

DEKALB TECHNICAL COLLEGE
Clarkston Campus and Covington Campus

**PARAMEDIC TECHNOLOGY
FIVE-QUARTER DIPLOMA**

The Paramedic Technology program prepares students for employment in paramedic positions in today's health services field. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. It also provides opportunities to upgrade present knowledge and skills from the EMT level to retrain as a Paramedic. Graduates of the program receive a diploma and are eligible to sit for the paramedic certification exam. This program of study requires special admission. Contact the Admissions Office for information. NREMT Registration or EMT Licensure is prerequisite to this program. The grading system of the Paramedic Technology program requires the minimum course grade of "C" to progress from specified courses to more advanced courses. Prior to employment, you must apply for reciprocity with the State Office of EMS for Licensure in Georgia.

At the time of this printing, the Paramedic Technology program was in revision at the State level. When complete, the revisions will be reflected in the DTC *Catalog* available at www.dekalbtech.edu.

| Course Number | Course | Class Hours | Lab Hours | Total Hours | Credit Hours | Prerequisites/Corequisites |
|-----------------------|---|-------------|------------|-------------|--------------|-----------------------------|
| FIRST QUARTER | | | | | | |
| AHS 101 | Anatomy and Physiology | 50 | 0 | 50 | 5 | * |
| ENG 101 | English | 50 | 0 | 50 | 5 | *, See catalog for pre-reqs |
| MAT 101 | General Mathematics | 50 | 0 | 50 | 5 | * |
| SCT 100 | Introduction to Microcomputers | <u>10</u> | <u>40</u> | <u>50</u> | <u>3</u> | |
| | TOTAL | 160 | 40 | 200 | 18 | |
| SECOND QUARTER | | | | | | |
| EMS 126 | Introduction to Paramedic Profession | 30 | 10 | 40 | 3 | ** |
| EMS 127 | Patient Assessment | 30 | 20 | 50 | 4 | ** |
| EMS 128 | Applied Physiology/Pathophysiology | 30 | 0 | 30 | 3 | ** |
| EMS 129 | Pharmacology | <u>30</u> | <u>20</u> | <u>50</u> | <u>4</u> | ** |
| | TOTAL | 120 | 50 | 170 | 14 | |
| THIRD QUARTER | | | | | | |
| EMS 130 | Respiratory Management/Function | 40 | 30 | 70 | 5 | ** |
| EMS 132 | Cardiology I | 40 | 20 | 60 | 5 | ** |
| EMS 133 | Cardiology II | 30 | 20 | 50 | 4 | ** |
| EMS 134 | Medical Emergencies | <u>50</u> | <u>10</u> | <u>60</u> | <u>5</u> | ** |
| | TOTAL | 160 | 80 | 240 | 19 | |
| FOURTH QUARTER | | | | | | |
| EMS 131 | Trauma | 40 | 20 | 60 | 5 | ** |
| EMS 135 | Maternal/Pediatric Emergencies | 40 | 20 | 60 | 5 | ** |
| EMS 200A | Clinical Application, Advanced Emergency Care I | <u>0</u> | <u>165</u> | <u>165</u> | <u>5</u> | ** |
| | TOTAL | 80 | 205 | 285 | 15 | |
| FIFTH QUARTER | | | | | | |
| EMS 136 | Special Patients | 20 | 10 | 30 | 2 | ** |
| EMS 200B | Clinical Application, Advanced Emergency Care II | 0 | 165 | 165 | 6 | ** |
| EMS 201 | Summative Evaluations | <u>0</u> | <u>80</u> | <u>80</u> | <u>5</u> | ** |
| | TOTAL | 66 | 223 | 289 | 13 | |

*Program admission level English, reading, and/or mathematics required

**See course descriptions for prerequisites and corequisites

CIP CODE: 51.090402

MAJOR CODE: EM02

REQUIRED CREDIT HOURS: 79

10/07

The curriculum is subject to change to meet changing conditions. As set forth in its catalog, DeKalb Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

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PARAMEDIC TECHNOLOGY COURSE DESCRIPTIONS

EMS 126 - INTRO TO PARAMEDIC PROFESSION (3)

Prerequisites: AHS 101, ENG 101, MAT 101, SCT 100
Corequisites: EMS 127, EMS 128, EMS 129, EMS 200A
Introduces the student to the paramedic profession. Discussion centers on functions that extend beyond the EMT scope of practice. Topics include: roles and responsibilities, the EMS system, medical/legal considerations, illness/injury prevention, ethics, ambulance operations, medical incident command, rescue awareness/operations, hazardous materials incidents and crime scene awareness. This course provides instruction on topics in Division 1, Sections 1-5 and Division 7, Sections 1-5 of the USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 127 - PATIENT ASSESSMENT (4)

Prerequisites: AHS 101, ENG 101, MAT 101, SCT 100
Corequisites: EMS 126, EMS 128, EMS 129, EMS 200A
Introduces the fundamental principles and skills involved in assessing the pre-hospital patient. Emphasis is on the systematic approach to patient assessment, with adaptations for the medical versus the trauma patient. Topics include: therapeutic communications, history taking, and techniques of physical exam, patient assessment, clinical decision-making, communications, and documentation. This course provides instruction on topics in Division 1, Section 9 and Division 3, Sections 1-9 of the USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 128 - APPLIED PHYSIOLOGY AND PATHOPHYSIOLOGY (3)

Prerequisites/Corequisites: AHS 101, ENG 101, MAT 101, SCT 100
Corequisites: EMS 126, EMS 127, EMS 129, EMS 200A
This course introduces the concepts of pathophysiology as it correlates to disease processes. This course will enable the caregiver to enhance their overall assessment and management skills. Disease-specific pathophysiology is covered in each related section of the curriculum. This course covers a review of cellular composition and function, including cellular environment as it relates to fluid and acid-base balances. Content on genetics and familial diseases are discussed. 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.

EMS 129 – PHARMACOLOGY (4)

Prerequisites/Corequisites: AHS 101, ENG 101, MAT 101, SCT 100
Corequisites: EMS 126, EMS 127, EMS 128, EMS 200A
This unit is designed to help the Paramedic implement a patient management plan based on principles and applications of pharmacology. Discussion of pharmacology includes historical trends, names and sources of drugs, classifications, sources of information, legislation and schedules of controlled drugs, standardization of drugs,

investigational drugs and standardized drug profiles. Other topics include general properties and forms of drugs, venous access, routes of administration, interactions, storage, and special considerations in drug therapy for pregnant patients, pediatrics, and geriatrics. Also discussed are personal responsibility issues, legal, moral, and ethical responsibilities as well as therapeutically effective drug administration. Detailed reviews of the autonomic nervous system will be discussed to enhance understanding of the mechanism or drug actions where pharmacokinetics and pharmacodynamics will be integrated. Paramedics will learn to recognize and understand patient-prescribed, over-the-counter and other types of medications. This course provides instruction on topics in Division 1 (Preparatory), Section 7 (Pharmacology) and Section 8 (Venous Access/Medication Administration) of the USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 130 – RESPIRATORY FUNCTION AND MANAGEMENT (5)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, MAT 101

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100
Corequisites: EMS 132, EMS 133, EMS 134

This unit is designed to help the Paramedic assess and treat a wide variety of respiratory related illnesses in the pediatric and adult patient. Topics include a review of anatomy and physiology, pathophysiology of foreign body airway obstruction, recognition of respiratory compromise, use of airway adjunctive equipment and procedures, current therapeutic modalities for bronchial asthma, chronic bronchitis, emphysema, spontaneous pneumothorax, and hyperventilation syndromes. This section also provides expanded information for 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 USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 131 – TRAUMA (5)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, EMS 130, EMS 132, EMS 133, EMS 134, EMS 200A, MAT 101

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100
Corequisites: EMS 135, EMS 200B

Introduces the student to assessment and management of the trauma patient. The student will integrate pathophysiology principles and assessment findings to formulate a field impression and implement a treatment plan for a suspected trauma patient. This course covers Epidemiology, detailed anatomy and physiology, physical assessment, and management techniques relative to all types of trauma. Topics include: trauma system and mechanism of injury, hemorrhage and shock, soft tissue trauma, burns, head and facial trauma, spinal trauma, thoracic trauma, abdominal trauma, and musculoskeletal trauma.

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PARAMEDIC TECHNOLOGY COURSE DESCRIPTIONS

EMS 132 - CARDIOLOGY I (5)

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100
Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, MAT 101

Corequisites: EMS 130, EMS 133, EMS 134

Emphasizes the study of the cardiovascular system. Cardiology I will introduce and explore 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. Management of the cardiovascular patient will be taught in Cardiology II. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 133 - CARDIOLOGY II (4)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, MAT 101
Corequisites: EMS 130, EMS 132, EMS 134

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100

This course expounds on the objectives in Cardiology I emphasizing advanced patient assessment and management of the cardiac patient. Topics will 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 USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 134 - MEDICAL EMERGENCIES (5)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, MAT 101

Corequisites: EMS 130, EMS 132, EMS 133

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100

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/illnesses. Emphasis is placed on allergies/anaphylaxis, toxicology, environmental emergencies, and infectious and communicable diseases. General/specific pathophysiology assessment and management are discussed in detail for 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, 4, 5, 6, 7, 8, 9, 10, and 11 of the USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 135 - MATERNAL/PEDIATRIC EMERGENCIES (5)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, EMS 130, EMS 132, EMS 133, EMS 134, EMS 200A, MAT 101

Corequisites: EMS 131, EMS 200B

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100

Emphasizes the study of gynecological, obstetrical, pediatric and neonatal emergencies. Maternal/Child combines the unique relationships and situations encountered with mother and child. Provides a detailed understanding of anatomy/physiology, pathophysiology, assessment, and treatment priorities for the OB/GYN patient. Pediatric and neonatal growth and development, anatomy and physiology, pathophysiology, assessment and treatment specifics are covered in detail. Successful completion of a PLS/PALS course is required. This course provides instruction on topics in Division's 5 (Medical), Sections 13 (Obstetrics) & 14

(Gynecology) and 6 (Special Considerations), Sections 1 (Neonatology) and 2 (Pediatrics) of the USDOT/NHTSA Paramedic National Standard Curriculum.

EMS 136 - SPECIAL PATIENTS (2)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, EMS 130, EMS 131, EMS 132, EMS 133, EMS 134, EMS 135, EMS 200A, MAT 101

Corequisite: EMS 201

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100

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/legal considerations, and stress management. Life span, geriatrics, abuse, special challenges, and chronic care patients are included.

EMS 200A - CLINICAL APPLICATION OF ADVANCED EMERGENCY CARE I (5)

Corequisites: EMS 126, EMS 127, EMS 128, EMS 129

Prerequisites/Corequisites: AHS 101, ENG 101, MAT 101, SCT 100

Provides supervised experience that meets Georgia Department of Human Resources Office of EMS requirements for actual patient care in the hospital and Advanced Life Support ambulance settings. Simulations in the classroom experience on an advanced ambulance and service in a hospital develop assessment and treatment skills. Emphasis is placed on ethics, assessment and management of adult and pediatric medical and trauma emergencies. This course will be delivered in one, two, three, four, and five quarters in accordance with program and hospital affiliation agreements. Clinical opportunities will be provided that meets the regulatory requirements for clinical experience in at a minimum the following areas: OR, Critical Care, Emergency Room, Pediatrics, Psychiatric, Labor and Delivery, and Advanced Life Support Ambulance.

EMS 200B - CLINICAL APPLICATION OF ADVANCED EMERGENCY CARE II (6)

Prerequisite: EMS 126, EMS 127, EMS 128, EMS 129, EMS 130, EMS 132, EMS 133, EMS 134, EMS 200A

Corequisites: EMS 131, EMS 135

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100

Part two of EMS 200A. See description under EMS 200A.

EMS 201 - SUMMATIVE EVALUATION (5)

Prerequisites: EMS 126, EMS 127, EMS 128, EMS 129, EMS 130, EMS 131, EMS 132, EMS 133, EMS 134, EMS 135, EMS 200A, MAT 101

Corequisite: EMS 136

Prerequisites/Corequisites: AHS 101, ENG 101, SCT 100

This course occurs near the program conclusion. This is the final ability to integrate all of the didactic, knowledge, psychomotor skills, and clinical instruction to serve as an entry-level paramedic during the EMS leadership phase. In the EMS Leadership phase, the student will be measured on how they perform as an entry-level paramedic. In the classroom and lab, the student will practice and test as a team leader and partner doing assessment, initial resuscitation, scene choreography, treatment, and patient presentation. This course will comprise of paramedic preceptorship and summative case evaluation in trauma, medical, pediatric, and oral examination. A comprehensive exam will be given in: EKG interpretation, pharmacology, and course comprehension. This course will also include a board examination review.

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ESTIMATED PROGRAM COSTS

**PARAMEDIC TECHNOLOGY
FIVE-QUARTER DIPLOMA**

First Quarter

| | |
|--------------------|-----------------|
| Tuition/Fees..... | \$544.00 |
| Books..... | 400.00 |
| Total | \$944.00 |

Second Quarter

| | |
|---|-------------------|
| Tuition/Fees..... | \$544.00 |
| Books..... | 250.00 |
| Uniforms | 100.00 |
| Immunizations (if needed/required)..... | 250.00 |
| Malpractice Insurance | 100.00 |
| Background Check / Drug Screen..... | 100.00 |
| Total | \$1,344.00 |

Third Quarter

| | |
|--------------------|-----------------|
| Tuition/Fees..... | \$544.00 |
| Books..... | 100.00 |
| Total | \$644.00 |

Fourth Quarter

| | |
|--------------------|-----------------|
| Tuition/Fees..... | \$544.00 |
| Books..... | 150.00 |
| Total | \$694.00 |

Fifth Quarter

| | |
|---------------------------------|-------------------|
| Tuition/Fees..... | \$544.00 |
| Books..... | 200.00 |
| National Registry Exam..... | 110.00 |
| National Registry Site Fee..... | 100.00 |
| State License Fee | 75.00 |
| Total | \$1,029.00 |

| | |
|-------------------------|-------------------|
| Total Cost | \$4,925.00 |
|-------------------------|-------------------|

Tuition/fees, cost of books/supplies, and other program fees/costs are estimates only and are subject to change without notice. Tuition is based on Georgia residency.

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