



# **Career Programs**

## Program Description

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

## Program Goals

- To provide training for facilitating entry-level employment as an accountant, appraiser, bank teller, loan officer, revenue agent, tax collector.
- To prepare students to maintain systematic and up-to-date records of accounts and business transactions.
- To provide students with the ability to prepare financial statements.
- To prepare students to use computers as tools in the solution of accounting problems.
- To provide training for students in accounting fields to upgrade their training.

## 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, statement of owner's equity, balance sheets and statement of cash flow.
3. Use computer software to design and maintain bookkeeping and accounting systems.

## Employment Opportunities

- Accountant
- Appraiser
- Bank teller
- Loan officer
- Revenue agent
- Tax collector

## Contact Persons

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### Highlights

This program prepares students for a variety of entry-level accounting positions.

# Accounting

Degree: Associate in Applied Science  
College Code: ACC.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ACC-104	Financial Accounting	3
ENG-101	English Composition I	3
LAW-101	Legal Environment/Business Law I or	
LAW-102	Business Law II	3
MGT-101	Introduction to Business	3
CIS-101	Personal Computer Applications or	
CSC-101	Computer Literacy	3
MTH.....	Mathematics General Education Elective	3
		<b>18</b>
<b>Second Semester</b>		
ACC-105	Managerial Accounting	3
ACC-213	Computerized Accounting	3
ENG-102	English Composition II	3
FIN-212	Principles of Finance	3
MTH.....	Mathematics General Education Elective	3
		<b>15</b>
<b>Second Year/First Semester</b>		
ACC-214	Intermediate Accounting I	3
ACC-223	Income Tax Accounting I	3
CIS-102	Spreadsheets	3
ECO-101	Macroeconomics	3
.....	Business Elective	3
		<b>15</b>
<b>Second Semester</b>		
ACC-216	Intermediate Accounting II	3
ACC-224	Income Tax Accounting II	3
ACC-225	Auditing or	
BUS-201	Co-op I: Business	3
ECO-102	Microeconomics	3
MGT-102	Introduction to Management	3
.....	Diversity: Humanities General Education Elective	3
		<b>18</b>
<b>Total Minimum Credits</b>		<b>66</b>

## Program Description

Addiction 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 Goals

- To provide a formal educational path within higher education for students who want a human services career in addictions counseling.
- To provide training in order to facilitate entry-level employment.
- To upgrade the marketable skills of students in the addictions field.
- To provide a credential in the form of an academic degree to those students who complete the program.
- To prepare students to apply for licensure as a Clinical Alcohol and Drug Counselor or certification as an Alcohol and Drug Counselor (ADC) granted by the NJ State Board of Marriage and Family Therapy.

## 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 Counseling program is an approved educational provider through:

The Addictions Professional Certification Board of New Jersey, Inc.  
4 Cornwall Drive, Suite 103

East Brunswick, New Jersey 08816

Phone: 732-390-5900

E-mail [info@certbd.com](mailto:info@certbd.com)

## Transfer Opportunities

Earn both associate's and bachelor's degree (A.A.S. and B.S.H.S.): Students in this special program offered in partnership with Thomas Edison State College of New Jersey complete a maximum of 80 credits here in specified courses and the remaining 40 credits through Thomas Edison State College. The latter can be completed in different formats, such as at-home guided study courses, N.J. Public TV courses, on-line courses and contract learning courses with individual faculty.

Contact: Thomas Edison

Phone: (888) 442-8372 (toll free) or (609) 984-1150

E-mail: [info@tesc.edu](mailto:info@tesc.edu)

MCP Hahnemann University also accepts students into their Bachelor of Science degree programs in Behavioral and Addictions Counseling. Contact: 1 800 237 3935 ext.6333 for more details.

## Employment Opportunities

Graduates of the program will be able to find employment opportunities in a variety of settings, to include:

- Caseworker/Case Manager
- Community Organizer
- Crisis Intervention Worker
- Drug and Alcohol Counselors
- Group Facilitator
- Human Services Worker
- Intake Worker
- Job Coach Counselors
- Life Skills Counselors
- Outreach Worker
- Public Health Educator
- Rehabilitation Counselor
- Residential Counselor
- Social Worker's Aide
- Youth Worker Counselor

## Contact Person

Professor Habiba Soudan, Coordinator  
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## Highlights

Certified Alcohol and Drug Counselors are critical members of both mental health and educational teams.

# Addictions Counseling

Degree: Associate in Applied Science  
College Code: ADD.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ADD-101	Introduction to Addictions*	3
ENG-101	English Composition I	3
HSR-101	Introduction to Human Services*	3
PSY-101	Basic Psychology	3
SOC-101	Introduction to Sociology	3
		<b>15</b>
<b>Second Semester</b>		
ADD-102	Professional Development in Addictions Counseling *	3
ENG-102	English Composition II	3
HSR-103	Introduction to Counseling*	3
MTH....	Mathematics General Education Elective or	
.....	Laboratory Science General Education Elective	3/4
.....	General Education Elective	3
		<b>15/16</b>
<b>Second Year/First Semester</b>		
ADD-111	Psycho-Social Aspects of Alcoholism & Drug Addiction*	3
HSR-102	Social Work Processes*	3
HSR-105	Group Dynamics*	3
PSY-104	Abnormal Psychology	3
HPE.....	Health & Exercise Science Elective	3
		<b>15</b>
<b>Second Semester</b>		
ADD-112	Assessment & Treatment of Alcoholism & Drug Addiction*	3
HSR-107	Field Work I <sup>1</sup>	3
.....	Diversity: General Education Elective	3
.....	Free Elective	3
.....	Free Elective	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>60</b>

\* These 8 courses meet educational requirements for NJ State Certifications and Licensing in Alcohol and Drug Counseling.

<sup>1</sup>Fieldwork I (HSR-107) should only be taken in the last semester before graduating.

# Automotive Technology (Apprentice)

Degree: Associate in Applied Science  
College Code: AUT.AAS

## Program Description

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

## Program Goals

- To provide students with quality state of the art education in the latest automotive technologies that are incorporating increasingly sophisticated computer-controlled and electronic systems.
- To provide students with safety education in the workplace by passing several safety evaluations in the automotive program.
- To prepare students to qualify for entry-level employment as a "C" class technician.

## 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 300-hour practicum is required.

## Certification

The Automotive Technology program at Camden County College is fully certified as a master training program by the National Institute for Automotive Service Excellence.

## Employment Opportunities

- The program prepares students to work at all automotive service facilities, whether independent service organizations or new car dealerships.
- Graduates of this program experience a very high job placement rate in the automotive industry.

## Contact Person

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Internet Address: [www.camdencc.edu/departments/auto-tech](http://www.camdencc.edu/departments/auto-tech)

Code	Course	Credits
<b>First Year/First Semester</b>		
AUT-101	Automotive Fundamentals	3
AUT-111	Automotive Brake Systems	3
AUT-121	Automotive Steering and Suspension Systems	4
CSC-101	Computer Literacy	3
HIS-101	World Civilization I or	
HIS-102	World Civilization II or	
HIS-103	World Civilization III	3
		<b>16</b>
<b>Second Semester</b>		
ENG-101	English Composition I	3
AUT-131	Automotive Heating and Air Conditioning	3
AUT-141	Automotive Electrical/Electronic Principles	4
MTH ...	Mathematics General Education Elective	3/4
.....	Social Science General Education Elective	3
		<b>16/17</b>
<b>Second Year/First Semester</b>		
ENG-102	English Composition II	3
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
		<b>19</b>
<b>Second Semester</b>		
AUT-262	Automatic Transmissions & Transaxles	4
AUT-271	Advanced Automotive Systems I	4
AUT-272	Advanced Automotive Systems II	4
AUT-181	Automotive Practicum I (300 hours)	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>66</b>

Note: The program accepts students each semester.

## Highlights

The automotive instructors have won many awards and are recognized nationally for their teaching and automotive expertise..

## 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 Goals

- To provide students with the ability to be successful and productive employees of General Motors dealerships by having completed and passed five, nine-week practicums at General Motors dealerships.
- To instill in the students a willingness to exercise safe working habits by successfully completing the First Aid, Safety & Prevention of Injury course.
- To develop the students' ability to integrate social and decision-making skills and good work habits into the everyday work environment of automotive service and repair.
- To insure students possess the ability to successfully complete update-training seminars, workshops, manufacturer's courses and College classes in automotive technology.

## 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 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 are required to take a mechanical aptitude test.
- After applying for admission, students will receive test information from the ASEP coordinator.
- Applicants must bring two letters of recommendation and 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.)

## Certification

The Automotive Technology program at CCC is fully certified as a master training program by the National Institute for Automotive Service Excellence.

## Employment Opportunities

- The GM sponsor provides a uniform, an hourly wage and a workplace where students obtain on-the-job training.
- ASEP graduates experience a very high job placement rate with their sponsoring dealerships.

## Contact Person

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# AUTOMOTIVE TECHNOLOGY GM/ASEP Option

Degree: Associate in Applied Science  
College Code: GMA.AAS

Code	Course	Credits
<b>First Semester (Fall) 15 weeks</b>		
AUT-100	Introduction To Automotive Service Careers	2
AUT-101	Automotive Fundamentals	3
AUT-111	Automotive Brake Systems	3
AUT-141	Automotive Electrical/Electronics Principles	4
		<b>12</b>
<b>Second Semester (Spring)</b>		
<b>Dealership Experience First 9 weeks</b>		
AUT-181	Automotive Practicum I	3
<b>Second 9 weeks</b>		
AUT-121	Automotive Steering & Suspension Systems	4
AUT-131	Automotive Heating & Air Conditioning	3
CSC-101	Computer Literacy	3
.....	Social Science General Education Elective	3
		<b>16</b>
<b>Dealership Experience (Summer) 9 weeks</b>		
AUT-182	Automotive Practicum II	3
<b>Third Semester (Fall) 9 weeks</b>		
ENG-101	English Composition I	3
AUT-242	Automotive Electrical/Electronic Systems	4
AUT-253	Automotive Engines	4
.....	Humanities General Education Elective	3
<b>Dealership Experience 9 weeks</b>		
AUT-283	Automotive Practicum III	3
		<b>17</b>
<b>Fourth Semester (Spring) 9 weeks</b>		
ENG-102	English Composition II	3
AUT-271	Advanced Automotive Systems I	4
AUT-272	Advanced Automotive Systems II	4
MTH.....	Mathematics General Education Elective	3
<b>Dealership Experience 9 weeks</b>		
AUT-284	Automotive Practicum IV	3
		<b>17</b>
<b>Fifth Semester (Summer) 9 weeks</b>		
AUT-261	Manual Drive Trains & Axles	4
AUT-262	Automatic Transmissions & Transaxles	4
PHY-103	Physics I (for the Non-Science major)	4
<b>Dealership Experience 9 weeks</b>		
AUT-285	Automotive Practicum V	3
		<b>15</b>
<b>Total Minimum Credits</b>		<b>83</b>

## Highlights

The automotive instructors have won many awards and are recognized nationally for their teaching and automotive expertise.

## Program Description

Camden County College, Toyota Motor Sales USA and Toyota 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 Toyota dealerships.

## Program Goals

- To provide students with the ability to be successful and productive employees of Toyota/Lexus dealerships by having completed and passed five, nine-week practicums at Toyota/Lexus dealerships.
- To instill in the students a willingness to exercise safe working habits by successfully completing the First Aid, Safety & Prevention of Injury course.
- To develop the students' ability to integrate social and decision-making skills and good work habits into the everyday work environment of automotive service and repair.
- To insure students possess the ability to successfully complete update training seminars, workshops, manufacturer's courses and college classes in automotive technology.

## Program Student Learning Outcomes

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

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

## 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 are required to take a mechanical aptitude test.
- After applying for admission, students will receive test information from the T-TEN coordinator.
- Applicants must bring two letters of recommendation and an abstract of their driving record from the NJDMV.
- After being accepted by the College, students must be sponsored by a Toyota dealer before beginning the first practical work experience.
- The Automotive Technology program at Camden County College is fully certified as a master training program by the National Institute for Automotive Service Excellence.

## Employment Opportunities

- The T-Ten dealer provides a uniform, an hourly wage and a workplace where students obtain on-the-job training.
- T-Ten graduates experience a very high job placement rate with their sponsoring dealerships.

## Contact Person

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# AUTOMOTIVE TECHNOLOGY Toyota T-Ten Option

Degree: Associate in Applied Science  
College Code: TOY.AAS

Code	Course	Credits
<b>First Semester (Fall) 15 weeks</b>		
AUT-100	Introduction to Automotive Service Careers	2
AUT-101	Automotive Fundamentals	3
AUT-111	Automotive Brake Systems	3
AUT-121	Automotive Steering & Suspension Systems	4
		<b>12</b>
<b>Second Semester (Spring)</b>		
<b>Dealership Experience First 9 weeks</b>		
AUT-181	Automotive Practicum I	3
<b>Second Semester 9 Weeks</b>		
AUT-131	Automotive Heating & Air Conditioning	3
AUT-141	Automotive Electrical/Electronic Principles	4
CSC-101	Computer Literacy	3
.....	Social Science General Education Elective	3
		<b>16</b>
<b>Dealership Experience (Summer) 9 weeks</b>		
AUT-182	Automotive Practicum II	3
<b>Third Semester (Fall) 9 weeks</b>		
ENG-101	English Composition I	3
AUT-242	Automotive Electrical/Electronic Systems	4
AUT-253	Automotive Engines	4
.....	Diversity: Humanities General Education Elective	3
<b>Dealership Experience 9 weeks</b>		
AUT-283	Automotive Practicum III	3
		<b>17</b>
<b>Fourth Semester (Spring) 9 weeks</b>		
ENG-102	English Composition II	3
AUT-261	Manual Drive Trains and Axles	4
AUT-262	Automatic Transmissions and Transaxles	4
MTH.....	Mathematics General Education Elective	4
<b>Dealership Experience 9 weeks</b>		
AUT-284	Automotive Practicum IV	3
		<b>17</b>
<b>Fifth Semester (Summer) 9 Weeks</b>		
AUT-271	Advanced Automotive Systems I	4
AUT-272	Advanced Automotive Systems II	4
PHY-103	Physics I (for the Non-Science major)	4
		<b>12</b>
<b>Total Minimum Credits</b>		<b>77</b>

## Highlights

The automotive instructors have won many awards and are recognized nationally for their teaching and automotive expertise.

## Program Description

Biological technicians work with biologists studying living organisms. Many assist scientists who conduct medical research helping to find a cure for cancer or AIDS, for example. Those who work in pharmaceutical companies, help develop and manufacture medicinal and pharmaceutical preparations. Those working in the field of microbiology, generally work as lab assistants and studying living organisms and infectious agents. Biological technicians also analyze organic substances, such as blood, food and drugs, and some examine evidence in a forensic science laboratory. Biological technicians, working in biotechnology labs, use the knowledge and techniques gained from basic research by scientists, including gene splicing and recombinant DNA, and apply them in product development.

The Biotechnology program will prepare students for entry-level positions in industries involving the field of Biotechnology. These industries would include pharmaceuticals, university and private research laboratories, medical technology and biotechnology companies. Biotechnology companies need associate degree-trained technicians to work in the laboratories and help in the preparation and documentation of laboratory experiments and their results. These technicians must have knowledge of the workings of a laboratory and how to conduct and work with equipment used in the Biotechnology field.

## Program Goals

- To provide a concentration of course work appropriate for Biotechnology students.
- To prepare students for entry-level employment as a technician in the Biopharma field.
- To demonstrate the basic techniques used in the biotechnology industry.

## 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.
5. Discuss the significant contribution of biotechnology to society.

## Special Program Requirement

Before graduation, students must complete a supervised, internship program at an approved Biotechnology location or a research project under the direction of College faculty.

## Employment Opportunities

- Entry-level position in Biotechnology industries
- Research laboratories
- Pharmaceutical industry
- Laboratory technician

## Contact Person

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# Biotechnology

Degree: Associate in Applied Science  
College Code: BIT.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
BIO-111	Biology I: Science	4
CHM-111	Chemistry I: Science	4
ENG-101	English Composition I	3
MTH-125	College Algebra & Trigonometry	4
BIT-101	Biotechnology Seminar	2
		<b>17</b>
<b>Second Semester</b>		
BIO-221	Microbiology I	4
CHM-112	Chemistry II: Science	4
ENG 102	English Composition II	3
CSC-101	Computer Literacy	3
HPE.....	Health & Exercise Science Elective	1
		<b>15</b>
<b>Second Year/First Semester</b>		
BIO-240	Genetics	4
BIT-202	Instrumental Analysis	4
CHM-221	Organic Chemistry I	4
HIS-101	World Civilization I or	
ENG-271	World Literature I	3
		<b>15</b>
<b>Second Semester</b>		
BIT-201	Applications in Biotechnology	4
CHM-210	Fundamentals of Biochemistry	4
PHL-232	Biomedical Ethics	3
.....	Social Science General Education Elective	3
		<b>14</b>
<b>Summer Semester</b>		
BIT-205	Biotechnology Internship	3
		<b>3</b>
<b>Total Minimum Credits</b>		<b>64</b>

## Highlights

New Jersey is the fourth largest biotechnology center in the country. The average starting salary for an AAS degree is \$35,000.

## Program Description

This curriculum will provide students the opportunity to concentrate in the area of forensic science. The techniques and instrumentation used in a forensics lab are identical to those used in a biotechnology laboratory; the difference is in the application. The courses will provide students with the understanding of these applications and experience using the instrumentation for this purpose. Forensic science technicians investigate crimes by analyzing physical evidence. Often they specialize in areas such as DNA analysis or firearm examination, performing tests on weapons or substances such as fiber, hair, tissue, or body fluids to determine significance to the investigation. They also prepare reports to document their findings and the laboratory techniques used and may provide information and expert opinion to investigators.

## Program Goals

- To provide students with a foundation in general education.
- To provide a concentration of course work appropriate for forensic science students.
- To prepare students for entry-level employment as a technician in the biopharma/forensic science field.
- To demonstrate the basic techniques used in the biotechnology/forensic science industry.

## 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. Research forensic science cases and analyze the reported evidence.
4. Use computer integrated instrumentation to analyze forensic evidence.

## Employment Opportunities

- Crime lab
- Biotech lab
- Pharmaceutical lab

## Contact Person

Dr. Susan Choi, Chair  
 (856) 227-7200, ext. 4110  
 E-mail: schoi@camdenc.edu

## Highlights

Jobs for forensic science technicians are expected to increase about as fast as average. Crime scene technicians who work for State Public Safety Departments may experience favorable employment prospects if the number of qualified applicants remains low. The median earnings of Forensic Science Technicians are approximately \$41,384.

# BIOTECHNOLOGY Forensic Science Option

Degree: Associate in Applied Science Degree  
 College Code: FSC.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-111	Biology I: Science	4
BIT-101	Biotechnology Seminar	2
CHM-145	Introduction to Forensic Science	4
MTH-125	College Algebra & Trigonometry	4
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
BIO-221	Microbiology I	4
CHM-111	Chemistry I: Science	4
FSC-110	Introduction To Forensic Osteology	4
.....	Diversity: Social Science General Education Elective	3
		<b>18</b>
<b>Second Year/First Semester</b>		
BIO-240	Genetics	4
CHM-112	Chemistry II: Science	4
FSC-120	Introduction To Forensic Toxicology	4
PHL-232	Biomedical Ethics	3
		<b>15</b>
<b>Second Semester</b>		
BIT-201	Applications in Biotechnology	4
BIT-202	Instrumental Analysis	4
CHM-221	Organic Chemistry I	4
HPE.....	Health & Exercise Science Elective	1
		<b>13</b>
<b>Summer Semester</b>		
BIT-205	Biotechnology Internship	3
		<b>3</b>
	<b>Total Minimum Credits</b>	<b>66</b>

## Program Description

The CADD program is a lab-intensive, hands-on approach to training in computer graphics. This career-oriented major consists of both basic general education courses and technical electives in the students' specialty. This comprehensive program provides hands-on training in preparation for a variety of employment opportunities.

## Program Goals

- To provide students with the ability to propose, develop, complete and articulate professional CAD presentations based on their designs.
- To equip students with a working knowledge of the modern computer platforms upon which CAD software is mounted.
- To assure students can employ and demonstrate effective written communication skills.
- To prepare students to qualify for entry-level employment in any of the disciplines of computer aided drafting such as architectural, mechanical and electrical design or any related field such as space planning, solids modeling and civil site preparation.
- To instill a spirit of lifelong learning which encourages students to transfer to a baccalaureate program in engineering technology.

## 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) and/or International Standards Organization (ISO) specifications.

## Employment Opportunities

- CADD operator
- CADD technician
- Computer drafts person
- Design drafter
- Drafting detailer

## Contact Person

Professor Domenic Priolo  
(856) 227-7200, ext. 4445  
E-mail: dpriolo@camdencc.edu

# CADD: Computer Aided Drafting and Design

Degree: Associate in Applied Science Degree  
College Code: CAD.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CAD-101	Computer Aided Engineering Graphics	4
CAD-106	Engineering Graphics	4
CIM-101	Introduction to Manufacturing	3
CST-103	Microcomputer Operating Systems I: Workstations	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CAD-102	Advanced Computer Aided Engineering Graphics	3
CST-102	Introduction to Networking	3
.....	Social Science General Education Elective	3
.....	Diversity: Humanities General Education Elective	3
HPE.....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Year/First Semester</b>		
CAD-201	CADD Applications: MicroStation	3
MTH-125	College Algebra and Trigonometry or	
MTH-140	Calculus I	4
EGR-208	Co-op I: Engineering or	
.....	General Education Elective	3
PHY-101	Physics I or	
PHY-201	Physics III	4
HPE.....	Health & Exercise Science Elective	1
		<b>15</b>
<b>Second Semester</b>		
CST-106	Microcomputer Operating Systems II: Server Systems	3
CST-201	Advanced Networking	3
CAD-202	Advanced CADD Project or	
CST-109	Building, Upgrading and Repairing PC's or	
EGR-208	Co-op I: Engineering	3
PHY-102	Physics II or	
PHY-202	Physics IV	4
MTH-132	Statistics for Technology or	
MTH-150	Calculus II	4
		<b>17</b>
	<b>Total Minimum Credits</b>	<b>65</b>

### Highlights

This program prepares students for a variety of high-paying careers.

## Program Description

The program integrates design skills with computerized skills and uses state-of-the-art hardware and software. This career-oriented program consists of a core of computer graphic courses, general education components and a cooperative education option.

## Program Goals

- To guide and assist the students as they prepare their portfolios and use them to demonstrate the fundamental design skills and practices used in the computer graphics, multimedia design, animation and interactive video fields.
- To provide the student with the ability to analyze client needs and create effective design solutions.
- To provide training in a variety of specialized computer graphic software, hardware and peripherals.
- To prepare students to qualify for entry-level employment in design studios, printing companies, advertising agencies, or in-house corporate graphic departments.
- To instill in the students a commitment to lifelong learning which compels them to transfer credits to an affiliated baccalaureate program.

## Program Student Learning Outcomes

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

1. Apply information design skills used in the fields of computer graphics, multimedia design, animation and interactive video.
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.

## Employment Opportunities

- Computer animation
- Computer graphics
- Electronic publishing
- Graphic design advertising
- Multimedia

## Contact Persons

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(856) 227-7200, ext. 4682

E-mail: powens@camdencc.edu  
Professor Elaine Reeder, Ext. 4556

(856) 227-7200, ext. 4556  
E-mail: ereeder@camdencc.edu

### Highlights

There are cooperative education opportunities with local employers. This program transfers to such baccalaureate programs as computer graphics, advertising and design, animation, multimedia and other related fields.

# Computer Graphics

Degree: Associate in Applied Science  
College Code: CGR.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CGR-101	Electronic Layout & Design	3
CGR-104	Digital Design Fundamentals	3
CGR-111	Computer Graphic Design I	3
.....	Social Science General Education Elective	3
		<b>15</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CGR-102	Electronic Publishing & Prepress	3
CGR-112	Computer Graphic Design II	3
CGR-121	Multimedia Technology I	3
.....	Humanities General Education Elective	3
.....	Diversity: General Education Elective	3
		<b>18</b>
<b>Second Year/First Semester</b>		
CGR-122	Multimedia Technology II	3
CGR-231	Video Imaging Technology I	3
CGR-253	Digital Illustration	3
CIS-191	Internet Tools & Techniques	3
.....	Business Elective	3
MTH....	Mathematics General Education Elective	3/4
		<b>18</b>
<b>Second Semester</b>		
CGR-213	Computer Graphic Design III	3
CGR-232	Video Imaging Technology II or Special Effects	3
CGR-244	Portfolio Design	3
CGR-252	Computer Graphics Internship/Co-op	3
CGR-270	Humanities General Education Elective	3
.....		3
		<b>15</b>
<b>Total Minimum Credits</b>		<b>66</b>

## 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 Goals

- To assure that students can understand and explain the programming, modeling and animation techniques used to create interactive 2-D and 3-D computer and video games.
- To instruct students on how to properly examine market research and business concepts related to video game production and distribution processes and understand the economic, social and cultural implications of interactive media.
- To equip students with a working knowledge of a variety of specialized computer software, hardware and peripherals.
- To prepare students to qualify for entry-level employment as a game-play tester, 2D conceptual artist, 3D character builder, 3D object modeled, game designer, game programmer and related occupations.
- To instill in the students a commitment to lifelong learning which compels them to transfer credits to an affiliated baccalaureate program.

## Program Student Learning Outcomes

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

1. Create interactive 2-D and 3-D 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.

## Employment Opportunities

- Game-play tester
- 2D conceptual artist
- 3D character builder
- 3D object modeled
- Game designer
- Game programmer

## Contact Persons

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Professor Elaine Reeder  
(856) 227-7200, ext. 4556

E-mail: ereeder@camdencc.edu

# COMPUTER GRAPHICS Game Design and Development

Degree: Associate in Applied Science  
College Code: GDD.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CGR-111	Computer Graphic Design I	3
CSC-105	Fundamentals of Programming	4
MTH-109	Intermediate Algebra Extended	4
.....	Social Science General Education Elective	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CGR-112	Computer Graphic Design II	3
CGR-115	Digital Storytelling	3
CGR-125	Game Design & Development I	3
CGR-241	Computer Animation I	3
CGR-253	Digital Illustration	3
		<b>18</b>
<b>Second Year/First Semester</b>		
ENG-221	Creative Writing	3
CGR-121	Multimedia Technology I	3
CGR-200	Game Design & Development II	3
CGR-242	Computer Animation II	3
CSC-121	Structured Programming (C++)	4
		<b>16</b>
<b>Second Semester</b>		
CGR-244	Special Effects	3
CGR-255	Game Design & Development III	3
CGR-122	Multimedia Technology II or	3
CGR-231	Video Imaging Technology I	3
.....	Humanities General Education Elective <sup>2</sup>	3
.....	Diversity: General Education Elective	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>66</b>

## Program Description

The primary focus of this program is applications software development in a business environment. Computer programmers are able to:

- Analyze existing information systems (either computer or non-computer systems)
- To write detailed computer programs using several different languages
- Debug and implement computer software applications
- Write detailed documentation for new or existing computer information systems.

## Program Goals

- To demonstrate the ability to work independently or with a group to systematically develop correct and good programs.
- To assure students can utilize state-of-the-art programming techniques and software applications to devise creative and effective business solutions.
- To equip students with knowledge of diverse programming languages which are used to solve computing and information processing problems.
- To prepare students to qualify for entry-level employment as a programmer, database administrator, system analyst, or technical support specialist.
- To instill in the students a commitment to lifelong learning which fosters in them a desire to transfer credits to an affiliated baccalaureate program.

## Program Student Learning Outcomes

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

1. Analyze and design an information systems and database applications solutions to achieve business/organizational goals.
2. Implement a designed solution to solve business IT problems using state-of-the-art programming techniques and applications software.
3. Present technical solutions effectively.

## Employment Opportunities

- Computer marketing representative
- Computer programmer
- Database administrator
- Systems analyst
- Technical assistant
- Technical support
- Technical writer

## Contact Persons

Professor Charles W. Van Mater, Coordinator  
(856) 227-7200, ext. 4458

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Professor Melvin Howell, ext. 3105

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# Computer Information Systems

Degree: Associate in Applied Science  
College Code: CIS.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CSC-101	Computer Literacy	3
CSC-111	Introduction to Programming or Structured Programming <sup>1</sup>	3/4
CSC-121		
MGT-101	Introduction to Business	3
MTH.....	Mathematics General Education Elective <sup>2</sup>	3/4
		<b>15/16/17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CSC-213	Visual Basic I <sup>3</sup> or	
CSC-122	Computer Science I or	
CSC-161	Introduction to Java <sup>3</sup>	3/4
ACC-104	Financial Accounting	3
CIS-206	Advanced Computer Concepts & Applications	3
MTH.....	Mathematics General Education Elective <sup>2</sup>	3/4
HPE.....	Health & Exercise Science Elective	1
		<b>16/17/18</b>
<b>Second Year/First Semester</b>		
CSC-214	Visual Basic II <sup>3</sup> or	
CSC-223	Computer Science II or	
CSC-262	Advanced Java <sup>3</sup>	3/4
CST-103	Microcomputer Operating Systems I: Workstations	3
ACC-105	Managerial Accounting	3
CIS-241	Relational Database Management System I	3
ECO-101	Macroeconomics	3
HPE.....	Health & Exercise Science Elective	1
		<b>16/17</b>
<b>Second Semester</b>		
MGT-102	Introduction to Management or	
FIN-212	Principles of Finance	3
CIS-181	Linux/UNIX Essentials	3
CIS-231	System Analysis And Design	3
CIS-242	Relational Database Management System II	3
ECO-102	Microeconomics	3
.....	Diversity: Humanities General Education Elective	3
		<b>18</b>
<b>Total Minimum Credits</b>		<b>65</b>

<sup>1</sup> Students with structured programming knowledge may select Structured Programming.

<sup>2</sup> Choose from the following math electives:  
MTH-109 - Intermediate Algebra Extended  
MTH-125 - College Algebra and Trigonometry  
MTH-129 - Discrete Mathematics Co-requisite for Computer Science II (CSC-223)  
MTH-122 - Applied Calculus  
MTH-111 - Elements of Statistics I  
MTH-112 - Elements of Statistics II

<sup>3</sup> Prerequisites listed with the course descriptions must be met for all programming languages.

## Program Description

Personal computer specialists use microcomputers to solve problems in business situations. They use software applications for financial analysis, file handling and databases and word processing. These specialists are knowledgeable of microcomputer operating systems and computer networking.

## Program Goals

- To provide quality state-of-the-art training to students who wish to enter the computer field as information specialists.
- To provide students with a program that emphasizes software applications instead of software development to solve business problems.
- To provide students with a broad range of computer skills and their applications within functional areas of organizations.
- To prepare students to handle the rate of change in the information processing and application software field.

## Program Student Learning Outcomes

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

1. Use multiple computer applications to solve business problems.
2. Use existing data and a broad range of computer application skills to solve unique functional area problems.
3. Support users in self selected application areas.

## Employment Opportunities

- Administrative assistant
- Computer salesperson
- End-user support specialist
- Help desk
- Information specialist
- Trainer
- Office manager
- Information technologist

## Contact Persons

Professor Charles W. Van Mater, Coordinator

(856) 227-7200, ext. 4458

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Professor Bernadette Carlin, SSI, ext. 4423

E-mail: [bcarlin@camdencc.edu](mailto:bcarlin@camdencc.edu)

Professor Melvin Howell, ext. 3105

E-mail: [mhowell@camdencc.edu](mailto:mhowell@camdencc.edu)

<sup>1</sup>Choose from the following Math electives:

- MTH-109 - Intermediate Algebra Extended
- MTH-125 - College Algebra and Trigonometry
- MTH-129 - Discrete Mathematics
- MTH-122 - Applied Calculus
- MTH-111 - Elements of Statistics I
- MTH-112 - Elements of Statistics II

# COMPUTER INFORMATION SYSTEMS Personal Computer Option

Degree: Associate in Applied Science  
College Code: PCM.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CSC-101	Computer Literacy	3
CST-103	Microcomputer Operating Systems I: Workstations	3
MGT-101	Introduction to Business or	
MGT-102	Introduction to Management	3
OST-110	Microcomputer Keyboarding	1
MTH ...	Mathematics General Education Elective <sup>1</sup>	3/4
		<b>16/17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CSC-111	Introduction to Programming	3
CIS-181	Linux/UNIX Essentials	3
CIS-206	Advanced Computer Concepts & Applications	3
MTH ...	Mathematics General Education Elective <sup>1</sup>	3/4
		<b>15/16</b>
<b>Second Year/First Semester</b>		
CSC-213	Visual Basic I	3
ACC-104	Financial Accounting	3
ECO-101	Macroeconomics or	
ECO-102	Microeconomics	3
HPE .....	Health & Exercise Science Elective	1
<b>Select two courses to equal 6 credits from below:</b>		
CIS-102	Spreadsheets	(3 credits)
CIS-103	Database Management	(3 credits)
OST-224	Advanced Microsoft Word	(3 credits)
CST-106	Microcomputer Operating Systems II: Server Systems	(3 credits)
		<b>6</b>
		<b>16</b>
<b>Second Semester</b>		
CIS-231	Systems Analysis and Design	3
.....	Diversity: Humanities General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
<b>Select three courses to equal 9 credits from below:</b>		
CIS-241	Relational Database Management	(3 credits)
CSC-214	Visual Basic II	(3 credits)
CST-109	Building, Upgrading and Repairing Personal Computers	(3 credits)
ACC-105	Managerial Accounting	(3 credits)
		<b>9</b>
		<b>16</b>
<b>Total Minimum Credits</b>		<b>63</b>

## Program Description

CIMNET 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 CIMNET program equips its graduates with an in-depth multi-disciplinary education in mathematics, physics, engineering technology, both manual and CNC machining, manufacturing processes and methods, industrial electronics, 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 Programmable Logic Controller (PLC) or Computer Numerical Controller (CNC) programming.

## Program Goals

- To provide students with the skills required to author and troubleshoot Computer Numerically Control (CNC) and Programmable Logic Controller (PLC) programs.
- To assure that students gain a working familiarity in the operating principles, selection and installation of common sensors, detectors and electro-mechanical drive elements used in industrial automation settings.
- To prepare students to use their multidisciplinary skill set to troubleshoot and creatively modify manufacturing processes and systems including CNC tooling.
- To equip students with the ability to analyze, synthesize and control manufacturing operations and processes using statistical methods.
- To prepare students to either qualify for and immediate employment or exercise their option to transfer to a baccalaureate program in Manufacturing or Mechanical Engineering Technology.

## 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) programs.
2. Specify and install those sensors, detectors and electro-mechanical 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 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.

## Employment Opportunities

- CNC programmer
- Factory automation specialist
- Manufacturing engineering technician
- PLC programmer
- Robot technician
- Technical salesperson

## Contact Persons

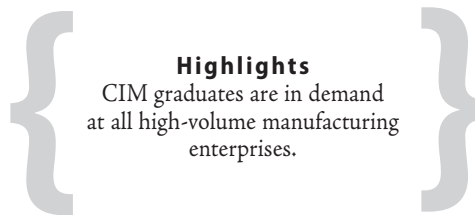
Kevin Schmidt  
 (856) 227-7200, ext. 4517  
 E-mail: kschmidt@camdencc.edu

# Computer Integrated Manufacturing Engineering Technology

Degree: Associate in Applied Science  
 College Code: CIM.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
CIM-101	Introduction to Manufacturing	3
CAD-101	Computer Aided Engineering Graphics	4
PHY-101	Physics I	4
MTH-125	College Algebra & Trigonometry <sup>1</sup>	4
ENG-101	English Composition I	3
		<b>18</b>
<b>Second Semester</b>		
CST-103	Microcomputer Operating Systems I: Workstation	3
EET-101	Electrical/Electronic Principles	4
PHY-102	Physics II	4
MTH-132	Statistics for Technology	4
ENG-102	English Composition II	3
		<b>18</b>
<b>Second Year/First Semester</b>		
CIM-211	PLC Programming	4
CIM-221	CNC Programming & CAM	4
EET-241	Robotics	3
MET-221	Quality Control	2
MGT-213	Operations Management	3
HPE.....	Health & Exercise Science Elective	1
		<b>17</b>
<b>Second Semester</b>		
CIM-231	Motors, Controllers and Sensors	3
CIM-251	CIM Integration Project or	
EGR-208	Co-op I: Engineering	3
CIM-212	Advanced PLC Programming or	
CIM-222	Advanced CNC & CAM	3
.....	Diversity: Social Science General Education Elective or	
.....	Diversity: Humanities General Education Elective	3
HPE.....	Health & Exercise Science Elective	1
		<b>13</b>
	<b>Total Minimum Credits</b>	<b>66</b>

<sup>1</sup>The Pre-Calculus I (MTH-120) & Pre-Calculus II (MTH-130) series of courses may be substituted for College Algebra & Trigonometry (MTH-125).


**Highlights**  
 CIM graduates are in demand at all high-volume manufacturing enterprises.

## Program Description

The program integrates programming and software creation with the design, repair, maintenance and implementation of computer hardware. This career-oriented program combines electrical engineering technology and computer science courses with a basic general education core. There is also a cooperative education option.

## Program Goals

- To assure that students can demonstrate a comprehensive understanding of modern microcomputer operating systems, network architecture, hardware architecture, and subsystems.
- To prepare students to solve basic network design and application problems using knowledge of common network architectures and network software.
- To provide students with a baseline understanding of electronic principles and digital electronics necessary to diagnose, troubleshoot, and repair computer and network hardware problems.
- To instill in the students a commitment to lifelong learning which fosters in them a desire to transfer credits to an affiliated baccalaureate program or to seek many of the various industry certifications.
- To prepare students to qualify for entry-level employment as a Microcomputer Technician, Systems Administrator, Network Manager, Technical Support Specialist, and related jobs in the computer support and networking fields.

## 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.

## Employment Opportunities

- Computer service engineering technician
- Computer systems technician
- Lead computer operator
- Network manager
- Systems programmer
- Technical control specialist

## Contact Person

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# Computer Systems Technology

Degree: Associate in Applied Science  
College Code: CST.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CIS-191	Internet Tools and Techniques	3
CST-103	Microcomputer Operating Systems I: Workstations	3
MTH-125	College Algebra and Trigonometry or	
MTH-140	Calculus I	4
.....	Diversity: General Education Elective	3
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CIS-181	Linux/UNIX Essentials	3
CST-102	Introduction to Networking	3
CST-106	Microcomputer Operating Systems II: Server Systems	3
MTH-129	Discrete Mathematics or	
MTH-132	Statistics for Technology or	
MTH-150	Calculus II	3/4
		<b>15/16</b>
<b>Second Year/First Semester</b>		
CST-201	Advanced Networking	3
CIS-282	UNIX OSD: Disk Subsystem or	
CSC-151	HTML Programming	3
EET-101	Electrical/Electronic Principles	4
EGR-208	Coop I: Engineering or	
.....	Computer Information Systems Elective or	
.....	Technical Elective	3/4
PHY-103	Physics I (For the non-science major) or	
PHY-101	Physics I or	
PHY-201	Physics III	4
		<b>17/18</b>
<b>Second Semester</b>		
CST-109	Building, Upgrading, and Repairing Personal Computers	3
CST-204	Computer and Network Security	3
CSC-152	JavaScript for the Web or	
CIS-283	UNIX OSD: Memory & Processes or	
CIS-287	TCP/IP Communications under UNIX	3
EET-221	Digital Circuits	3
.....	Social Science General Education Elective	3
HPE.....	Health and Exercise Science Elective	1
		<b>16</b>
	<b>Total Minimum Credits</b>	<b>64</b>

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**Note**

Transferability of credit depends on the decision of the evaluating institution.

}

# Dental Assisting

Degree: Associate in Applied Science  
College Code: DAS.AAS

## 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 Goals

- To provide a college level dental assisting education that will prepare the student to function effectively as a dental assistant in various settings.
- To maintain a dynamic interdisciplinary dental assisting education that recognizes the complexity of a scientific and technologically oriented society.
- To provide the student with the skills and knowledge necessary to attain certification, registration and licensure mandated for dental assistants.

## Program Student Learning Outcomes

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

1. Perform the clinical tasks and responsibilities of dental assisting.
2. Provide patient education.
3. Apply computer skills 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. Perform expanded functions.
6. 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 completion of an accredited dental assisting program that has an articulation agreement with the dental assisting program at Camden County College.
- 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

## Accreditation

The program in Dental Assisting is accredited by the Commission on Dental Accreditation, a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-2719 or at 211 East Chicago Avenue, Chicago, IL 60611.

## Employment Opportunities

- Chairside assistant or business administrator in general or speciality practices
- Chairside assistant or business administrator in hospital and institutional settings
- Dental assisting education

## Contact Person

Roxane Medinger, Coordinator  
(856) 227-7200, ext. 4471  
rmedinger@camdenc.edu

Code	Course	Credits
<b>First Year</b>		
<b>Dental Certificate Program Courses</b>		
ENG-101	English Composition I	3
PSY-101	Basic Psychology	3
		<b>39</b>
<b>Second Year/First Semester</b>		
ENG-102	English Composition II	3
.....	Humanities General Education Elective	3
MTH ...	Mathematics General Education Elective	3/4
.....	Free Elective	3
		<b>12/13</b>
<b>Second Semester</b>		
.....	Diversity: Humanities General Education Elective	3
.....	Free Elective	3
.....	Laboratory Science General Education Elective	4
.....	Social Science General Education Elective	3
		<b>13</b>
<b>Total Minimum Credits</b>		<b>64</b>

## Highlights

The Associate in Applied Science degree in Dental Assisting is for those who may wish to transfer to a four-year institution and pursue a career in health care administration or education.

## 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, full-time, daytime program that prepares students to take national, regional and state licensure exams in dental hygiene.

## Program Goals

- To provide an entry-level dental hygiene education that will prepare the student for licensure and to function effectively in a dental hygiene setting.
- To maintain a dynamic dental hygiene education that recognizes the complexity of a scientific and technologically oriented society.
- To provide quality, patient-centered dental hygiene care to all members of the community.

## 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. Perform the tasks and responsibilities of dental hygiene practice in compliance with the dental practice acts and established professional ethics of the state(s) in which he/she is licensed.
3. Recognize sources of information and information gathering techniques that enable them to seek and obtain information when needed.
4. Apply computer skills in order to find information, take intraoral photographs, take digital radiographs, obtain periodontal charting information, and manage patient records.
5. Provide humane and compassionate care to all patients without discrimination as outlined in the Patient's Bill of Rights.
6. Provide dental hygiene care utilizing the dental hygiene process of assessment, dental hygiene diagnosis, treatment planning, implementation and evaluation.
7. Present preventative educational programs in various settings.

## Special Program Requirements

Applicants must satisfy the following prerequisites:

- High school college preparatory course diploma or equivalent
  - Biology course with lab (high school) - Grade "C" or better
  - Chemistry course with lab (high school) - Grade "C" or better
  - Placement into college level English and mathematics courses based on the results of the College Placement Test (or other approved test)
  - Minimum cumulative grade point average of 2.8 for college transfer applicants. It is recommended that the applicant take as many core courses as possible included in the hygiene curriculum prior to applying.
  - SAT scores of Math 450, Critical Thinking 450, Writing 450 (minimum), or ACT scores of 18 (minimum). Applicants who have college experience do not have to submit SAT scores.
- After completion of the above prerequisites, an application for admission to the Dental Hygiene program should be submitted to the Office of Records and Registration. The following will then occur:
- There will be an academic review of transcripts by the director of dental programs.
  - Competitive candidates will meet with the director of dental programs.
  - Candidates will receive written notification of the admissions committee decision.

- If accepted, the candidate must obtain current Basic Life Support certification. Approved courses include American Heart Association, Health Care Provider, or American Red Cross, Basic Life Support for the Professional Rescuer.
- A physical exam, various immunizations, and proof of health insurance will be required prior to the beginning of class. The dental department has an extensive exposure control/infectious disease policy, which is available upon request.

## Accreditation

The program in Dental Hygiene is accredited by the Commission on Dental Accreditation, and recognized by the Commission on Recognition of Postsecondary Accreditation and by the United States Department of Education. The - on Dental Accreditation can be contacted at (312) 440-2719 or at 211 East Chicago Avenue, Chicago, IL 60611.

## Employment Opportunities

- Clinical hygienist
- Dental office manager

## Contact Person

Dr. Catherine A. Boos, Director  
(856) 227-7200, ext. 4472

E-mail: cboos@camdencc.edu

Admission to the Dental Hygiene Program is on a competitive basis and completion of all prerequisites and core curriculum 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 applicant's documented record. Criteria for selection are based on past academic performance. Science courses that were completed five or more years prior to enrollment in the hygiene program will not be accepted for transfer credit. Preference will be given to students who have completed their core curriculum requirements at Camden County College.

**NOTE:** Clinical placements 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.

<sup>1</sup> Completion of General Chemistry I (CHM-101), and General Chemistry II (CHM-102), will satisfy this requirement.

<sup>2</sup> Completion of Anatomy & Physiology I (BIO-211), and Anatomy & Physiology II (BIO-212), will satisfy this requirement.

# Dental Hygiene

Degree: Associate in Applied Science  
College Code: DHY.AAS

Code	Course	Credits
<b>First Year/Summer Semester</b>		
ENG-101	English Composition I	3
PHL-232	Biomedical Ethics	3
		<b>6</b>
<b>Fall Semester</b>		
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 or	
	Chemistry I Science <sup>1</sup>	4
BIO-210	Human Anatomy and Physiology <sup>2</sup>	4
		<b>19</b>
<b>Spring Semester</b>		
DHY-122	Dental Hygiene II Seminar	2
DHY-132	Head and Neck Sciences	3
DHY-142	Periodontics I	2
DHY-152	Dental Hygiene II Clinic	3
DHY-162	Dental Lab Procedures	2
BIO-220	Elements of Microbiology or	
	Microbiology I	3/4
BIO-221		3
FNS-105	Introduction to Nutrition	3
		<b>18/19</b>
<b>Second Year/Summer Semester</b>		
ENG-102	English Composition II	3
SOC-101	Introduction to Sociology	3
		<b>6</b>
<b>Fall Semester</b>		
DHY-261	Pathology	2
DHY-271	Pharmacology and Anesthesiology	2
DHY-243	Periodontics II	2
DHY-223	Dental Hygiene III Seminar	2
DHY-253	Dental Hygiene III Clinic	6
HPE.....	Health & Exercise Science Elective	1
		<b>15</b>
<b>Spring Semester</b>		
DHY-212	Community Dentistry	2
DHY-222	Dental Office Administration	1
DHY-224	Dental Hygiene IV Seminar	2
DHY-254	Dental Hygiene IV Clinic	4
PSY-101	Basic Psychology	3
SPE-101	Fundamentals of Speech or	
SPE-102	Public Speaking	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Total Minimum Credits</b>		<b>80</b>

## 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.

## Program Goals

- To provide a concentration of course work appropriate for dietetic technician students.
- To apply age, culture, economics and education considerations in assessing nutritional needs in diverse populations in today's society.
- To demonstrate self-direction and leadership in the dietetic profession.
- To engage students in ethical business practices in all areas of the profession.
- To prepare students to successfully pass the national registration exam administered by the Commission on Dietetic Registration to earn credentials of DTR.
- To provide students a foundation to obtain entry-level positions as dietetic technicians in clinical nutrition therapy, community nutrition programs, community nutrition programs and/or food service management.

## Program Student Learning Outcomes

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

1. Translate subjective and objective data to determine a client's nutrient needs.
2. Formulate patient goals based on individual needs of clients and established interventions for disease states.
3. Identify and remediate safety hazards.
4. Plan and deliver nutrition for clients across the lifespan and from various ethnic and cultural backgrounds.
5. Apply food production skills in regards to nutrient retention, cost consideration and customer acceptance.
6. Document all components of the nutrition care process.
7. Apply concepts of basic science and mathematics to nutritional care concepts.

## Special Program Requirements

- High School Preparatory Diploma or equivalent
- Placement into college level English and math
- An interview with the clinical director is highly recommended.
- 450 hours of supervised field experience is required prior to graduation
- Students are required to purchase lab coats for field experiences, maintain student health insurance and provide reliable transportation to field sites. Some field sites may require a criminal background check

## Accreditation

The Dietetic Technology program is accredited by:  
The Commission on Accreditation of Dietetics Education  
120 South Riverside Plaza Suite 200  
Chicago, Ill 60606-6995  
Phone: 1-800-877-1600

## Employment Opportunities

- Dietetic Technician Registered
- Certified Dietary Manager
- Food Production Manager
- Public Health Educator
- Dietetic/Nutrition Counselor
- Food Service Director
- Dietary Supervisor

## Contact Person

Marsha Patrick, Director  
(856) 227-7200, ext. 4665  
E-mail: mpatrick@camdencc.edu

**Recommendations**  
High school biology and/or  
chemistry is highly recommended.

# Dietetic Technology

Degree: Associate in Applied Science  
College Code: DTT.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
ALH-110	Waived Laboratory Testing	1
FNS-100	Dietetic Foundations	3
FNS-105	Introduction to Nutrition	3
CSC-101	Computer Literacy	3
MTH ...	Mathematics General Education Elective	3
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CHM-101	General Chemistry I	4
FNS-110	Food Service Management	3
FNS-130	Life Cycle Nutrition	3
HPE-102	Health and Wellness	3
		<b>16</b>
<b>Second Year/First Semester</b>		
CHM-160	Fundamentals of Food Science	4
FNS-200	Community Nutrition Rotation	3
FNS-210	Food Service Operations	3
FNS-211	Therapeutic Nutrition I	3
PSY-101	Basic Psychology	3
		<b>16</b>
<b>Second Semester</b>		
FNS-212	Therapeutic Nutrition II	3
FNS-220	Quantity Food Production	3
FNS-240	Food Service Rotation	3
.....	Diversity: Humanities General Education Elective	3
.....	Laboratory Science General Education Elective <sup>1</sup>	4
		<b>16</b>
<b>Summer Semester</b>		
FNS-250	Clinical Nutrition Rotation	3
		<b>3</b>
<b>Total Minimum Credits</b>		<b>67</b>

<sup>1</sup> See Program Advisor for appropriate Laboratory Science General Education elective

**NOTE:** Clinical placements 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.

## 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 Goals

- To assure that student possess the ability to integrate analog and digital discrete and integrated circuits to develop an electronic system or process or propose alternate strategies to solve electrical/electronic circuit problems.
- To equip students to use productivity and computerized circuit simulation software to analyze experimental data from AC and DC circuits.
- To prepare students to, either singly, or in teams, develop written and oral presentations of a theory, concept or analysis of complex electronic-related problem or electronic project.
- To prepare students to seek employment as a technician or junior engineer, using industrial test and measurement equipment to evaluate and trouble-shoot the operation of electronic circuits or systems.
- To instill in the students a commitment to lifelong learning which fosters in them a desire to transfer credits to a baccalaureate program in electrical-electronic engineering technology.

## Program Student Learning Outcomes

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

1. Integrate analog and digital discrete and integrated circuits to develop an electronic 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.

## Special Program Requirement

Students should have an adequate background in algebra and trigonometry.

## Employment Opportunities

- Engineer's assistant
- Field service engineer
- Lab technician
- Quality control specialist
- Production technician
- Technical salesperson

## Contact Person

Professor Lawrence M. Chatman, Coordinator  
(856) 227-7200, ext. 4523  
E-mail: lchatman@camdenc.edu

# ENGINEERING TECHNOLOGY Electrical-Electronic Engineering

Degree: Associate in Applied Science  
College Code: EET.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
EET-101	Electrical/Electronic Principles	4
CIM-101	Introduction to Manufacturing	3
MTH-125	College Algebra & Trigonometry or	
MTH-140	Calculus I <sup>2</sup>	4
.....	Social Science General Education Elective <sup>1</sup>	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CAD-101	Computer Aided Engineering Graphics	4
EET-211	Electronics I	3
PHY-101	Physics I or	
PHY-201	Physics III	4
.....	Diversity: Humanities General Education Elective	3
		<b>17</b>
<b>Second Year/First Semester</b>		
EET-201	Electrical Circuits	3
EET-221	Digital Circuits	3
CSC-111	Introduction to Programming or	
CSC-121	Structured Programming (C++)	3/4
PHY-102	Physics II or	
PHY-202	Physics IV	4
.....	Technical Elective <sup>3</sup>	3/4
		<b>16/17/18</b>
<b>Second Semester</b>		
EET-212	Electronics II	3
EET-213	Electronic Communications	3
EET-251	Electronic Project or	
EGR-208	Co-op I: Engineering	3
MTH-132	Statistics for Technology or	
MTH-150	Calculus II <sup>2</sup>	4
HPE .....	Health & Exercise Science Elective	1
		<b>14</b>
<b>Total Minimum Credits</b>		<b>64</b>

<sup>1</sup> Economics (ECO-102) is recommended.

<sup>2</sup> All students transferring to NJIT, Temple or Thomas Edison must take the Calculus I, II track.

<sup>3</sup> Courses in physical sciences, high technology curricula (CADD,CIM,CST), mathematics, and computer programming will fulfill this elective.

## Highlights

This program maintains articulation with the following baccalaureate institutions offering degrees in engineering technology: New Jersey Institute of Technology, Temple University, and Thomas Edison College.

## 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 electro-mechanical systems.

## Program Goals

- To assure that students can understand and explain the impact an electronic control system has on a mechanical device, process, or system.
- To foster the ability to work in teams or single to successfully analyze and propose alternate strategies to solve problems in electromechanical systems and develop written and oral presentations.
- To prepare the students to seek employment as a technician or junior engineer, using industrial test and measurement equipment to evaluate and trouble-shoot the operation of an electromechanical processes or system.
- To instill in the students a commitment to lifelong learning which fosters in them a desire to transfer credits to a baccalaureate program in electro-mechanical engineering technology.

## 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 electro-mechanical system problem or electronic project.

## Special Program Requirement

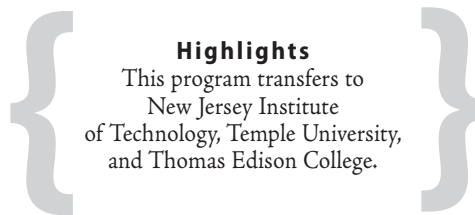
Students should have an adequate background in algebra and trigonometry.

## Employment Opportunities

- Engineer's assistant
- Field service engineer
- Lab technician
- Quality control specialist
- Production technician
- Technical salesperson

## Contact Persons

Professor Lawrence M. Chatman, Coordinator  
(856) 227-7200, ext. 4523  
E-mail: lchatman@camdenc.edu



### Highlights

This program transfers to New Jersey Institute of Technology, Temple University, and Thomas Edison College.

# ENGINEERING TECHNOLOGY Electromechanical Engineering

Degree: Associate in Applied Science  
College Code: EME.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CIM-101	Introduction to Manufacturing	3
EET-101	Electrical/Electronic Principles	4
MTH-125	College Algebra & Trigonometry or	
MTH-140	Calculus I <sup>1</sup>	4
.....	Social Science General Education Elective <sup>2</sup>	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CAD-101	Computer Aided Engineering Graphics	4
EET-211	Electronics I	3
PHY-101	Physics I or	
PHY-201	Physics III	4
.....	Diversity: Humanities General Education Elective	3
		<b>17</b>
<b>Second Year/First Semester</b>		
EET-221	Digital Circuits	3
EET-241	Robotics	3
CIM-211	PLC Programming	4
PHY-102	Physics II or	
PHY-202	Physics IV	4
CSC-111	Introduction to Programming or	
CSC-121	Structured Programming (C++)	3/4
		<b>17/18</b>
<b>Second Semester</b>		
MET-233	Project Design or	
EGR-208	Co-op I: Engineering	3
CIM-231	Motors, Controllers and Sensors	3
MTH-132	Statistics for Technology or	
MTH-150	Calculus II <sup>2</sup>	4
.....	Technical Elective <sup>3</sup>	3/4
		<b>13/14</b>
<b>Total Minimum Credits</b>		<b>64</b>

<sup>1</sup> Students transferring to NJIT or Temple University or Thomas Edison must take the Calculus I & II track for math and physics.

<sup>2</sup> Microeconomics (ECO-102) is recommended.

<sup>3</sup> Electronic Communications (EET-213) or Introduction to Networking (CST-102) is recommended.

## Program Description

The program consists of technical courses of study in mechanical systems and a core of general education courses. The program establishes and maintains relationships with businesses involved in the design and/or manufacture of mechanical systems. It uses prevailing procedures to test current mechanical equipment used in industry.

## Program Goals

- To assure the students gain the ability to analyze, compare and contrast the physical and chemical properties of different materials with particular emphasis on conditions for appropriate usage in machines and structures.
- To foster the willingness and ability to work in teams to successfully analyze and propose alternate strategies to solve problems in mechanical processes or systems.
- To prepare student to develop a written and oral presentation of a theory, concept or analysis of a complex mechanical project.
- To prepare students to qualify for entry-level employment as a technician or junior engineer, using industrial test and measurement equipment to evaluate and trouble-shoot the operation of a machine, mechanical processes or structure.
- To instill in the students a commitment to lifelong learning which fosters in them a desire to transfer credits to a baccalaureate program in mechanical engineering technology.

## 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.

## Special Program Requirement

Students should have an adequate background in algebra and trigonometry.

## Employment Opportunities

- Engineer
- Engineer's assistant
- Machine and equipment tester
- Production estimator
- Production technician
- System planner

## Contact Persons

Professor Lawrence M. Chatman, Coordinator  
(856) 227-7200, ext. 4523  
E-mail: lchatman@camdencce.edu

# ENGINEERING TECHNOLOGY Mechanical Engineering

Degree: Associate in Applied Science  
College Code: MET.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CAD-101	Computer Aided Engineering Graphics	4
CIM-101	Introduction to Manufacturing	3
MTH-125	College Algebra & Trigonometry or	
MTH-140	Calculus I <sup>2</sup>	4
.....	Social Science General Education Elective <sup>1</sup>	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
EET-101	Electrical/Electronic Principles	4
MTH-132	Statistics for Technology or	
MTH-150	Calculus II <sup>2</sup>	4
PHY-101	Physics I or	
PHY-201	Physics III	4
.....	Diversity: Humanities General Education Elective	3
		<b>18</b>
<b>Second Year/First Semester</b>		
CSC-111	Introduction to Programming	3
MET-221	Quality Control	2
MET-231	Strength of Materials	4
CIM-211	PLC Programming	4
PHY-102	Physics II or	
PHY-202	Physics IV	4
		<b>17</b>
<b>Second Semester</b>		
MET-232	Manufacturing Processes	4
MET-233	Project Design or	
EGR-208	Co-op I: Engineering I	3
MET-241	Machine Design	4
.....	Technical Elective <sup>3</sup>	3
		<b>14</b>
	<b>Total Minimum Credits</b>	<b>68</b>

## Highlights

This program transfers to baccalaureate programs in engineering technology at New Jersey Institute of Technology, Temple University, and Thomas Edison College.

## 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 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 Goals

- To assure that students can explain modern design and production concepts used in a specific engineering technology discipline: electrical, mechanical or manufacturing.
- To foster the willingness and ability work in teams to successfully analyze and propose alternate strategies to solve problems in systems, processes or products.
- To equip students to provide value-added service to their existing organization as a technician or junior engineer in areas such as continuous quality improvement and systems analysis.
- To prepare students to develop a written and oral presentation of a theory, concept or analysis of complex system, process or product project. Students shall focus on their individual specialties, electrical, manufacturing, electromechanical or mechanical in the analysis.

## 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 .
5. 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.

## Program Information

This program is available to corporate, industrial and military employers who wish to validate their training programs and provide additional learning experiences for their employees.

## Special Admissions Requirements

The corporate, industrial and/or military training program must be reviewed and approved by a faculty assessor to validate the goals, objectives, depth and scope of the training.

## Employment Opportunities

The Technical Studies degree program provides skill and knowledge enhancement and career mobility for corporate, industrial and military employees.

## Contact Person

Professor Lawrence M. Chatman, Coordinator  
(856) 227-7200, ext. 4523  
E-mail: lchatman@camdencc.edu

# ENGINEERING TECHNOLOGY Technical Studies

Degree: Associate in Applied Science  
College Code: TES.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CSC-101	Computer Literacy	3
MTH....	Mathematics General Education Elective - (4 credits)	4
.....	Technical Studies Credit <sup>1</sup>	4
.....	Technical Concentration <sup>2</sup>	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
.....	Laboratory Science General Education Elective <sup>3</sup>	4
.....	Technical Studies Credit <sup>1</sup>	4
.....	Technical Concentration <sup>2</sup>	3
		<b>14</b>
<b>Second Year/First Semester</b>		
SPE 101	Fundamentals of Speech or	
SPE 212	Small Group Communications or	
HSR-105	Group Dynamics	3
.....	Social Science General Education Elective	3
.....	Technical Studies Credit <sup>1</sup> or	
.....	Technical Elective <sup>4</sup>	4
.....	Technical Concentration <sup>2</sup>	3
		<b>13</b>
<b>Second Semester</b>		
.....	Technical Studies Credit <sup>1</sup> or	
.....	Technical Elective <sup>4</sup>	4
.....	Technical Concentration <sup>2</sup>	6
EGR-208	Co-op I: Engineering or	
.....	Apprentice Co-op	3/4
.....	Diversity: Humanities General Education Elective	3
		<b>16/17</b>
<b>Total Minimum Credits</b>		<b>60</b>

<sup>2</sup>Select from one of the following concentrations –  
(Courses must be approved by appropriate faculty advisor):

- Concentrations
- Automotive Technology
- Business
- Computer Aided Drafting and Design
- Computer Information Systems
- Computer Integrated Manufacturing
- Computer Science
- Computer Systems Technology
- Engineering Technology (EET, MET, EME)
- Photonics

<sup>3</sup> Recommend Physics for Non-Science majors (PHY-103)

<sup>4</sup> Technical electives may be selected from high technology curricula CADD, CIM, CST, EET, EME, MET, Photonics, physics, mathematics, computer information systems and programming

\*\*All Technical Elective courses should be selected with assistance from a faculty advisor

<sup>1</sup> Three to 16 Technical Studies credits may be earned for corporate, industrial, or military training programs after review by faculty assessor of related program.

\*\* Individuals without sufficient technical training experience must select up to 4 sequential courses in one of the Concentrations listed below to satisfy the Technical Studies credit requirements.

# Finance

Degree: Associate in Applied Science  
College Code: FIN.AAS

## Program Description

Financial managers and staff prepare the financial reports necessary for conducting operations and for satisfying tax and regulatory requirements. A cash manager, for example, oversees the cash flow of an organization, develops information to assess its financial status; oversees its accounting, audit, and budget departments; and researches, recommends, and secures loans for the organization.

## Program Goals

- To assure students gain the ability to prepare those financial reports that are required to conduct operations and to satisfy tax and regulatory requirements.
- To prepare students to develop information to assess the present and future financial status of an organization.
- To prepare students to oversee programs to minimize risks and losses arising from an institution's financial transactions.
- To assure that the students qualify for entry-level employment as a budget officer, credit analyst, financial consultant, insurance agent, pension consultant and real estate advisor.
- To instill in the students a commitment to lifelong learning which engenders the desire to transfer credits to an affiliated baccalaureate program.

## Program Student Learning Outcomes

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

1. Prepare financial reports that are required to conduct operations and to satisfy tax and regulatory requirements.
2. Develop information to assess the present and future financial status of an organization.
3. Oversee programs to minimize risks and losses arising from an institution's financial transactions.

## Employment Opportunities

Upon graduation, students will be prepared to enter the business world of banking, brokerage, corporate finance, and general business. Employment opportunities for financial managers and staff are expected to increase greatly throughout the century.

- Budget officer
- Credit analyst
- Financial consultant
- Insurance agent
- Pension consultant
- Real estate advisor

## Contact Persons

Professor Richard Sarkisian, Coordinator  
(856) 227-7200, ext. 4492  
E-mail: rsarkisian@camdencc.edu  
Professor Paul Harris, ext. 4437  
E-mail: pharris@camdencc.edu



### Highlights

Program provides specialized knowledge in the dynamic financial field.

Code	Course	Credits
<b>First Year/First Semester</b>		
ACC-104	Financial Accounting	3
CIS-101	Personal Computer Applications or	
CSC-101	Computer Literacy	3
ENG-101	English Composition I	3
MGT-101	Introduction to Business	3
OST-110	Microcomputer Keyboarding	1
MTH.....	Mathematics General Education Elective	3/4
		<b>16</b>
<b>Second Semester</b>		
ACC-105	Managerial Accounting	3
FIN-212	Principles of Finance	3
MGT-102	Introduction to Management	3
LAW-101	Legal Environment/Business Law I	3
ENG-102	English Composition II	3
MTH.....	Mathematics General Education Elective	3/4
		<b>18</b>
<b>Second Year/First Semester</b>		
CIS-102	Spreadsheets	3
ECO-101	Macroeconomics	3
FIN-201	Investment Principles	3
LAW-102	Business Law II	3
.....	Diversity: Humanities General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
FIN-202	Investment Analysis	3
FIN-213	Corporate Finance	3
MTH-111	Elements of Statistics	3
ECO-102	Microeconomics	3
BUS-201	Co-op I: Business or	
.....	Free Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Total Minimum Credits</b>		<b>66</b>

## Program Description

The program provides professional training and education for people seeking careers in the fire service and related fields.

## Program Goals

- To prepare students to demonstrate knowledge of building and fire codes
- To prepare students to acquire the knowledge and understanding of fire department operation and management
- To prepare students to apply the logic and reasoning needed in the field of fire investigation
- To prepare students to transfer to various colleges offering baccalaureate degrees in Fire Science and administration
- To prepare students to demonstrate a commitment to continuing learning through ongoing in-service training and education
- To prepare students to develop a system for self assessment and enhance individual growth through personal career goals and objectives
- To provide students with the knowledge and understanding of the sociological, psychological, and economic problems relating to fire

## Program Student Learning Outcomes

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

1. Explain the organization and function of the fire department and its management.
2. Describe the logic and reasoning that is the basis of fire investigation.
3. Synthesize and analyze the sociologic, psychological, and economic problems associated with fire.
4. Analyze building and fire codes.
5. Apply the basic principles of chemistry and physics to fire and firefighting.

## Program Information

Students matriculated in the Fire Science Technology degree programs can receive up to 6 credits in co-op for completion of the following certificates:

Division of Fire Safety Certificates

- Fire Fighter I
- Fire Officer I

Division of Forestry Certificate

- Fire Fighter I
- NCG Wildland Firefighter S130/S190

Students must present the certificate(s) to the coordinator of the Fire Science Technology program.

## Employment Opportunities

- Alarm and sprinkler industry
- Forest fire service
- Industrial fire protection
- Insurance industry
- Public fire departments

## Contact Persons

Professor Patrick Bigoss, Director  
(856) 227-7200 ext. 4388  
E-mail: pbigoss@camdenc.edu

## Highlights

A certificate is given for the completion of each professional course that meets uniform fire code requirements.

A program certificate is given for the completion of 34 fire science credits with at least 16 credits from either Fire Suppression or Fire Prevention track. Students transfer successfully to various colleges offering baccalaureate degrees in fire science and administration.

# Fire Science Technology

Degree: Associate in Applied Science  
College Code: FIR.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
FIR-101	Fundamentals of Fire Protection	3
FIR-111	Building Codes & Standards	3
MTH-111	Elements of Statistics I	3
PSY-101	Basic Psychology <b>or</b>	
SOC-101	Introduction to Sociology	3
ENG-101	English Composition I	3
HPE .....	Health & Exercise Science Elective <sup>1</sup>	1
		<b>16</b>
<b>Second Semester</b>		
FIR-102	Fundamentals of Fire Prevention/Fire Inspector I	3
FIR-121	Fire Fighting Tactics and Strategy	3
CHM-120	Chemistry for Fire Protection	4
PHY-103	Physics I (for the Non-Science Major)	4
ENG-102	English Composition II	3
		<b>17</b>
<b>Second Year/First Semester</b>		
FIR-201	Fire Protection Systems	3
FIR-211	Building Construction for Fire Service	3
FIR-221	Hydraulic Technology	4
FIR-231	Organization & Management of Fire Departments	3
FIR-254	Co-op: I Fire Science <b>or</b>	
.....	Free Elective	3/4
		<b>16/17</b>
<b>Second Semester</b>		
FIR-202	Fire Investigation	3
FIR-241	Hazardous Materials	3
FIR-251	Fire Service Instruction Techniques/Methods	3
FIR-255	Co-op II: Fire Science <b>or</b>	
FIR-252	Arson/Law & Court Procedures	3
.....	Diversity: Humanities General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Total Minimum Credits</b>		<b>65</b>

<sup>1</sup>Students may substitute EMT-100 Emergency Medical Technician for the Health & Exercise Science Elective

## Program Description

This program option prepares individuals in the fire service to become administrators in fire departments or managers in a fire-related industry. This option will allow students to develop business administration and computer-related skills so that they may better serve in an administrative capacity.

## Program Goals

- To prepare students to pass certain State of New Jersey fire science certification tests.
- To provide students with the knowledge and understanding of managing a fire department or fire-related industry.
- To prepare students to demonstrate knowledge of building and fire codes.
- To prepare graduates to transfer to various colleges offering baccalaureate degrees in fire science administration.

## Program Student Learning Outcomes

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

1. Explain building and fire codes.
2. Discuss the logic and reasoning that is the basis of fire investigation.
3. Describe overall management system of a fire department or fire related industry.
4. Apply the basic principles of chemistry and physics to fire and firefighting.

## Program Information

Students matriculated in the Fire Science Technology degree programs can receive up to 6 credits in co-op for completion of the following certificates:

### Division of Fire Safety Certificates

- Fire Fighter I
- Fire Officer I

### Division of Forestry Certificate

- NCG Wildland Firefighter S130/S190

Students must present the certificate(s) to the coordinator of the Fire Science Technology Program.

## Employment Opportunities

- Alarm and sprinkler industry
- Forest fire service
- Industrial fire protection
- Insurance industry
- Public fire departments

## Contact Persons

Professor Patrick Bigoss, Director  
(856) 227-7200 ext. 4388  
E-mail: pbigoss@camdenc.edu

# FIRE SCIENCE TECHNOLOGY Administration Option

Degree: Associate in Applied Science  
College Code: FRA.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
FIR-101	Fundamentals of Fire Protection	3
FIR-102	Fundamentals Fire Prevention/Fire Inspector I	3
PSY-101	Basic Psychology <b>or</b>	
SOC-101	Introduction to Sociology	3
ENG-101	English Composition I	3
MTH-111	Elements of Statistics I	3
HPE.....	Health & Exercise Science Elective <sup>1</sup>	1
		<b>16</b>
<b>Second Semester</b>		
ACC-104	Financial Accounting	3
ENG-102	English Composition II	3
FIR-202	Fire Investigation	3
CHM-120	Chemistry for Fire Protection	4
FIR-222	Fire Inspector II <b>or</b>	
FIR-254	Co-op I: Fire Science <b>or</b>	
.....	Free Elective	3/4
		<b>16/17</b>
<b>Second Year/First Semester</b>		
FIR-201	Fire Protection Systems	3
FIR-212	Fire Official	3
FIR-221	Hydraulic Technology	4
FIR-251	Fire Service Instruction Techniques/Method	3
FIR-252	Arson/Law & Court Procedures	3
		<b>16</b>
<b>Second Semester</b>		
CSC-101	Computer Literacy	3
FIR-111	Building Codes & Standards	3
FIR-231	Organization & Management of Fire Depts	3
FIR-241	Hazardous Materials	3
.....	Diversity: Humanities General Education Elective	3
HPE.....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Total Minimum Credits</b>		<b>64</b>

<sup>1</sup>Students may substitute EMT-100 Emergency Medical Technician for the Health & Exercise Science Elective

## Program Description

The health information technology 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, and insurance companies.

## Program Goals

- To provide students with a foundation in HIT technical skills and areas of career knowledge that will allow graduates to meet entry-level competencies and become successfully employed as a health information technician in a healthcare facility or healthcare employer (health information management consulting firm, software vendor, etc.).
- To provide students with a foundation in general education.
- To demonstrate coding classification knowledge, statistical literacy, and entry-level knowledge of governmental regulations that impacts the field of Health Information Technology Management (HITM).
- To support and encourage graduates to take national certification examination for Registered Health Information Technician (RHIT) offered by the American Health Information Management Association (AHIMA).
- To retain qualified, caring, and student-centered faculty
- To provide educational opportunities for program graduates and the larger Health Information Management (HIM) community of interest.

## 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.
4. Use common software packages (spreadsheets, word processing, presentation and graphics) and those software programs specific to the field of health information technology (recor tracking, encoder, release of information imaging and registries).
5. Apply and interpret the concepts of the Electronic Health Record (HER).

## 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). CAHIIM can be reached at [www.cahiim.org](http://www.cahiim.org), or at 233 N. Michigan Ave. Suite 2150, Chicago, IL 60601-5800, telephone number 312-233-1100.

## National Certification

Students who have graduated from an 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 program coordinator or at the national organizational Web site ([www.ahima.org](http://www.ahima.org)).

## Employment Opportunities

HIT professionals enjoy a broad selection of job opportunities and options for professional growth. Based on skills, education and interests, some of the positions available are:

- Health data analyst
- Insurance claims analyst
- Records technician specialist
- Clinical coding specialist
- Physician practice manager
- Patient information coordinator

## Contact Person

Lynette M. Williamson, MBA, RHIA, CCS, CPC, Coordinator  
(856)-968-1331  
E-mail: [lwilliamson@camdencc.edu](mailto:lwilliamson@camdencc.edu)

NOTE: Clinical placements 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.

## Highlights

Students seeking current information on the growth of the field, salary information, and types of employers should access the national organization via [www.ahima.org](http://www.ahima.org).

# Health Information Technology

Degree: Associate in Applied Science  
College Code: HIT.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-117	Basic Anatomy and Physiology I	4
CSC-101	Computer Literacy	3
HIT-101	Introduction to Health Information	3
HIT-120	Medical Terminology	3
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
BIO-118	Basic Anatomy and Physiology II	4
HIT-115	Healthcare Reimbursement	3
HIT-205	Legal and Ethical Issues in HIT	2
MTH-111	Elements of Statistics I	3
.....	Diversity: Social Science General Education Elective	3
		<b>18</b>
<b>Second Year/First Semester</b>		
HIT-110	Health Informatics <sup>1</sup>	4
HIT-130	Introduction to Ambulatory Coding <sup>1</sup>	3
HIT-132	Basic Pharmacology	3
HIT-134	Basic Pathophysiology <sup>1</sup>	3
HIT-140	Diagnostic and Procedural Coding II <sup>2</sup>	3
HIT-150	Technical Practice Experience <sup>3</sup>	1
		<b>17</b>
<b>Second Semester</b>		
HIT-202	Statistical Methods for Health Information <sup>2</sup>	3
HIT-215	Advanced Ambulatory Coding <sup>2</sup>	3
HIT-235	Organizational Resources, QI and PI <sup>2</sup>	4
HIT-240	Diagnostic and Procedural Coding II <sup>2</sup>	4
HIT-220	Professional Practice Experience <sup>3</sup>	2
		<b>17</b>
<b>Total Minimum Credits</b>		<b>67</b>

<sup>1</sup> This course is only offered in the Fall Semester.

<sup>2</sup> This course is only offered in the Spring Semester.

<sup>3</sup> Permission of Program Coordinator required prior to registering for this course.

## Program Description

This option prepares students for a career in the field of tumor registry and provides them with educational tools to achieve national certification as a tumor registrar. Cancer tumor registrars maintain facility, regional, and national databases of cancer patients. Registrars review patient records and pathology reports, assign codes for the diagnosis and treatment of different cancers and selected benign tumors. Registrars conduct annual follow-ups on all patients in the registry to track their treatment, survival, and recovery.

## Program Goals

- To prepare graduates for entry-level careers as cancer tumor registrars in healthcare facilities.
- To provide students with a foundation in general education.
- To provide students with the ability to demonstrate critical thinking skills for effective problem solving.
- To provide graduates that can communicate effectively in speech and writing.
- To prepare graduates to demonstrate statistical literacy, cancer registry organization and operation, oncology coding and staging knowledge.
- To provide students with entry-level knowledge of governmental regulations that impacts the area of cancer tumor registry.

## Program Student Learning Outcomes

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

1. Interpret cancer registry data from cancer health records.
2. Apply concepts of registry data retrieval and management.
3. Calculate and present data from cancer registry cases/records.
4. Analyze cancer committee, cancer board reports for quality management.
5. Analyze cancer survival data.

## Accreditation

This program will be seeking accreditation from the National Cancer Registrar's Association (NCRA). If accreditation is granted, graduates of this program will be able to take the Certified Tumor Registrar (CTR) certification exam offered by the NCRA. The NCRA can be reached at National Cancer Registrars Association, 1340 Braddock Place #203, Alexandria VA 22314, (703) 299-6640, FAX: (703) 299-6620, or at their website [www.ncra-usa.org](http://www.ncra-usa.org)

## Employment Opportunities

- Healthcare facilities
- Medical consulting organizations
- Government agencies
- Insurance industry
- Registry software companies

## Contact Person

Lynette Williamson, MBA, RHIA, CCS, CPC, Coordinator  
(856) 968-1331  
E-mail: [llwilliamson@camdencc.edu](mailto:llwilliamson@camdencc.edu)

# HEALTH INFORMATION TECHNOLOGY Cancer Tumor Registry Option

Degree: Associate in Applied Science  
College Code: CTR.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-117	Basic Anatomy and Physiology	4
CSC-101	Computer Literacy	3
HIT-101	Introduction to Health Information	3
HIT-120	Medical Terminology	3
		<b>16</b>
<b>First Year/Second Semester</b>		
ENG-102	English Composition II	3
BIO-118	Basic Anatomy and Physiology II	4
HIT-160	Cancer Registry Organization & Operation	3
HIT-205	Legal and Ethical Issues in HIT	2
MTH-111	Elements of Statistics I	3
		<b>15</b>
<b>Second Year/First Semester</b>		
HIT-110	Health Informatics <sup>1</sup>	4
HIT-132	Basic Pharmacology	3
HIT-134	Basic Pathophysiology <sup>1</sup>	3
HIT-260	Cancer Registry Management	3
.....	Free Elective <sup>2</sup>	3
		<b>16</b>
<b>Second Year/Second Semester</b>		
HIT-202	Statistical Methods for Health Information	3
HIT-255	Oncology Coding & Staging	4
HIT-265	Registry QA and Epidemiology	3
HIT-270	Cancer Registry Clinical <sup>3</sup>	2
.....	Diversity: Social Science General Education Elective	3
		<b>15</b>
<b>Total Minimum Credits</b>		<b>62</b>

<sup>1</sup> Courses only offered in the Fall Semester

<sup>2</sup> Diagnostic and Procedural Coding I (HIT-140) or Health and Wellness (HPE-102) are suggested options for this free elective.

<sup>3</sup> Approval from Program Director is required before registering for this course.

## Highlights

The increase in the number and types of health care facilities, central registries, consulting firms and registry software companies make the demand for qualified cancer registrars greater than ever.

# Health Science

Degree: Associate in Applied Science  
College Code: HSC.AAS

## Program Description

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 curriculum at Camden County College.

## Program Goals

- To earn a health science associate degree, through general education for students who have successfully completed an accredited/approved allied health program.
- To provide students with a foundation in general education.
- To prepare students for upward career mobility for healthcare workers by building upon a student's prior professional knowledge and clinical experience.
- To prepare students for career advancement in an allied health profession.

## 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.

## Special Admission Requirements

- Submission of diploma or certificate from an accredited allied health program to the allied health coordinator for evaluation.
- Conference with the allied health coordinator.

## Employment Opportunities

- Administration
- Education
- Management

## Contact Person

Patricia Chappell, Coordinator  
(856) 227-7200, ext. 4330  
E-mail: pchappell@camdenc.edu

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-117	Basic Anatomy & Physiology I	4
HIT-120	Medical Terminology	3
PSY-101	Basic Psychology	3
.....	Diversity: Humanities General Education Elective	3
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
BIO-118	Basic Anatomy & Physiology II	4
PHL-232	Biomedical Ethics	3
SOC-101	Introduction to Sociology	3
MTH ...	Mathematics General Education Elective <sup>1</sup>	3/4
		<b>16/17</b>
<b>Portfolio Assessment</b>		
		<b>*28</b>
<b>Total Minimum Credits</b>		<b>60</b>

<sup>1</sup>Suggested Electives: Elements of Statistics I (MTH-111), Intermediate Algebra (MTH-109) or Pre-Calculus I (MTH-120)

All students are required to take the core courses listed above.

Graduation from a recognized accredited Allied Health career program recognized by Camden County College that consists of 500 or more hours will receive 28 credits; programs not less than 300, and up to 499, will receive 22 credits. Both credit assessments will be conducted by portfolio assessment.

\*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

Radiology Technology Students

Please contact intended schools of medical radiography for pre-requisite requirements.

## 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 40 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 Goals

- To earn an associate in applied science degree in the Certified Medical Assistant option through general education for students who have successfully completed an American association of Medical Assistants, accredited program and who currently hold a license for the certification examination by the AAMA.
- To provide students with a foundation in general education.
- To prepare students for upward career mobility for certified medical assistants by building upon a student's prior professional knowledge and clinical experience.
- To provide students with the skills and abilities of a generally educated person in effective communications, critical thinking and problem solving across disciplines.
- To prepare students for career advancement in the medical assistant field.

## 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.

## Special Admission Requirements

In addition to the admission requirements of the College, the following criteria is required:

- Submission of diploma or certificate from an AAMA accredited medical assistant program and a current Certified Medical Assistant credential.
- Conference with the allied health coordinator.

## Employment Opportunities

- Physician offices
- Health Practitioner's offices
- Hospitals
- Nursing homes

## Contact Person

Patty Chappell, Coordinator  
 (856) 227-7200 ext 4330  
 E-mail: pchappell@camdencc.edu

# HEALTH SCIENCE Certified Medical Assistant Option

Degree: Associate in Applied Science  
 College Code: CMA.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
PSY-101	Basic Psychology	3
HIT-120	Medical Terminology	3
.....	Laboratory Science General Education Elective <sup>1</sup>	4
.....	Diversity: Humanities General Education Elective	3
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
SOC-101	Introduction to Sociology	3
.....	Laboratory Science General Education Elective <sup>1</sup>	4
MTH.....	Mathematics General Education Elective <sup>2</sup>	3/4
		<b>13/14</b>
<b>Third Semester</b>		
PHL-232	Biomedical Ethics	3
.....	Laboratory Science General Education Elective <sup>1</sup>	4
.....	Computer Information Systems Elective	3
HPE.....	Health & Exercise Science Elective(s)	2/3
		<b>12/13</b>
		<b>Post Secondary Work<sup>3</sup></b>
		<b>22</b>
<b>Total Minimum Credits</b>		<b>63</b>

<sup>1</sup> Suggested electives for students pursuing further study in a non-science related area: Environmental Science (BIO-106), Microbial World (BIO-140), Chemistry and Society (CHM-140), or Introduction to Forensic Science (CHM-145).

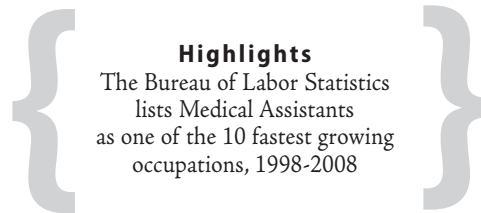
or

<sup>1</sup> Suggested electives for students pursuing further study in a science related area: Basic A&P I (BIO-117), Basic A&P II (BIO-118), Basic Microbiology (BIO-121) General Chemistry I (CHM-101), General Chemistry II (CHM-102)

<sup>2</sup> Suggested Elective: Elements of Statistics I (MTH-111)

<sup>3</sup> Students will receive 22 credits for their post-secondary work after completing the 41-43 credits at Camden County College.

Students should consult with the Certified Medical Assistant Advisor for additional advisement.



### Highlights

The Bureau of Labor Statistics lists Medical Assistants as one of the 10 fastest growing occupations, 1998-2008

## Program Description

Surgical technologists who are graduates of an approved surgical technology program 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 39-40 credits taken at Camden County College. Surgical technologists are eligible to apply for a maximum of 22 additional college credits toward an Associate in Applied Science Health Science degree: Surgical technology Option, through portfolio assessment.

## Program Goals

- To expand career mobility by enhancing previously acquired technical skills with biological and social science based theoretical knowledge.
- To enhance earning potential in the surgical technology field as a result of academic degree attainment.
- To provide students with a foundation in general education.
- To earn an associate degree in applied science that enables the student to find employment as a surgical technician.

## Program Student Learning Outcomes

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

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

## Special Admission Requirements

- Submission of diploma or certificate from an approved surgical technology program.
- Interview with coordinator.

## Employment Opportunities

- Operating rooms in general and specialty hospitals
- Outpatient surgical centers
- Labor and delivery suites
- Hospital instrument processing departments

## Contact Persons

Patty Chappell, Coordinator

(856) 227-7200, ext. 4330

E-mail: pchappell@camdencc.edu

Cheryl Young, Nursing/Allied Health Advisor

(856) 227-7200, ext. 4567

E-mail: cyoung@camdencc.edu

# HEALTH SCIENCE Surgical Technology Option

Degree: Associate in Applied Science  
College Code: SRG.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-117	Basic Anatomy & Physiology I	4
PSY-101	Basic Psychology	3
.....	Diversity: Humanities General Education Elective	3
		<b>13</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
BIO-118	Basic Anatomy & Physiology II	4
PHL-232	Biomedical Ethics	3
MTH.....	Mathematics General Education Elective	3/4
		<b>13/14</b>
<b>Third Semester</b>		
BIO-121	Basic Microbiology	4
HPE-170	First Aid and Safety	3
SOC-101	Introduction to Sociology	3
.....	Computer Information Systems Elective	3
		<b>13</b>
	Accredited Surgical Technology Program <sup>1</sup>	22
	<b>Total Minimum Credits</b>	<b>61</b>

<sup>1</sup> Students will receive 22 credits for their post-secondary work after completing the 39 to 40 Camden County College credits in this option.

# Management

Degree: Associate in Applied Science  
College Code: MGT.AAS

## Program Description

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

## Program Goals

- To assure that students can analyze and demonstrate an understanding of exposure to the general business environment to enhance entry level employment.
- To prepare students to exercise the valuable skill set obtained during cooperative internships with local employers and apply this knowledge to a business environment.
- To prepare students to qualify for entry-level employment as an assistant manager, employment interviewer, management trainee, manager, office manager and supervisor.
- To instill in the students a commitment to lifelong learning which engenders the desire to transfer credits to an affiliated baccalaureate program.

## 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. Conduct and present themselves in a manner suitable to the business environment.
3. Manage, communicate with and direct a diverse workforce.
4. Describe the legal implications of management decisions.

## Employment Opportunities

Projected employment growth varies by industry, yet most industries will continue to expand rapidly. There is a great demand for entry-level and middle-level managers in miscellaneous business services. The future projection of employment for managers continues to grow both nationally and globally in all fields. Managers are needed in all levels of production, service and distribution type businesses.

- Assistant manager
- Employment interviewer
- Management trainee
- Manager
- Office manager
- Supervisor

## Contact Persons

Professor William Wilhelm  
(856) 227-7200, ext. 4672  
E-mail: [bwilhelm@camdenc.edu](mailto:bwilhelm@camdenc.edu)  
Professor Lawrence Danks  
(856) 227-2700, ext. 4481  
E-mail: [ldanks@camdenc.edu](mailto:ldanks@camdenc.edu)

## Highlights

According to the Bureau of Labor Statistics, managers are listed as one of the occupations with the largest job growth potential.

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
ACC-104	Financial Accounting	3
MGT-101	Introduction to Business	3
CSC-101	Computer Literacy	3
BMT-101	Business Mathematics I	3
		<b>15</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
ACC-105	Managerial Accounting	3
MGT-102	Introduction to Management	3
LAW-101	Legal Environment/Business Law I	3
BMT-102	Business Mathematics II	3
HPE.....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Year/First Semester</b>		
MGT-212	Human Resource Management	3
MKT-101	Principles of Marketing	3
MTH-111	Elements of Statistics I	3
ECO-101	Macroeconomics	3
LAW-102	Business Law II	3
HPE.....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
ECO-102	Microeconomics	3
FIN-212	Principles of Finance	3
MGT-213	Operations Management	3
BUS-201	Co-op I: Business or	
.....	Free Elective	3/4
.....	Diversity General Education Elective	3
		<b>15/16</b>
<b>Total Minimum Credits</b>		<b>62</b>

## Program Description

This program is designed to provide recognition for work experience and prior corporate training, while assisting students in their preparation for professional career advancement.

## Program Goals

- To provide students the opportunity to earn paraprofessional credits for prior business experience.
- To provide students with general education competencies.
- To enhance competency skills of students by offering the depth and breadth of business theory.
- To instill in the students a commitment to lifelong learning which engenders the desire to transfer credits to a baccalaureate business program.

## Program Student Learning Outcomes

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

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

## Employment Opportunities

The program prepares students not only for career advancement, but also prepares students to work in a variety of profit and non-profit organizations in a management capacity.

## Contact Person

Professor Maria Aria, Coordinator  
(856) 968-1257  
E-mail: maria@camdencc.edu

# MANAGEMENT Business Paraprofessional Management Option

Degree: Associate in Applied Science  
College Code: BPM.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ACC-104	Financial Accounting	3
MGT-101	Introduction to Business	3
ENG-101	English Composition I	3
BMT-101	Business Mathematics I	3
CSC-101	Computer Literacy	3
		<b>15</b>
<b>Second Semester</b>		
ACC-105	Managerial Accounting	3
ENG-102	English Composition II	3
LAW-101	Legal Environment/Business Law I	3
MGT-102	Introduction to Management	3
BMT-102	Business Mathematics II	3
		<b>15</b>
<b>Second Year/First Semester</b>		
MGT-212	Human Resource Management	3
MKT-101	Principles of Marketing	3
ECO-101	Macroeconomics	3
MTH-111	Elements of Statistics I	3
.....	Diversity: General Education Elective	3
		<b>15</b>
<b>Second Semester</b>		
ECO-102	Microeconomics	3
BUS-201	Co-op I: Business or Business Elective	3
.....		
BUS-202	Co-op II: Business or Business Elective	3
.....		
.....	Business Elective or Paraprofessional Credits <sup>1</sup>	3
.....	Business Elective or Paraprofessional Credits <sup>1</sup>	3
.....		
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>60</b>

<sup>1</sup> Students may earn 3 to 6 credits for industry experience based on a portfolio assessment by a member of the Business faculty.

### Highlights

According to the U.S. Department of Labor, the labor market favors college graduates. They earn more and experience lower unemployment rates than workers without a degree.

## Program Description

This option combines general education courses with a core of business courses designed to prepare students for independently owning and operating small businesses. The specialized courses in small business review the role of entrepreneurs in starting and managing small commercial operations. The courses also develop techniques for conducting market research studies.

## Program Goals

- To assure that students can demonstrate an understanding of the functional areas and the environment in which small businesses operate.
- To prepare students to effectively embark on a career as an independent owner/operator of a small business.
- To provide students with a valuable skill set that is obtained during cooperative internships with local employers and prepare them to apply this knowledge to a small business environment.
- To prepare students to utilize a solid foundation in liberal studies and business to demonstrate enhanced societal awareness and leadership acumen.
- To instill in students a commitment to lifelong learning which engenders the desire to transfer credits to an affiliated baccalaureate program.

## Program Student Learning Outcomes

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

1. Develop a business plan.
2. Discuss the role of the local community in developing a successful business.
3. Evaluate the strengths and weaknesses of a business.

## Employment Opportunities

- Entrepreneur
- Proprietor
- Manager
- Operations manager
- Accounting manager for small business

## Contact Persons

Professor Rondald A. O'Neal  
 (856) 227-7200, ext. 4686  
 E-mail: roneal@camdencc.edu

# MANAGEMENT Small Business Management Option

Degree: Associate in Applied Science  
 College Code: SBM.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ACC-104	Financial Accounting	3
MGT-101	Introduction to Business	3
ENG-101	English Composition I	3
CSC-101	Computer Literacy	3
BMT-101	Business Mathematics I	3
		<b>15</b>
<b>Second Semester</b>		
ACC-105	Managerial Accounting	3
ENG-102	English Composition II	3
LAW-101	Legal Environment/Business Law I	3
MGT-102	Introduction to Management	3
BMT-102	Business Mathematics II	3
HPE.....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Year/First Semester</b>		
MGT-221	Small Business Management I	3
MGT-212	Human Resource Management	3
MKT-101	Principles of Marketing	3
ECO-101	Macroeconomics	3
.....	Diversity: General Education Elective	3
		<b>15</b>
<b>Second Semester</b>		
MGT-222	Small Business Management II	3
MKT-102	Retail Management	3
MKT-124	Fundamentals of Selling	3
ECO-102	Microeconomics	3
MTH-111	Elements of Statistics I	3
HPE.....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Total Minimum Credits</b>		<b>62</b>

### Highlights

This program provides students with the knowledge to be successful entrepreneurs. According to the Bureau of Labor Statistics, growth of small businesses will continue especially in the health and business sector.

# Marketing

Degree: Associate in Applied Science  
College Code: MKT.AAS

## Program Description

Marketing managers develop detailed marketing strategies of firms. With product and market research personnel, marketing managers determine the demand for the products or services of firms, the potential users, and the prices. Marketing managers monitor trends indicating the need for new products or services. Marketing managers and personnel work with advertising and sales promotion people.

## Program Goals

- To train students to demonstrate an understanding of consumer purchasing behavior concepts.
- To develop the students' managerial abilities in problem solving, communication, leadership, and teamwork.
- To enable students to use current and emerging information technology tools for employment, personal productivity, communication and research.
- To assure that students possess professional values and exhibit professional behaviors in the workplace including demonstrating an understanding and appreciation for other cultures and backgrounds.
- To prepare students to qualify for entry-level employment as an account executive, advertising representative, marketing representative, marketing research manager, product marketing specialist and product research manager.

## Program Student Learning Outcomes

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

1. Apply knowledge of fundamental marketing planning and its concepts and theories.
2. Compare and contrast purchasing behaviors.
3. Plan, prioritize and manage marketing research projects.
4. Identify professional values and exhibit professional behaviors in the work environment.

## Employment Opportunities

As domestic and foreign competition increases, so will marketing and promotional activities. Careers in marketing are expected to increase significantly throughout this century. Listed below are some of the possible Employment Opportunities.

- Account executive
- Advertising representative
- Marketing representative
- Marketing research manager
- Product marketing specialist
- Product research manager

## Contact Persons

Dr. Rosalie Duren, Coordinator  
(856) 227-7200, ext. 4424  
E-mail: rduren@camdencc.edu  
Professor Maria Aria  
(856) 968-1257  
E-mail: maria@camdencc.edu

**Highlights**  
Careers in marketing are expected to increase due to domestic and foreign competition.

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
ACC-104	Financial Accounting	3
MGT-101	Introduction to Business	3
OST-110	Microcomputer Keyboarding	1
CSC-101	Computer Literacy	3
MTH-111	Elements of Statistics I	3
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
ACC-105	Managerial Accounting	3
MGT-102	Introduction to Management	3
MKT-101	Principles of Marketing	3
LAW-101	Legal Environment/Business Law I	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Year/First Semester</b>		
MKT-102	Retail Management	3
ECO-101	Macroeconomics	3
SOC-205	Social Diversity	3
LAW-102	Business Law II	3
.....	Humanities General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
MKT-212	Strategies in Marketing or	
MKT-125	Principles of E-Commerce	3
MKT-124	Fundamentals of Selling or	
MKT-123	Introduction to Promotion	3
ECO-102	Microeconomics	3
BUS-201	Co-op I: Business	3
MTH ...	Mathematics General Education Elective	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>63</b>

## Program Description

Massage therapy is a profession in which the practitioner applies manual techniques with the intention of positively affecting the health and well-being of the client. An increasing body of research shows massage therapy reduces heart rate and can help lower blood pressure. The most common types of massage are Swedish massage, deep-tissue massage, Shiatsu-acupressure, neuromuscular, trigger point and sports massage.

## Program Goals

- To provide students with the skills and knowledge required for eligibility to take the National Certification Board for Therapeutic Massage and Bodywork certification exam.
- To provide students with the basic bodywork techniques and skills needed to be employed as a massage therapist.
- To provide students with a foundation in general education.
- To prepare students to be employable in the massage therapy field.

## Program Student Learning Outcomes

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

1. Create a safe massage environment.
2. Explain and apply knowledge of basic human anatomy as it relates to massage therapy.
3. Integrate various massage skills to provide effective massage therapy techniques in a clinical setting.
4. Obtain information from online and written sources.

## Special Admission Requirement

An interview with the director is required. Please call the Lourdes Institute for Wholistic Studies, (856) 869-3134 to schedule an appointment.

## Special Program Requirements

- Special lab fees for all MAS courses
- Special equipment and materials for all MAS courses

## Employment Opportunities

- Hospitals
- Chiropractor and physician offices
- Fitness centers
- Health clubs and spas
- Sports medicine centers

## Contact Persons

College contact: Dr. Nicholas DiCicco, Director  
(856) 227-7200, ext. 4264

E-mail: ndicicco@camdencc.edu

Lourdes Institute of Wholistic Health contact:  
Program Director  
(856) 869-3134

<sup>1</sup>These courses only are restricted to students formally admitted into the Massage Therapy program. All other courses may be taken without formal acceptance into the Massage Therapy Program. MAS-200, MAS-240, MAS-243, MAS-260 and MAS-261 require additional materials including oils/lotions/massage table, face cradle and bolster.

NOTICE: Clinical placements 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.

## Program Information

This program is a joint venture between Camden County College and Lourdes Institute of Wholistic Studies in Collingswood. All massage courses will be taught in Collingswood.

# Massage Therapy

Degree: Associate in Applied Science  
College Code: MAS.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
MAS-200	Therapeutic Massage <sup>1</sup>	6
MAS-205	Environmental Management	1
BIO-117	Basic Anatomy & Physiology	4
MTH....	Mathematics General Education Elective	3
		<b>17</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
FNS-105	Introduction to Nutrition	3
MAS-209	Structures & Functions for the Bodyworker I	4
MAS-211	Structures & Functions for the Bodyworker II	2
MAS-240	Specialized Massage Techniques <sup>1</sup>	3
MAS-260	Palpation and Kinesiology for Massage Therapy	3
		<b>18</b>
<b>Second Year/First Semester</b>		
PSY-101	Basic Psychology	3
MAS-261	Pathology for Massage Therapy	4
HPE-106	Stress Management	3
HPE-170	First Aid, Safety & Prevention of Injuries	3
HPE.....	Health & Exercise Science Elective	1
		<b>14</b>
<b>Second Semester</b>		
MAS-241	Business Management for Massage Professionals	2
MAS-243	Integrated Myofascial Structural Techniques <sup>1</sup>	2
MAS-255	Massage Therapy Integration/Application <sup>1</sup>	3
SPE-102	Public Speaking	3
HPE-145	Wellspring Fitness Lab I	1
.....	Diversity: Humanities General Education Elective	3
		<b>19</b>
Choice of courses to equal 5 credit hours from below:		
MAS-215	Therapeutic Sensory Applications I	(1 credit)
MAS-220	Eastern Therapeutic Concepts	(1 credit)
MAS-225	Therapeutic Sensory Applications II	(2 credits)
MAS-230	Therapeutic Herbal Applications	(2 credits)
MAS-250	Shiatsu Therapy - Level I	(4 credits)
		<b>5</b>
		<b>19</b>
<b>Total Minimum Credits</b>		<b>68</b>

## Program Description

A medical laboratory technician (MLT) performs analytical and diagnostic tests on various body fluids. Physicians depend on these accurate findings along with patient history for diagnosis, prognosis, and proper treatment of patients and their illnesses. A medical laboratory technician is an important professional on the medical team.

## Program Goals

- To enable the student to find employment in a hospital, clinical reference laboratories, or other biomedical laboratories, in industry, pharmacy, and in federal, state and county health departments.
- To provide students with a foundation in general education.
- To demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, and other health care professionals and the public.
- To demonstrate the skills and knowledge required for the practice of medical laboratory technology through satisfactory performance on the national certification examination and continuing a lifelong process of education in the profession through scientific periodicals and reference materials.

## Program Student Learning Outcomes

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

1. Safely apply laboratory techniques according to standard operating procedures in the collection, processing, analysis of biological specimens and other substances.
2. Interpret laboratory results used in diagnosis and treatment.
3. Integrate ethical and professional behaviors in the medical laboratory setting.
4. Recognize sources of information and information gathering techniques that enable him/her to seek, obtain and critically evaluate information.

## Program Information

- The Medical Laboratory Technology program is offered in cooperation with several area hospital laboratories where in the final semester the student is assigned with supervised instruction and practice in up-to-date clinical laboratory procedures.
- Medical laboratory technicians work in an environment that requires a variety of physical, visual, auditory, and mental skills for practice, a list of essential functions is available through the clinical program director and in the *MLT Student Handbook*
- Program objectives, goals and competencies are published in the *MLT Student Handbook* available through the clinical program director.

## Special Program Requirements

- Admission to the Medical Laboratory Technology program is dependent on completion of program pre-requisite academic courses as published in the *Academic Program Guide*. Final admission may become selective based on academic performance if the number of candidates exceeds the class limitations.
- Minimum GPA of 2.0 or better in all science and math courses
  - Interview with director of clinical laboratory sciences

- IBT TOEFLE score of 20 in each area tested (international students only)
- Demonstration of proficiency in written and verbal communications

After completion of the above prerequisites, the following will then occur:

- MLT-206 course admission strictly adheres to prerequisites and academic requirements.
- Students are required to be full-time in the final fall and spring semesters.
- The clinical practicum experience is eight hours per day, Monday through Friday.
- A physical examination, various immunizations, proof of health insurance and a criminal background check will be required prior to the clinical practicum experience.

## Accreditation

National Accrediting Agency for Clinical Laboratory Sciences  
8410 West Bryn Mawr, Suite 670  
Chicago, IL 60631  
(773) 714-8880

## Employment Opportunities

- Biomedical laboratories
- Clinical, hospital and reference laboratories
- Federal, state and county health departments
- Pharmaceutical industry

## Contact Person

Patricia A. Chappell, Clinical Program Director  
(856) 227-7200, ext. 4330  
E-mail: pchappell@camdencc.edu

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.

## Highlights

Students receive semester by semester advisement for course selections and assessment of their progress in the program. Graduates are eligible to take a national certification examination for medical laboratory technicians.

A student may take classes part-time while completing prerequisites to the MLT courses. The student is expected to be full-time for the final fall and spring semester of the program.

# Medical Laboratory Technology

Degree: Associate in Applied Science  
College Code: MLT.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
BIO-111	Biology I - Science	4
CHM-111	Chemistry I - Science <b>or</b>	4
CHM-101	General Chemistry I	
MTH-111	Elements of Statistics <sup>1</sup> <b>or</b>	3/4
MTH-109	Intermediate Algebra Extended	
ENG-101	English Composition I	3
CSC-101	Computer Literacy	3
HPE.....	Health & Exercise Science Elective	1
		<b>18/19</b>
<b>Second Semester</b>		
BIO-210	Human Anatomy & Physiology	4
CHM-112	Chemistry II - Science <b>or</b>	4
CHM-102	General Chemistry II	
ENG-102	English Composition II	3
.....	Diversity: Humanities General Education Elective	3
.....	Social Science General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>18</b>
<b>Third Semester (Summer)</b>		
MLT-206	Medical Laboratory Science	4
		<b>4</b>
<b>Second Year/First Semester</b>		
MLT-207	Clinical Hematology/Coagulation	3
MLT-208	Immunohematology/Immunology	3
MLT-209	Clinical Chemistry	3
MLT-216	Clinical Microbiology	4
ALH-115	Basic Phlebotomy Techniques	1
		<b>14</b>
<b>Second Year/Second Semester</b>		
MLT-219	MLT Academic Seminar	2
MLT-225	Applied Clinical Microbiology	2
MLT-235	Applied Clinical Hematology/Coagulation	2
MLT-245	Applied Blood Band & Serology	2
MLT-255	Applied Urinalysis/Body Fluids	2
MLT-265	Applied Clinical Chemistry	2
		<b>12</b>
<b>Total Minimum Credits</b>		<b>66</b>

<sup>1</sup> Suggested: Elements Of Statistics I (MTH-111)

## Program Description

The efficiency of any business or organization relies on its office support staff, which forms the internal and external communication core. Administrative assistants handle basic assignments as composing and keying various types of documents; maintaining correspondence and records; and recording and transcribing notes. Administrative assistants are also responsible for researching information; preparing statistical reports; maintaining calendars in both electronic and manual files; handling incoming and outgoing mail; using telecommunications technology including the telephone, voice mail, email and fax; and providing computer and software training. Administrative assistants resolve day-to-day problems, make decisions and display skill in communication, organization and time management.

## Program Goals

- To train students in both basic and advanced computer-based office skills including keyboarding, word processing, spreadsheets, database, presentation software and Web proficiency.
- To assure that students will demonstrate the skills needed to prepare oral and written communications that meet the standards of business.
- To assure that students possess professional values and exhibit professional behaviors in the workplace including demonstrating an understanding and appreciation for other cultures and backgrounds.
- To prepare students to qualify for entry-level employment as an administrative assistant/secretary, executive assistant, help desk assistant, legal assistant, medical assistant, office administrator/manager and word processing specialist.

## Program Student Learning Outcomes

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

1. Use technology and technical skills to manage information and to solve problems.
2. Communicate information orally and in the writing and production of business documents.
3. Exhibit interpersonal skills and abilities in teamwork including an understanding and appreciation for persons of other cultures and backgrounds.
4. Manage multiple office tasks, researching and prioritizing; both individually and collaboratively.
5. Exhibit strong keyboarding skills to improve accuracy, speed and general efficiency in computer operations, and for securing and maintaining an office position.
6. Prepare to take an examination for Microsoft Office Specialist certification.

## Employment Opportunities

- Administrative assistant/secretary
- Executive assistant
- Help desk assistant
- Legal assistant
- Medical assistant
- Office administrator/manager
- Word processing specialist

## Contact Persons

Dr. Rosalie Duren, Coordinator  
(856) 227-7200, ext. 4424  
E-mail: rduren@camdenc.edu

## Highlights

Hands-on training  
Tutorial labs

Credit for Life Experience Opportunities

# Office Systems Technology Administrative Assistant

Degree: Associate in Applied Science  
College Code: ADA.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
OST-123	Introduction Microsoft Word	3
OST-213	Keyboarding III <sup>1</sup>	3
ACC-104	Financial Accounting	3
CSC-101	Computer Literacy	3
ENG-101	English Composition I	3
		<b>15</b>
<b>Second Semester</b>		
OST-151	Powerpoint	3
OST-224	Advanced Microsoft Word	3
ACC-105	Managerial Accounting or	
ACC-213	Computerized Accounting	3
ENG-102	English Composition II	3
MTH ...	Mathematics General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Year/First Semester</b>		
CIS-191	Internet: Tools & Techniques	3
SOC-205	Social Diversity	3
ECO-101	Macroeconomics	3
MGT-102	Introduction to Management	3
.....	Humanities General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
OST-241	Administrative Office Procedures <sup>2,3</sup> or	
MGT-214	Office Management	3
MGT-212	Human Resource Management	3
SPE-102	Public Speaking	3
CIS-102	Spreadsheets	3
BUS-201	Co-op I: Business or	
CIS-103	Database Management	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>62</b>

<sup>1</sup> Offered in fall semester only.

<sup>2</sup> Offered in spring semester only.

<sup>3</sup> MGT-214 - Office Management is recommended in place of Administrative Office Procedures for those students who are currently employed full-time in job-related fields.

## Program Description

This option offers beginning and advanced instruction in the use of the most current software packages, including word processing, spreadsheets, database management, presentation and communications software: online services and email. This option will also provide an introduction to the Internet tools, and the use of telecommunications technology, including the telephone, voice mail and fax.

## Program Goals

- To train students in both basic and advanced computer-based office skills including keyboarding, word processing, spreadsheets, database, presentation software and Web proficiency.
- To instruct students in the skills needed to prepare oral and written communications that meet the standards of business.
- To assure that students possess professional values and exhibit professional behaviors in the workplace including demonstrating an understanding and appreciation for other cultures and backgrounds.
- To prepare students to determine objectives and set priorities, possess developed research skills, and have critical thinking skills in order to analyze short-and long-range projects.
- To qualify students for entry-level employment as an administrative assistant/secretary, help desk assistant/manager, information/word processing specialist, legal assistant, medical assistant and office administrator/manager.

## Program Student Learning Outcomes

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

1. Use technology and technical skills to manage information and to solve problems.
2. Communicate information orally and in the writing and production of business documents.
3. Exhibit interpersonal skills and abilities in teamwork including an understanding and appreciation for persons of other cultures and backgrounds.
4. Manage multiple office tasks, researching and prioritizing; both individually and collaboratively.
5. Exhibit strong keyboarding skills to improve accuracy, speed and general efficiency in computer operations, and for securing and maintaining an office position.
6. Apply computer skills efficiently and accurately to office tasks using a variety of computer application programs.
7. Prepare to take an examination for the Microsoft Office Specialist certification.

## Employment Opportunities

- Administrative assistant/secretary
- Help desk assistant/manager
- Information/word processing specialist
- Legal assistant
- Medical assistant
- Office administrator/manager

## Contact Person

Dr. Rosalie Duren, Coordinator  
(856) 227-7200, ext. 4424  
Email: rduren@camdencc.edu

# OFFICE SYSTEMS TECHNOLOGY ADMINISTRATIVE ASSISTANT Information Processing Option

Degree: Associate in Applied Science  
College Code: IFP.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
OST-213	Keyboarding III	3
OST-123	Introduction to Microsoft Word	3
ACC-104	Financial Accounting	3
CSC-101	Computer Literacy	3
ENG-101	English Composition I	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
OST-151	PowerPoint	3
OST-224	Advanced Microsoft Word	3
CST-103	Microcomputer Operating Systems I: Workstations	3
MGT-101	Introduction to Business	3
ENG-102	English Composition II	3
MTH ...	Mathematics Elective	3
		<b>18</b>
<b>Second Year/First Semester</b>		
CIS-191	Internet: Tools & Techniques	3
LAW-101	Legal Environment/Business Law I	3
ECO-101	Macroeconomics	3
CIS-102	Spreadsheets	3
SPE-102	Public Speaking	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
OST-241	Administrative Office Procedures or	3
MGT-214	Office Management	
BUS-201	Co-op I: Business	3
CIS-103	Database Management	3
.....	Humanities General Education Elective	3
SOC-205	Social Diversity	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>65</b>

**Highlights**  
Hands-on training  
Tutorial labs  
Credit for Life Experience  
Opportunities

## 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 take the New Jersey State Ophthalmic Dispensing Examination, Joint Commission on Allied Health Personnel in Ophthalmology Examination, the American Board of Opticianry Examination and the National Contact Lens Examination.
- To obtain employment as an optician.
- To provide students with a foundation in general education.
- To provide a concentration of course work appropriate for ophthalmic science students.
- To prepare students for entry-level employment in the ophthalmic science field or industry.

## 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. Dispense a complete pair of eyeglasses.
4. Dispense contact lenses from a doctor's prescription.

## Special Program Requirements

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 prospective students must schedule an interview with the ophthalmic science program director. Due to the sequential nature of the specialty courses, admission is usually limited to September.

## Accreditation

The Ophthalmic Science program is accredited by the Commission on Opticianry Accreditation  
P.O. Box 3073  
Merrifield, Virginia 22116-3073

## Employment Opportunities

- Private practice
- Clinical practice
- Optical sales
- Manufacturing
- Ophthalmic laboratory technician
- Contact lens technician

## Contact Person

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Professor Patrick Goughary  
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NOTICE: Clinical placements 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.

## Career Highlights

Employment opportunities in this field are expected to increase. Over the next decade the number of the middle age and elderly will increase. Public awareness of the importance of good eyesight and vision screening programs in schools is likely to stimulate the demand for eyecare.

# Ophthalmic Science Technology

Degree: Associate in Applied Science  
College Code: OPH.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
OPH-104	Ophthalmic Lab I	2
OPH-111	Ophthalmic Materials Lecture I	3
OPH-130	Anatomy of the Eye	3
ENG-101	English Composition I	3
MTH-109	Intermediate Algebra Extended	4
HPE-102	Health and Wellness	3
		<b>18</b>
<b>Second Semester</b>		
OPH-105	Ophthalmic Lab II	2
OPH-112	Ophthalmic Materials Lecture II	3
OPH-131	Introduction to Contact Lenses	3
OPH-180	Introduction to Ophthalmic Dispensing	1
ENG-102	English Composition II	3
MTH.....	Mathematics General Education Elective <b>or</b>	
.....	Science General Education Elective <b>or</b>	
.....	Business Elective	3/4
.....	Humanities General Education Elective	3
		<b>18/19</b>
<b>Second Year/First Semester</b>		
OPH-203	Ophthalmic Materials Laboratory III	3
OPH-220	Optic Principles	3
OPH-232	Contact Lens Fitting I	3
OPH-240	Ophthalmic Dispensing I	4
OPH-250	Ophthalmic Clinic I	1
OPH-260	Co-op I: Ophthalmic Science	1
		<b>15</b>
<b>Second Semester</b>		
OPH-204	Ophthalmic Materials Laboratory IV	3
OPH-233	Contact Lens Fitting II	3
OPH-241	Ophthalmic Dispensing II	4
OPH-251	Ophthalmic Clinic II	1
OPH-261	Co-op II: Ophthalmic Science	1
OPH-270	Ophthalmic Dispensing Office Procedures	3
PSY-101	Basic Psychology	3
		<b>18</b>
<b>Total Minimum Credits</b>		<b>69</b>

# Paralegal Studies

Degree: Associate in Applied Science  
College Code: PAR.AAS

## 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 Goals

- To assure students can identify roles and responsibilities of paralegals and use legal terminology effectively.
- To prepare students to discuss fundamental legal concepts and principles, think critically about law and social issues, and evaluate a legal case from an ethical point of view.
- To instruct student on how to conduct effective and comprehensive legal research.
- To instruct students in the skills needed to prepare oral and written communications that meet the standards of the legal environment.
- To qualify students for entry-level paraprofessional positions in the legal field.

## 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 and both civil and criminal procedure
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

## Employment Opportunities

- Law firms
- U.S. or state prosecutors' and public defenders' offices
- Financial institutions, insurance companies and other corporations
- The government
- Legal aid offices

## Contact Person

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Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CSC-101	Computer Literacy	3
PAR-101	Introduction to Paralegal Studies	3
PAR-201	Legal Research and Writing I	3
MTH ...	Mathematics General Education Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
OST-123	Introduction to Microsoft Word	3
PAR-102	Litigation/Civil Procedures	3
PAR-202	Legal Research and Writing II	3
POL-101	Introduction to Political Science	3
CRJ-105	Criminal Law	3
		<b>18</b>
<b>Second Year/First Semester</b>		
PAR-210	Law Office Management	3
LAW-101	Legal Environment/Business Law I	3
CRJ-103	Legal Systems	3
SPE-102	Public Speaking	3
SOC-205	Social Diversity	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
PAR-203	Family Law	3
PAR-204	Real Estate Law	3
PAR-205	Estate and Probate	3
PAR-206	Paralegal Internship	3
.....	Humanities General Education Elective	3
		<b>15</b>
	<b>Total Minimum Credits</b>	<b>65</b>

## Program Description

A paramedic is a pre-hospital provider of advanced life support to the critically ill or injured patient under the direction of a licensed physician. Responsibilities include, but are not limited to, oxygen therapy, intravenous insertion, medication administration, airway management, cardiac monitoring, and defibrillation. The primary objective of the program is to prepare the student to function as an entry-level paramedic on a Mobile Intensive Care Unit (MICU).

## Program Goals

- To prepare students to take the New Jersey certification exam offered by the National Registry of EMTs.
- To provide students with the knowledge and skills necessary to be employed as an entry-level paramedic in the emergency medical services field.
- To provide students for career advancement in emergency medical services.
- To provide students with a foundation in general education
- To provide a concentration of course work appropriate for paramedic science students.
- To prepare students for entry-level employment as a paramedic in the emergency medical services field.

## Program Student Learning Outcomes

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

1. Perform advanced life support to critically ill or injured patients.
2. To provide humane and compassionate care to a diverse population of patients.
3. Utilize adjunctive and diagnostic equipment.
4. Collect and communicate patient histories and physical exam data in both written and oral formats.
5. Perform compassionate therapeutic communication with patient and family.

## Special Admission Requirements

- High school diploma or equivalent
- New Jersey State EMT-B certification
- Sponsorship from a New Jersey MICU program hospital
- Current American Heart Association or American Red Cross CPR certification
- College Placement Test
- Interview with the Paramedic Science Program Acceptance Committee
- Official letter of acceptance into the program from the acceptance committee

## Accreditation

This program utilizes the national standard curriculum for paramedic studies as developed by the US Department of Transportation, the National Highway Traffic Safety Administration, and the US Department of Health and Human Services.

## Employment Opportunities

- Certified paramedics are eligible for employment by designated New Jersey MICU hospitals to provide advanced life support in the pre-hospital setting.
- NJ certified paramedics may seek reciprocity from any state for employment in that state.

## Contact Person

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## Recommendations

Prior experience with a 9-1-1 ambulance service is helpful but not necessary. Biology I is required for the AAS degree, and it is recommended that students take it prior to entering this program.

# Paramedic Sciences

Degree: Associate in Applied Science  
College Code: PRM.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-117	Basic Anatomy & Physiology I	4
PRM-103	Theory of Paramedic Care	3
PRM-104	Paramedic Pharmacology	3
		<b>13</b>
<b>Second Semester</b>		
BIO-118	Basic Anatomy & Physiology II	4
PRM-105	Principles of Paramedic Care I	6
PRM-106	Paramedic Electrocardiography	3
PRM-107	Paramedic Clinical Practice I	2
		<b>15</b>
<b>Third Semester</b>		
ENG-102	English Composition II	3
PRM-108	Paramedic Clinical Practice II	5
.....	Diversity: Social Science General Education Elective	3
		<b>11</b>
<b>Second Year/ First Semester</b>		
PRM-203	Principles of Paramedic Care II	5
PRM-204	Principles of Paramedic Trauma Care	3
PRM-205	Paramedic Clinical Practice III	3
		<b>11</b>
<b>Second Semester</b>		
PRM-206	Paramedic Field Internship	7
MTH....	Mathematics General Education Elective	3/4
		<b>10/11</b>
<b>Third Semester</b>		
PRM-207	Paramedic Field Residency	4
PHL-232	Biomedical Ethics	3
		<b>7</b>
<b>Total Minimum Credits</b>		<b>67</b>

## Program Description

This is a degree completion program for the certified/licensed paramedic. The program will recognize prior technical training, and those credits will be applied at the end of the program. With the addition of 26 general education and nine professional education credits, the student can earn an associate's degree.

## Program Goals

- To prepare graduates for career advancement in emergency medical services with special emphasis on either EMS education or EMS management.
- To provide students with a foundation in general education.
- To provide a concentration of course work appropriate for education or management of emergency services.

## Program Student Learning Outcomes

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

1. Explain medical and legal implications associated with emergency pre-hospital care.
2. Identify and discuss the role of a field preceptor.
3. Create and implement paramedic courses.
4. Compare and contrast emergency medical management systems.

## Special Program Requirement

State paramedic certification or licensure

## Employment Opportunities

- Emergency medical services instructor
- Emergency medical services manager, supervisor

## Contact Person

Matthew Scott, Director

(856) 374-5078

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# PARAMEDIC SCIENCES Paramedic Educational Management Option

Degree: Associate in Applied Science

College Code: PEM.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
PSY-101	Basic Psychology	3
PEM-260	Topics in Paramedic Care	6
.....	Laboratory Science General Education Elective	4
		<b>16</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
PHL-232	Biomedical Ethics	3
PEM-265	Emergency Medical Service Education or	
PEM-270	Emergency Medical Service Management	3
MTH ...	Mathematics General Education Elective	3
.....	Diversity: Social Science General Education Elective	3
		<b>15</b>
	Valid Paramedic State Certification or License	33
	<b>Total Minimum Credits</b>	<b>64</b>

### Recommendations

The program is available to any certified/licensed paramedic in the nation. All required courses are offered on-line.

# Photonics: Laser/Electro-Optic Technology

Degree: Associate in Applied Science  
College Code: PHT.AAS

## Program Description

Photonic: laser/electro-optic technicians work in companies that manufacture, service, and use optical and laser equipment. Such companies span almost every type of business, from industrial applications to military defense, from telecommunication to health and medicine. Responsibilities of laser/electro-optic technicians include design, production, marketing, testing, maintenance, service, calibration, and troubleshooting of systems that rely on optical and laser components.

## Program Goals

- To instruct students on how to assemble and align optical components to create optical and electro-optic systems.
- To assure students can operate and maintain different medical, industrial, military, and scientific lasers and laser systems.
- To ground the students in the proper use of industrial test and measurement equipment to evaluate, calibrate, test, and troubleshoot lasers and accompanying equipment.
- To qualify students for entry-level employment as a technician or junior engineer in the laser and optics-related areas.
- To prepare students to transfer to a baccalaureate program in optical, electrical engineering or material science.

## Program Student Learning Outcomes

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

1. Apply knowledge of potential hazards associated with the use of lasers and laser systems and corresponding safety measures and controls
2. Assemble and align optical components to create optical and electro-optic systems
3. Operate, calibrate and maintain different medical, industrial, military and scientific lasers and laser systems
4. Use industrial test and measurement equipment to evaluate, calibrate, test and troubleshoot lasers and accompanying equipment
5. Explain the basic principles of light generation, detection and propagation through basic optical components

## Special Program Requirement

Two years of high school math, including intermediate algebra

## Employment Opportunities

- Industrial lasers and telecommunications
- Laser medical offices
- Laser, optical, video manufacturing
- Private laser/optics servicing practice
- Research/government laboratories
- Technical sales and customer relations

## Contact Persons

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Dr. Raman Kolluri, ext. 4474  
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## Highlights

Information technology and telecommunications, health care and sciences, optics manufacturing, National Defense, and other areas relying heavily on laser/ electro-optics are currently experiencing tremendous growth in research, development, and career and job opportunities.

Code	Course	Credits
<b>First Year/First Semester</b>		
LFO-101	Introduction to Photonics & Photonic Safety	4
MTH-125	College Algebra & Trigonometry <b>or</b>	
MTH-140	Calculus I <sup>1</sup>	4
ENG-101	English Composition I	3
PHY-101	Physics I <b>or</b>	
PHY-201	Physics III <sup>1</sup>	4
.....	Humanities General Education Elective	3
		<b>18</b>
<b>Second Semester</b>		
EET-101	Electrical/Electronic Principles	4
MTH-132	Statistics for Technology <b>or</b>	
MTH-150	Calculus II <sup>1</sup>	4
ENG-102	English Composition II	3
LFO-201	Photonics Materials	3
PHY-102	Physics II <b>or</b>	
PHY-202	Physics IV <sup>1</sup>	4
		<b>18</b>
<b>Second Year/First Semester</b>		
LFO-211	Photonic-Optic Principles & Components	4
LFO-212	Pulsed & CW Lasers	3
LFO-231	Photonics Measurements	3
LFO-241	Introduction to Fiber Optics	3
EET-211	Electronics I	3
		<b>16</b>
<b>Second Semester</b>		
LFO-221	Photonic & Electro-Optic Devices	3
LFO-292	Photonics Seminar	1
LFO-251	Laser Electronics <b>or</b>	
EET-212	Electronics II	3
.....	Diversity: Social Science General Education Elective	3
.....	Computer Programming Elective	3
HPE .....	Health & Exercise Science Elective	1
		<b>14</b>
<b>Total Minimum Credits</b>		<b>66</b>

<sup>1</sup>All students transferring to Rowan or NJIT must take the Calculus I, II track and Physics III, IV track.

## Program Description

Graduates of this program work in a technical environment in the communications, optical, medical, research and development, and national defense fields. The work will concentrate on the design and installation of fiber-optic systems and their maintenance, research, and development.

## Program Goals

- To instruct students on how to properly integrate active and passive components and make necessary optical fiber splicing and connections to create an optical link or local area network.
- To train students on the use of industrial test and measurement equipment to evaluate, test and troubleshoot fiber optic networks.
- To assure that students can install, troubleshoot, and maintain fiber optic sensors and other fiber optic equipment.
- To qualify students for entry-level employment as a junior engineer in the fiber optic and related areas.
- To prepare students to transfer to a baccalaureate program in optical, electrical engineering or material science.

## Program Student Learning Outcomes

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

1. Practice safety methods of handling fibers, chemicals and accompanying equipment and tools
2. Integrate active and passive components and make necessary optical fiber splicings and connections to create an optical link or local area network (LAN)
3. Use industrial test and measurement equipment to evaluate, test and troubleshoot fiber optic links
4. Develop, install and maintain fiber optic sensors and other fiber optic equipment
5. Explain light propagation in optical fibers

## Special Program Requirement

Two years of high school mathematics, including intermediate algebra.

## Employment Opportunities

- Fiber optic design/installation/servicing practice
- Medical equipment testing/repairing
- Optical, video manufacturing
- Research/government laboratories
- Technical sales and customer relations
- Telecommunications

## Contact Persons

Dr. Leonard Khazan, Coordinator  
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# PHOTONICS: LASER/ELECTRO-OPTIC TECHNOLOGY Fiber Optics Option

Degree: Associate in Applied Science  
College Code: FBR.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
LFO-101	Introduction to Photonics & Photonic Safety	4
MTH-125	College Algebra & Trigonometry <b>or</b>	
MTH-140	Calculus I <sup>1</sup>	4
ENG-101	English Composition I	3
PHY-101	Physics I <b>or</b>	
PHY-201	Physics III <sup>1</sup>	4
.....	Humanities General Education Elective	3
		<b>18</b>
<b>Second Semester</b>		
EET-101	Electrical/Electronic Principles	4
MTH-132	Statistics for Technology <b>or</b>	
MTH-150	Calculus II <sup>1</sup>	4
ENG-102	English Composition II	3
LFO-201	Photonics Materials	3
PHY-102	Physics II <b>or</b>	
PHY-202	Physics IV <sup>1</sup>	4
		<b>18</b>
<b>Second Year/First Semester</b>		
LFO-211	Photonic Optic Principles & Components	4
LFO-231	Photonic Measurements	3
LFO-241	Introduction to Fiber Optics	3
EET-211	Electronics I	3
.....	Diversity: Social Science General Education Elective	3
		<b>16</b>
<b>Second Semester</b>		
LFO-242	Advanced Fiber Optics	3
LFO-292	Photonics Seminar	1
LFO-294	Fiber Optic Project	3
EET-221	Digital Circuits	3
.....	Computer Programming Elective	3
HPE.....	Health & Exercise Science Elective	1
		<b>14</b>
<b>Total Minimum Credits</b>		<b>66</b>

<sup>1</sup>All students transferring to Rowan or NJIT must take the Calculus I, II track and Physics III, IV track.

**Highlights**  
 "Average salary of Photonic Technicians is \$55,000."  
 (Photonics Spectra, May 2004)

# Respiratory Therapy

Degree: Associate in Applied Science  
College Code: RST.AAS

## Program Description

A respiratory therapist is an allied health specialist who performs therapeutic and diagnostic procedures in the care of patients with deficiencies and abnormalities associated with the cardiopulmonary system. Duties include mechanical ventilation, arterial blood gas analysis, pulmonary function studies, patient education, rehabilitation and home care.

## Program Goals

- To prepare students to function as a competent respiratory therapist in hospitals, home care, equipment marketing, education or related fields.
- To provide students with a foundation in general education.
- To prepare students to enter the professional phase of the respiratory therapy program at the University of Medicine and Dentistry of New Jersey School of Health Related Professions (UMDNJ-SHRP).
- To prepare graduates for satisfactory performance on the examinations by the National Board for Respiratory Care and the New Jersey State Board of Respiratory Care.

## 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.

## Special Admission Requirements

- Applicants must have a high school diploma or GED.
- Students must complete the 35/36 pre-professional credits at Camden County College with a minimum GPA of 2.0 and a minimum grade of C in the biological science courses.
- The student GPA will be calculated on all pre-professional courses completed prior to the spring application to the program.
- An interview with respiratory therapy faculty at UMDNJ is highly recommended before applying to the program.
- The Admissions Committee at UMDNJ will evaluate the applications for the professional phase of the program.
- Applications must be mailed to:  
University Educational Center  
Suite 2105  
40 E. Laurel Road  
Stratford NJ 08084
- The application deadline is March 1st.
- The professional phase of the program begins in June at the UMDNJ location in Stratford.

## Accreditation

The Respiratory Therapy program is accredited by the Committee on Allied Health Education and Accreditation (CAHEA)  
35 E. Wacker Dr., Suite 1970  
Chicago, IL 60601-2208

## Employment Opportunities

- Education • Equipment marketing
- Home Care • Hospitals
- Long term care facilities-adult and pediatric

## Contact Persons

College contact: Patricia Chappell, Coordinator  
(856) 227-7200, ext. 4330  
E-mail: pchappell@camdencc.edu  
UMDNJ contact: Alam Realey, B.A., R.R.T., Director  
(856) 566-2892  
E-mail: shrp-resp@umdnj.edu

## Highlights

Employment of respiratory therapists is expected to increase faster than the average for all occupations through the year 2012, because of substantial growth in the number of middle-aged and elderly populations a development that will heighten the incidence of cardiopulmonary disease. Median annual earnings of respiratory therapists are approximately \$40,220.

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
BIO-117	Basic Anatomy and Physiology I	4
CHM-101	General Chemistry I	4
MTH-109	Intermediate Algebra Extended	4
PSY-101	Basic Psychology	3
HPE-181	Basic Life Support	1
		<b>19</b>
<b>Spring Semester</b>		
ENG-102	English Composition II	3
BIO-118	Basic Anatomy and Physiology II	4
BIO-121	Basic Microbiology I	4
PHL-232	Biomedical Ethics	3
.....	Diversity: Humanities General Education Elective	3
		<b>17</b>
	Total Provided by SHRP <sup>1</sup>	33
	Total Provided by Camden County College	36
	<b>Total Program Credits</b>	<b>69</b>
	<b>Total Minimum Credits</b>	<b>69</b>

<sup>1</sup> The qualified credits earned from the Respiratory Program at UMDNJ will be transferred as a block to Camden County College to complete the Associate in Applied Science Degree

**NOTICE:** Clinical placements 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.

## Program Description

Interpreters for the deaf serve as valuable communication links between deaf and hearing people. Interpreter services allow members of the deaf community to interact fully within society. The program provides a base of general education courses together with specialized skill courses that qualify graduates for entry level interpreting positions. In addition to lecture and lab courses, this program includes an Interpreting Seminar, Interpreting Lab, and Interpreting Practicum, which provide students with practical experience in interpreting while enrolled. The program also provides closely supervised internship opportunities.

## Program Goals

- To prepare students to demonstrate an understanding of issues related to bilingualism and biculturalism as they affect the deaf community.
- To prepare students to demonstrate an appropriate level of fluency in American Sign Language as well as in a range of modalities for entry level interpreting.
- To prepare students to appropriately convey a spoken message into American Sign Language or Signed English as requested by the deaf consumer.
- To prepare students to appropriately voice a signed message from American Sign Language or Signed English into spoken English.
- To prepare students to demonstrate a knowledge of: the code of ethics set forth by the Registry of Interpreters for the Deaf, terms used in the interpreting profession, the role and function of a professional interpreter and be able to apply that knowledge to varied interpreting situations.
- To provide students with the knowledge to assess consumer needs, in areas of mode preference, language level, or environmental constraints.

## Program Student Learning Outcomes

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

1. Discuss issues related to bilingualism and biculturalism as they affect the deaf community.
2. Sign in American Sign Language with fluency.
3. Convey a spoken message into American Sign Language or Signed English.
4. Voice a signed message from American Sign Language or Signed English.
5. Apply knowledge of the Code of Ethics set forth by the Registry of Interpreters for the Deaf; terms used in the interpreting profession and the role of a professional interpreter to various interpreting situations.

## Special Program Requirements

Before beginning the Interpreter Education program, students must complete a series of sign language courses and pass the proficiency test. Students with extensive signing experience may request permission to take the Proficiency Test.

## Employment Opportunities

- Educational institutions
- Government offices
- Hospitals and medical offices
- Legal situations
- Social service agencies

## Contact Person

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# Sign Language Interpreter Education

Degree: Associate in Applied Science  
 College Code: SLA.AAS

Code	Course	Credits
<b>First Semester</b>		
ASL-101	American Sign Language I	3
<b>Second Semester</b>		
ASL-102	American Sign Language II	3
ASL-103	Fingerspelling	3
<b>Third Semester</b>		
ASL-201	American Sign Language III	3
<b>First Year/First Semester</b>		
SLS-201	ASL Syntax and Grammar <sup>1</sup>	3
SLS-202	American Deaf Culture <sup>1</sup>	3
IEP-201	ASL for Interpreters <sup>2</sup>	3
ENG-101	English Composition I	3
SPE-102	Public Speaking	3
HPE .....	Health & Exercise Science Elective	1
		<b>16</b>
<b>Second Semester</b>		
IEP-202	Consecutive Interpreting <sup>2</sup>	3
SLS-203	Introduction to Interpretation <sup>1</sup>	3
ENG-102	English Composition II	3
PHL-131	Introduction to Ethics	3
HSR-101	Introduction to Human Services	3
		<b>15</b>
<b>Second Year/First Semester</b>		
IEP-203	Simultaneous Interpreting <sup>2</sup>	3
IEP-204	Interpreting Seminar <sup>2</sup>	3
IEP-205	Voicing <sup>2</sup>	3
SOC-101	Introduction to Sociology	3
MTH	Mathematics General Education Elective or	
.....	Laboratory Science General Education Elective	3/4
HPE.....	Health & Exercise Science Elective	1
		<b>16/17</b>
<b>Second Semester</b>		
PSY-101	Basic Psychology	3
IEP-206	Interpreting Lab <sup>2</sup>	3
IEP-207	Interpreting Practicum <sup>2</sup>	4
.....	Free Elective	3
.....	Free Elective	3
		<b>16</b>
<b>Total Minimum Credits</b>		<b>75</b>

<sup>1</sup> Must have completed Intermediate American Sign Language or have permission of department.

<sup>2</sup> Must have passed proficiency test.

## Program Description

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

## Program Goals

- To prepare students for employment in various animal health fields, such as large animal practices, large teaching hospitals or exotic practices, and veterinary offices.
- To provide students with a foundation in general education
- To provide a concentration of course work appropriate for Veterinary Science students.
- To provide students with both theoretical knowledge and practical skills in veterinary technology.
- To provide students with the basic principles of management as it pertains to veterinary offices.

## Program Student Learning Outcomes

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

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

## Special Program Requirement

Before graduation, students must complete a 300 hour, supervised co-op program.

## Special Admission Requirement

- Students should have one year of high school biology and chemistry or Prep for Biology (BIO-010) and Prep for Chemistry (CHM-010).
- Students must complete recommended basic skills courses.
- An interview with the program director prior to acceptance is required.

## Accreditation

The Veterinary Technology program is accredited by:  
The Committee on Veterinary Technician Education and Activities of the American Veterinary Medical Association  
1931 North Meacham Road, Suite 100  
Shauburg, IL 60173-4360  
(708) 925-8070

## Employment Opportunities

- Animal hospitals
- Biomedical laboratories
- Animal health related fields
- Retail sales in animal care

## Contact Person

Peggy Dorsey, Director  
(856) 227-7200, ext. 4205  
E-mail: pdorsey@camdencc.edu

**NOTE:** Clinical placements 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.

## Recommendations

Experience with animal care is desirable but not necessary. If students have not had high school biology or chemistry, it is recommended they complete the Preparation for Biology and Preparation for Chemistry courses prior to starting the curriculum.

# Veterinary Technology

Degree: Associate in Applied Science  
College Code: ASC.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
ASC-106	Office Procedures for Veterinary Techs	2
BIO-111	Biology I-Science	4
CHM-101	General Chemistry I	4
CSC-101	Computer Literacy	3
		<b>16</b>
<b>First Year/Second Semester</b>		
ENG-102	English Composition II	3
ASC-111	Animal Biology	4
ASC-115	Small Animal Nursing I for Veterinary Techs	3
BIO-221	Microbiology I	4
MTH-111	Elements of Statistics I	3
		<b>17</b>
<b>First Year/Third Semester</b>		
ASC-112	Principles of Animal Husbandry	2
ASC-292	Small Animal Co-op	3
.....	Diversity: Humanities General Education Elective or	3
.....	Diversity: Social Science General Education Elective <sup>1</sup>	3
		<b>8</b>
<b>Second Year/First Semester</b>		
ASC-213	Laboratory Animal Science	3
ASC-214	Small Animal Nursing II	2
ASC-215	Farm Animal Nursing	1
ASC-220	Hematology for Veterinary Technicians	3
ASC-240	Parasitology	3
		<b>12</b>
<b>Second Year/ Second Semester</b>		
ASC-200	Dental Techniques for Veterinary Techs	1
ASC-210	Histology and Cytology	3
ASC-234	Radiology and Ultrasound	2
ASC-235	Clinical Laboratory for Veterinary Techs	2
ASC-261	Pathology for Veterinary Techs	2
ASC-270	Veterinary Pharmacology	2
		<b>12</b>
<b>Total Minimum Credits</b>		<b>65</b>

<sup>1</sup> A diversity course in Humanities or Social Science can be chosen. See the Director for advisement on course selection.

## Program Description

The program combines such traditional video concepts as script writing and cinematography with today's technology of digital graphics and computer animation. The program uses state-of-the-art hardware and software.

## Program Goals

- To provide students with the skills and knowledge necessary to plan, budget, produce, and perform pre and post-production skills related to digital video.
- To provide students with the technical hands-on skills required for entry-level employment in the field of digital storytelling, special effects and video production.
- To train students on the use a variety of specialized computer software, hardware peripherals and video equipment to produce an 8-10 minute video segments.
- To guide and assist the students as they prepare and use their portfolio for use to qualify for entry-level employment in the computer animation field, digital video (web multimedia or broadcast), video directing, producing and editing.
- To instill in the students a commitment to lifelong learning which engenders the desire to transfer credits to an affiliated baccalaureate program.

## Program Student Learning Outcomes

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

1. Plan, budget produce and perform pre- and post-production techniques to digital video.
2. Apply technical and hands on skills required in the field of digital story telling, special effects and video production.
3. Analyze computer based animation and visual effects for video and interactive multimedia production.
4. Plan, produce and direct video projects individually and in a group.

## Employment Opportunities

- Computer animation
- Video directing
- Video producing
- Video editing
- Digital video (web multimedia or broadcast)

## Contact Persons

Professor Phyllis Owens, Coordinator  
(856) 227-7200, ext. 4682  
E-mail: powens@camdencc.edu  
Professor Elaine Reeder, ext. 4556  
E-mail: ereeder@camdencc.edu



### Highlights

There are cooperative education opportunities with local employers.

# Video Imaging

Degree: Associate in Applied Science  
College Code: VIT.AAS

Code	Course	Credits
<b>First Year/First Semester</b>		
ENG-101	English Composition I	3
CGR-104	Digital Design Fundamentals	3
CGR-111	Computer Graphic Design I	3
CGR-235	Video Production	3
.....	Social Science General Education Elective	3
		<b>15</b>
<b>Second Semester</b>		
ENG-102	English Composition II	3
CGR-112	Computer Graphic Design II	3
CGR-115	Digital Strorytelling	3
CGR-231	Video Imaging Technology I	3
CGR-240	Video Production II	3
MTH.....	Mathematics General Education Elective	3
		<b>18</b>
<b>Second Year/First Semester</b>		
CGR-121	Multimedia Technology I	3
CGR-232	Video Imaging Technology II	3
CGR-241	Computer Animation I	3
CIS-191	Internet Tools & Technique	3
ENG-221	Creative Writing	3
.....	Business Elective	3
		<b>18</b>
<b>Second Semester</b>		
CGR-233	Video Imaging Technology III	3
CGR-244	Special Effects	3
CGR-270	Computer Graphics Internship/Co-Op	3
SPE-102	Public Speaking	3
.....	Diversity General Education Elective	3
		<b>15</b>
<b>Total Minimum Credits</b>		<b>66</b>