

## FLORIDA STATE COLLEGE AT JACKSONVILLE

## COLLEGE CREDIT COURSE OUTLINE

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| COURSE NUMBER:                         | EMS 1119                               |
| COURSE TITLE:                          | Fundamentals of Emergency Medical Care |
| PREREQUISITE(S):                       | None                                   |
| COREQUISITE(S):                        | EMS 1401                               |
| STUDENT ADVISING NOTES:                | Suggested Course: EMS 1059             |
| CREDIT HOURS:                          | 6                                      |
| CONTACT HOURS/WEEK:                    | 6                                      |
| CONTACT HOUR BREAKDOWN:                |  |
| Lecture/Discussion:                    | 6                                      |
| Laboratory:                            |  |
| Other _____:                           |  |
| FACULTY WORKLOAD POINTS:               | 6                                      |
| STANDARDIZED CLASS SIZE<br>ALLOCATION: | 24                                     |

## CATALOG COURSE DESCRIPTION:

This course, designed to prepare individuals for initial employment as EMT, includes current techniques practiced by a first-level EMT providing emergency medical care. On successful completion of this course and the corequisite EMS 1401, students are qualified to take the State Registry Examination for EMT Level I.

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|--------------------|---|
| SUGGESTED TEXT(S): | <u>Prehospital Emergency Care and Crisis Intervention</u> , Hafen And Karren, Morton Publishing Co., Current edition. |
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Accompanying Workbook to above text.

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|----------------------|-----------------------|
| IMPLEMENTATION DATE: | Fall Term, 1982 (831) |
|----------------------|-----------------------|

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|------------------------------|---|
| REVIEW OR MODIFICATION DATE: | Fall Term, 1996 (971)<br>Fall Term, 2002 (20031)<br>Fall Term, 2008 (20091) - Outline Review 2007 |
|------------------------------|---|

| COURSE TOPICS   | CONTACT HOURS<br><u>PER TOPIC</u> |
|---|-----------------------------------|
| I. Introduction to Emergency Care Training                        | 6                                 |
| A. Overview of Course   |                                   |
| B. EMT Roles and Responsibilities                                 |                                   |
| C. Legal Aspects  |                                   |
| II. Anatomy and Physiology and Patient Assessment                 | 12                                |
| A. Overview of Human Systems                                      |                                   |
| B. Anatomical Terminology   |                                   |
| C. Medical Terminology  |                                   |
| D. Patient Assessment   |                                   |
| 1. Diagnostic Signs   |                                   |
| 2. Patient Evaluation   |                                   |
| a. Primary Patient Survey   |                                   |
| b. Secondary Patient Survey                                       |                                   |
| III. Basic Life Support   | 12                                |
| A. Respiratory Emergencies  |                                   |
| 1. Mechanics of Respiration                                       |                                   |
| 2. Signs and Symptoms and Management                              |                                   |
| a. Respiratory Arrest   |                                   |
| b. Airway Obstruction   |                                   |
| 3. Pulmonary Resuscitation  |                                   |
| a. Adult  |                                   |
| b. Child  |                                   |
| c. Infant   |                                   |
| d. Laryngectomees   |                                   |
| 4. Practice and Use   |                                   |
| a. Airway adjuncts  |                                   |
| b. Suction Units  |                                   |
| c. Oxygen Equipment and Delivery Systems                          |                                   |
| d. Ventilation Devices  |                                   |
| e. Resuscitation Devices  |                                   |
| f. Esophageal Obturator Airway                                    |                                   |
| B. Emergency Cardiac Care and Cardiopulmonary Resuscitation (CPR) |                                   |
| 1. Mechanics of Circulation                                       |                                   |
| 2. Signs of Cardiac Arrest  |                                   |
| 3. One and Two Rescuer CPR  |                                   |
| 4. Infant and Child Resuscitation                                 |                                   |

## COURSE TOPICS (CONTINUED)

CONTACT HOURS  
PER TOPIC

## C. Control of Bleeding

1. Mechanics of Circulation
2. Methods of Controlling Bleeding
3. Internal Bleeding
4. External Bleeding

## D. Shock

1. Definition of Shock
2. Types of Shock
3. Signs and Symptoms
4. Anaphylactic Shock
5. Techniques of Management
6. Medical Anti-Shock Trousers (MAST)

## IV. Wounds and Fractures

12

## A. Wounds and Bandaging

1. Types of Wounds
2. Managing and Treatment
3. Eye Injuries
4. Removing Contact Lenses
5. Face, Scalp and Neck Wounds
6. Dressing and Bandages
7. Principles of Bandaging

B. Musculoskeletal Injuries and Fractures  
of the Extremities

1. Anatomy and Physiology of the Musculoskeletal System
2. Definitions and Types of Fractures and Dislocations
3. Signs and Symptoms
  1. Fracture
  2. Dislocation
  3. Sprain
  4. Strain
4. Patient Examination
5. Techniques of Immobilization
6. Splinting

## C. Head and Spine Injuries

1. Anatomy and Physiology of the Nervous System
2. Signs and Symptoms
  - a. Spinal Injury
  - b. Head and Neck Injury
3. Physical and Neurological Assessment
  - a. Conscious Patient
  - b. Unconscious Patient
4. Techniques of Management and Treatment

## COURSE TOPICS (CONTINUED)

CONTACT HOURS  
PER TOPIC

## D. Injuries to Chest, Abdomen, and Genitalia

1. Anatomy and Function
  - a. Chest Activity
  - b. Abdomen and Digestive System
  - c. Genitourinary System
2. Signs and Symptoms and Types of Injuries
  - a. Chest
  - b. Abdomen
  - c. Genitalia
3. Management and Emergency Care

## V. Medical Emergencies

15

## A. Poisoning Emergencies

1. Transmission, Causes and Types of Poison Victims
2. Signs, Symptoms and Recognition
3. Techniques of Care

## B. Drug and Alcohol Emergencies

1. Most Commonly Abused Drugs
2. Signs, Effects and Symptoms of Drug Abuse
3. General Guidelines for Treatment and Management
  - a. Drug/Alcohol Crisis
  - b. Violent Patient
  - c. Overdosed Patient

## C. Other Medical Emergencies

1. Causes, Signs and Symptoms
  - a. Cardiac Emergencies
  - b. Cerebrovascular Accident
  - c. Hyperventilation
  - d. Pulmonary Embolism
  - e. Chronic Obstructive Pulmonary Diseases
  - f. Diabetic Emergencies
  - g. Acute Abdominal Distress
  - h. Seizures and Epilepsy
  - i. Communicable Diseases
2. Emergency Treatment and Care

## VI. Childbirth and Pediatrics

6

## A. Obstetric and Gynecologic Emergencies

1. Anatomy and Physiology
2. Delivery and Care of the Baby and Mother
  - a. Normal Birth
  - b. Abnormal Birth

## COURSE TOPICS (CONTINUED)

CONTACT HOURS  
PER TOPIC

- 3. Evaluation and Resuscitation of the Newborn
- 4. Labor and Birth Complications
- 5. Gynecologic Emergencies
- B. Pediatric Emergencies
  - 1. Ill or Injured Children: Special Considerations
    - a. Parental Response
    - b. Children's Response
  - 2. Age Groups
    - a. Infants
    - b. One to Three Year Olds
    - c. Three to Five Year Olds
    - d. School-Age Children
    - e. Adolescents
  - 3. Physical Assessment Techniques
  - 4. Common Emergencies in Children

## VII. Environmental Emergencies

12

- A. Burns and Hazardous Material Emergencies
  - 1. Burn Classification and Estimation of Degree
  - 2. Types of Burns
    - a. Thermal
    - b. Chemical
    - c. Electrical
  - 3. Emergency Care and Treatment
  - 4. Major Guidelines for Radiation Emergencies
    - a. Types and Protection
    - b. Emergency Procedures and Decontamination
  - 5. Hazardous Materials Identification and General Procedures
- B. Heat, Cold, and Drowning Emergencies
  - 1. Mechanisms of Heat Loss
  - 2. Signs, Symptoms and Management of the Patient
    - a. Hyperthermia
    - b. Hypothermia
  - 3. Drowning and Near-Drowning
    - a. Cause and Pathophysiology
    - b. Emergency Care and Management

## COURSE TOPICS (CONTINUED)

CONTACT HOURS  
PER TOPIC

## VIII. Psychological Emergencies and Disasters

6

- A. Psychological Emergencies and Crisis Intervention
  - 1. Signs and Symptoms of Psychological Emergencies
  - 2. Special Consideration and Communicating with Special Patients
    - a. Patient and Family Response to Illness and Injury
    - b. Pediatric
    - c. Geriatric
    - d. Confused and/or Developmentally Disabled
    - e. Combative and Aggressive
    - f. Non-English Speaking
  - 3. Patient Assessment and Management
  - 4. Types of Psychological Disorders
  - 5. Child Abuse and Neglect
  - 6. Rape and Sexual Assault
  - 7. Death and Dying
  - 8. Sudden Infant Death Syndrome
  - 9. Burn-Out
- B. Disaster Management
  - 1. Disaster Preparedness and Types of Disasters
  - 2. Triage
  - 3. Transporting Patients
  - 4. Psychological Impact and Emotional Reactions

## IX. Stabilization and Transportation

9

- A. Lifting and Moving Patients
  - 1. Techniques of Emergency and Non-Emergency moves
  - 2. Types of Carrying Devices
  - 3. Loading, Unloading, and Moving the Patient
  - 4. Special Transfers
- B. Patient Stabilization and Extrication
  - 1. Scene Survey
  - 2. Basic Tools
  - 3. Gaining Access and Disentanglement
  - 4. Stabilization and Extrication
- C. Ambulance Operation and Communication
  - 1. Types, Regulations, and Recommendations
  - 2. Records and Reporting Systems
  - 3. Components of an Emergency Medical Communication System
  - 4. Proper Use of Radio Communication
  - 5. Ambulance and Equipment Maintenance

PROGRAM TITLE: Emergency Medical Services - Associate Degree

COURSE TITLE: Fundamentals of Emergency Medical Care

CIP NUMBER: 0317.020601

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLE(S):

12.0 DEMONSTRATE KNOWLEDGE OF THE PARAMEDIC PROFESSION -- The student will be able to:

- 12.01 Define the role and responsibilities of the paramedic.
- 12.02 Describe and contrast the differences between the various levels of training, from EMT to Paramedic.
- 12.03 List current state requirements for paramedic certification and recertification.
- 12.04 Discuss Chapter 401, Florida Statutes, and Chapter 10D-66, Florida Administrative Code.
- 12.05 State the major purposes of a national association, a national registry, and professional journals.
- 12.06 State the benefits of paramedics teaching in their community.
- 12.07 Define continuing education, certification, licensure and registration.

13.0 DESCRIBE EMS SYSTEMS -- The student will be able to:

- 13.01 Define and describe Medical Control and Physician responsibility.
- 13.02 Discuss pre-hospital stabilization of patients.
- 13.03 Discuss the general differences between management of trauma and medical patients.
- 13.04 Define and discuss protocols and their development.
- 13.05 Describe the relationship between prehospital care and total patient care including the emergency department, and hospital specialty departments.
- 13.06 Describe the continuum of patient care and the responsibilities of the paramedic within the transfer of patient responsibility.
- 13.07 Discuss the development, implementation, and control of an EMS system.
- 13.08 Discuss response of the EMS system including system access, dispatcher responsibilities, patient evaluation, medical command, and patient responsibility.
- 13.09 Discuss promulgation of national standards such as KKK ambulance standards, and involvement of groups such as ASTM, NCSEMSTC, American College of Surgeons, American Medical Association Joint Review Committee, and the U.S. Department of Transportation.
- 13.10 Discuss the various paramedic-physician relationships.
- 13.11 Describe retrospective evaluation of patient care LIST including run report, review, continuing education, skill practice, and skill deterioration.
- 13.12 Discuss the EMT-P's initial responsibilities when arriving on the scene.

14.0 DESCRIBE MEDICAL/LEGAL CONSIDERATIONS -- The student will be able to:

- 14.01 Discuss the scope and significance of current national and Florida laws and administrative rules relating to the paramedic.
- 14.02 Discuss medical-legal concepts relating to the paramedic.
- 14.03 Discuss the need for accurate medical documentation and recordkeeping.

## PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S):

TITLE(S):

- 14.04 Discuss the extent to which force and restraint may be used to protect the patient, the Paramedic, and third parties.
- 14.05 Identify those circumstances that require the Paramedic to report incidents to law enforcement and/or other appropriate authorities.

18.0 DESCRIBE AND MANAGE CAUSES OF STRESS -- The student will be able to:

- 18.01 Define stress and discuss its causes and phases.
- 18.02 Describe common physiologic responses to stress and its effects.
- 18.03 Describe factors that determine whether anxiety is a positive or negative response.
- 18.04 Describe behavior that is a manifestation of stress in patients, patients' families and the paramedic.
- 18.05 Describe common causes of job-related stress and various techniques of paramedic stress management.
- 18.06 Describe the stages of the grief process and common needs of the patient, the family and the paramedic in dealing with death and dying.
- 18.07 Describe common management techniques used by the paramedic when a patient is dead or dying.
- 18.08 Discuss areas of controversy in prehospital care involving death and dying.

23.0 DEMONSTRATE KNOWLEDGE OF PHARMACOLOGY AND ADMINISTER MEDICATIONS -- The student will be able to:

- 23.01 Discuss the various origins and forms of drugs.
- 23.02 Discuss the various names of a drug (ie. generic, trade, official, chemical).
- 23.03 Identify those agencies responsible for regulating drugs and the rationale for regulation.
- 23.04 Demonstrate use of the Physicians Desk Reference.
- 23.05 Identify local and systemic effects of drugs.
- 23.06 List and evaluate effects of various factors on the action of drugs.
- 23.07 Discuss the methods of drug absorption.
- 23.08 Define and use relevant pharmacology terms.
- 23.09 Describe and discuss the apothecary and metric systems and convert between and within the systems.
- 23.10 Describe the various types of drugs and routes of administration.
- 23.11 Calculate fractional drug dosages.
- 23.12 State the advantages and disadvantages of subcutaneous, intramuscular, intravenous, and transtracheal injections.
- 23.13 Demonstrate the proper procedure for intramuscular, subcutaneous, intravenous piggyback, intravenous bolus, and transtracheal medication administration.
- 23.14 Demonstrate the proper procedure for withdrawing medication from a glass vital and a glass ampule.

25.0 ASSESS AND MANAGE BURN INJURIES -- The student will be able to:

- 25.01 Describe the anatomy, physiology, pathophysiology, and assessment of the integumentary system.
- 25.02 Discuss the movement of body fluids between plasma, interstitial compartments and intracellular compartments.
- 25.03 Describe the assessment and management of the burn victim.
- 25.04 Describe the pathophysiology and treatment of burn shock.

PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S):

TITLE(S):

- 25.05 Describe and discuss the major causes, classifications, and categories of burn.
- 25.06 Describe and discuss the method of calculating percentages of body surface area burned and various formulas for calculating fluid resuscitation.
- 25.07 Describe the assessment and management of inhalation injury.
- 25.08 Demonstrate management of the burn victim with and without associated injuries.

26.0 ASSESS AND MANAGE RESPIRATORY EMERGENCIES -- The student will be able to:

- 26.01 Describe the anatomy and physiology of the respiratory system and define appropriate medical terms.
- 26.02 Identify the normal partial pressures of oxygen and carbon dioxide in the alveoli, arterial and venous blood, and factors that affect those levels.
- 26.03 Describe the normal and COPD respiratory drives.
- 26.04 Identify the pharmacology, actions, indications, precautions, dosages, contraindications, and side effects of typical respiratory drugs for the adult and pediatric patient and demonstrate methods of administration.
- 26.05 Discuss the signs, symptoms, and pathophysiology of conditions affecting the respiratory system.
- 26.06 Demonstrate inspection, auscultation and palpation of the thorax.
- 26.07 Identify normal and abnormal lung sounds.
- 26.08 Obtain a history and assess patients with respiratory complaints.
- 26.09 Describe the management of patients with respiratory problems.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

|   |  |
|---|--|
| <b>Section 1</b>  |  |
| <b>COURSE PREFIX AND NUMBER:</b> <u>EMS 1119</u>              | <b>SEMESTER CREDIT HOURS:</b> <u>6</u> |
| <b>COURSE TITLE:</b> <u>Fundamentals of Emergency Medical</u> |  |

|   |   |   |
|---|---|---|
| <b>Section 2</b>  |   |   |
| <b>TYPE OF COURSE: (Click on the box to check all that apply)</b>   |   |   |
| <input type="checkbox"/> AA Elective  | <input checked="" type="checkbox"/> AS Required Professional Course | <input type="checkbox"/> College Prep                     |
| <input type="checkbox"/> AS Professional Elective   | <input type="checkbox"/> AAS Required Professional Course           | <input checked="" type="checkbox"/> Technical Certificate |
| <input type="checkbox"/> Other _____  | <input type="checkbox"/> PSAV                                       | <input type="checkbox"/> Apprenticeship                   |
| <input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7) |   |   |

|  |   |                                      |
|--|---|--------------------------------------|
| <b>Section 3 (If applicable)</b>   |   |                                      |
| <b>INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:</b> |   |                                      |
| <input type="checkbox"/> Communications                                  | <input type="checkbox"/> Social & Behavioral Sciences | <input type="checkbox"/> Mathematics |
| <input type="checkbox"/> Natural Sciences                                | <input type="checkbox"/> Humanities                   |                                      |

|   |   |  |   |  |  |
|---|---|--|---|--|--|
| <b>Section 4</b>                            |   |  |   |  |  |
| <b>INTELLECTUAL COMPETENCIES:</b>           |   |  |   |  |  |
| <input checked="" type="checkbox"/> Reading | <input checked="" type="checkbox"/> Speaking  | <input checked="" type="checkbox"/> Critical Analysis    | <input checked="" type="checkbox"/> Quantitative Skills | <input checked="" type="checkbox"/> Scientific Method of Inquiry |  |
| <input checked="" type="checkbox"/> Writing | <input checked="" type="checkbox"/> Listening | <input checked="" type="checkbox"/> Information Literacy | <input checked="" type="checkbox"/> Ethical Judgment    | <input checked="" type="checkbox"/> Working Collaboratively      |  |

| <b>Section 5</b> |   | <b>METHOD OF ASSESSMENT</b> |
|------------------|---|-----------------------------|
|                  | <b>LEARNING OUTCOMES</b>  |                             |
| •                | Demonstrate knowledge of the assessment and care of patients with medical emergencies.  | Quizzes and Exams           |
| •                | •Demonstrate proficiency in how to deal with patients, preceptors, and fellow students who come from diverse backgrounds, age groups, socioeconomic groups, and those with complaints, problems, and aggressive behaviors utilizing analytical and problem-solving tools. | Role play, exams            |
| •                | Demonstrate knowledge of the assessment and care of trauma patients.  | Exams and quizzes           |
| •                |   |                             |
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| <b>Section 6</b>   |                         |
| Name of Person Completing This Form: <u>Marcie Heatherington</u> | Date: <u>10/02/2007</u> |