, and areas of substantive inquiry. Particular emphasis will be placed on the contributions sociology makes to understanding everyday life and current events.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SOC-101H Honors Introduction to Sociology (3.00 cr.)

This course is designed to help students understand and think about the behavior of people in groups, with emphasis on mastery of fundamental sociological concepts and an introduction to systematic social analysis. The course may consider newer sociological developments, culture and socialization, social organization, social classes, collective behavior, population, urbanization, and social change. **ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.**

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SOC-201 Sociology of the Family (3.00 cr.)

This course is a study of the cross-cultural and evolutionary development of the family as an institution and its interrelationship with government, economy, education and religion. Particular attention will be given to current family structures.

Lecture (45.00)

Prerequisites: SOC-101

SOC-205 Social Diversity (3.00 cr.)

This course will encourage students to use their sociological imagination to place themselves and their unique experience into the larger historical and cultural context of the United States. They will learn how they fit into this socially diverse and multi-cultural society, which is the product of centuries of social interaction among African Americans, Asian Americans, European Americans, Hispanic Americans and Native Americans of various gender identities and faiths. Sociological concepts which will be addressed include social caste, social class, race, ethnicity, gender, power, authority, dominance, colonization, immigration, segregation, genocide, stigma, privilege, master status, prejudice,

discrimination, assimilation, pluralism, acculturation, and accommodation. Further, affirmative action, backlash and reverse discrimination will be studied.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SPANISH

SPA-101 Elementary Spanish I (3.00 cr.)

This course introduces the student to the language and culture of the Spanish-speaking world. It provides the student with basic working information of the language (listening, speaking, reading, writing) in order to interact and communicate with others, while gaining a greater understanding of the different Hispanic cultures. This course is intended for students beginning the language or for those who have received a grade below C in two years of high school Spanish. This course is not intended for native or heritage speakers.

Lecture (45.00)

Prerequisites: ENG-012 and ENG-022

SPA-102 Elementary Spanish II (3.00 cr.)

This course continues the basic elements of the language and the understanding of the Hispanic world. It provides the student with basic working information of the language (listening, speaking, reading, and writing) in order to interact and communicate with others at a novice-high level, while gaining a greater understanding of and respect for the different Hispanic cultures. This course is not intended for native or heritage speakers.

Lecture (45.00)

Prerequisites: ENG-012, ENG-022 and SPA-101 or two years of high school Spanish

SPA-150 Spanish for Medical Personnel I (3.00 cr.)

This course is designed to serve those in the medical professions who seek basic skills in medical Spanish. This course provides the necessary tools, both lexical and grammatical, to carry out a basic conversation about a medical problem that needs to be assessed, diagnosed and evaluated. This course does not expect complete fluency. Rather, it strives for a level of comfort when dealing with Spanish-speaking patients so that medical professionals can put the patient at ease.

Lecture (45.00)

SPA-201 Intermediate Spanish I (3.00 cr.)

This course continues the study of the basic working structures of the language (listening, speaking, reading, and writing) at the intermediate-low level in order to interact and communicate with others, while gaining a greater understanding of and respect for the different cultures in the Hispanic world.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046 and SPA-102 or two years of high school Spanish

SPA-202 Intermediate Spanish II (3.00 cr.)

This course completes the study of the working structures of the language (listening, speaking, reading, and writing) at the intermediate-mid level in order to interact and communicate with others, while gaining a greater understanding of the different cultures in the Hispanic world through literature and film.

Lecture (45.00)

Prerequisites: SPA-201

SPA-203 Introduction to the Hispanic Culture (3.00 cr.)

This course will present topics and issues related to the largest Hispanic groups in the USA: Mexican-Americans, Puerto Ricans, and Cuban-Americans. In addition it will also focus on individual countries where Spanish is spoken. People and events will be discussed in the context of the historical past, as well as in light of new developments. The students will gain insight into Hispanic cultures and civilizations, and achieve a more global understanding of the issues and challenges faced by the Spanish-speaking world.

Lecture (45.00)

Prerequisites: SPA-102 or SPA-201 or SPA-202

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SPA-204 Conversational Spanish (3.00 cr.)

This course emphasizes oral skills and conversation through the use of authentic language and cultural content. This class is intended for students who have completed elementary Spanish II and can be taken concurrently with Intermediate Spanish. This course is not intended for native or heritage speakers.

Lecture (45.00)

Prerequisites: SPA-102 or SPA-201 or SPA-202

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SPEECH

SPE-102 Public Speaking (3.00 cr.)

Public Speaking introduces the principles and techniques of formal communication. Attention will be given to speaker - listener relationships, management and choice of ideas, selection and organization of materials, and use of language and nonverbal elements. Particular attention will be paid to the principles and skills of persuasion and delivery skills as well as audience analysis. Formal presentations will be required.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SPE-102H Honors Public Speaking (3.00 cr.)

Honors Public Speaking introduces the principles and techniques of formal communication. Attention will be given to speaker-listener relationships, management and choice of ideas, selection and organization of materials, and use of language and nonverbal elements. Particular attention will be paid to the principles and skills of persuasion and delivery skills as well as audience analysis. Formal presentations will be required. ONLY STUDENTS WHO ARE ACCEPTED INTO THE HONORS PROGRAM ARE ELIGIBLE TO TAKE HONORS COURSES.

Lecture (45.00)

Prerequisites: (ENG-013 and ENG-023) or ENG-046

SPE-211 Interpersonal Communication (3.00 cr.)

This course stresses the development of more effective communication in interpersonal relationships in family, work and social settings. It includes a conceptual framework for thinking about difficulties and effectiveness in interpersonal relationships; practice in talking, thinking and listening skills central to interpersonal settings; experience analyzing the problems in, and the requirements of, a variety of communicative situations. There is emphasis on the development of skills for choosing communicative actions wisely.

Lecture (45.00)

SURGICAL TECHNOLOGY

SRG-102 Fundamentals of Surgical Technology (6.00 cr.)

This course introduces the student to the practice of surgical technology. An in-depth study of universally accepted perioperative care techniques provides the student with the basic technical knowledge and practical skill-set of an entry-level surgical technologist. Students will gain knowledge of the breadth and scope of the roles and responsibilities of the various members of the perioperative team. The laboratory component provides hands-on instruction in areas such as operating room preparation, sterilization methods, and the application of the safety principles of preoperative, intraoperative and postoperative patient care. The successful student will consistently articulate and demonstrate care precepts that meet or exceed specialty specific standards of patient care.

Lecture (60.00)

Laboratory (60.00)

Prerequisites: ENG-101, HIT-120 and BIO-117

SRG-112 Surgical Procedures I (4.00 cr.)

The goal of this course is to facilitate student mastery of the generic practice principles inherent to the scrub role. The laboratory component is constructed to reinforce basic surgical anatomy while familiarizing the student with the standards of instrument handling, equipment

maintenance and procedural technique required, assuring safe and effective operating room conduct.

Lecture (45.00)

Laboratory (45.00)

Prerequisites: SRG-102

SRG-113 Pharmacology for the Surgical Tech (2.00 cr.)

This course will introduce students to pharmacological agents used within the surgical settings and their purposes. Students will learn proper preparation techniques while maintaining asepsis within the sterile field. Medication calculations and dosages based on patient weight and allergies will be practiced through mathematical equations. Anesthesia medications types, contraindications, interventions, and complications will be analyzed and discussed for competency.

Lecture (30.00)

Prerequisites: ENG-101, HIT-120 and BIO-117

Corequisites: SRG-102

SRG-118 Clinical Rotation I (6.00 cr.)

This course will provide an introductory period of active application of the knowledge and practical surgical techniques acquired throughout the Surgical Technology curriculum. The goal of this clinical rotation is to provide the surgical technology student with an experience as close to an operating room staff member as possible, including foundational practice in general surgical cases. This practicum requires a minimum of 300 clinical hours throughout a 15-week semester.

Clinical (300.00)

Prerequisites: BIO-118, BIO-121, SRG-102 and SRG-113

Corequisites: HIT-134 and SRG-112

SRG-212 Surgical Procedures II (3.00 cr.)

This course proceeds as the continuation of Surgical Procedures I, with content reflecting progression from the generic practice principles inherent to all surgical interventions to the expanded theory foundations of the specialties. The course is constructed to teach basic surgical anatomy, instrumentation, and procedural steps for various operating room techniques.

Lecture (45.00)

Prerequisites: SRG-112

Corequisites: SRG-218

SRG-218 Clinical Rotation II (6.00 cr.)

This course is a continuation of SRG-118. It will continue to provide an intense period of active application of the knowledge and practical surgical techniques acquired throughout the Surgical Technology curriculum. The goal of this clinical rotation is to provide the surgical technology student with an experience as close to an operating room staff member as possible, including extensive practice in advanced surgical cases, thus promoting attainment of an "entry-level" technical skill set by semester end. This practicum requires a minimum of 300 clinical hours throughout a 15-week semester.

Clinical (300.00)

Prerequisites: SRG-118

SRG-220 Surgical Technology Capstone (2.00 cr.)

This course will synthesize previously learned skills in the program. Through projects, presentations, and research students will prove mastery of surgical technology objectives and goals and readiness for the field.

Lecture (30.00)

Prerequisites: SRG-102, SRG-112 and SRG-118

Corequisites: SRG-212 and SRG-218

TECHNICAL THEATRE

THD-240 Lighting for the Theater (3.00 cr.)

Lighting for Theatre teaches students lighting design elements for the stage including research, collaboration, basic electrical practice, color theory, drafting and stage lighting work. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)

Laboratory (30.00)

THD-250 Technical Drafting (3.00 cr.)

This course covers the principles of drafting including terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. This course has a lab component in which concepts covered in class will be applied in a computer lab.

Lecture (30.00)

Laboratory (30.00)

THD-260 Scenic Painting (3.00 cr.)

The course will cover the techniques and skills necessary in scenic painting. Topics include: terminology, tools, faux finishes, abstract techniques, realistic reproduction, as well as washes and glazes. This course has a lab component in which concepts covered in class will be applied in the studio environment.

Lecture (30.00)

Laboratory (30.00)

THD-270 Costuming for the Theatre (3.00 cr.)

Proficiency in costuming for the stage is an essential component of the learning outcomes for the THD.AAS, Technical Theatre, degree. The AAS Technical Theatre degree will cultivate, and ultimately prepare students for entry into the technical theatre job market. By immersing the student in cutting edge technology, providing them with professional level instructors and giving them practical application opportunities, the student will be ready for employment in professional technical theatre arena.

Lecture (30.00)

Laboratory (30.00)

THD-280 Stage Management (3.00 cr.)

This course provides a hands-on approach to learning the art of stage management by permitting the student to manage a live theatrical event. The student is exposed to the fundamentals of organizing and implementing rehearsals, production meetings, technical rehearsals, and many aspects of the coordination of a play. This course has a lab component in which concepts covered in class will be applied in the Studio environment.

Lecture (30.00)

Laboratory (30.00)

THD-290 Capstone Project (3.00 cr.)

Students must satisfy the course objectives through the execution of a significant piece of design and theatre technical work. Students are also required to submit one major piece of writing: a research paper that incorporates the concept and design development, research process, project execution, and self-reflection. A production portfolio that includes a complete documentation of the development and execution process, research images, paperwork, and drawings is required. Finally, graduating design students should create a personal design portfolio in either physical or website formats. This course has a lab component in which concepts covered in class will be applied in the theatre environment.

Lecture (30.00)

Laboratory (30.00)

Corequisites: THE-253, THD-240, THD-270, THD-250 and THD-280

THEATRE

THE-121 Theatre Appreciation (3.00 cr.)

This course is designed to develop a personal understanding and appreciation of theatre as an art form. During the course we will examine, what is the theatre, what is a play, its audience as a critic, the actor, the playwright, the designers and technicians, the director, theatre of yesterday, and theatre of today. Students will also attend live theatre productions.

Lecture (45.00)

THE-131 Voice & Diction (3.00 cr.)

This course is a study of the fundamentals of breathing, tone production, projection, and articulation necessary for communicating. Students will acquire a working knowledge of the phonetic alphabet. Stress will be

placed upon correction of individual vocal problems and regionalisms. It is highly recommended for those who will have to use their voices, i.e., teachers, lawyers, business managers, executives, actors, broadcasters, etc.

Lecture (45.00)

Lecture (30.00)

Laboratory (30.00)

THE-141 Acting I (3.00 cr.)

This course introduces beginning students to acting through exercise for the control of the voice, body, and concentration. Theatre games and improvisations are used to make students relaxed and aware of themselves. Students are given a beginning approach to characterization and will present simple scenes for analysis and criticism.

Lecture (30.00)

Laboratory (30.00)

THE-150 World Theatre (3.00 cr.)

This course examines theatre practice from the Greeks to current day. Readings include work from diverse cultural contexts, including, for example, plays by women, African Americans, the LGBTQ community and non-Western playwrights including those from Asian, Indian and Middle Eastern countries. The emphasis is on production themes and concepts, dialogue, staging, cultural values, symbols and motifs, and character development.

Lecture (45.00)

THE-233 Playwriting (3.00 cr.)

This course is an introductory class for both theatre majors and those students interested in the playwriting process. Students will learn specific techniques, practical exercises, candid exploration of famous plays, and methods from award winning playwrights during the course of this class. This course is designed to work with the basic building blocks of dramatic structure, study the exploration of developing characters, analyze the elements of good dialogue writing, research the different methods of how to get published and explore different marketing tools to make a play a success. A showcase of the class's original ten-minute plays will be held during finals and open to the public.

Lecture (45.00)

THE-242 Acting II (3.00 cr.)

This is a further continuation of Acting I. Students are given a deeper approach to basic characterization and are taught how to create a role. Students learn how to create a role with emphasis on script breakdown, scoring a part, approaches to style, and individual problem solving. An emphasis is placed on timing and subtle vocal and body expression. Students are also introduced to the techniques of period acting styles and in different media.

Lecture (30.00)

Laboratory (30.00)

Prerequisites: THE-141

THE-252 Children's Theatre (3.00 cr.)

This course gives the student the theory and application of practice of how to select, mount, and market a children's theatrical production. The student gains an understanding of the complexities of such a production. By testing and displaying his/her skills in a practical production situation, the student becomes more aware of his/her abilities as an artist-creator. The students will be involved in all phases of mounting a children's theatre production which will be performed before South Jersey elementary school children.

Lecture (30.00)

Laboratory (30.00)

THE-253 Stagecraft I (3.00 cr.)

This course is designed to introduce the student to the elements of a theatre production "behind the scenes", through theory, workshop, and stage crew experiences. Subjects covered include set construction and design, paint and color, lighting instruments, lighting design and execution, sound creation, makeup, and stage management.

General Education

Camden County College is committed to providing each student with an educational experience that fosters a respect for the intellectual process and addresses the demands of the modern world. This process cultivates knowledge, intellectual skills and attitudes that enrich our lives and encompass the basic concepts in the humanities, social sciences, mathematics, science and technology. Intellectual skills include the student's ability to think and communicate in a global society.

General education addresses a broad range of learning opportunities for students and establishes high standards for graduates. To accomplish its mission, Camden County College develops its Strategic Agenda through the continuous assessment of the fulfillment of its goals.

Camden County College's general education goals and objectives are consistent with the New Jersey Statewide Transfer Agreement and the general education guidelines approved by the New Jersey Presidents' Council. Camden County College faculty annually review and revise these objectives to reflect the currency of the curriculum and the results of assessments of student learning.

The College's goal is to offer a General Education program that provides students with competence in a broad array of intellectual skills and habits of mind that will enrich their lives and enable them to participate in a democratic society. These competencies reflect the values of a trusting, cooperative academic community that is open to new ideas and a diversity of opinions, convictions and methods of inquiry. General education goals are achieved by the incorporation of general education courses, appropriate student learning outcomes and pedagogy and the construction of regular assessments.

A General Education Foundation for Associate in Arts, Associate in Science, Specialized Associate, and Certificate Programs in New Jersey's Community Colleges

(1997 Adoption, 2007 Reaffirmed, August 15, 2007 Revision) APPROVED BY PRESIDENTS – 9/6/2011

PROGRAMS	ALLOCATION NOTES: The credit allocation below is consistent with the 1997 NJCC Gen. Ed. Foundation grid.
AA	The Associate in Arts (AA) degree requires 33 semester credits hours of general education coursework from among the indicated categories. Individual community colleges may choose to require general education and other credits* in excess of the minimum, and make their own determination about the distribution. (*E.g., Student Success, Studio Arts, Communication, Math-Science-Tech, Social Science, Humanities, History and/or Diversity courses)
AS	The Associate in Science (AS) degree requires a minimum of 30 semester credits hours from among the indicated categories, with minimum distributions as shown.
Specialized Associate AAS, AFA, & AS Nursing	The specialized associate degrees shall include Applied Associate in Science (AAS), Associate in Fine Arts (AFA) and AS in Nursing. These programs shall require no fewer than 20 semester credit hours of General Education. Notwithstanding any articulation agreements, the general education courses should support career preparation. General education coursework in excess of the 12 credits listed should follow the AS distribution limits.
Academic Certificate	The Certificate (or Academic Certificate) shall prepare students to read and write effectively. At least one other general education course is required. The Certificate of Achievement (COA) requires no general education courses beyond those that support career education. The Certificate of Completion (COC) is a noncredit certification program, which is not applicable within the general education context.

A General Education Foundation for Associate in Arts, Associate in Science, Specialized Associate, and Certificate Programs in New Jersey's Community Colleges

(1997 Adoption, 2007 Reaffirmed, August 15, 2007 Revision, September 6, 2011 Revision) Approved by Presidents – 4/22/2022

GENERAL EDUCATION GOAL(S) ADDRESSED								COURSE CATEGORIES (GOAL CATEGORIES)	AA credits	AS credits	AAS, AFA, AS NURSING credits	ACADEMIC CERTIFICATE CREDITS	
1								Communication (Written & Oral Com.)	9	6	6	3	
	2							Mathematics — Science — Technology Mathematics: 3-4 cr. (Quantitative Knowledge & Skills) Science: 3-4 cr. (Scientific Knowledge & Reasoning) Technological Competency: 0-4 cr.	6	9	3	3	
		3											
			4										
				5				Social Science (Society & Human Behavior)	6	3	3		
					6			Humanities (Humanistic Perspective)	6	3			
						7		History (Historical Perspective)	3				
							8	Diversity Courses (Global & Cultural Awareness)	3				
								Unassigned General Education Credits		6	8		
								GENERAL EDUCATION FOUNDATION TOTAL	33	30	20	6	
GEN.ED. FOUNDATION COURSE CATEGORIES		NJCC GOAL CATEGORIES*						COURSE CRITERIA: Below are brief descriptions of the course criteria for satisfying the requirements. For fuller descriptions, see the NJCC GE Course Criteria (August 15, 2007)					
1 Communication		1 Written and Oral Communication						An array of courses which prepare students to speak, read, and write effectively. At least two of these must be composition courses for A.A. and A.S. degrees. At least one of these must be a composition course for specialized degree programs and certificates.					
2 Mathematic		2 Quantitative Knowledge and Skills						Any college level mathematics course including statistics, algebra, or calculus course(s). These courses should build upon a demonstrated proficiency in basic algebra.					
3 Science		3 Scientific Knowledge and Reasoning						Any course(s) in the biological or physical sciences – including non-majors survey courses. At least one of these courses must have a laboratory component.					
4 Technology		4 Technological Competency						Any course that emphasizes common computer technology skills (e.g. computer science, information technology) that helps students to access, process, and present information. This component is not required for students who can demonstrate competency.					
5 Social Science		5 Society and Human Behavior						Any introductory course(s) from among anthropology, economics, geography, political science, psychology, or sociology.					
6 Humanities		6 Humanistic Perspective						Any broad-based course(s) in the appreciation of art, music, or theater; literature; foreign language; history; philosophy and/or religious studies.					
7 History		7 Historical Perspective						Any broad-based course(s) or sequence of courses in World, Western, non-Western, or American History.					
8 Diversity courses		8 Global and Cultural Awareness						Any course whose purpose is to expose students to a multicultural society or people, possibly within the context of non-introductory study of a foreign language. If this goal is integrated into one or more general education course(s), the three credits may be moved from this category to another general education category.					
GENERAL EDUCATION INTEGRATED COURSE GOAL								COURSE CRITERIA: Below are brief descriptions of the course criteria for satisfying the requirements. For fuller descriptions, see the NJCC GE Course Criteria					
Ethical Reasoning and Action								This ethical reasoning and action goal may be infused in any of the above categories. These courses should include the ethical implications of issues and situations.					
Information Literacy								These courses include the requirement for students to address an information need by locating, evaluating and effectively using information.					
NOTE: This document should be used in conjunction with the NJCC GE Learning Goals & Suggested Individual College-Wide Learning Obj. (9-6-2011).													
FOR MORE INFORMATION ON THESE PROGRAMS VISIT WWW.CAMDENCC.EDU/PROGRAMS													

NJCC General Education Learning Goals and Suggested Individual College-Wide Learning Objectives

(1997 Adopted, August 15, 2007 Revision, September 6, 2011 Revision)

New Jersey Community College General Education Philosophy: Students are empowered to meet twenty-first century challenges through learning processes that lead to knowledge acquisition, skills mastery, critical thinking, and the exercise of personal, social, and civic responsibilities.		
The Colleges maintain responsibility for offering a general education program whose learning objectives facilitate attainment of all NJCC Gen Ed Learning Goals. Course-level learning objectives must be consistent with the Individual College-Wide Learning Objectives that fulfill the NJCC Gen Ed Learning Goals. (Local general education courses must also be consistent with NJCC GE Course Criteria for satisfying requirements.)		
NJCC GOAL CATEGORIES (Course Category)	NJCC GEN. ED. LEARNING GOALS <i>Critical thinking is embedded</i>	SUGGESTED INDIVIDUAL COLLEGE-WIDE LEARNING OBJECTIVES: Colleges have discretion in the establishment of Individual College-Wide Learning Objectives that support the achievement of the NJCC Learning Goals . The following is a list of examples.
1 Written and Oral Communication (Communication)	Students will communicate effectively in both speech and writing.	a. Students will explain and evaluate what they read, hear, and see. b. Students will state and evaluate the views and findings of others. c. Students will logically and persuasively state and support orally and in writing their points of view or findings. d. Students will evaluate, revise, and edit their communication.
2 Quantitative Knowledge and Skills (Mathematics)	Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.	a. Students will translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations. b. Students will construct graphs and charts, interpret them, and draw appropriate conclusions.
3 Scientific Knowledge and Reasoning (Science)	Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.	a. Applying the scientific method, students will analyze a problem and draw conclusions from data and evidence. b. Students will distinguish between scientific theory and scientific discovery, and between science and its scientific technological applications, and they will explain the impact of each on society.
4 Technological Competency (Technology)	Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.	a. Students will use computer systems and/or other appropriate forms of technology to present information. b. Students will use appropriate forms of technology to identify, collect, and process information.
5 Society and Human Behavior (Social Science)	Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.	a. Students will analyze and discuss behavioral or societal issues using theories and concepts from a social science perspective. b. Students will explain how social institutions and organizations influence individual behavior. c. Students will describe and demonstrate how social scientists gather and analyze data and draw conclusions. d. Students will apply civic knowledge both locally and globally and engage in activities that exercise personal, social, and civic responsibility.
6 Humanistic Perspective (Humanities)	Students will analyze works in the fields of art, music, or theater; literature; and philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.	a. Students will describe commonly used approaches and criteria for analyzing works*. b. Students will analyze works* and applying commonly used approaches and criteria. c. Students will demonstrate a value-added competence in the production and comprehension of a foreign language. * in the fields of art, music, or theater; literature; philosophy and/or religious studies and possibly within the context of studying and using a language other than English.
7 Historical Perspective (History)	Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.	a. Students will state the causes of a major historical event and analyze the impact of that event on a nation or civilization. b. Students will discuss a major idea, movement, invention or discovery, and how it affected the world or American society. c. Students will demonstrate how writers' interpretations of historical events are influenced by their time, culture, and perspective.
8 Cultural and Global Awareness (Diversity courses)	Students will understand the importance of a global perspective and culturally diverse peoples.	a. Students will link cultural practices and perspectives with geographic and/or historical conditions from which they arose. b. Students will explain why an understanding of differences in people's backgrounds is particularly important to American society. c. Students will recognize and explain the possible consequences of prejudicial attitudes and discriminatory actions. d. Students will recognize and assess the contributions and impact of people from various nations and/or cultures.
NJCC INTEGRATED GOALS		
Ethical Reasoning and Action	Students will understand ethical issues and situations.	a. Students will analyze and evaluate the strengths and weaknesses of different perspectives on an ethical issue or a situation. b. Students will take a position on an ethical issue or a situation and defend it.
Information Literacy	Students will address an information need by locating, evaluating and effectively using information.	a. Students will identify and address an information need. b. Students will access information effectively and efficiently. c. Students will evaluate and think critically about information. d. Students will use information effectively for a specific purpose. e. Students will use information ethically and legally.
NOTE: This document should be used in conjunction with the General Education Foundation (9-6-2011) and the NJCC GE Course Criteria (9-6-2011).		

General Education Electives

COMMUNICATION GENERAL EDUCATION ELECTIVES: Written and Oral Communication

ENG-101 English Composition I	ENG-102 English Composition II	SPE-102 Public Speaking
ENG-101H ... Honors English Composition I	ENG-102H ... Honors English Composition II	SPE-102H Honors Public Speaking

MATHEMATICS GENERAL EDUCATION ELECTIVES: Quantitative Knowledge and Skills

MTH-100 Algebraic Concepts	MTH-117H .. Honors Exploration/Mathematical Thoughts	MTH-140H .. Honors Calculus I
MTH-101 Concepts of Mathematics	MTH-122 Applied Calculus	MTH-145 Linear Algebra
MTH-105 Mathematical Systems I: Structures	MTH-123 Pre-Calculus Mathematics I	MTH-150 Calculus II
MTH-106 Mathematical Systems II: Geometry	MTH-124 Pre-Calculus Mathematics II	MTH-171 Statistics I
MTH-107 Mathematics for Liberal Arts	MTH-125 Accelerated Precalculus	MTH-172 Statistics II
MTH-111 Introduction to Statistics	MTH-129 Discrete Mathematics	MTH-205 Mathematical Systems III: Structures II
MTH-112 Elements of Statistics II	MTH-132 Statistics for Technology	MTH-210 Calculus III
MTH-114 College Algebra / Business & Soc Science	MTH-134 Biostatistics	MTH-220 Differential Equations
MTH-117 Explorations in Mathematical Thought	MTH-140 Calculus I	

SCIENCE GENERAL EDUCATION ELECTIVES: Scientific Knowledge and Reasoning

BIO-106 Living in the Environment	BIO-221 Microbiology I	CHM-140H .. Honors Chemistry & Society
BIO-111 Biology I-Science	BIO-225 Introduction to Plant Biology	CHM-145 Introduction to Forensic Sci.
BIO-112 Biology II-Science	BIO-240 Genetics	CHM-150 Chemistry of Art Materials
BIO-117 Basic Anatomy & Physiology I	CHM-101 General Organic & Biol Chem I	CHM-160 Fundamentals of Food Science
BIO-118 Basic Anatomy & Physiology II	CHM-102 General Organic & Biol Chem II	CHM-221 Organic Chemistry I
BIO-121 Basic Microbiology	CHM-111 Chemistry I - Science	CHM-222 Organic Chemistry II
BIO-130 Plants & Society	CHM-111H .. Honors Chemistry I - Science	PHY-101 Physics I
BIO-140 The Microbial World	CHM-112 Chemistry II - Science	PHY-102 Physics II
BIO-140H Honors - The Microbial World	CHM-112H .. Honors Chemistry II - Science	PHY-103 Physics I (for Non-Science Major)
BIO-206 Environmental Sci: Theory & Applications	CHM-120 Chemistry for Fire Protection	PHY-201 Physics III
BIO-210 Human Anatomy & Physiology	CHM-130 General/Organic/Biochemistry - Dental Hyg	PHY-202 Physics IV
BIO-211 Anatomy & Physiology I	CHM-140 Chemistry & Society	Non-Lab Science General Education Electives
BIO-212 Anatomy & Physiology II		BIO-103 Human Biology

TECHNOLOGY GENERAL EDUCATION ELECTIVES: Technological Competency

CIS-101 Personal Computer Applications	CIS-191 Internet: Tools and Techniques	CSC-105 Fundamentals of Programming
CIS-105 Computer Literacy	CIS-206 Advanced Computer Concepts/ Applications	CSC-111 Introduction to Programming
CIS-106 Intro Computing Google Apps (G Suite)	COM-105 Media Literacy	

SOCIAL SCIENCE GENERAL EDUCATION ELECTIVES: Society and Human Behavior

ANT-101 General Anthropology	POL-101 Introduction to Political Science	PSY-101H Honors Basic Psychology
ANT-101H Honors General Anthropology	POL-101H Honors Introduction to Political Science	PSY-105 Child Psychology
ECO-101 Macroeconomics	POL-103 American Federal Government	PSY-106 Psychology of Adolescence
ECO-102 Microeconomics	POL-108 Introduction to International Relations	PSY-109 Developmental Psychology
GEO-101 Cultural Geography	PSY-101 Basic Psychology	PSY-109H Developmental Psychology Honors
		SOC-101 Introduction to Sociology
		SOC-101H Honors Introduction to Sociology

HUMANITIES GENERAL EDUCATION ELECTIVES: Humanistic Perspective

ART-101 Art Appreciation	FLM-101 Television Appreciation	LAT-102 Elementary Latin II
ART-103 Visual Culture	FLM-201 Film Appreciation	LAT-201 Intermediate Latin I
ART-103H ... Honors Visual Culture	FLM-201H Honors Film Appreciation	MUS-101..... Music Appreciation I
ART-104 Introduction to Visual Arts	FRE-101 Elementary French I	MUS-101H... Honors Music Appreciation I
ART-111 Art History I	FRE-102 Elementary French II	MUS-106 World Music Cultures
ART-111H ... Honors Art History I	FRE-201 Intermediate French I	MUS-110 African-American Music
ART-112 Art History II	FRE-202 Intermediate French II	MUS-111 Music History I
ASL-101 American Sign Language I	GER-101 Elementary German I	MUS-113 Jazz History
ASL-102 American Sign Language II	GER-102 Elementary German II	MUS-121 Fundamentals of Music
ASL-201 American Sign Language III	GER-201 Intermediate German I	PHL-101 Introduction to Philosophy
ASL-202 American Sign Language IV	HIS-101 World Civilization I	PHL-121 Logic & Reasoning
CHI-101 Elementary Chinese I	HIS-101H Honors World Civilization I	PHL-131 Introduction to Ethics
CHI-102 Elementary Chinese II	HIS-102 World Civilization II	PHL-131H ... Honors Introduction to Ethics
ENG-121 Introduction to Literature	HIS-102H Honors World Civilization II	PHO-111 History of Photography
ENG-131 Shakespeare	HIS-111 Western Civilization I	SPA-101 Elementary Spanish I
ENG-191 The Myths of the World	HIS-112 Western Civilization II	SPA-102 Elementary Spanish II
ENG-261 English Literature I	HIS-121 United States History I	SPA-201 Intermediate Spanish I
ENG-271 World Literature I	HIS-122 United States History II	SPA-202 Intermediate Spanish II
ENG-271H ... Honors World Literature I	HIS-131 African-American History I	SPA-203 Introduction to the Hispanic Culture
ENG-272 World Literature II	HIS-132 African-American History II	SPA-204 Conversational Spanish
ENG-272H ... Honors World Literature II	ITA-101 Elementary Italian I	THE-121 Theatre Appreciation
ENG-281 American Literature I	ITA-102 Elementary Italian II	THE-150 World Theatre
ENG-281H ... Honors American Literature I	ITA-201 Intermediate Italian I	
ENG-282H ... Honors American Literature II	LAT-101 Elementary Latin I	

HUMANITIES—Language General Education Electives

ASL-101 American Sign Language I	FRE-202 Intermediate French II	LAT-201 Intermediate Latin I
ASL-102 American Sign Language II	GER-101 Elementary German I	SPA-101 Elementary Spanish I
ASL-201 American Sign Language III	GER-102 Elementary German II	SPA-102 Elementary Spanish II
ASL-202 American Sign Language IV	GER-201 Intermediate German I	SPA-201 Intermediate Spanish I
CHI-101 Elementary Chinese I	ITA-101 Elementary Italian I	SPA-202 Intermediate Spanish II
CHI-102 Elementary Chinese II	ITA-102 Elementary Italian II	SPA-203 Introduction to the Hispanic Culture
FRE-101 Elementary French I	ITA-201 Intermediate Italian I	SPA-204 Conversational Spanish
FRE-102 Elementary French II	LAT-101 Elementary Latin I	
FRE-201 Intermediate French I	LAT-102 Elementary Latin II	

HUMANITIES—Arts General Education Electives

ART-101 Art Appreciation	FLM-201 Film Appreciation	MUS-113 Jazz History
ART-103 Visual Culture	FLM-201H Honors Film Appreciation	MUS-121 Fundamentals of Music
ART-103H ... Honors Visual Culture	MUS-101..... Music Appreciation I	PHO-111 History of Photography
ART-104 Introduction to Visual Arts	MUS-101H.... Honors Music Appreciation I	THE-121 Theatre Appreciation
ART-111 Art History I	MUS-106..... World Music Cultures	THE-150 World Theatre
ART-111H ... Honors Art History I	MUS-110..... African-American Music	
ART-112 Art History II	MUS-111 Music History I	

HUMANITIES—Literature General Education Electives

ENG-121 Introduction to Literature	ENG-261 English Literature I	ENG-272H ... Honors World Literature II
ENG-131 Shakespeare	ENG-271 World Literature I	ENG-281 American Literature I
ENG-191 The Myths of the World	ENG-271H ... Honors World Literature I	ENG-281H ... Honors American Literature I
	ENG-272 World Literature II	ENG-282H ... Honors American Literature II

HISTORY GENERAL EDUCATION ELECTIVES: Historical Perspective

HIS-101 World Civilization I	HIS-111 Western Civilization I	HIS-122 United States History II
HIS-101H Honors World Civilization I	HIS-112 Western Civilization II	HIS-131 African-American History I
HIS-102 World Civilization II	HIS-121 United States History I	HIS-132 African-American History II
HIS-102H Honors World Civilization II		

DIVERSITY GENERAL EDUCATION ELECTIVES: Cultural and Global Awareness

ANT-101..... General Anthropology	ENG-272 World Literature II	LAT-201 Intermediate Latin I
ANT-101H ... Honors General Anthropology	ENG-272H Honors World Literature II	MUS-106 World Music Cultures
ART-103 Visual Culture	FRE-201 Intermediate French I	MUS-110 African-American Music
ART-103H ... Honors Visual Culture	FRE-202 Intermediate French II	MUS-113 Jazz History
ART-104 Introduction to Visual Arts	GEO-101 Cultural Geography	PSY-112 Psychology of Women
ART-111 Art History I	GER-201 Intermediate German I	SLS-202 American Deaf Culture
ART-111H ... Honors Art History I	HIS-101 World Civilization I	SOC-201 Sociology of the Family
ART-112 Art History II	HIS-101H Honors World Civilization I	SOC-205 Social Diversity
COM-145 Intercultural Communication	HIS-102 World Civilization II	SPA-201 Intermediate Spanish I
DSJ-101 Gateway to Social Justice Studies	HIS-102H Honors World Civilization II	SPA-202 Intermediate Spanish II
ENG-191..... The Myths of the World	HIS-131 African-American History I	SPA-203 Introduction to the Hispanic Culture
ENG-271..... World Literature I	HIS-132 African-American History II	THE-150 World Theatre
ENG-271H ... Honors World Literature I	ITA-201 Intermediate Italian I	

Diversity—Humanities General Education Electives

ART-103 Visual Culture	ENG-272H Honors World Literature II	HIS-132 African-American History II
ART-103H ... Honors Visual Culture	FRE-201 Intermediate French I	ITA-201 Intermediate Italian I
ART-104 Introduction to Visual Arts	FRE-202 Intermediate French II	LAT-201 Intermediate Latin I
ART-111 Art History I	GER-201 Intermediate German I	MUS-106 World Music Cultures
ART-111H ... Honors Art History I	HIS-101 World Civilization I	MUS-113 Jazz History
ART-112 Art History II	HIS-101H Honors World Civilization I	SPA-201 Intermediate Spanish I
ENG-191..... The Myths of the World	HIS-102 World Civilization II	SPA-202 Intermediate Spanish II
ENG-271..... World Literature I	HIS-102H Honors World Civilization II	SPA-203 Introduction to the Hispanic Culture
ENG-271H ... Honors World Literature I	HIS-131 African-American History I	THE-150 World Theatre
ENG-272..... World Literature II		

Diversity—Social Science General Education Electives

ANT-101..... General Anthropology	GEO-101 Cultural Geography
ANT-101H ... Honors General Anthropology	

INTEGRATED GENERAL EDUCATION ELECTIVES

Ethical Reasoning and Action	Information Literacy
BIO-106 Living in the Environment	ART-101 Art Appreciation
BIO-140 The Microbial World	ART-111 Art History I
CIS-105 Computer Literacy	ART-112 Art History II
CIS-206 Advanced Computer Concepts/ Applications	CHM-140 Chemistry & Society
ENG-102 English Composition II	ENG-102 English Composition II
PHL-131 Introduction to Ethics	SPE-102 Public Speaking
PHL-131H Honors Introduction to Ethics	
PHL-232 Biomedical Ethics	
PHL-232H Honors Biomedical Ethics	
SPE-102 Public Speaking	

Program Specific Electives

Business Electives

ACC-104 Financial Accounting	ECO-102 Microeconomics	MGT-221..... Small Business Management I
ACC-105 Managerial Accounting	FIN-201 Investment Principles	MGT-222 Small Business Management II
ACC-213 Computerized Accounting	LAW-101 Legal Environment/Business Law I	MKT-101 Principles of Marketing
ACC-214 Intermediate Accounting I	LAW-102 Business Law II	MKT-102 Retail Management
ACC-216 Intermediate Accounting II	LAW-104 Hospitality Law	MKT-123 Introduction to Promotion
ACC-223 Income Tax Accounting I	MGT-101 Introduction to Business	MKT-124 Fundamentals of Selling
ACC-224 Income Tax Accounting II	MGT-102 Introduction to Management	MKT-125 Principles of E-Commerce
ACC-225 Auditing	MGT-212 Human Resource Management	MKT-212 Strategies in Marketing
BMT-101 Business Mathematics I	MGT-213 Operations Management	OST-113 Keyboarding & Document Processing
BMT-102 Business Mathematics II	MGT-216 Human Relations in Business & Industry	
ECO-101 Macroeconomics		

Computer Information Systems Electives

CGR-270 Computer Graphics Internship/Co-Op	CIS-191 Internet: Tools and Techniques	CIS-288 Linux System Administration
CID-115 Digital Storytelling	CIS-192 Practical Applications of Website Mgt	CIS-289 Linux System and Services
CID-125 Game Design and Development I	CIS-206 Advanced Computer Concepts/Applications	CSC-105 Fundamentals of Programming
CID-200 Game Design & Development II	CIS-210 Management of Information Systems	CSC-111 Introduction to Programming
CID-203 UI & UX Design	CIS-225 Project Management Essentials	CSC-121 Structured Programming (C++)
CID-243 Computer Animation III	CIS-231 System Analysis & Design	CSC-122 Computer Science I
CID-244 Special Effects	CIS-235 SQL Fundamentals I	CSC-161 Introduction to Java
CID-255 Game Design & Development III	CIS-236 Advanced SQL	CSC-223 Computer Science II
CID-260 Comic Book Design	CIS-237 Relational Database Concepts	CSC-240 Computer Organization
CIS-101 Personal Computer Applications	CIS-238 Database Security and Protection	CST-103 Microcomputer Oper Systems I/Workstation
CIS-102 Spreadsheets	CIS-241 Relational Database Management I	CST-106 Microcomputer Oper Systems II/Serv Sys
CIS-103 Database Management	CIS-242 Relational Database Management II	CST-109 Building Upgrading Repairing PCs
CIS-105 Computer Literacy	CIS-285 Linux/Unix Networking and Security	CST-204 Computer and Network Security
CIS-112 The Technology of the Smartphone		
CIS-181 Linux/UNIX Essentials		

Computer Programming Electives

CIS-235 SQL Fundamentals I	CSC-105 Fundamentals of Programming	CSC-161 Introduction to Java
CIS-236 Advanced SQL	CSC-111 Introduction to Programming	CSC-223 Computer Science II
CIS-241 Relational Database Management I	CSC-121 Structured Programming (C++)	CSC-272 Data Science Applications Programming
CIS-242 Relational Database Management II	CSC-122 Computer Science I	

Criminal Justice Electives

CRJ-107 Introduction to Probation and Parole	CRJ-120 Introduction to Homeland Security	CRJ-207 Terrorism
CRJ-108 Community Policing		CRJ-230 Victimology

Ensemble Electives					
MUS-141 Ensemble I		MUS-181 Concert Band I		MUS-263 College Choir III	
MUS-142 Ensemble II		MUS-182 Concert Band II		MUS-264 College Choir IV	
MUS-161 College Choir I		MUS-243 Ensemble III		MUS-283 Concert Band III	
MUS-162 College Choir II		MUS-244 Ensemble IV		MUS-284 Concert Band IV	
Health & Exercise Electives					
HPE-100 Personal Fitness		HPE-127 Exercise Techniques &		HPE-178 Motor Development & Motor	
HPE-101 Intro to Health and Exercise Science		Prescription		Learning	
HPE-102 Health & Wellness		HPE-130 Consumer Health Decisions		HPE-181 Basic Life Support (BLS)-"C"	
HPE-106 Stress Management		HPE-141 Hatha Yoga		Course-AHA	
HPE-107 Badminton		HPE-142 Intermediate Hatha Yoga		HPE-195 Concepts of Individual and Dual	
HPE-109 Physical Conditioning/Police Recruits		HPE-145 Wellspring Fitness Lab I		Sports	
HPE-113 Volleyball		HPE-146 Wellspring Fitness Lab II		HPE-201 Introduction to Sport Management	
HPE-119 Cardio Kickboxing		HPE-161 Weight Training		HPE-209 Internship: Sports Management	
HPE-124 Tai Chi		HPE-170 First Aid Safety & Prevention of Injury		HPE-210 Internship: Personal Trainer Certificate	
		HPE-171 Emergency Response		HPE-211 Theory/Application Physical Training	
		HPE-175 Foundations of Fitness			
Liberal Arts Electives					
Any course with the following designation:					
ANT	CHM	EDU	IDY (209)	PHL	SOC
ART	COM	ENG	ITA	PHO	SPA
ASL	CSC	FRE	LAT	POL	SPE
BIO	DAN	GEO	MTH	PHY	THE
CHI	ECO	HIS	MUS	PSY	
Studio Electives					
ART-123 Basic Drawing I - AFA		CID-256 Game Design & Development Final Project		MUS-136 MIDI/DAW II (Digital Audio Workstation)	
ART-124 Basic Drawing II - AFA		FLM-110 Filmmaking I		MUS-141 Ensemble I	
ART-134 Life Drawing I		FLM-205 Film Animation I		MUS-142 Ensemble II	
ART-143 Sculpture I - AFA		FLM-210 Filmmaking II		MUS-202 Advanced Music Lessons II	
ART-145 Painting I - AFA		MUS-100 Beginner Music Lessons		MUS-227 Live Sound Reinforcement	
ART-146 Painting II - AFA		MUS-103 Intermediate Music Lessons		MUS-243 Ensemble III	
ART-153 Ceramics & Pottery I - AFA		MUS-105 Advanced Music Lessons I		MUS-244 Ensemble IV	
ART-154 Ceramics & Pottery II - AFA		MUS-125 Class Piano I		PHO-101..... Photography I	
ART-165 Color: Theory and Practice		MUS-127 Fundamentals of Music/Sound Engineers		PHO-102..... Photography II	
ART-166 Two Dimensional Design - AFA Majors		MUS-133 Audio Recording Techniques I		PHO-106..... Beginning Digital Photography	
ART-167 Three Dimensional Design - AFA Majors		MUS-134 Audio Recording Techniques II		PHO-221..... Studio Photography	
CID-123 Interactive Interface Design		MUS-135 MIDI/DAW I (Digital Audio Workstation)		PHO-226..... Photo Illustration	

Technical Electives

CAD-101 Computer Aided Engineering Graphics	CIS-105 Computer Literacy	EET-101 Electrical & Electronic Principles
CAD-102 Advanced Computer Aided Eng Graphics	CIS-112 The Technology of the Smartphone	EET-201 Electrical Circuits
CAD-107 Parametric Design: AutoDesk Inventor	CIS-192 Practical Applications of Website Mgt	EET-211 Electronics I
CAD-205 Architectural CADD Using Revit	CIS-210 Management of Information Systems	EET-212 Electronics II
CAD-206 Solids Modeling: Solids Works	CIS-225 Project Management Essentials	EET-213 Electronic Communications
CGR-239 Animation I	CIS-235 SQL Fundamentals I	EET-221 Digital Circuits
CGR-270 Computer Graphics Internship/Co-Op	CIS-236 Advanced SQL	EET-241 Robotics
CID-115 Digital Storytelling	CIS-237 Relational Database Concepts	EET-251 Electronic Projects
CID-123 Interactive Interface Design	CIS-238 Database Security and Protection	EGR-103 Technical Drawing
CID-125 Game Design and Development I	CIS-241 Relational Database Management I	EGR-201 Statics
CID-200 Game Design & Development II	CIS-242 Relational Database Management II	EGR-202 Dynamics
CID-203 UI & UX Design	CIS-285 Linux/Unix Networking and Security	FIR-106 NJ Firefighter II
CID-239 2D Interactive Animation	CIS-288 Linux System Administration	LFO-101 Intro to Photonics & Photonic Safety
CID-243 Computer Animation III	CIS-289 Linux System and Services	MET-221 Quality Control
CID-244 Special Effects	CSC-105 Fundamentals of Programming	MET-233 Project Design
CID-255 Game Design & Development III	CSC-111 Introduction to Programming	MTH-140 Calculus I
CID-256 Game Design & Development Final Project	CSC-121 Structured Programming (C++)	MTH-140H.. Honors Calculus I
CID-260 Comic Book Design	CSC-122 Computer Science I	MTH-145 Linear Algebra
CIM-101 Machine Shop Practices	CSC-161 Introduction to Java	MTH-150 Calculus II
CIM-115 Microcontroller Applications	CSC-223 Computer Science II	MTH-210 Calculus III
CIM-202 Conventional Machinist	CST-102 Introduction to Networking	MTH-220 Differential Equations
CIM-219 CNC Machinist	CST-103 Microcomputer Oper Systems I/ Workstation	MTH-261 Intro to Mathematical Modeling
CIM-221 CNC Programming & CAM	CST-106 Microcomputer Oper Systems II/ Serv Sys	MTH-262 Probabilistic Models
CIM-231 Motors Controllers and Sensors	CST-109 Building Upgrading Repairing PCs	PHY-101 Physics I
CIM-255 Precision Machining Project	CST-201 Advanced Networking	PHY-102 Physics II
	CST-204 Computer and Network Security	PHY-103 Physics I (for the Non-Science Major)
	CST-210 Digital Forensics and Investigations	PHY-201 Physics III
	CST-220 Ethical Hacking & Penetration Testing	PHY-202 Physics IV

Free Electives

Any college level course listed in the catalogue; providing the prerequisites have been met and the course(s) satisfy the credit requirement.

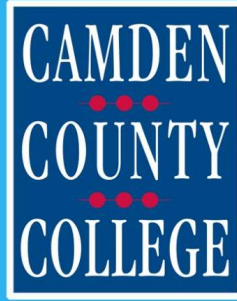
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- **Deputy Title IX and ADA Coordinator for Employees:** Assistant Director of Human Resources, 856-227-7200, ext. 4391, Roosevelt Hall, Room 106, Blackwood Campus
- **Deputy Title IX and Section 504 Coordinator for Students:** Associate Dean of Students, 856-227-7200, ext. 5088, Taft Hall, Room 302, Blackwood Campus
- **Title II for Employees and Students:** Building Operations Manager, 856-227-7200, ext. 4575 Physical Plant, Blackwood Campus

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