

## Emergency Medical Science (A45340)

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.

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.

### COURSE REQUIREMENTS

Richmond Community College provides day and evening course sequences for selected programs to enable students to better plan what courses to take to reach their educational goals. However, given the continued increase in the use of technology in instruction and increasing student demand for distance learning courses, the College may offer hybrid, online, web-based and information highway courses in place of traditional courses in any course sequence that is listed. Therefore, students should be aware of this possibility and prepare themselves to successfully function in a hybrid, online, web-based, or information highway course.

### EMERGENCY MEDICAL SCIENCE (A45340A) COURSE REQUIREMENTS

			Class	Lab	Work/ Clinical	Credit
<b>A. General Education Courses</b>						
1. Required Courses						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
Math Option (Choose One):**						
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
<b>B. Major Courses</b>						
1. Core Courses						
<i>To receive a degree, diploma or certificate from RCC, a student must have a grade of "B" or better in all core courses for the program of study.</i>						
BIO	163	Basic Anatomy & Physiology	4	2	0	5

or						
BIO	165	Anatomy and Physiology I	3	3	0	4
and						
BIO	166	Anatomy and Physiology II	3	3	0	4
EMS	110	EMT	6	6	3	9
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
EMS	285	EMS Capstone	1	3	0	2
2. Other Major Courses						
MED	121	Medical Terminology I	3	0	0	3
or						
PED	110	Fitness and Wellness for Life	1	2	0	2
<b>C. Other Required Courses</b>						
ACA	122	College Transfer Success	0	2	0	1

**Total Credit Hours**

**68-73**

\*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE - BIO 163 OPTION  
EMERGENCY MEDICAL SCIENCE (A45340A) (DAY)**

			Class	Lab	Work/ Clinical	Credit
<b>First Year – Fall Semester</b>						
ACA	122	College Transfer Success	0	2	0	1
BIO	163	Basic Anatomy & Physiology	4	2	0	5
EMS	110	EMT	6	6	3	9
			10	10	3	15
<b>First Year – Spring Semester</b>						
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3

		Math Option**	2-3	2	0	3-4
			—	—	—	—
			11-12	10	3	16-17
		<b>First Year – Summer Semester</b>				
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			5	3	6	8
		<b>Second Year – Fall Semester</b>				
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
			—	—	—	—
			8	11	9	15
		<b>Second Year – Spring Semester</b>				
COM	231	Public Speaking	3	0	0	3
	or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	285	EMS Capstone	1	3	0	2
MED	121	Medical Terminology I	3	0	0	3
	or					
PED	110	Fitness and Wellness for Life	1	2	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			8-10	3-5	12	14-15

**Total Credit Hours**

**68-70**

\*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE - BIO 165 & BIO 166 OPTION  
EMERGENCY MEDICAL SERVICES (DAY)**

			Class	Lab	Work/ Clinical	Credit
		<b>First Year – Fall Semester</b>				
ACA	122	College Transfer Success	0	2	0	1
BIO	165	Anatomy & Physiology I	3	3	0	4
EMS	110	EMT	6	6	3	9
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			11-12	13	3	17-18
		<b>First Year – Spring Semester</b>				

BIO	166	Anatomy and Physiology II	3	3	0	4
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
ENG	111	Writing and Inquiry	3	0	0	3
			—	—	—	—
			12	11	3	17
<b>First Year – Summer Semester</b>						
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
PSY	150	General Psychology	3	0	0	3
			—	—	—	—
			5	3	6	8
<b>Second Year – Fall Semester</b>						
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
			—	—	—	—
			8	11	9	15
<b>Second Year – Spring Semester</b>						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	285	EMS Capstone	1	3	0	2
MED	121	Medical Terminology I	3	0	0	3
or						
PED	110	Fitness and Wellness for Life	1	2	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			8-10	3-5	12	14-15

**Total Credit Hours**

**71-73**

\*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

## EMERGENCY MEDICAL SCIENCE BRIDGING PROGRAM (A45340B)

The Emergency Medical Science Bridging program is designed to allow a currently credentialed non-degreed Paramedic to earn a two-year Associate of Applied Science degree in Emergency Medical Science in two semesters.

The prerequisites for admission to the EMS Bridging program include current credential/certification in all of the following:

- North Carolina or National Registry Paramedic Credential
- American Heart Association Advanced Cardiac Life Support Certification
- American Heart Association Pediatric Advanced Life Support Certification (or NREMT equivalent)
- American Heart Association Basic Life Support Certification (or PHTLS)

These credentials/certifications provide 45 credit hours of advanced placement for students who are accepted into the program. Students will receive articulated credit for EMS 110, EMS 122, EMS 130, EMS 131, EMS 160, EMS 220, EMS 221, EMS 231, EMS 240, EMS 241, EMS 250, EMS 260, EMS 270, and EMS 285. To receive this articulation credit the student must receive the recommendation of the EMS Program Coordinator.

			Class	Lab	Work/ Clinical	Credit
<b>A. General Education Courses</b>						
1. Required Courses						
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
Math Option (Choose One):**						
MAT	143	Quantitative Literacy	2	2	0	3
MAT	152	Statistical Methods I	3	2	0	4
MAT	171	Precalculus Algebra	3	2	0	4
<b>B. Major Courses</b>						
1. Core Courses						
<i>To receive a degree from RCC, a student must have all certifications/credentials listed above to receive articulated credit for EMS core courses for the program of study.</i>						
EMS	110	EMT	6	6	3	9
EMS	122	EMS Clinical Practicum I	0	0	3	1
EMS	130	Pharmacology	3	3	0	4
EMS	131	Advanced Airway Management	1	2	0	2
EMS	160	Cardiology I	2	3	0	3
EMS	220	Cardiology II	2	3	0	3
EMS	221	EMS Clinical Practicum II	0	0	6	2
EMS	231	EMS Clinical Practicum III	0	0	9	3
EMS	240	Patients with Special Challenges	1	2	0	2

EMS	241	EMS Clinical Practicum IV	0	0	12	4
EMS	250	Medical Emergencies	3	3	0	4
EMS	260	Trauma Emergencies	1	3	0	2
EMS	270	Life Span Emergencies	3	3	0	4
EMS	285	EMS Capstone	1	3	0	2

*To receive a degree, diploma or certificate from RCC, a student must have a grade of “B” or better in all core courses for the program of study.*

BIO	163	Basic Anatomy & Physiology	4	2	0	5
or						
BIO	165	Anatomy and Physiology I	3	3	0	4
and						
BIO	166	Anatomy and Physiology II	3	3	0	4
2. Other Major Courses						
EMS	235	EMS Management	2	0	0	2
EMS	280	EMS Bridging Course	2	2	0	3

**Total Credit Hours (including articulated credit hours) 70-74**

➤ **Eighteen (18) of the credit hours below must be completed at RichmondCC.**

**SEMESTER SCHEDULE - BIO 163 OPTION  
EMERGENCY MEDICAL SERVICES BRIDGING PROGRAM (DAY)**

			Work/			
			Class	Lab	Clinical	Credit
<b>First Year – Fall Semester</b>						
EMS	280	EMS Bridging Course	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			10-11	4	0	12-13
<b>First Year – Spring Semester</b>						
BIO	163	Basic Anatomy & Physiology	4	2	0	5
COM	231	Public Speaking	3	0	0	3
or						
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	235	EMS Management	2	0	0	2
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			12	2	0	13
<b>Total Semester Credit Hours</b>					<b>25-26</b>	

**Total Credit Hours (including articulated credit hours)**

**70-71**

\*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.

**SEMESTER SCHEDULE - BIO 165 & BIO 166 OPTION  
EMERGENCY MEDICAL SERVICES BRIDGING PROGRAM (DAY)**

			Class	Lab	Work/ Clinical	Credit
<b>First Year – Fall Semester</b>						
BIO	165	Anatomy & Physiology I	3	3	0	4
EMS	280	EMS Bridging Course	2	2	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Math Option**	2-3	2	0	3-4
			—	—	—	—
			10-11	7	0	13-14
<b>First Year – Spring Semester</b>						
BIO	166	Anatomy and Physiology II	3	3	0	4
COM	231	Public Speaking	3	0	0	3
	or					
ENG	112	Writing/Research in the Disciplines	3	0	0	3
EMS	235	EMS Management	2	0	0	2
PSY	150	General Psychology	3	0	0	3
		Humanities/Fine Arts Elective*	3	0	0	3
			—	—	—	—
			14	3	0	15

**Total Semester Credit Hours**

**28-29**

**Total Credit Hours (including articulated credit hours)**

**73-74**

\*Approved Humanities/Fine Arts Electives are listed on the page before the Course Descriptions.