

## Technical and Vocational Programs

### A 45 34 0 Emergency Medical Science - Associate in Applied Science

#### CONCENTRATION OVERVIEW

The Emergency Medical Science curriculum provides individuals with the knowledge, skills and attributes to provide advanced emergency medical care as a paramedic for critical and emergent patients who access the emergency medical system and prepares graduates to enter the workforce. Students will gain complex knowledge, competency, and experience while employing evidence-based practice under medical oversight and serve as a link from the scene into the healthcare system.

COA's Emergency Medical Services – Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Contact CAAHEP: Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 – 113th St. N, #7709, Seminole, FL 33775, 727-210-2350. [www.caahep.org](http://www.caahep.org)



Graduates of this program may be eligible to take state and/or national certification examinations. Employment opportunities include providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, educational and government agencies.

#### Student Learning Outcomes – Upon completion of the program, students will:

1. Apply the basic concepts of pathophysiology, development, and pharmacology to the assessment and management of a wide variety of emergency patients.
2. Demonstrate proficiency in administration of medications and safely accessing venous circulation.
3. Establish and/or maintain a patent airway, oxygenate, and ventilate any patient.
4. Demonstrate technical proficiency in all skills necessary to fulfill the role of entry-level paramedic in the state of North Carolina.
5. Demonstrate proficiency in the role of entry-level paramedic in the state of North Carolina.

**Partnership: N/A**

**Some Health Sciences and Wellness Programs may have additional requirements related to required GPAs, grades, and other progression policies required for graduation. Please see program handbooks for more information.**

\*This program offers a [Career and College Promise pathway \(CCP\) C45340H](#). Courses within the pathway are highlighted in yellow.

## A 45 34 0 Emergency Medical Science - Associate in Applied Science

| First Year Fall Semester<br>Course Number and Title  | Pre-Requisites and<br>Co-Requisites  | Class<br>Hours | Lab<br>Hours | Clinical<br>Hours | Total<br>Contact<br>Hours | Total<br>Credit<br>Hours |
|--|--|----------------|--------------|-------------------|---------------------------|--------------------------|
| ACA 122 Transfer and Career Success  |  | 1              | 0            | 0                 | 1                         | 1                        |
| ENG 111 Writing and Inquiry  | Pre-Requisites: ENG 025  | 3              | 0            | 0                 | 3                         | 3                        |
| MAT 143 Quantitative Literacy  | Pre-Requisites: ENG 025 and MAT 025  | 2              | 2            | 0                 | 4                         | 3                        |
| <b>EMS 110 EMT</b>   | Pre-Requisites: Admission to EMS Program   | 6              | 6            | 3                 | 15                        | 9                        |
| <b>TOTAL SEMESTER HOURS</b>  |  | <b>12</b>      | <b>8</b>     | <b>3</b>          | <b>23</b>                 | <b>16</b>                |
| First Year Spring Semester<br>Course Number and Title  | Pre-Requisites and<br>Co-Requisites  | Class<br>Hours | Lab<br>Hours | Clinical<br>Hours | Total<br>Contact<br>Hours | Total<br>Credit<br>Hours |
| <b>BIO 163<br/>Basic Anatomy and Physiology<br/>(Or BIO 168 and BIO 169 -<br/>recommended option for<br/>transfer to a 4 year institution)**</b> | Pre-Requisites:<br>ENG 025 and either BIO 090 or<br>one unit of HS Biology   | 4              | 2            | 0                 | 6                         | 5                        |
| PSY 150 General Psychology   | Pre-Requisites: ENG 025  | 3              | 0            | 0                 | 3                         | 3                        |
| EMS 120<br>Advanced EMT  | Pre-Requisites: EMS 110<br>Co-Requisites: EMS 121  | 4              | 6            | 0                 | 10                        | 6                        |
| EMS 121<br>AEMT Clinical Practicum   | Pre-Requisites: EMS 110<br>Co-Requisites: EMS 120  | 0              | 0            | 6                 | 6                         | 2                        |
| <b>TOTAL SEMESTER HOURS</b>  |  | <b>11</b>      | <b>8</b>     | <b>6</b>          | <b>25</b>                 | <b>16</b>                |
| First Year Summer<br>Semester<br>Course Number and Title   | Pre-Requisites and<br>Co-Requisites  | Class<br>Hours | Lab<br>Hours | Clinical<br>Hours | Total<br>Contact<br>Hours | Total<br>Credit<br>Hours |
| EMS 160 Cardiology I   | Pre-Requisites: EMS 120<br>Co-Requisites: EMS 130, 210,<br>221   | 2              | 3            | 0                 | 5                         | 3                        |
| EMS 130 Pharmacology   | Pre-Requisites: EMS 120<br>Co-Requisites: EMS 160, 210,<br>221   | 3              | 3            | 0                 | 6                         | 4                        |
| EMS 210 Adv. Patient<br>Assessment   | Pre-Requisites: EMS 110 or Ad-<br>mission to EMS Bridge Program<br>Co-Requisites: EMS 130, 160,<br>221 or Admission to EMS<br>Bridge Program | 1              | 3            | 0                 | 4                         | 2                        |
| EMS 221 EMS Clinical Practicum II  | Pre-Requisites: EMS 121<br>Co-Requisites: EMS 130, 160,<br>210   | 0              | 0            | 6                 | 6                         | 2                        |
| <b>TOTAL SEMESTER HOURS</b>  |  | <b>6</b>       | <b>9</b>     | <b>6</b>          | <b>21</b>                 | <b>11</b>                |

## A 45 34 0 Emergency Medical Science - Associate in Applied Science

| Second Year Fall Semester Course Number and Title   | Pre-Requisites and Co-Requisites  | Class Hours | Lab Hours | Clinical Hours | Total Contact Hours | Total Credit Hours |
|---|---|-------------|-----------|----------------|---------------------|--------------------|
| ENG 112 Writing/Research in the Disciplines         | Pre-Requisites: ENG 111   | 3           | 0         | 0              | 3                   | 3                  |
| EMS 220 Cardiology II                               | Pre-Requisites: EMS 160, 130, 210, 221<br>Co-Requisites: EMS 231, 250, 260  | 2           | 3         | 0              | 5                   | 3                  |
| EMS 231 EMS Clinical Practicum III                  | Pre-Requisites: EMS 221<br>Co-Requisites: EMS 220, 250, 260                 | 0           | 0         | 9              | 9                   | 3                  |
| EMS 250 Medical Emergencies                         | Pre-Requisites: EMS 160, 130, 210, 221<br>Co-Requisites: EMS 220, 231, 260  | 3           | 3         | 0              | 6                   | 4                  |
| EMS 260 Trauma Emergencies                          | Pre-Requisites: EMS 160, 130, 210, 221<br>Co-Requisites: EMS 220, 231, 250  | 1           | 3         | 0              | 4                   | 2                  |
| <b>TOTAL SEMESTER HOURS</b>                         |   | <b>9</b>    | <b>9</b>  | <b>9</b>       | <b>27</b>           | <b>15</b>          |
| Second Year Spring Semester Course Number and Title | Pre-Requisites and Co-Requisites  | Class Hours | Lab Hours | Clinical Hours | Total Contact Hours | Total Credit Hours |
| Human/FA Elective                                   | Varies  | 3           | 0         | 0              | 3                   | 3                  |
| EMS 240 Patients with Special Challenges            | Pre-Requisites: EMS 220, 231, 250, 260<br>Co-Requisites: EMS 241, 270, 285  | 1           | 2         | 0              | 3                   | 2                  |
| EMS 241 EMS Clinical Practicum IV                   | Pre-Requisites: EMS 231<br>Co-Requisites: EMS 240, 270 & 285                | 0           | 0         | 12             | 12                  | 4                  |
| EMS 270 Life Span Emergencies                       | Pre-Requisites: EMS 220, 231, 250, 260<br>Co-Requisites: EMS 240, 241 & 285 | 3           | 3         | 0              | 6                   | 4                  |
| EMS 285 EMS Capstone                                | Pre-Requisites: EMS 220, 231, 250, 260<br>Co-Requisites: EMS 240, 241 & 270 | 1           | 3         | 0              | 4                   | 2                  |
| <b>TOTAL SEMESTER HOURS</b>                         |   | <b>8</b>    | <b>8</b>  | <b>12</b>      | <b>28</b>           | <b>15</b>          |
| <b>TOTAL DEGREE HOURS</b>                           |   |             |           |                |                     | <b>73</b>          |

\*\*Four year institutions determine their acceptance of transfer courses ...students should check with the 4 year institutions they plan to attend to see if this option will be accepted.