

# PARAMEDIC TECHNOLOGY

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## ASSOCIATE DEGREE AND DIPLOMA PROGRAMS

The associate degree and diploma programs in Paramedic Technology prepare students for employment in paramedic positions in the pre-hospital or hospital environment. The program prepares students to function as paramedics in the field delivering advanced emergency medical care to sick and injured patients in a variety of urban and rural settings. The program also provides the opportunity to upgrade present knowledge and skills from the emergency medical technician—intermediate level to that of a paramedic.

The curriculum covers human anatomy and physiology, medical and legal considerations, rescue operations, pathophysiology as correlated to disease processes, pharmacology, respiratory emergencies, medical emergencies, pediatrics, OB/GYN, trauma, and cardiology. The associate degree program provides graduates with opportunities for career mobility and facilitates continuing education at the baccalaureate level. Graduates from the associate degree program receive an associate degree of applied science. Once students have completed the Paramedic Technology program successfully, they are eligible to sit for the National Registry of EMTs (NREMT) paramedic practical and written certification examination.

## ESSENTIAL FUNCTIONS

The paramedic must be a confident leader who can accept the challenge and high degree of responsibility entailed in the position. The paramedic must have excellent judgment and be able to priority decisions and act quickly in the best interest of the patient, must be self-disciplined, able to develop patient rapport, interview hostile patients, maintain safe distance, and recognize and utilize communication unique to diverse multicultural groups and ages within those groups. The paramedic must be able to function independently at optimum level in a non-structured environment that is constantly changing.

Even though the paramedic is generally part of a two-person team generally working with a lower skill and knowledge level Basic EMTs, it is the paramedic who is held responsible for safe and therapeutic administration of drugs, including narcotics. Therefore, the paramedic must not only be knowledgeable about medications, but must be able to apply this knowledge in a practical sense. Knowledge and practical application of medications, include thoroughly knowing and understanding the general properties of all types of drugs.

The paramedic is personally responsible legally, ethically, and morally for each drug administered, for using correct precautions and techniques, for observing and documenting the effects of the drugs administered, for keeping one's own pharmacological knowledge-base current as to changes and trends in administration and use, for keeping abreast of all contraindications to administra-

tion of specific drugs to patients based on their constitutional make-up, and for using drug reference literature.

The responsibility of the paramedic includes obtaining a comprehensive drug history from the patient that includes names of drugs, strength, daily usage, and dosage. The paramedic must take into consideration that many factors, in relation to the history given, can affect the type of medication to be given. Awareness of drug reactions and the synergistic effects of drugs combined with other medicines and in some instances, food, are imperative. The paramedic must also take into consideration the possible risks of medication administered to a pregnant mother and the fetus, keeping in mind those drugs may cross the placenta.

The paramedic must be cognizant of the impact of medications on pediatric patients based on size and weight, special concerns related to newborns and geriatric patients, and the physiological effects of aging such as the way skin can tear in the geriatric population with relatively little to no pressure. There must be an awareness of the high abuse potential of controlled substances and the potential for addiction; therefore, the paramedic must be thorough in report writing and able to justify why a particular narcotic was used and why a particular amount was given. The ability to measure and re-measure drip rates for controlled substances and medications are essential. Once medication is stopped or not used, the paramedic must send back unused portions to the proper inventory arena.

The paramedic must be able to apply basic principles of mathematics to the calculation of problems associated with medication dosages, perform conversion problems, differentiate temperature readings between centigrade and Fahrenheit scales, be able to use proper advanced life support equipment and supplies based on patient's age and condition of veins, and be able to locate sites for obtaining blood samples and perform this task, administer medication intravenously, administer medications by gastric tube, administer oral medications, administer rectal medications, and comply with universal precautions and body substance isolation, disposing of contaminated items and equipment properly.

The paramedic must also be able to apply knowledge and skills to assist overdosed patients to overcome trauma through antidotes and have knowledge of poisons and be able to administer treatment. The paramedic must be knowledgeable as to the stages drugs/medications go through once they have entered the patient's system and be cognizant that the route of administration is critical in relation to patient's needs and the effect that occurs.

The paramedic must also be capable of providing advanced life support emergency medical services to patients, including conducting of and interpreting electrocardiograms (EKGs), electrical interventions to support the cardiac functions, performing advanced endotracheal

intubations in airway management and relief of pneumothorax and administering appropriate intravenous fluids and drugs under direction of an off-site designated physician.

The paramedic is a person who must not only remain calm when working in difficult and stressful circumstances, but must be capable of staying focused while assuming the leadership role inherent in carrying out the functions of the position. Good judgement along with advanced knowledge and technical skills are essential in directing other team members to assist as needed. The paramedic must be able to provide top quality care, concurrently handle high levels of stress, and be willing to take on the personal responsibility required of the position. This includes not only legal ramifications for precise documentation, but also the responsibility for using the knowledge and skills acquired in real life threatening emergency situations.

The paramedic must be able to deal with adverse and often dangerous situations, which include responding to calls in districts known to have high crime and mortality rates. Self-confidence is critical, as is a desire to work with people. Paramedics must have solid emotional stability, a tolerance for high stress, and the ability to meet the physical, intellectual, and cognitive requirements demanded by this position.

Aptitudes required for work of this nature include good physical stamina, endurance, and body condition that would not be adversely affected by frequently having to walk, stand, lift, carry, and balance weight that is at times in excess of 125 pounds. Motor coordination is necessary because over uneven terrain, the well-being of the patient, paramedic and other workers must not be jeopardized.

Response times for the nature of work are dependent upon the nature of the call. For example, a paramedic working for a private ambulance service that transports the elderly from nursing homes to routine medical appointments and check-ups may endure somewhat less stressful circumstances than the paramedic who works primarily with 911 calls in a district known to have high crime rates. Thus, the particular stresses inherent in the role of the paramedic can vary, depending on the place and type of employment.

The paramedic must be flexible to meet the demands of the every-changing emergency scene. When emergencies exist, the situation can be complex and care of the patient must be started immediately. In essence, the paramedic in the EMS system uses advanced training and equipment to extend emergency physician services to the ambulance. The paramedic must be able to make accurate independent judgements while following oral directives. The ability to perform duties in a timely manner is essential, as it could mean the difference between life and death for the patient.

Use of the telephone or radio dispatch for coordination of prompt emergency services is required, as is a pager, depending on place of employment. Accurately dis-

cerning street names through map reading and correctly distinguishing house numbers or business addresses are essential to task completion in the most expedient manner. Concisely and accurately describing orally to dispatchers and other concerned staff one's impression of a patient's condition is critical as the paramedic works in emergency conditions where there may not be time for deliberation. The paramedic must also be able to accurately report orally and in writing all relevant patient data. At times, reporting may require a detailed narrative on extenuating circumstances or conditions that go beyond what is required on a prescribed form. In some instances, the paramedic may be required to enter data on laptop while riding in an ambulance. Verbal skills and reasoning skills are used extensively.

### **CAREER OPPORTUNITIES**

The paramedic provides the most extensive pre-hospital care and may for fire departments, private ambulance services, police departments, or hospitals.

### **PROGRAM EXPENSES**

The recent reauthorization of the Higher Education Act requires all colleges and universities to notify students and prospective students of all program costs for which they will be responsible. Students will be responsible for the following expenses:

- Quarterly tuition (\$45 per credit hour)
- Quarterly student activity fees (\$16)
- Quarterly registration fee (\$26)
- Quarterly accident insurance fee (\$4)
- Quarterly instructional and technology supply fee (\$35)
- Background check (Approximately \$50 per required check)
- Clinical uniform (Approximately \$75)
- Drug test (Approximate \$25 per required test)
- Licensure examinations
  - NREMT Practical Examination Fee (\$85)
  - NREMT Written Examination Fee (Pearson Vue) (\$110)
- Malpractice insurance (\$47 per year)
- Physical examination (Approximately \$150)
- Program equipment (\$25)
- Program supply fee (Varies – see course descriptions for exact amounts)
- State Licensing Fee (Georgia OEMS) (\$75)
- Test prep interactive software (Approximately \$200)
- Textbooks (Approximately \$1,250 for the associate degree program and \$1,250 for the diploma program)

The expenses are based on costs in effect at the time this catalog was published. Prices are subject to change.

### **ADMISSIONS REQUIREMENTS**

Applicants to the Paramedic Technology program must hold a valid Emergency Medical Technician—Intermediate license. The Paramedic Technology program utilizes a competitive admission process to select students. Program

faculty and the Admissions Office staff designed the process to ensure maximum opportunity for student success in the program. Applicants to Paramedic Technology must complete the general education and health core courses prior to the selection process.

Applicants who are on academic probation or are academically dismissed from the college as of the application deadline will not be considered for admission. The Admissions Office staff admits students once per year at the beginning of Fall Quarter. Applicants must submit all required documentation to the Admissions Office by June 15 of the year they seek admission in order to receive consideration in the selection process. Applicants not selected for the program may reapply during subsequent admission intake periods. The college does not maintain a waiting list of people seeking admission to the program.

Applicants must submit the following information by September 1:

- a. Completed and signed application for admission and a \$20 nonrefundable application fee;
- b. Official high school or GED transcripts and/or official college transcripts from all colleges attended in the past;
- c. Completed and signed Intent form (blank forms are available in the Admissions Office and online at [www.athenstech.edu](http://www.athenstech.edu)—Select *Prospective Students* and then *Competitive Health Pgms*);
- d. Valid COMPASS, ASSET, SAT, or ACT Test scores (see *ASSET and COMPASS Placement Tests*);
- e. Proof of valid Emergency Medical Technician—Intermediate license;
- f. Proof of completion of ALL general core and health core classes with a minimum grade of C.

Applicants will be invited to attend a mandatory program orientation session. Failure to attend this session or failure to make alternate arrangements to obtain the necessary information will result in the forfeiture of admission to the program. Prior to the beginning of the program, applicants must have the following current official documents on file with program faculty:

- a. Documentation of a recent medical examination;
- b. Proof of malpractice insurance (see *Malpractice Insurance*);
- c. A signed document acknowledging that commission of a felony before or during their enrollment in this program may prevent graduates from taking the licensure exam to become paramedics and that they may be required to complete drug testing and/or background checks at their own expense prior to participating in internships, practicums, or clinical activities at certain host sites for these activities (see *Drug Testing/Background Checks*) (blank documents are available from the program chair or the Admissions Office and online at [www.athenstech.edu](http://www.athenstech.edu)—Select *Prospective Students* and then *Competitive Health Pgms*);
- d. Completed Georgia FERPA form;
- e. Completed immunization form;
- f. Copy of current drivers license;
- g. Criminal background check; and
- h. Valid Healthcare Provider CPR card from the American Heart Association or the American Red Cross.

**PARAMEDIC TECHNOLOGY CURRICULUM OUTLINE**  
*Diploma Program (Major Code: EM02)*  
*Credit Required for Graduation: 79 quarter credit hours*

	<b>Credits</b>
<b>General Core</b>	<b>10</b>
ENG 1010 Fundamentals of English I	5
MAT 1012 Foundations of Mathematics	5
<b>Health Core</b>	<b>8</b>
AHS 1011 Anatomy and Physiology	5
SCT 100 Introduction to Microcomputers	3
<b>Paramedic Technology Major</b>	<b>61</b>
* EMS 126 Introduction to the Paramedic Profession	3
* EMS 127 Patient Assessment	4
* EMS 128 Applied Physiology and Pathophysiology	3
* EMS 129 Pharmacology	4
* EMS 130 Respiratory Emergencies	5
* EMS 131 Trauma	5
* EMS 132 Cardiology I	5

* EMS	133	Cardiology II	4
* EMS	134	Medical Emergencies	5
* EMS	135	Maternal/Pediatric Emergencies	5
* EMS	136	Special Patients	2
* EMS	200	Clinical Application of Advanced Emergency Care	11
* EMS	201	Summative Evaluations	5

*\* Students must pass courses with grades of C or better.*

### **PARAMEDIC TECHNOLOGY CURRICULUM OUTLINE**

*Associate of Applied Science Degree Program (Major Code: EM03)*

*Credit Required for Graduation: 104 quarter credit hours*

			<b>Credits</b>
<b>General Education</b>			<b>30</b>
ECO	2105	Principles of Macroeconomics	
		OR	5
ECO	2106	Principles of Macroeconomics	
ENG	1101	Composition and Rhetoric	5
ENG	1102	Literature and Composition	
		OR	5
HUM	1101	Introduction to Humanities	
MAT	1100	Quantitative Skills and Reasoning	
		OR	
MAT	1101	Mathematical Modeling	5
		OR	
MAT	1111	College Algebra	
PSY	1101	Introduction to Psychology	
		OR	5
SOC	1101	Introduction to Sociology	
SPC	1101	Public Speaking	5
<b>Health Core</b>			<b>13</b>
BIO	2113	Human Anatomy and Physiology I	5
BIO	2114	Human Anatomy and Physiology II	5
SCT	100	Introduction to Microcomputers	3
<b>Paramedic Technology Major</b>			<b>61</b>
* EMS	126	Introduction to the Paramedic Profession	3
* EMS	127	Patient Assessment	4
* EMS	128	Applied Physiology and Pathophysiology	3
* EMS	129	Pharmacology	4
* EMS	130	Respiratory Emergencies	5
* EMS	131	Trauma	5
* EMS	132	Cardiology I	5
* EMS	133	Cardiology II	4
* EMS	134	Medical Emergencies	5
* EMS	135	Maternal/Pediatric Emergencies	5
* EMS	136	Special Patients	2
* EMS	200	Clinical Application of Advanced Emergency Care	11
* EMS	201	Summative Evaluations	5

*\* Students must pass courses with grades of C or better.*

## ALLIED HEALTH SCIENCE

Department Code: AHS

### AHS 1011

#### Anatomy and Physiology (5-0-5)

*Banner Title: Anatomy and Physiology*

This course focuses on the basic, normal structure and function of the human body. Instructors provide an overview of each body system, how the systems coordinate activities to maintain a balanced state, and how these systems recognize deviations from the normal. Topics include general plan and function of the human body, integumentary system, skeletal system, muscular system, nervous and sensory systems, endocrine system, cardiovascular system, lymphatic system, respiratory system, digestive system, urinary system, and reproductive system.

*Prerequisite: ENG 097 with a grade of C\* or better and RDG 097 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

## BIOLOGY

Department Code: BIO

### BIO 2113

#### Human Anatomy and Physiology I (4-3-5)

*Banner Title: Anatomy/Physiology I*

This course introduces the anatomy and physiology of the human body. Instructors place emphasis on the development of a systemic perspective of anatomical structures and physiological processes. Topics include body organization, chemistry, cell structure and functions, tissue classifications, the integumentary system, the skeletal system, the muscular system, and the nervous and sensory systems. Laboratory experiences support classroom learning. Students must pay a \$20 supply fee when registering for this course.

*Prerequisite: ENG 099 with a grade of C\* or better and RDG 098 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

### BIO 2114

#### Human Anatomy and Physiology II (4-3-5)

*Banner Title: Anatomy/Physiology II*

This course continues the study of the anatomy and physiology of the human body and builds upon the concepts of chemistry, cytology, and histology. Topics

include the endocrine system, the cardiovascular system, the blood and lymphatic system, the immune system, the respiratory system, the digestive system, the urinary system, and the reproductive system. Topics also include fluid dynamics and metabolism. Laboratory experiences support classroom learning. Students must pay a \$20 supply fee when registering for this course.

*Prerequisite: BIO 2113 with a grade of C or better*

*Offered quarterly*

## ECONOMICS

Department Code: ECO

### ECO 2105

#### Principles of Macroeconomics (5-0-5)

*Banner Title: Macroeconomics*

This course provides a description and analysis of macroeconomic operations in contemporary society. Students develop an understanding of macroeconomic concepts, theories, and policies. Topics include basic economic principles; macroeconomic principles, theories, and policies; money and banking; and the United States economy in perspective.

*Prerequisites: ENG 099 with a grade of C\* or better or placement by diagnostic testing, MAT 097 with a grade of C\* or better and MAT 099 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

### ECO 2106

#### Principles of Microeconomics (5-0-5)

*Banner Title: Microeconomics*

This course provides a description and analysis of microeconomic operations in contemporary society. Students develop an understanding of microeconomic concepts and theories as they apply to daily life. Topics include basic economic principles; theories of the corporate firm; the market system; market structures, pricing, and government regulations; resource markets; and international trade.

*Prerequisites: ENG 099 with a grade of C\* or better or placement by diagnostic testing, MAT 097 with a grade of C\* or better and MAT 099 with a grade of C\* or better or placement by diagnostic testing*

*Offered quarterly*

## EMERGENCY MEDICAL TECHNOLOGY

Department Code: EMS

### EMS 126

#### Introduction to the Paramedic Profession (3-1-3)

*Banner Title: Intro to Paramedic Profession*

This course introduces students to the paramedic profession. Discussion centers on functions that extend beyond the Emergency Medical Technician scope of practice. Topics include the EMS system, roles, and responsibilities; well-being of the paramedic; illness and injury prevention; medical and legal considerations; ethics; ambulance operations; medical incident command; rescue awareness and operations; hazardous materials incidents; and crime scene awareness. This course provides students with instruction on topics in Division 1, Sections 1 through 5; Division 7, Section 1; and Division 8, Sections 1 through 5 of the U.S. Department of Transportation/National Highway Traffic Safety Administration (NHTSA) Paramedic national standard curriculum.

*Prerequisite: Diploma-level program admission*

*Offered Fall term*

### EMS 127

#### Patient Assessment (3-2-4)

*Banner Title: Patient Assessment*

This course introduces students to the fundamental principles and skills involved in assessing pre-hospital patients. Instruction emphasizes the systematic approach to patient assessment, with adaptations for the medical versus the trauma patient. Topics include therapeutic communications, history taking, physical examination techniques, patient assessment, clinical decision-making, EMC communications, and documentation. This course provides instruction on topics in Division 1, Section 9, and Division 3, Sections 1 through 9 of the U.S. Department of Transportation/National Highway Traffic Safety Administration (NHTSA) Paramedic national standard curriculum. Students must pay a \$25 supply fee when registering for this course.

*Prerequisite: EMS 126 with a grade of C or better*

*Offered Fall term*

**EMS 128**  
**Applied Physiology and Pathophysiology** (3-0-3)

*Banner Title: Physiology/ Pathophysiology*

This course introduces the concepts of pathophysiology as it correlates to disease processes. This course will enable caregivers to enhance their overall assessment and management skills. Instructors cover disease-specific pathophysiology in each related section of the curriculum. This course also includes a review of cellular composition and function, including the cellular environment as it relates to fluid and acid-base balances. Students study genetics and familial diseases in this course. Hypoperfusion, including various forms of shock, multiple organ dysfunction syndrome, and cellular metabolism impairment are integral components of this course. The next portion of this section provides information on the body's self-defense mechanisms, the inflammatory response, and variances in immunity. The last topic covered is stress and disease, which includes stress responses and the interrelationships among stress, coping, and disease.

*Prerequisites: EMS 126 with a grade of C or better, EMS 127 with a grade of C or better*

*Offered Fall term*

**EMS 129**  
**Pharmacology** (3-2-4)

*Banner Title: EMS Pharmacology*

This course prepares students to implement a patient management plan based on the principles and applications of pharmacology. The discussion of pharmacology includes drug identification, drug calculations, drug administration techniques and procedures, and drug safety and standards. Students must pay a \$25 supply fee when registering for this course.

*Prerequisites: EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better*

*Offered Winter term*

**EMS 130**  
**Respiratory Emergencies** (4-2-5)

*Banner Title: Respiratory Emergencies*

This course prepares students to assess and treat a wide variety of respiratory-related illnesses in the pediatric and adult patient. The course includes a review of anatomy and physiology. It also covers pathophysiology of foreign body airway obstruction; recognition of respiratory compromise; airway adjunctive equipment use and procedures; and current therapeutic modalities for bronchial asthma, chronic bronchitis, emphysema, sponta-

neous pneumothorax, and hyperventilation syndromes. This course also provides expanded information on adult respiratory distress syndrome, pulmonary thromboembolism, neoplasms of the lung, pneumonia, emphysema, pulmonary edema, and respiratory infections. This course provides instruction on topics in Division 2 (Airway), Section 1 (Airway Management and Ventilation), and Division 5 (Medical), Section 1 (Respiratory), of the U.S. Department of Transportation/National Highway Traffic Safety Administration Paramedic national standard curriculum. Students must pay a \$25 supply fee when registering for this course.

*Prerequisites: EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better*

*Offered Spring term*

**EMS 131**  
**Trauma** (4-2-5)

*Banner Title: Trauma*

This course introduces students to the assessment and management of trauma patients. Instructors will introduce a systematic approach to the assessment and management of trauma and demonstrate the assessment and management of certain types of trauma patients and bodily injuries. Students should complete the requirements for the Basic Trauma Life Support course or the Pre-Hospital Trauma Life Support course.

*Prerequisites: EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 130 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better*

*Offered Spring term*

**EMS 132**  
**Cardiology I** (4-2-5)

*Banner Title: Cardiology I*

This course emphasizes the study of the cardiovascular system. Instructors will introduce and explore the cardiovascular epidemiology, anatomy and physiology, pathophysiology, and electrophysiology. This course will also provide instruction on initial cardiovascular assessment, focused history, detailed physical examination, and electrocardiographic monitoring. At the completion of this unit, paramedic students will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment

plan for the patient with cardiovascular disease. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the U.S. Department of Transportation/National Highway Traffic Safety Administration Paramedic national standard curriculum. Cardiology II will cover the management of the cardiovascular patient.

*Prerequisites: EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better*

*Offered Winter term*

**EMS 133**  
**Cardiology II** (3-2-4)

*Banner Title: Cardiology II*

This course expounds on the objectives in Cardiology I by emphasizing advanced patient assessment and management of the cardiac patient. Topics include advanced cardiovascular assessment, pharmacological intervention, electrical intervention, and emergency resuscitative treatment utilizing the American Heart Association's Advanced Cardiac Life Support (ACLS) Providers course. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the U.S. Department of Transportation/National Highway Traffic Safety Administration Paramedic national standard curriculum.

*Prerequisites: EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better*

*Offered Winter term*

**EMS 134**  
**Medical Emergencies** (5-1-5)

*Banner Title: Medical Emergencies*

This course provides an in-depth study of the nervous, endocrine, gastrointestinal, renal, hematopoietic, and immune systems. Topics include epidemiology, pathophysiology, assessment, and management of specific injuries and illnesses. Instruction emphasizes allergies/anaphylaxis, toxicology, environmental emergencies, and infectious and communicable diseases. Students will discuss in detail general and specific pathophysiology assessment and management in environmental emergencies. Infectious and communicable disease topics include public health principles, public health agencies, infection, pathogenicity, infectious agents, and specific infectious disease processes and their management. This course provides instruction on topics in Division 5 (Medical), Sections 3 through 11, of the U.S. Department of Transportation/National

Highway Traffic Safety Administration Paramedic national standard curriculum.

*Prerequisites:* EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 130 with a grade of C or better, EMS 131 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better, EMS 200 with a grade of C or better

*Offered Summer term*

**EMS 135  
Maternal/Pediatric  
Emergencies (4-2-5)**

*Banner Title: Maternal/Pediatric  
Emergencies*

This course emphasizes the study of gynecological, obstetrical, pediatric, and neonatal emergencies. This course combines the unique relationships and situations encountered with mother and child. Instructors provide a detailed understanding of anatomy and physiology, pathophysiology, assessment, and treatment priorities for the OB/GYN patient. The course also covers in detail pediatric and neonatal growth and development, anatomy and physiology, pathophysiology, and assessment and treatment specifics. Students must successfully complete a PLS/PALS course. This course provides instruction on topics in Division 5 (Medical, Sections 13 (Obstetrics) and 14 (Gynecology), and Division 6 (Special Considerations), Sections 1 (Neonatology) and 2 (Pediatrics) of the U.S. Department of Transportation/National Highway Traffic Safety Administration Paramedic national standard curriculum. Students must pay a \$25 supply fee when registering for this course.

*Prerequisites:* EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 130 with a grade of C or better, EMS 131 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better, EMS 134 with a grade of C or better, EMS 200 with a grade of C or better

*Offered Summer term*

**EMS 136  
Special Patients (2-1-2)**

*Banner Title: Special Patients*

This course provides an overview of the assessment and management of behavioral emergencies as they pertain to pre-hospital care. Topics include communication skills and crisis intervention, assessment and management of the adult and adolescent patient with behavioral

emergencies, management of the violent patient, management of the suicidal patient, medical and legal considerations, and stress management. This course also includes topics on life spans, geriatrics, abuse, special challenges, and chronic care patients.

*Prerequisites:* EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 130 with a grade of C or better, EMS 131 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better, EMS 134 with a grade of C or better, EMS 135 with a grade of C or better, EMS 200 with a grade of C or better

*Offered Fall term*

**EMS 200  
Clinical Application of  
Advanced Emergency Care(0-33-11)**

*Banner Title: Advanced Emergency Care*  
This course provides a range of clinical experiences for the student paramedic, including the clinical application of advanced emergency care.

*Prerequisites:* EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better

*Corequisites:* EMS 130, EMS 131  
*Offered Spring and Summer terms*

**EMS 201  
Summative Evaluation (4-4-5)**

*Banner Title: Summative Evaluation*  
This course provides supervised clinical experience in the hospital and pre-hospital advanced life support settings. Topics include EMS leadership, summative case evaluations, EKG interpretation, and pharmacology. This course also includes a comprehensive paramedic program examination and a board examination review. Students must pay a \$25 supply fee when registering for this course.

*Prerequisites:* EMS 126 with a grade of C or better, EMS 127 with a grade of C or better, EMS 128 with a grade of C or better, EMS 129 with a grade of C or better, EMS 130 with a grade of C or better, EMS 131 with a grade of C or better, EMS 132 with a grade of C or better, EMS 133 with a grade of C or better, EMS 134 with a grade of C or better, EMS 135 with a grade of C or better, EMS 200 with a grade of C or better

*Corequisite:* EMS 136  
*Offered Fall term*

**EMS 1101  
Introduction to the  
EMT Profession (3-2-4)**

*Banner Title: Intro to the EMT  
Profession*

This course covers all the components of Modules 1 and 7 of the national standard curriculum for Emergency Medical Technician-Basic (1994 Standard) established by the National Highway Safety Transportation Administration (NHSTA). It also covers Sections 1 through 4 of the national standard curriculum for Emergency Medical Technician-Intermediate (1985 Standard) established by the NHSTA. Topics include basic cardiopulmonary resuscitation/AED, an introduction to emergency medical care, the roles and responsibilities of the EMT-Intermediate, Emergency Management Service systems for EMT-Intermediates, the well being of the EMT-Basic, medical/legal and ethical issues, medical/legal aspects for the EMT-Intermediate, blood and airborne pathogens and infectious diseases, the human body, medical terminology, base-line vital signs and SAMPLE history, lifting and moving patients, ambulance operations, gaining access, and an overview of HazMat/MCI.

*Prerequisite: Program admission*  
*Offered Fall term*

**ENGLISH**

*Department Code: ENG*

**ENG 1010  
Fundamentals of English I (5-0-5)**

*Banner Title: Fundamentals of English I*  
This course emphasizes the development and improvement of written and oral communication abilities. Topics include analysis of writing techniques, applied grammar and writing skills, editing and proofreading skills, research skills, and oral presentation skills.

*Prerequisites:* ENG 097 with a grade of C\* or better and RDG 097 with a grade of C\* or better or placement by diagnostic testing

*Offered quarterly*

**ENG 1101  
Composition and Rhetoric (5-0-5)**

*Banner Title: Composition and Rhetoric*  
Students practice various modes of writing ranging from exposition to argumentation and persuasion. The course also explores the analysis of literature and articles about issues in the humanities and in society. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. An introduction to library resources lays the foundation for research. Topics cov-

ered in the course include writing analysis and practice, revision, and research. Students write a research paper using library resources and using a formatting and documentation style appropriate to the purpose and audience.

*Prerequisites: ENG 099 with a grade of C\* or better and RDG 098 with a grade of C\* or better or placement by diagnostic testing*  
Offered quarterly

### **ENG 1102 Literature and Composition (5-0-5)**

*Banner Title: Literature and Composition*

This course emphasizes the ability of students to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature in historical and philosophical contexts. Topics include reading and analysis of fiction, poetry, and drama; research, and writing about literature.

*Prerequisite: ENG 1101 with a grade of C or better*  
Offered quarterly

## **HUMANITIES**

*Department Code: HUM*

### **HUM 1101 Introduction to Humanities (5-0-5)**

*Banner Title: Introduction to Humanities*

This course explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. Instructors present the humanities as a source of subjective insights for the understanding of people and society. Topics include historical and cultural developments and contributions of the humanities. Students will complete a research project as part of this course.

*Prerequisite: ENG 1101 with a grade of C or better*  
Offered Fall, Winter, and Spring terms

## **MATHEMATICS**

*Department Code: MAT*

### **MAT 1012 Foundations of Mathematics (5-0-5)**

*Banner Title: Foundations of Mathematics*

This course emphasizes the mathematical skills that can be applied to the solution of occupational and technical problems. Topics include properties of numbers,

fractions, decimals, percents, ratios and proportions, measurement and conversions, formula manipulation, technical applications, and basic statistics.

*Prerequisite: MAT 097 with a grade of C\* or better or placement by diagnostic testing*  
Offered quarterly

### **MAT 1100 Quantitative Skills and Reasoning (5-2-6)**

*Banner Title: Quantitative Skills/Reasoning*

MAT 1100 is an overview course covering algebra, statistics, and the mathematics of finance. Topics include fundamental operations of algebra, sets and logic, probability and statistics, geometry, mathematics of voting and districting, and the mathematics of finance.

*Prerequisite: MAT 097 with a grade of C\* or better and/or MAT 099 with a grade of C\* or better or placement by diagnostic testing*  
Offered annually

### **MAT 1101 Mathematical Modeling (5-0-5)**

*Banner Title: Mathematical Modeling*

This course is an alternative to *College Algebra* for those who will not take trigonometry, pre-calculus, or calculus. It is an applications-driven course that introduces functions using real-world phenomena as models. Topics include fundamental algebra concepts; functions and graphs; linear, quadratic, polynomial, exponential, and logarithmic functions and models of real-world phenomena; systems of equations; and additional topics in algebra.

*Prerequisite: MAT 097 with a grade of C\* or better and/or MAT 099 with a grade of C\* or better or placement by diagnostic testing*  
Offered quarterly

### **MAT 1111 College Algebra (5-0-5)**

*Banner Title: College Algebra*

This course emphasizes techniques of problem solving using algebraic concepts. Topics include fundamental concepts of algebra, equations and inequalities, functions and graphs, systems of equations, analytic geometry, and optional topics, including sequences, series, and probability.

*Prerequisite: MAT 097 with a grade of C\* or better and/or MAT 099 with a grade of C\* or better or placement by diagnostic testing*  
Offered Quarterly

## **PSYCHOLOGY**

*Department Code: PSY*

### **PSY 1101 Introduction to Psychology (5-0-5)**

*Banner Title: Introduction to Psychology*  
This course emphasizes the basics of psychology. Topics include the science of psychology; social environments; life stages; physiology and behavior; personality; emotions and motives; conflicts, stress, and anxiety; abnormal behavior; and perception, learning, and intelligence.

*Prerequisites: ENG 099 with a grade of C\* or better and RDG 098 with a grade of C\* or better or placement by diagnostic testing*  
Offered quarterly

## **SCIENCE AND TECHNOLOGY**

*Department Code: SCT*

### **SCT 100 Introduction to Microcomputers (1-4-3)**

*Banner Title: Intro to Microcomputers*  
This course introduces the fundamental concepts and operations necessary to use microcomputers. Course content emphasizes basic functions and familiarity with computer use. Topics include computer terminology and an introduction to the Windows environment, networking, word processing, spreadsheets, presentation graphics, and databases.

*Prerequisite: Provisional admission*  
Offered quarterly

## **SOCIOLOGY**

*Department Code: SOC*

### **SOC 1101 Introduction to Sociology (5-0-5)**

*Banner Title: Introduction to Sociology*  
This course provides students with a sociological analysis of society, its culture, and structure. Instructors present sociology as a science with emphasis placed on its methodology and theoretical foundations. Topics include basic sociological concepts, socialization, social interaction and culture, social groups and institutions, deviance and social control, social stratification, social change, and marriage and family.

*Prerequisites: ENG 099 with a grade of C\* or better and RDG 098 with a grade of C\* or better or placement by diagnostic testing*  
Offered quarterly