



Horry-Georgetown
Technical College

COURSE INSTRUCTIONAL PACKAGE

EMS 116

Advanced Cardiac Life Support

Effective Term

Fall 2026/Spring 2027/Summer 2027

Part I: Course Information

Effective Term: Fall 2026/Spring 2027/Summer 2027

COURSE PREFIX: EMS 116

COURSE TITLE: Advanced Cardiac Life Support

CONTACT HOURS: 3

CREDIT HOURS: 0-3-1

RATIONALE FOR THE COURSE:

The Advanced Cardiovascular Life Support (ACLS) course is designed to teach healthcare professionals how to respond quickly and effectively to life-threatening cardiac emergencies, such as cardiac arrest, stroke, and myocardial infarction. The goal of ACLS is to improve outcomes for patients and prepare professionals to act in an emergency. Early intervention is crucial for survival, as cardiac arrest is a leading cause of death worldwide. The purpose of ACLS is to prepare health care providers to initiate advanced resuscitative efforts in response to cardiovascular emergencies experienced by adults. At the end of the ACLS program the successful learner will have demonstrated both the required knowledge and skills to manage cardio-respiratory emergencies using the systematic ACLS approach.

COURSE DESCRIPTION:

This course is designed to educate the experienced healthcare provider in dealing with critical cardiac patients in an acute, emergency setting. An understanding of cardiac equipment, basic pharmacology and cardiovascular function is necessary. Current American Heart Association guidelines will be followed. Students apply evidence-based assessment, pharmacologic, and resuscitation principles to the management of life-threatening cardiovascular emergencies. Emphasis is placed on rapid recognition, effective intervention, and coordinated team-based care.

PREREQUISITES/CO-REQUISITES:

Prerequisites: BIO 112 (or BIO 211), EMS 119, EMS 113, EMS 150 and EMS 223

Co-requisites: EMS 116, EMS 230, and EMS 224

REQUIRED MATERIALS:

Please visit the [BOOKSTORE](#) online site for most current textbook information.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

ADDITIONAL REQUIREMENTS:

Stethoscope

Paramedic Functional Job Analysis / Technical Standards:**Paramedic Characteristics**

- 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 judgement and be able to prioritize 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.
- 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 EMT, it is the Paramedic who is held responsible for safe and therapeutic administration of drugs including narcotics.
- Therefore, the Paramedic must not only be knowledge 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 including analgesics, anesthetics, anti-anxiety drugs, sedatives and hypnotics, anti- convulsants, central nervous stimulants, psychotherapeutics which include antidepressants, and other anti-psychotics, anticholinergics, cholinergics, muscle relaxants, anti-dysrhythmics, anti-hypertensives,

anticoagulants, diuretics, bronchodilators, ophthalmics, pituitary drugs, gastro-intestinal drugs, hormones, antibiotics, antifungals, antiinflammatories, serums, vaccines, anti-parasitics, and others.

- The Paramedic is personally responsible, legally, ethically, and morally for each drug administered, for using correct precautions and techniques, observing and documenting the effects of the drugs administered, keeping one's own pharmacological knowledge base current as to changes and trends in administration and use, keeping abreast of all contraindications to administration of specific drugs to patients based on their constitutional makeup, and 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 medication to be given. For example, some patients may be taking several medications prescribed by several different doctors and some may lose track of what they have or have not taken. Some may be using nonprescription/over the counter drugs. Awareness of drug reactions and the synergistic effects of drugs combined with other medicines and in some instances, food, is imperative.
- The Paramedic must also take into consideration the possible risks of medication administered to a pregnant mother and the fetus, keeping in mind that 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, 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/medications is essential. Once medication is stopped or not used, the Paramedic must send back unused portions to 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 reading between centigrade and Fahrenheit scales, be able to use proper advanced life support equipment and supplies (i.e. proper size of intravenous needles) 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 pre-cautions and body substance isolation, disposing of contaminated items and equipment properly.
- The Paramedic must 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 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 of appropriate intravenous fluids and drugs under direction of off-site designated physician.
- The Paramedic is a person who must not only remain calm while 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 all 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, solid emotional stability, a tolerance for high stress, and the ability to meet the physical, intellectual, and cognitive requirements demanded by this position.
- Physical Demands Aptitudes required for work of this nature are good physical stamina, endurance, and body condition that would not be adversely affected by frequently having to walk, stand, lift, carry, and balance at times, in excess of 125 pounds.
- Motor coordination is necessary because over uneven terrain, the patient's, the Paramedic's, and other workers' well-being must not be jeopardized.
- The Paramedic provides the most extensive pre-hospital care and may work for fire departments, private ambulance services, police departments or hospitals. Response times for nature of work are dependent upon nature of 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 districts known to have high crime rates. Thus, the particular stresses inherent in the role of the Paramedic can vary, depending on place and type of employment

- When emergencies exist, the situation can be complex and care of the patient must be started immediately.
- 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 discerning 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 dispatcher and other concerned staff, one's impression of 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 must enter data on computer from a laptop in ambulance.
- Verbal skills and reasoning skills are used extensively.

TECHNICAL REQUIREMENTS:

- Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials.
- Access to myHGTC portal for student self-services.
- College email access – this is the college's primary official form of communication.

ATTENDANCE VERIFICATION:

The Add/Drop Period is the first 7 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format classes. Please refer to the [academic calendar](#) for deadlines for add/drop. You must attend at least one meeting of all your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly

IDENTIFICATION VERIFICATION:

Students enrolled in online courses will be required to complete identity verification. Please refer to your Instructor's Course Information Sheet for information regarding this requirement.

STUDENT COURSE EVALUATIONS:

Each semester, students are provided with an opportunity to participate in course evaluation surveys. These evaluations offer crucial feedback to instructors and the College, leading to enhancement of educational quality. By completing these surveys, you play a key role in the ongoing improvement of teaching methods and course content, ensuring future students enjoy a better learning experience. Students are encouraged to complete these surveys as your active participation in this process reflects your dedication to your education and drives positive change.

CLASSROOM ETIQUETTE AND STUDENT RIGHTS AND RESPONSIBILITIES:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

To ensure a positive College experience, guidelines exist in numerous areas of campus life. The Student Code for The South Carolina Technical College System "The Student Code" (3-2-106.1) applies to all HGTC students. The Student Code sets forth rights and responsibilities of the individual student, identifies behaviors that are not consistent with the values of college communities, and describes the procedures that will be followed to adjudicate cases of alleged misconduct. Students are expected to conduct themselves in a civil manner, that is respectful of the rights of others, and that is compatible with the college's educational mission. Students are expected to comply with all of the college's duly established

rules and regulations regarding student behavior while on campus; while participating in off-campus college sponsored activities; and while participating in off-campus clinical, field, internship, or in-service experiences. Students are expected to comply with all course requirements as specified by instructors in course syllabi and to meet the standards of acceptable classroom behavior set by instructors. For more information, login to your myHGTC account under "Student Rights and Responsibilities" card then select "Student Code of Conduct" or the "Student Catalog and Handbook."

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Part II: Student Learning Outcomes

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Module #1

Material Covered:

- ACLS Textbook

Assessments:

- ACLS Pre Test
- ACLS MEGA Code Sessions
- ACLS Post Test

What does this course teach?

- Basic life support skills, including effective chest compressions, use of a bag-mask device, and use of an AED
- Recognition and early management of respiratory and cardiac arrest
- Recognition and early management of peri-arrest conditions such as symptomatic bradycardia

- Airway management
- Related pharmacology
- Management of ACS and stroke
- Effective communication as a member and leader of a resuscitation team

ACLS Provider Course Learning Objectives

- Identify key science that drives increased patient survival.
- Apply the BLS, Primary, and Secondary Assessment sequence for a systematic evaluation of adult patients.
- Perform prompt, high-quality BLS, including prioritizing early chest compressions and integrating early AED use.
- Recognize and perform early management of respiratory arrest.
- Demonstrate effective and safe use of manual defibrillator.
- Discuss early recognition and management of acute coronary syndrome, including appropriate disposition.
- Identify early recognition and management of stroke, including appropriate disposition.
- Model effective communication as a member of a high performance team.
- Recognize the impact of team dynamic on overall team performance.
- Recognize cardiac arrest.
- Perform early management of cardiac arrest until termination of resuscitation or transfer of care.
- Recognize bradyarrhythmias that may result in a cardiac arrest or complicated resuscitative outcome.
- Perform early management of bradyarrhythmias that may result in cardiac arrest or complicate resuscitation.
- Recognize tachyarrhythmias that may result in a cardiac arrest or complicated resuscitative outcome.
- Perform early management of tachyarrhythmias that may result in cardiac arrest or complicate resuscitation.

- Perform early management of cardiac arrest until termination of resuscitation or transfer of care, including immediate post-cardiac arrest care.
- Demonstrate team member behaviors according to roles during megacode cases.

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*:

Students’ performance will be assessed, and the weight associated with the various measures/artifacts are listed below.

EVALUATION*

Tests (pretest)	15%
Mega Code Scenarios	35%
Tests (posttest)	50%
Total 100%	

****Students, for the specific number and type of evaluations, please refer to the Instructor’s Course Information Sheet.***

GRADING SYSTEM:

Please note the College adheres to a 10-point grading scale A = 100 – 90, B = 89–80, C = 79 – 70, D = 69 – 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, and Is also negatively impact academic progression and financial aid status.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 – Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student, and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, refer to your Instructor's Course Information Sheet for any required on-site meeting times. In online courses, attendance is fulfilled through the submission of academic work. Please be aware that instructors may require exams to be proctored either online or at an approved testing site. If you choose to use a testing center other than those provided by HGTC, that center may charge a fee for its services.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers all students the following **free** resources:

1. Academic tutors for most subject areas, Writing Center support, and Academic Coaching for college success skills.
2. Online tutoring and academic support resources.
3. Professional and interpersonal communication coaching.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring or coaching, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email sstc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the SSTC [Online Resource Center](#) to access on-demand resources.

STUDENT INFORMATION CENTER – TECH Central:

TECH Central offers all students the following free resources:

1. Getting around HGTC: General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. In-person and remote assistance are available for Desire2Learn, Student Portal, Degree Works, and Office 365.
3. Chat with our staff on TECH Talk, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552. Visit the [Tech Central website](#) for more information. Live Chat and Center locations are posted on the website. You may also call (843) 349-5199.

**HGTC LIBRARY:**

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries have librarians and staff who can aid with research, computers to support academic research and related school-work, and individual/group study rooms. Printing is available as well at each location. Visit the [Library](#) website for more information or call (843) 349-5268.

STUDENT TESTING:

Testing in HGTC courses may occur during regularly scheduled class time or online, with or without proctoring. Tests may be delivered in the following formats:

- Digitally through D2L
- In writing on paper
- Through a publisher platform (note: some publisher platforms carry an associated fee)

Tests may include time limits and may require proctoring depending on the course.

When proctoring is required and is not provided by the course instructor in the classroom, students may complete their test face-to-face at an [HGTC Testing](#)

[Center](#) or another approved testing site, or online using HGTC's online proctoring provider. For more information about available proctoring options, visit the [Online Testing](#) section of the HGTC Testing Center webpage.

Students testing at an HGTC Testing Center should note the following:

- **Appointments must be scheduled at least 24 hours in advance.**
- **A physical, government-issued photo ID is required to test.**

The **Instructor Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Students seeking accommodations are encouraged to visit HGTC's [Accessibility and Disability Service webpage](#) for detailed information.

It is the student's responsibility to self-identify as needing accommodations and to provide appropriate documentation. Once documentation is submitted, the student will participate in an interactive process with Accessibility and Disability Services staff to determine reasonable accommodations. Students may begin the accommodations process at any time; however, accommodations are **not retroactive** and will only be applied from the point at which they are approved. Students must contact the office **each semester** to renew their accommodations.

For assistance, please contact the Accessibility and Disability Services team at disabilityservices@hgtc.edu or 843-796-8818 (call or text).

COUNSELING SERVICES:

HGTC Counseling Services strives to optimize student success through managing personal and academic concerns that may interfere with achieving educational goals. Staff are available to every student for assistance and guidance on personal matters, academic concerns and other areas of concern. HGTC offers free in-person and telehealth counseling services to students. For more information about counseling services, please reach out to counseling@hgtc.edu or visit the website the [Counseling Services webpage](#).

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Our sincere commitment to both effective business management and equitable treatment of our employees requires that we present this Policy Statement as an embodiment of that commitment to the fullest.

Discrimination is conduct that includes unjust or prejudicial treatment based upon an individual's age, race, color, sex, religion, national origin, disability, and genetic information or any other protected classes deemed unlawful under State or Federal law that excludes an individual from participation in, denies the individual the benefits of, treats the individual differently, or otherwise adversely affects a term or condition of a person's working or learning environment. This includes failing to provide reasonable accommodation, consistent with state and federal law, to persons with disabilities.

All inquiries regarding the federal laws as they relate to discrimination on the basis of sex may be directed to Jen Riddei, Title IX Coordinator, Horry-Georgetown Technical College, Building 1100C, Room 107B, 2050 HWY 501 E, PO Box 261966, 843-349-5218, Jenifer.Riddei@hgtc.edu.

Student and prospective student inquiries concerning the federal laws and their application to the College or any student decision may be directed to Dr. Melissa Batten, Vice President, Student Affairs, and Section 504 & Title II Coordinator, Horry-Georgetown Technical College, Building 1100C, Room 107A, 2050 HWY 501 E, PO Box 261966-6066, 843-349-5228, Melissa.Batten@hgtc.edu.

Employee and applicant inquiries concerning the federal laws and their application to the College may be directed to Jacquelyne Snyder, Vice President, Human Resources and Employee Relations and the College's Affirmative Action/Equal Opportunity Officer, Horry-Georgetown Technical College, Building 200C, Room 205B, 2050 HWY 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, Jacquelyne.Snyder@hgtc.edu.

TITLE IX REQUIREMENTS:

Title IX of the Education Amendments of 1972 protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination.

HGTC prohibits the offenses of sexual harassment, domestic violence, dating violence, sexual assault, and stalking and will provide students, faculty, and staff with necessary information regarding prevention, policies, procedures, and resources.

Any student, or other member of the college community, who believes that they have been a victim of sexual harassment, domestic violence, dating violence, sexual assault, or stalking may file a report with the college's Title IX Coordinator or campus law enforcement*.

*Faculty and Staff are required to report these incidents to the Title IX Coordinator when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

All inquiries regarding the federal laws as they relate to discrimination on the basis of sex may be directed to Jen Riddei, Title IX Coordinator, Horry-Georgetown Technical College, Building 1100C, Room 107B, 2050 HWY 501 E, PO Box 261966, 843-349-5218, Jenifer.Riddei@hgtc.edu.

PREGNANCY ACCOMMODATIONS

Under Title IX, colleges must not exclude a pregnant student from participating in any part of an educational program. Horry-Georgetown Technical College is committed to ensuring that pregnant students receive reasonable accommodations to ensure access to our educational programs.

Students should advise the Title IX Coordinator of a potential need for accommodations as soon as they know they are pregnant. It is extremely important that communication between student, instructors, and the Title IX Coordinator begin as soon as possible. Each situation is unique and will be addressed individually.

Title IX accommodations DO NOT apply to Financial Aid. Financial Aid regulations do not give the College any discretion in terms of Financial Aid eligibility.

Certain educational programs may have strict certification requirements or requirements mandated by outside regulatory agencies. Therefore, in some programs, the application of Title IX accommodations may be limited.

To request pregnancy accommodations, please complete the *Pregnancy Intake Form* that can be found [here](#).