

2015-2016

Program and Course Addendum

This booklet includes program and course that were approved by the College Council and signed by the college President after the publication deadline for the 2015–2016 college catalog. These programs will take affect between Fall 2015 and Summer 2016.

Some of these program changes are major and require a new version number (example 443.1 to 443.2). Major changes involve new or updated required courses, changes to number of credits required, updated prerequisites or corequisites or changes in course sequencing.

For major changes, students should consult with their advisor or counselors when deciding whether to stay with the program they enrolled or moving to the updated program.

New courses and updated courses are shown according to the program area.

This Addendum will be updated as further changes are approved by College Council and the College President.

Health Programs

- Anesthesia Technician (462) (AS) (New Program)
- Massage Therapist (443.2) (AS) (Revised Program)
- Medical Assistant (535.1) (AS) and (419.1) (Certificate) (Program Description Updated)
- Physical Therapist Assistant program 628.2 (AS) (minor course changes)

Science Technology Engineering and Mathematics

- CIT—Mobile Apps Software Development (787) (Certificate) (New Program)

New and Updated Courses in:

- Anthropology (ANT)
- Aviation (Flight) Technology (AVT)
- Anesthesiology (ANE)
- Computer and Information Technology (CIT)
- Court Reporting (CRT)
- Early Education and Child Development (ECD)
- Geography (GEO)
- Heavy Equipment Operator (HEO)
- History (HIS)
- Land Administration (LND)
- Massage (MAS)
- Maintenance Mechanics Technology (MMT)

Courses deleted:

- Chemistry (CHM-118)
- History (HIS-110)
- Massage Therapy (MAS-202)

STUDENT NOTES

Anesthesia Technician (462) (Effective Spring 2016)

BOYCE

Associate of Science

This program prepares graduates to work under the supervision of an anesthesia provider and as a vital member of the anesthesia care team. The anesthesia technician assists with the preparation of various types of equipment and pharmacology required for the delivery of anesthesia care.

Anesthesia technicians work in a variety of clinical settings that include hospital operating rooms, interventional and diagnostic radiology, labor and delivery units, intensive care units, emergency rooms, outpatient procedure suites and ambulatory surgery centers.

Enrollment in this program is limited by availability of clinical sites and other factors. Students must make a separate application to this program. Admission to the college and completion of any developmental level course is required.

Upon successful completion of the program, the graduate will:

1. Exhibit entry level competencies in the cognitive, psychomotor and affective domains of an anesthesia technician.
2. Demonstrate proficiency in the acquisition, preparation and application of various types of equipment required for the delivery of anesthesia care.
3. Utilize independent judgment for rapid response to the changing circumstances in patient care.
4. Apply safe practices for patient, self and other members of the anesthesia care team.
5. Display professionalism and ethical behavior in patient and staff interactions.

Commission on Accreditation of Allied Health Programs

CoA-ATE

1361 Park Street

Clearwater, FL 33765

727.210.2350

www.caahep.org

Degree Requirements

First Semester

ANE-110	Basic Principles of Anesthesia Technology	4
ANE-111	Basic Anesthesia Equipment	4
BIO-110	Introduction to Biology or	4
BIO-151	General Biology 1	4
ENG-101	English Composition	<u>3</u>
		15

Second Semester

ANE-112	Anesthesia Pharmacology	4
ANE-113C	Anesthesia Technology Clinical 1	1
BIO-161	Anatomy and Physiology 1	4
CHM-109	Introduction to Chemistry	4
ENG-102	English Composition 2	<u>3</u>
		16

Summer

PSY-101	Introduction to Psychology	3
	Mathematics Elective (MAT-100 or higher except Career Mathematics MAT-191 MAT-193 or MAT-195)	<u>3-4</u>
		6-7

Third Semester

ANE-211	Advanced Principles of Anesthesia Technology	4
ANE-212	Advanced Anesthesia Equipment	4
ANE-213C	Anesthesia Technology Clinical 2	2
BIO-162	Anatomy and Physiology 2	4
	Humanities Elective	<u>3</u>
		14

Fourth Semester

ANE-220	Professional Issues for the Anesthesia Technician	2
ANE-221C	Anesthesia Technology Clinical 3	5
ANE-222C	Anesthesia Technology Clinical 4	<u>5</u>
		12

Minimum Credits to Graduate **66-67**

Massage Therapist (443.2) (Effective Fall 2015)

BOYCE

Associate of Science

This program is designed to prepare students for a career in professional massage therapy. Graduates of the comprehensive associate of science degree program are eligible to apply for licensure as a massage therapist in Pennsylvania. Completion of the degree program prepares students to be proficient at communicating effectively with clients, families and other healthcare practitioners, assessing client needs, as well as designing and implementing evidence-based, client-specific massage therapy approaches. Graduates of the degree program learn advanced soft tissue interventions for clinical and spa environments.

Licensed massage therapists may work as independent contractors or employees in a variety of health-related settings including pain management clinics, wellness retreat centers, hospice facilities, orthopedic centers and physical therapy and chiropractic offices. Licensed therapists may also be employed in athletic clubs, resorts, spas, yoga centers, golf resorts and country clubs, beauty salons, dance studios and on cruise ships.

Enrollment is limited by lab size and other factors. Students must make separate application to the program. Applicants should have a successful record of achievement in high school science courses or develop these skills prior to program admission. Applicants must be eligible for all college-level courses. All applicable credits earned from other schools must be transferred in to CCAC to appear on one transcript which is sent to the PA State Board of Massage Therapy upon graduation.

Upon successful completion of the program, the graduate will:

1. Plan, organize and perform an effective massage and bodywork session for therapeutic benefit.
2. Display skill in developing professional and ethical relationships with clients and interdisciplinary health care teams.
3. Evaluate forms of business ownership and develop a strategy for a successful practice, business or employment situation.

4. Identify and implement strategies for self-care, personal health and wellness and on-going professional development.
5. Apply evidence-based practices of massage therapy within scope of practice.

Completion of the program qualifies the graduate to sit for the Massage and Bodywork Licensing Exam (MBLEx). Completion of the program will also provide the education requirement needed for graduates to later pursue the advanced credential certification through the National Certification Board for Therapeutic Massage and Bodywork. Because certification and licensing requirement vary by state, students who plan to relocate after graduation are encouraged to verify the educational requirements in states other than Pennsylvania.

A criminal record may affect a graduate’s ability to take the licensure examination or obtain state licensure. A majority of the states require a license to practice massage therapy. Applicants must submit a criminal background check for acceptance into the program.

*This program is currently seeking accreditation candidacy with the Commission on Massage Therapy Accreditation (COMTA).

Degree Requirements

First Semester		Credits
ALH-140	Medical Terminology	3
BIO-103	Introduction to Human Biology	3
MAS-101	Massage Therapy Principles & Procedures 1	4
PSY-101	Introduction to Psychology	3
	Computer Information Technology Elective	<u>1-4</u>
		14-17
Second Semester		
ENG-101	English Composition 1	3
HPE-171	Personal & Community Health & Wellness	3
MAS-102	Massage Therapy Principles & Procedures 2	5
MAS-110	Musculoskeletal Palpation for Massage Therapy	2
MAS-111	Pathology for Massage Therapy	<u>3</u>
		16

(continued)

Massage Therapist (443.2) (continued)

Third Semester

ENG-102	English Composition 2	3
MAS-201	Massage Therapy Principles & Procedures 3	5
MAS-208	Assessment for Massage Therapy	3
MAS-211L	Massage Therapy Applications	1
	General Elective	3
		15

Fourth Semester

MAS-203	Massage Therapy Modalities 1	2
MAS-204	Massage Therapy Modalities 2	2
MAS-212C	Massage Therapy Externship	1
MAS-220	Massage Therapy Seminar	1
MAT-195	Business Mathematics	3
	General Elective	3
	Humanities Elective ¹	3
		15

Minimum Credits to Graduate **60–63**

¹Recommend SPH-101 Oral Communication

**Medical Assistant (535.1)
(Program Description updated 10-15)**

SOUTH

Associate of Science

This degree program enables students in the certificate program the opportunity to continue their education and to complete the coursework needed for an associate’s degree. This program prepares students for entry-level positions as a medical assistant in a physician’s office, clinic or other healthcare setting. Medical assistants work with physicians of all specialties performing clinical and administrative duties. They assist with examinations and treatments, perform routine laboratory procedures, maintain medical records, complete insurance forms, arrange for diagnostic procedures, handle correspondence, transcribe notes and perform bookkeeping. Students graduating from this program will demonstrate critical thinking based on knowledge of academic subject matter required for competence in the profession. The program prepares competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains using classroom instruction with laboratory experience. The programs includes a 160-hour, non-paid clinical externship.

Enrollment is limited by availability of clinical sites and other factors. Students must make separate application to the program. Students must be eligible for second-level developmental courses and have 40 words per minute typing proficiency.

A felony conviction may affect a student’s eligibility to enroll in the clinical externship and a graduate’s ability to take the national examination which is required to practice as a Medical Assistant.

A student must maintain a 2.0 college-level cumulative GPA to enter and remain in the program.

The Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon recommendation of the Medical Assisting Education Review Board (MAERB). The program has been placed on Probationary Accreditation as of September 18, 2015. Probationary accreditation is a temporary status of accreditation imposed when a program does not continue to meet accreditation Standards but should be able to meet them within a specified time. CAAHEP is located at 1361 Park Street, Clearwater, FL 33756 (727.210.2350) www.caahep.org.

Graduates are eligible to apply for the national examination for the CMA (Certified Medical Assistant) credential.

(continued)

Medical Assistant (535.1) (continued)

Upon successful completion of the program, the graduate will:

1. Perform clinical procedures related to patient examinations and assist the physician throughout the exam.
2. Prepare blood and body fluid specimens for analysis according to industry standards.
3. Communicate effectively orally and in writing.
4. Perform administrative functions related to medical business practices.
5. Display behavior in accordance with regulations, policies, laws and patient rights.

Degree Requirements

First Semester

		Credits
ALH-140	Medical Terminology	3
CIT-100	Computer Fundamentals & Applications	3
MDA-104	Administrative Medical Office Management	4
MDA-105	Clinical Medical Assisting 1	5
MDA-208	Medical Financial Management	3
		18

Second Semester

BIO-103	Introduction to Human Biology	3
MDA-101	Medical Transcription	3
MDA-103	Medical Assisting Seminar	3
MDA-106	Clinical Medical Assisting 2	5
MDA-107	Laboratory Procedures for the Office	3
		17

Summer

MDA-108	Medical Assistant Externship	3
		3

Third Semester

BUS-103	Principles of Management	3
ENG-101	English Composition 1	3
PSY-101	Introduction to Psychology	3
	Mathematics Elective	3-4
		12-13

Fourth Semester

ALH-125	Pharmacology or	3
BIO-107	Pharmacology	3
ENG-102	English Composition 2	3
PSY-108	Human Growth & Development	3
SPH-101	Oral Communications	3
		12

Minimum Credits to Graduate 62-63

Medical Assistant (419.1) (Program Description updated 10-15)

SOUTH
Certificate

This certificate program prepares students for entry-level positions as a medical assistant in a physician's office, clinic or other healthcare setting. Medical assistants work with physicians of all specialties performing clinical and administrative duties. They assist with examinations and treatments, perform routine laboratory procedures, maintain medical records, complete insurance forms, arrange for diagnostic procedures, handle correspondence, transcribe notes and perform bookkeeping. Students graduating from this program will demonstrate critical thinking based on knowledge of academic subject matter required for competence in the profession. The program prepares competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains using classroom instruction with laboratory experience. The program includes a 160-hour, non-paid clinical externship.

Enrollment is limited by availability of clinical sites and other factors. Students must make separate application to the program. Students must be eligible for second-level developmental courses and have 40 words per minute typing proficiency.

A felony conviction may affect a student's eligibility to enroll in the clinical externship and the graduate's ability to take the national examination which is required to practice as a Medical Assistant.

A student must maintain a 2.0 college-level cumulative GPA to enter and remain in the program.

The Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon recommendation of the Medical Assisting Education Review Board (MAERB). The program has been placed on Probationary Accreditation as of September 18, 2015. Probationary accreditation is a temporary status of accreditation imposed when a program does not continue to meet accreditation Standards but should be able to meet them within a specified time. CAAHEP is located at 1361 Park Street, Clearwater, FL 33756 (727.210.2350) www.caahep.org.

Graduates are eligible to apply for the national examination for the CMA (Certified Medical Assistant) credential.

(continued)

Medical Assistant (419.1) (continued)

Upon successful completion of the program, the graduate will:

1. Perform clinical procedures related to patient examinations and assist the physician throughout the exam.
2. Prepare blood and body fluid specimens for analysis according to industry standards.
3. Communicate effectively orally and in writing.
4. Perform administrative functions related to medical business practices.
5. Display behavior in accordance with regulations, policies, laws and patient rights.

Certificate Requirements

First Semester

	Credits
ALH-140 Medical Terminology	3
CIT-100 Computer Fundamentals & Applications	3
MDA-104 Administrative Medical Office Management	4
MDA-105 Clinical Medical Assisting 1	5
MDA-208 Medical Financial Management	3
	18

Second Semester

MDA-101 Medical Transcription	3
MDA-103 Medical Assisting Seminar	3
MDA-106 Clinical Medical Assisting 2	5
MDA-107 Laboratory Procedures for the Medical Office	3
	14

Summer

MDA-108 Medical Assistant Externship	3
	3

Minimum Credits to Graduate 35

Physical Therapist Assistant (628.2)

BOYCE

Associate of Science

The Physical Therapist Assistant program is designed to prepare graduates to perform physical therapy procedures and related tasks under the supervision of a licensed physical therapist. Graduates complete a minimum of 784 hours of supervised clinical experience that is coordinated with 450 hours of classroom learning. The physical therapist assistant (PTA) performs a variety of treatment procedures in settings such as hospitals, nursing homes, rehabilitation facilities, schools, patient homes, sports medicine clinics and private practices. Through the utilization of therapeutic modalities and exercise, and other techniques, physical therapy aids patients in the relief of pain and discomfort as well as assisting the disabled in restoring optimal functioning.

Enrollment is limited by availability of clinical sites and other factors. Students must make separate application to the program. Applicants should have a successful record of achievement in high school courses or develop these skills prior to program admission. Students must also meet pre-program requirements¹, which include the successful completion of *BIO-151 General Biology 1* or *BIO-110 Introduction to Biological Science*.

The Physical Therapist Assistant Program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA), 1111 Fairfax Street, Alexandria, VA 22314; 703.684.2782, www.apta.org.

Graduates of this accredited program will be eligible to take the National Physical Therapy Examination for the Physical Therapist Assistant administered by the Federation of State Boards of Physical Therapy (FSBPT).

A felony conviction may affect a graduate's ability to take the registration examination or obtain state licensure. A majority of the states require a license to practice as a physical therapist assistant.

(continued)

Physical Therapist Assistant (628.2) (continued)

Upon successful completion of the program, the graduate will:

1. Meet the requirements for an Associate of Science degree exhibiting entry level competencies as a physical therapist assistant, be prepared to pass the National Physical Therapy Examination for the Physical Therapist Assistant and gain employment.
2. Display professional behaviors that are congruent with the core values, standards and ethics of the physical therapy profession.
3. Demonstrate respect for cultural diversity, lifestyle values and choices of others.
4. Communicate effectively with clients, family members and other health care providers.
5. Utilize reflective judgment and problem solving skills and demonstrate participation in professional development opportunities to promote health and wellness.

Degree Requirements²

First Semester

	Credits
BIO-160 Introduction to Human Pathology	3
BIO-161 Anatomy & Physiology 1	4
ENG-101 English Composition 1	3
PSY-101 Introduction to Psychology	3
PTA-101 Introduction to Physical Therapy	<u>4</u>
	17

Second Semester

BIO-162 Anatomy & Physiology 2	4
ENG-102 English Composition 2	3
PTA-102 Physical Therapy Principles & Procedures 1	4
PTA-103 Physical Therapy Principles & Procedures 2	4
PTA-112C Introduction to Physical Therapy Clinical Education	1
Health & Physical Education Elective	<u>1-2</u>
	17-18

Summer

Mathematics Elective (CCAC MAT level 100 or higher must have CCAC MAT-090 prerequisite)	<u>3-4</u>
	3-4

Third Semester

PSY-108 Human Growth & Development	3
PTA-201 Physical Therapy Principles & Procedures 3	5
PTA-202 Physical Therapy Professional Issues Seminar	2
PTA-203 Specialty Topics in Physical Therapy	3
PTA-211C Physical Therapy Clinical Education 1	2
SPH-101 Oral Communication	<u>3</u>
	18

Fourth Semester³

PTA-212C Physical Therapy Clinical Education 2	5
PTA-213C Physical Therapy Clinical Education 3	5
PTA-215 Physical Therapy Profession Exploration	<u>2</u>
	12

Minimum Credits to Graduate

67-69

¹Pre-Program Requirements

- *BIO-151 General Biology 1* or *BIO-110 Introduction to Biological Science* or completion of the Biology Waiver Exam. **Exception:** *Anatomy and Physiology 1* and/or 2 successfully completed.
- Approved transfer of credits from other colleges or universities that you may have attended.
- If required by your college placement test results, developmental courses **MUST** be completed with a C grade or better.
- Acceptance into the Physical Therapist Assistant Program.

²Graduation from the Physical Therapist Assistant program requires a letter grade of C or better in all courses listed in the program of studies.

³All academic coursework must be completed prior to enrolling in *PTA-212*, *PTA-213* and *PTA-215*.

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS PROGRAMS

CIT—Mobile Apps Software Development (787) (Effective Spring 2016)

ALLEGHENY, BOYCE, NORTH, SOUTH
Certificate

This program provides students with specific technical skills in the area of mobile applications (apps) software development. The program addresses individuals with a technical orientation, as well as college graduates from other fields, interested in a career in mobile apps software development. This certificate program will provide students with the specific technical competencies for employment in various areas in the information technology field, including mobile apps software developers, mobile apps software programmers, software development consultants, as well as UI (User Interface) software developers.

Students obtain a foundation in object-oriented computer programming, as well as knowledge and technical skills in mobile operating systems development, including Android and iOS.

Upon successful completion of the program, the graduate will:

1. Implement troubleshooting strategies and techniques in correcting a variety of information technology design issues and problems.
2. Apply various software development tools to create graphical user interfaces, websites and mobile apps.
3. Design websites to display on various mobile devices and screens.
4. Develop the necessary technical and problem solving skills in creating apps for mobile devices by implementing Android and iOS operating system frameworks and object-oriented programming languages.
5. Acquire the necessary technical skills to work with data from a variety of sources, including databases and web services.
6. Develop the necessary technical skills in publishing apps.

Prerequisites to the certificate program:

Students are assumed to have either taken *CIT-111 Introduction to Programming: JAVA* and *CIT-115 Introduction to Information Technology* or demonstrate equivalent experience or knowledge prior to starting this certificate program.

Students must also have access to computer systems running the Android operating system, as well as the iOS operating system.

Certificate Requirements

First Semester		Credits
CIT-116	Mobile Apps Visual Development	3
CIT-125	Web Development	3
CIT-130	Object-oriented Programming 1: Java	4
		10
Second Semester		
CIT-135	Mobile Apps Programming 1	3
CIT-244	Object-oriented Programming 2: Java	4
		7
Third Semester		
CIT-265	Mobile Apps Programming 2	4
CIT-266	Mobile Apps Programming using iOS	4
CIT-267	Mobile Apps Software Development Capstone ¹	3
		11
Minimum Credits to Graduate		28

¹CIT-267 must be taken in the final semester

Updated and New Course Descriptions

This section lists courses offered at the Community College of Allegheny County that were added or updated since the 2015-16 catalog was published. The information includes course name, alphacode/number, credits, lecture/lab/clinical hours, prerequisites and corequisites (if required) and a short description. **Note:** Not every course is offered in every term; consult the course search on ccac.edu CCAC Central e-Services for courses in specific terms.

Anthropology (ANT)

Updated Courses (Effective Spring 2016)

ANT-101 Introduction to Anthropology
3 credits/3 class hours

This course is a scientific inquiry into human variability across space and time. The evolution of humanity's biocultural nature from prehistory to present times is examined. This draws upon evidence from archaeology, physical anthropology/human paleontology, ethnography and linguistic anthropology.

ANT-104 Native Americans-Indians of North America
3 credits/3 class hours

This course is an ethnographic survey of Native tribes of North America (north of Mexico) from Paleolndians to contemporary tribes/nations. Possible fieldtrips are part of this course.

Aviation (Flight) Technology (AVT)

Updated Courses (Effective Spring 2015)

AVT-105 Flight/Private
3 credits/1 class and 4 lab hours
Prerequisites: Second class medical student pilot certificate
Corequisite: *AVT-101*

This course provides the student with flight instruction and experience at a Federal Aviation Administration (FAA), Part 141 approved flight school. The student will complete the dual and solo flight time requirements including pre- and post-flight briefings and required stage exams. A valid second class medical certificate is required to begin this course. The student must pass the FAA private pilot practical exam to obtain a pilot certificate in order to successfully complete the course. The FAA required minimum flight hours in this course are 35 hours; however, the actual flight hours may vary based on student proficiency.

AVT-115 Flight/Instrument
3 credits/1 class and 4 lab hours
Prerequisites: *AVT-101, AVT-103, AVT-105*
Corequisite: *AVT-111*

This course provides the student with the required flight training to obtain the instrument rating. The course includes necessary flight training as well as the requisite stage exams while preparing a student for the Federal Aviation Administration (FAA) instrument pilot practical exam. All training follows FAA Part 141 regulations. A second class medical certificate is required to take this course. The student must pass the FAA instrument pilot practical exam to obtain an instrument rating in order to successfully complete the course. The FAA required minimum flight hours in this course are 35 hours; however, the actual flight hours may vary based on student proficiency.

AVT-205 Flight/Commercial 1
4 credits/2 class and 4 lab hours
Prerequisites: *AVT-111, AVT-115*
Corequisite: *AVT-211*

This course will develop the commercial pilot skills necessary for the Federal Aviation Administration (FAA) commercial pilot practical exam. The course provides instruction and flight experience including pre- and post-flight briefings as well as the dual and solo flights necessary to complete the approved hours for the commercial pilot exam. A second class medical certificate is required to take this course. The FAA required minimum flight hours in this course are 60 hours; however, the actual flight hours may vary based on student proficiency.

AVT-215 Flight/Commercial 2
4 credits/2 class and 4 lab hours
Prerequisites: *AVT-205, AVT-211*

This course is a continuation of the commercial flight course. It includes the Federal Aviation Administration (FAA) required hours of instruction in a complex aircraft and flight experience including pre and post flight briefings as well as dual and solo flights. A second class medical certificate is required to take this course. For successful completion of the course, the student must successfully pass the FAA Part 141 commercial pilot practical exam. The FAA required minimum flight hours in this course are 60 hours; however, the actual flight hours may vary based on student proficiency.

AVT-225 Multi-Engine Flight
1 credit/1 class hour
Prerequisites: *AVT-105*
Corequisite: *AVT-220*

This course is an FAA 141 approved fixed base operator will give multi-engine flight training in modern twin-engine aircraft. The course is designed to give a pilot a minimum of 10 hours of flight instruction, including 10 hours of oral instruction and briefing. The student must successfully complete the FAA Multi-Engine Pilot Rating Flight exam. The FAA required minimum flight hours in this course are 10 hours; however, the actual flight hours may vary based on student proficiency.

AVT-255 Certified Flight Instructor Airplane Flight
1 credit/1 class hour
Prerequisites: *AVT-215*
Corequisite: *AVT-250*

This course prepares the commercial pilot to meet the FAA 141 flight requirements for the CFI-A certification. The estimated minimum flight hours required in this course are 15 hours, which will cover practice teaching, flight theory and flight maneuvers. However, the actual flight hours may vary based on student proficiency.

AVT-265 Certified Flight Instructor Instrument Airplane Flight
1 credit/1 class hour
Prerequisites: *AVT-250, AVT-255*
Corequisite: *AVT-260*

This course prepares the commercial pilot to meet the FAA 141 flight requirements for the CFI-A certification. The estimated minimum flight hours required in this course are 10 hours, which will cover practice teaching, flight theory and analysis of flight maneuvers. However, the actual flight hours may vary based on student proficiency.

(New Program) Anesthesiology (ANE) (Effective Fall 2015)**ANE-110 Basic Principles of Anesthesia Technology**

4 credits/3 class and 2 lab hours

Prerequisite: Acceptance into the Anesthesia Technician Program

The course is an introduction to anesthesiology's contribution to quality patient care and the relationship of the anesthesia technician to other healthcare professionals. The focus is on patient safety, universal precautions and employee safety in the healthcare environment. An introduction to the theory and concepts of a surgical environment is given including the fundamentals of a variety of anesthesia equipment and basic case set-up utilizing anesthesia supplies.

ANE-111 Basic Anesthesia Equipment

4 credits/2 class and 4 lab hours

Prerequisite: Acceptance into the Anesthesia Technician Program

This course offers an introduction to the theories and concepts in the adequate function of anesthesia equipment including maintaining equipment, repairing defects and trouble-shooting complications. The student will be introduced to basic equipment used for patients while undergoing anesthesia, including airway equipment and hemodynamic monitoring. Introduction to point-of-care testing (POCT) will also be covered.

ANE-112 Anesthesia Pharmacology

4 credits/4 class hours

Prerequisites: *ANE-110* and *ANE-111*Corequisite: *CHM-109*

This course covers the theory and concepts in the proper use and safe practice of delivery and storage of anesthesia medications. Drugs commonly used in the practice of anesthesia will be studied. Emphasis is placed on the proper identification of these drugs by trade and generic names, their basic pharmacological action, and how they are used in a clinical setting.

ANE-113C Anesthesia Technology Clinical 1

1 credits/8 clinical hours

Prerequisite: *ANE-110* and *ANE-111*Corequisite: *ANE-112*

This course provides the student an experience in direct observation in the health care setting with a focus on anesthesia technology. Emphasis is placed on beginning professional skills development of an anesthesia technician. This course is graded on a pass/fail basis.

ANE-211 Advanced Principles of Anesthesia Technology

4 credits/2 class and 4 lab hours

Prerequisite: *ANE-110*, *ANE-111* and *ANE-113C*Corequisite: *ANE-213C*

This course covers the theory and concepts of the use and function of anesthesia supplies and equipment used for various surgical procedures to include studies in general, regional and conscious sedations as well as patient positioning. Additional topics are types of anesthesia emergencies, including difficult airways, malignant hyperthermia, hemorrhage and cardiac arrest.

ANE-212 Advanced Anesthesia Equipment

4 credits/2 lecture and 4 lab hours

Prerequisites: *ANE-110*, *ANE-112* and *ANE-113C*Corequisites: *ANE-213C*

This course provides instruction and lab application to the theories and concepts of advanced anesthesia equipment that are used in complex anesthesia/surgical situations. Topics include invasive monitoring and high-level equipment: thromboelastograph, cell saver, transducers and transesophageal echocardiogram to properly assist with care of a high-risk patient.

ANE-213C Anesthesia Technology Clinical 2

2 credits/8 clinical hours

Prerequisites: *ANE-110* and *ANE-112*Corequisites: *ANE-211* and *ANE-212*

This clinical experience provides the student with the opportunity to observe and practice the principles of infection control in a surgical setting as well as gain experience with specific anesthesia equipment. The student will observe, obtain and practice specific technical skills. Hands-on experience will provide technical skills and further understanding of the theories taught within the classroom. This course will be graded on a pass/fail basis.

ANE-220 Professional Issues for the Anesthesia Technician

2 credits/2 class hours

Prerequisites: *ANE-211*, *ANE-212*, and *ANE-213C*

This course surveys the current trends in anesthesia technology. Emphasis is placed on professional issues such as continuing education, ethical behavior, team functioning and organization of health care institutions.

ANE-221C Anesthesia Technology Clinical 3

5 credits/8 hours a day for 8 weeks clinical

Prerequisite: Successful completion of all academic and *clinical 1 & 2* requirements in the Anesthesia Technician Program.

This 8-week, full-time clinical experience takes place in diverse health care settings. This clinical experience will provide the student with the opportunity to observe and practice the entry level skills with specific anesthesia equipment. The student will observe, obtain and practice at an entry skill level. Hands-on experience will provide technical skills and further application of the theories taught within the classroom. This course is graded on a pass/fail basis. Anesthesia Clinical 3 must be successfully completed before beginning Anesthesia Clinical 4.

ANE-222C Anesthesia Technology Clinical 4

5 credits/8 hours a day for 8 weeks clinical

Prerequisite: Successful completion of all academic and *clinical 1 & 2* requirements in the Anesthesia Technician Program.

This 8-week, full-time clinical experience takes place in diverse health care settings. This clinical experience will provide the student with the opportunity to observe and practice the entry level skills with specific anesthesia equipment. The student will observe, obtain and practice at an entry skill level. Hands-on experience will provide technical skills and further application of the theories taught within the classroom. This course is graded on a pass/fail basis. Anesthesia Clinical 3 must be successfully completed before beginning Anesthesia Clinical 4.

Computer and Information Technology (CIT)**NEW Courses (Effective Spring 2016)****CIT-116 Mobile Apps Visual Development**

3 credits/3 class

Prerequisite: *CIT-111* or with instructor's permission

This course is an introduction in creating applications (apps) using mobile app visual development software. The focus of the course includes using visual development software tools to create graphical user interfaces, implement computer programming control structures, including object-oriented principles and applications, and design apps that include multimedia technologies.

CIT-265 Mobile Apps Programming 2

4 credits/4 class

Prerequisite: *CIT-135* and *CIT-244* or with instructor's permission

This course is an advanced course in creating mobile applications (apps). The focus of the course includes a review of object-oriented computer programming concepts and applications, the Android mobile operating system, and the activity life cycle. Additional course topics include creating apps that follow effective design principles and writing apps that include multimedia, data structures, database technology, and multithreading.

(continued)

NEW Courses (Effective Spring 2016) (continued)

CIT-266 Mobile Apps Programming using iOS
4 credits/4 class
Prerequisite: *CIT-135* and *CIT-244* or with instructor's permission

This course is an introduction in creating applications (apps) using an object-oriented computer programming language and the iOS mobile operating system. The focus of the course includes the Integrated Development Environment (IDE) and the Software Development Kit (SDK) technologies, the iOS mobile operating system, visual tools and graphical user interfaces, object-oriented computer programming, multimedia applications, persistent data, and Web application publishing.

CIT-267 Mobile Apps Software Development Capstone
3 credits/2 class and 1 lab hour
Prerequisite: Last semester of the CIT certificate or with Instructor's permission

This course, which must be taken in the final semester, is the capstone course in the Mobile Applications (Apps) Software Development program. Students gain comprehensive experience in developing, designing, and implementing mobile apps by applying the knowledge, as well as the technical and problem solving skills learned in the program. With the instructor's guidance and approval, students will produce an individual, and a team-based mobile app project that will be used to evaluate the students' competencies in the program.

UPDATED Course (Effective Spring 2016)

CIT-135 Mobile Apps Programming 1
3 credits/3 class hour
Prerequisite: *CIT-130* or with instructor's permission

This course is an introduction in creating applications (apps) using an object-oriented computer programming language and the Android mobile operating system. The focus of the course includes the Integrated Development Environment (IDE) and the Software Development Kit (SDK) technologies, graphical user interfaces, object-oriented computer programming, interactive activity classes and the activity life cycle, programming structures, multimedia applications, persistent data, and Web application publishing.

Court Reporting (CRT)**New Course (Effective Spring 2016)**

CRT-215 Court Transcription 3
3 credits/3 class
Prerequisite: *CRT-211*

This course offers advanced proficiency in formatting and production of spoken language into text as required by several disciplines of the court reporting profession including judicial reporting and captioning (broadcast captioning and CART captioning—Communication Access Realtime Translation). Reinforcement of advanced language skills and advanced skills in the use of Case CATalyst software are integral to the course.

Updated Courses (Effective Fall 2015)

CRT-111 Court Transcription 1
3 credits/3 class
Prerequisite: *CRT-101* and *CRT-103*
Corequisite: *CRT-102*

This course offers an introduction to court reporting transcript production, including matters of English grammar, usage and punctuation in combination with formatting of text to accurately reflect the verbatim, spoken word in text documents. Reinforcement and development of language skills and transcript-related computer skills are emphasized.

CRT-211 Court Transcription 2
3 credits/3 class
Prerequisite: *CRT-111*

This course offers advanced proficiency in English grammar, usage and punctuation with emphasis on advanced proficiency in editing, proofreading and correction of text in court reporting transcripts. Development of Case CATalyst software skills required in the production of corrected transcripts is also emphasized.

Central Services Technology (CST)**New Course (Effective Fall 2015)**

CST-121 Central Service Technician Certification Examination Preparation
2 credits/2 class
Prerequisite: Current employee in a central service or surgical service department.

This course is designed to prepare the current Central Service Technician and surgical service employee for the certification examination sponsored by the International Association of Healthcare Central Service Material Management (IAHCMM). The students will be able to expand on their current knowledge of the profession as they are updated to the expanding roles and underlying principles relating to their role as a Central Service Technician. There is a focus on the methods of test taking through discussion and practice tests.

Early Education and Child Development (ECD)**New Course (Effective Fall 2015)**

ECD-115 Introduction to School Age Program
3 credits/3 class

This course provides an introduction to the field of school-age care. Students will explore professional expectations for the field, techniques for programming, teaching and working with school-age children and their families in out-of-school environments. Ten hours of field observation in an after-school/out-of-school setting is required. Students must have three clearances: FBI Fingerprint Clearance, a Pennsylvania State Police Criminal History Clearance and a Pennsylvania Department of Welfare Child Abuse History Clearance and meet the local requirements of the field placement site. This course is aligned with competencies required for the PA School Age Professional Credential.

Geography (GEO)

Updated Course (Effective Spring 2016)

GEO-101 World Geography 3 credits/3 class

This course is a survey of the earth's surface, its geophysical features and its economic importance. Climate, soil, natural resources and transportation are studied as they affect economic, political and cultural development.

Heavy Equipment Operator (HEO)

Updated Courses (Effective Fall 2015)

HEO-101 Heavy Equipment Regulation and Safety 1 6 credits/4 class and 4 lab hours Prerequisites: *LND-101, LND-102* Corequisite: *LND-103*

This course provides students with safety training, both personal and equipment and the industry regulations governing the Heavy Equipment Operator field. This addresses the need to ensure a safe work environment in the heavy equipment portion of the construction industry. The training includes various emergency procedures, pre-operational equipment and soil inspection techniques, and the safety training needed to qualify for the Occupational Safety and Health Administration (OSHA) Construction Outreach completion card. The tasks specific to pipeline construction and distribution work required to complete the Department of Transportation qualification are presented.

HEO-206 Industry Recertifications 5 credits/4 class and 2 lab hours

This course is designed to provide the training and instruction needed to be eligible for recertification in the areas of CPR/First Aid, Powered Industrial Truck Operator Safety, Waste Operations Site Worker Recertification and Pipeline Operator. This recertification training meets or exceeds the industry requirements for training and review. An authorized instructor administers the required recertification exams during this course. The course also covers the Mine Safety and Health Administration (MSHA) new miner training.

History (HIS)

Updated Courses (Effective Spring 2016)

HIS-101 Western Civilization from Ancient Times through 1500 3 credits/3 class hours

This course is designed as a survey of the political, economic and social developments of European civilization from ancient times through the rise of the early nation-state.

HIS-102 Western Civilization Since 1500 3 credits/3 class hours

This course is designed as a survey of the political, economic and social developments of European Civilization from the Renaissance to the end of the twentieth century.

HIS-104 United States History from Early Colonization through 1865 3 credits/3 class hours

This course is designed as a survey of political, economic and social developments of the United States from early exploration and settlement through the end of the American Civil War and the onset of Reconstruction.

HIS-105 United States History Since 1865 3 credits/3 class hours

This course is designed as a survey of political, economic and social developments of the United States from the end of the Civil War in 1865 to the beginning of the twenty-first century.

HIS-113 History of the Old Testament 3 credits/3 class hours

This course provides a survey of the Old Testament exploring the major books, figures and religious developments of the Hebrews. Texts will be explored in context of literary styles, religious and historical context.

HIS-114 History of the New Testament 3 credits/3 class hours

This course provides a survey of New Testament texts, beliefs and religious practices that shaped early Christianity. Writings will be explored in context of literary style and historical contexts as well as the theological meaning.

HIS-151 History of American Labor 3 credits/3 class hours

This course is a survey of the history of work and the worker in the United States, including major events and developments in American labor history from 1877 to the present.

HIS-213 Twentieth Century World History 3 credits/3 class hours

This course is an examination of the major trends and contemporary movements in Europe, Asia, Africa and the Americas since 1900 including the two world wars, social and political revolutions, nationalism, imperialism and decolonization, fascism and communism, the creation of new states, global conflict and peace building.

HIS-219 History of Women 3 credits/3 class hours

This course is a survey of society's definition of the nature and role of women, the actual conditions of women, and the feminist response to intellectual, social and political problems. This course will explore the history of women in society with a special emphasis on the United States.

HIS-220 Historical Archaeology 3 credits/3 class hours

This course is designed as an introduction to the basic techniques, methods and theories of historic archaeology. Emphasis is placed on topics from 18th and 19th century North America that provide insights into employing material objects as data for analysis of the past. The methodology of historical research, archaeological excavation and the description and analysis of historical materials are examined.

HIS-222 Pittsburgh: Past, Present and Future 3 credits/3 class hours

This course is a survey of Pittsburgh's role in the Colonial frontier, the westward movement, the development of the Ohio River Valley and the Industrial Revolution, as well as its role in developing solutions to contemporary urban problems.

HIS-229 Contemporary United States History 3 credits/3 class hours

This course is designed as a study of the political, social and cultural movements in America during the 20th and 21st Century.

Land Administration (LND)

New Courses (Effective Fall 2015)

LND-105 Fundamentals of Title Abstracting
4 credits/4 class hours
Prerequisites: *LND-101, LND-102*
Corequisite: *LND-103*

This course is a study of the principles of property title abstracting. The student will understand the process of being able to provide the chain of title for a tract of land including the surface, oil, gas, coal and minerals, as well as the leasehold chain for the property and providing any and all encumbrances on the property.

LND-201 Geographic Information Systems
3 credits/3 class hours

This course presents the fundamentals of Geographic Information Systems (GIS) as employed in the contemporary workplace. It is aimed at researchers and analysts from any discipline who want to expand their analytic toolbox. Students build a sequence of skills in Environmental Systems Research Institute (ESRI)'s ArcGIS software and undertake a series of case studies in fields ranging from environmental analysis, epidemiology and law enforcement to energy exploration. Students learn to develop spatial data collections for their discipline or professional needs. The course focuses on applications and problem-solving not computersland including the surface, oil, gas, coal and minerals, as well as the leasehold chain for the property and providing any and all encumbrances on the property.

Updated Courses (Effective Fall 2015)

LND-101 Introduction to Land Administration
3 credits/3 class hours

This course is a study in the principles of oil and natural gas geology, its production, as well as the basics of land ownership. Instruction and discussion will include a primer in petroleum (oil and gas) geology, the history of oil and gas production in the Appalachian Basin, the evolution of land ownership, oil and gas terminology, the development of the oil and gas lease, and an overview of land maps and property descriptions.

LND-102 Real Property for the Oil and Gas Industry
4 credits/4 class hours
Corequisite: *LND-101*

This course is a study of the principles of basic property law as it relates to the oil and natural gas industry. Discussion topics and instruction will include the elements of a deed, analysis of conveyances, types of ownership, mineral severance, legal descriptions and recording statutes. Emphasis on property law for the oil and natural gas industry will include additional discussion topics and instruction on oil, gas, coal and other mineral reservations typically utilized in conveyances in the Appalachian region.

LND-103 Oil and Gas Leases
3 credits/3 class hours
Prerequisites: *CIT-155, LND-101, LND-102*

This course is a study of the principles of basic oil and gas clauses typically contained in an oil and gas lease. Discussion topics and instruction will include the elements of a lease; rights, duties and obligations of the parties to a lease; calculating production payments; apportioning interests after assignment; effects of forming a pool or unit; and terminating a lease.

LND-104 Contract Law for Oil and Gas Industry
3 credits/3 class hours
Prerequisites: *CIT-155, LND-101, LND-102*

This course is a study of the principles of basic contract law as it relates to issues in general business and specifically in the oil and natural gas industry. Emphasis on contract law for the oil and natural gas industry will include additional discussion topics and instruction on contracts utilized in the natural gas industry. The student will learn about various agreements such as farm-ins, farm-outs, communization, American Association of Petroleum Landmen (AAPL) Model Form Operating Agreement and Council of Petroleum Accountants Societies, Inc. (COPAS) Accounting Procedure, various forms of assignments, joint exploration agreements, gas purchase, gas sales, gas distribution, transportation and gathering agreements.

Massage (MAS)

New Courses (Effective Fall 2015)

MAS-110 Musculoskeletal Palpation Massage Therapy
2 Credits/1 class and 2 lab hours
Prerequisite: *MAS-101*

In this course students explore the musculoskeletal system in greater detail. Anatomical and directional terminologies are discussed. Students distinguish various actions of the joints of the body. Students identify bones and bony landmarks of the upper body, lower body and torso. Students incorporate muscle palpation as a direct approach to understanding the origin, insertion and action of the muscles of the upper body, lower body and torso.

MAS-111 Pathology for Massage Therapy
3 credits/3 class hours
Prerequisites: *BIO-103 or BIO-115 or BIO161 and MAS-101*

This course explores the etiology, signs and symptoms, typical allopathic treatments, complementary and alternative treatments and implications of common pathological conditions as they relate to massage. Students define common pathology terminology and analyze the indications and contraindications of various massage applications specific to common conditions. Additionally, students learn to locate and analyze related peer-reviewed research of massage interventions on specific conditions.

MAS-203 Massage Therapy Modalities 1
2 credits/1 class and 2 lab hours
Prerequisites: *MAS-111 or BIO-160 or BIO-175 or BIO-241 and MAS-201*

This course introduces students to adjunctive spa-related therapies. The history and etiquette of spas are discussed. As an adjunct to the healing process students integrate the blending and application of essential oils with aromatherapy. Students differentiate essential oil properties to create an individualized blend for clients and assess the indications and contraindications of common essential oils. Students incorporate safe and sanitary application of hot stones to enhance the Swedish and Deep Tissue massage experiences. Students discuss and apply current trending modalities related to spa therapies.

MAS-204 Massage Therapy Modalities 2
2 credits/1 class and 2 lab hours
Prerequisites: *MAS-111 or BIO-160 or BIO-175 or BIO-241, MAS-201 and MAS-208 or PTA-101*

This course applies the student's knowledge of physiology, pathology and kinesiology to various populations. Students assess the precautions and contraindications for special populations and apply research-based, goal-oriented massage techniques. Interventions specific to athletes, older populations, clients with HIV/AIDS and protocols for musculoskeletal dysfunction are explored.

MAS-208 Assessment for Massage Therapy
3 credits/2 class 2 lab hours
Prerequisites: *MAS-102, MAS-110 or PTA-101 and MAS-111 or BIO-160 or BIO-175 or BIO-241*

This course prepares the massage therapist student to use an orthopedic assessment protocol to assess, design and implement an individualized therapeutic massage session for clients experiencing pain and dysfunction. Students perform a wide variety of assessment techniques to assess stage, structure and severity. Students apply knowledge of the agonist, antagonist and synergistic relationship of muscles as they relate to the kinesiology of human movement. Students perform massage therapy assessment techniques to evaluate posture, muscle imbalance and movement dysfunction patterns. The laboratory portion of this course focuses on the hands-on performance of range-of-motion assessment, manual muscle resistance testing and region-specific special tests.

MAS-220 Massage Therapy Seminar
1 credit/1 class hour
Prerequisites: *MAS-110 or PTA-101, MAS-111 or BIO-160 or BIO-175 or BIO-241 and MAS-201*

This course prepares students to make the transition from student to professional licensed massage therapist. Students explore the role of the massage therapist within the healthcare profession while discussing clinical experiences. Students identify and evaluate opportunities for continuing education and professional growth through exploration of professional associations and other resources. Academic and practical knowledge are enhanced in preparation for the state licensing examination. Students complete practice licensure examinations resembling the Massage and Bodywork Licensing Examination (MBLEx) and make application to take the required examination.

Updated Courses (Effective Fall 2015)

MAS-101 Massage Therapy Principles and Procedures 1
4 Credits/2 class and 4 lab hours
Prerequisite: Acceptance into Massage Therapy program

This course provides the history of massage from ancient to modern times. Group discussions introduce students to the concepts of personal health and wellness, scope of practice and legal and ethical issues in the field of massage therapy. Discussions also include benefits and precautions for massage and the role of the massage therapist in pain management. Students identify professional boundaries and ethical relationships essential to a successful massage practice. Client screening, assessment and informed consent precede the application of hands-on techniques.

The laboratory portion of this course includes the safe, sanitary and efficient use of massage equipment and supplies, the application of gliding, kneading and percussive strokes, demonstrations of proper body mechanics and lifestyle habits that increase career longevity. Writing clear, concise and accurate treatment notes conclude each lab session. This course requires a per credit health career fee; check the tuition and fee schedule for the current rate.

MAS-102 Massage Therapy Principles/Procedures 2
5 credits/3 class and 4 lab hours
Prerequisites: *BIO-103 or BIO-115 or BIO-161 and MAS-101*
Corequisites: *MAS-110 or PTA-101 and MAS-111 or BIO-160 or BIO-175 or BIO-241*

This course builds upon the techniques and approaches learned in MAS101 and provides students with the unique approach to massage known as seated or chair massage. Students continue to build upon previous skills in assessment and charting by documenting therapeutic outcomes. Benefits and precautions for chair massage are discussed. Students identify and analyze successful business practices and marketing techniques.

In the laboratory portion of the class, students practice advanced relaxation Swedish system techniques, relevant spa therapies, sports massage and seated massage techniques. To prepare students for possible medical emergencies, this course also provides training and certification in First Aid and Adult & Child CPR. This course requires a per credit health career fee; check the tuition and fee schedule for the current rate.

MAS-201 Massage Therapy Principles/Procedures 3
5 Credits/3 class and 4 lab hours
Prerequisite: *BIO-103 or BIO-115 or BIO-161, MAS-102, MAS-110 or PTA-101 and MAS-111 or BIO-160 or BIO-175 or BIO-241*

This course provides the student with the theory and practical application of deep tissue massage. Students integrate a variety of techniques including trigger point therapy and myofascial release and explore the connection between massage therapy and other disciplines such as psychology, chiropractic and physical therapy. Students contrast the physiologic effects of hydrotherapy treatments and perform application of water, heat, cold and other topical preparations. Students continue to develop communication skills to understand and enhance massage therapy treatment outcomes and client goals.

Laboratory sessions are devoted to application of deep tissue massage and various corrective modalities and techniques used to treat pain caused by myofascial and muscular dysfunction. This course requires a per credit health career fee; check the tuition and fee schedule for the current rate.

MAS-211L Massage Therapy Externship 1
1 credit/2 lab hours
Prerequisites: *MAS-102, MAS-110 or PTA101 and MAS-111 or BIO-160 or BIO-175 or BIO-241*

This course provides students with practical, direct, hands-on experience in a supervised public lab setting. Under direct supervision of a licensed instructor, students set-up and break-down the staging of the professional environment, interview and screen potential clients for indications, contraindications and obtain informed consent. Students deliver individualized professional relaxation and therapeutic table/chair massages within a given time frame and document findings using Subjective, Objective, Application and Plan (SOAP note) format. Duties include scheduling and confirming client appointments and the sanitation and sterilization of laundry and equipment. Students also complete a journal of their experience. This course requires a per credit health career fee; Check the tuition and fee schedule for the current rate.

MAS-212C Massage Therapy Externship 2
Prerequisites: *MAS-111 or BIO-160 or BIO-175 or BIO-241 MAS-201, MAS-211*
Corequisite: *MAS-220*

This course provides students with practical, hands-on experience in a massage business setting. The student gains experience delivering therapeutic massage to integrate the accumulated knowledge and skills from previous courses and competencies. The externship is supervised on-site by a licensed massage therapist or other appropriate licensed health professional.

Maintenance Mechanics Technology (MMT)

Updated Course (effective Fall 2015)

MMT-208 Backflow Tester Certification

3 credits/ hours

This backflow tester certification course is designed to provide students with an opportunity to observe and test backflow prevention devices under laboratory conditions. Lectures will cover the history of backflow control, the principles and methods of correction and the types of cross connection which can occur. This course is based on American Society of Sanitary Engineers (ASSE) international standards.

Discontinued Courses

CHM-118 Chemistry of Art

HIS-110 Introduction Social Sciences

MAS-202 Advanced Clinical Massage Techniques