

Revised: 2013

National Fire Academy FESHE Model Curriculum

**Emergency Medical Services Associate/
Bachelor's Curriculum**

October 2013

TABLE OF CONTENTS

Emergency Medical Services Education	3
Emergency Medical Services Risk Management and Safety	11
Emergency Medical Services Communications Management	15
Finance of Emergency Medical Services Systems	19
Management of Emergency Medical Services	24
Emergency Medical Services Public Information and Community Relations	33
Legal, Political and Regulatory Environment of Emergency Medical Services	36
Analytical Approaches to Emergency Medical Services.....	42
Community Risk Reduction in Emergency Medical Services.....	50

Emergency Medical Services Education (C0240)

Course Description: This is an upper-level baccalaureate course for students interested in Emergency Medical Services (EMS) education. This course introduces the EMS professional to the education system as it relates to EMS education. Students explore issues in curriculum development, teaching, program direction, and development.

Prerequisites: None

Course Objectives:

Module 1: Context of EMS

The students will:

1. Define the scope of adult education as a discipline.
2. Discuss the relationship between adult education, higher education, and EMS education.
3. Discuss significant documents that have shaped the course of EMS education.
4. Present an overview of the entry-level competencies for EMS educators.
5. Articulate the vision of the EMS Education Agenda for the Future.

Module 2: Philosophical Foundations of Education

The students will:

1. Describe the value of studying education philosophy.
2. Describe the basic frameworks of progressive education and humanistic education.
3. Provide examples of learning activities consistent with the principles of progressive education and humanistic education.
4. Explain how elements of progressivism and humanism can be incorporated into competency-based National Standard EMS curricula.

Module 3: Ethics, Standards and Legal Considerations

The students will:

1. List sources of information regarding national, state, and local regulations, policies, and procedures related to EMS education programs.
2. Defend the need for national, state and local guidelines for EMS education programs.
3. Discuss applicable federal, state and local laws that affect the EMS teaching profession and the educational institution.
4. Explain legal considerations regarding copyright and intellectual property issues.
5. Define liability, negligence and the standard of instruction.
6. Identify areas of legal liability and risk-management consideration for the student, instructor and education institution.
7. Explain the importance of confidentiality of student information.
8. Differentiate between ethics and morals.

9. Compare and contrast theories of morality as they relate to human development and conduct.
10. Discuss the ethical position statement of NAEMSE and the National Education Association Code of Ethics.
11. Provide examples of ethical and unethical instructor conduct.
12. Describe the importance of ethical role models in the classroom, lab and clinical settings of EMS education.
13. Describe ways in which ethics can be incorporated into course curricula.
14. Defend the need for instructors to adhere to principles of ethical and legal conduct in the practice of EMS education.

Module 4: Institutions, Settings and Types of Programs

The students will:

1. Compare and contrast the characteristics of the different settings in which the EMS educator may practice.
2. Differentiate between primary, refresher and continuing education.
3. Discuss the purposes of traditional classroom, laboratory, clinical and virtual classroom education.

Module 5: Qualities, Competencies, Roles and Responsibilities of EMS Educators

The students will:

1. Communicate the affective traits and professional competencies required of an EMS educator.
2. Detail the roles and responsibilities of EMS educators.
3. Differentiate between the roles and responsibilities of primary and secondary EMS instructors.
4. Explain the importance of continuing professional development in EMS education.
5. Identify mechanisms through which continuing professional development may be undertaken.
6. Describe an EMS educator's relationship with students, assistant instructors, peers, the program director, and the medical director.
7. Access educational resources and research.

Module 6: The Traits and Needs of Learners

The students will:

1. Discuss the terms learning style and learning preference.
2. Discuss different ways of categorizing learning styles.
3. Discuss teaching methods and learning activities that take advantage of students' strengths for each learning style.
4. Propose ways of overcoming the weaknesses associated with the learning style.

5. Discuss the impact of personality type on learning styles and preferences.
6. Access resources for measuring students' learning styles and preferences.
7. Discuss the impact of your own learning style on your teaching.
8. Detail the needs and characteristics of adult learners.
9. Value individual differences in learning styles and preferences.
10. Integrate knowledge of theories of motivation into planning, teaching, evaluation and counseling activities.
11. Discuss how an individual's cultural background influences his or her perceptions and expectations.
12. Demonstrate cultural awareness in professional activities.
13. Foster cultural awareness among students, faculty and preceptors.

Module 7: The Psychology of Learning

The students will:

1. Define learning.
2. Discuss the concepts of progressivism and constructivism as they relate to learning.
3. Explain the roles of working memory and long-term memory in learning.
4. Relate the role of experience to learning.
5. Describe the importance of reflection on experience.
6. Explain the usefulness and limitations of models of the learning process.
7. Describe the three domains of learning.
8. Provide examples of activities within each domain of learning.

Module 8: Overview of the Educational Planning and Curriculum Development Processes

The students will:

1. Define curriculum.
2. Discuss the components of a curriculum.
3. Define competency-based education.
4. Utilize a planning model for curriculum development.
5. Use the current EMS National Standard Curricula to plan programs.
6. Discuss how the use of the educational standards that will replace the current National Safety Council will impact the program-planning and curriculum-development processes.
7. Employ a systematic approach to program planning.

Module 9: Determining and Communicating Educational Needs

The students will:

1. Explain the importance of conducting a needs analysis/assessment for an educational program.
2. Explain the importance of conducting job/occupational/practice analysis as the basis for determining professional competencies.
3. Explain the importance of using a task analysis when teaching psychomotor skills.

4. Conduct a needs analysis/assessment for an educational program.
5. Conduct a task analysis for a given EMS skill.
6. Explain the purpose of preparing a training proposal.
7. Prepare a training proposal.

Module 10: Developing Instructional Objectives

The students will:

1. Differentiate between goals, competencies and objectives.
2. Depict the relationship between goals, competencies and objectives.
3. Explain the relationship between objectives, lesson plan content, teaching-learning activities, and evaluation.
4. Select the appropriate level and domain when writing objectives.
5. Develop a set of objectives for the achievement of a competency.
6. Analyze objectives to determine the behavior of interest.
7. Assess whether or not a suggested teaching-learning activity or test item reflects the behavior called for by an objective.
8. Discuss the importance of developing skills in writing and analyzing instructional objectives.

Module 11: Packaging the Program

The students will:

1. Discuss considerations in assigning credit hours to classroom, laboratory and clinical courses.
2. Consider various formats for delivering EMS programs.
3. Discuss considerations in obtaining approval for continuing education units for EMS programs and courses.
4. Create a course and program syllabus.

Module 12: Program Evaluation

The students will:

1. State the purposes of program evaluation.
2. List the recommended dimensions of program evaluation.
3. Differentiate between methods of evaluation and evaluation tools or instruments.
4. Distinguish formal from informal evaluations.
5. Suggest methods and tools for assessing various dimensions of an educational program.
6. Design a program evaluation plan.

Module 13: Educational Measurement

The students will:

1. Differentiate between norm-referenced and criterion-referenced evaluation.
2. Distinguish between reliability and validity.
3. Define the term “cut score.”
4. Discuss considerations in calculating descriptive statistics for exams and assigning grades to student work.
5. Compare and contrast quantitative and qualitative methods of student evaluation.
6. Explain the importance of constructing a table of specifications for an examination.
7. Construct a table of specifications for an examination.
8. Provide examples of policies and methods to reduce evaluation-related student aggression.
9. Communicate important considerations in test administration.

Module 14: Student Evaluation and Remediation

The students will:

1. Select types of evaluation items appropriate to the measurement of the objectives of interest.
2. Discuss the benefits and drawbacks of using particular types of assignments and evaluation items.
3. Write effective selection and supply items.
4. Evaluate written examination items against guidelines for effective item writing.
5. Differentiate between the method of evaluation and an evaluation instrument.
6. Discuss the concept of inter-rater reliability.
7. Critique instruments used for clinical, affective, psychomotor and integration exercise evaluation.

Module 15: Selection of Materials and Media

The students will:

1. Apply criteria for distinguishing between high- and low-quality teaching and learning resources.
2. Discuss consideration in the selection of teaching materials and media and student reading material.
3. Describe the uses, benefits and potential drawbacks to the use of audiovisual materials in teaching.
4. Employ principles of effective use of educational materials and media.
5. Compare and contrast the advantages and disadvantage of different formats for audiovisual presentations.

Module 16: Lesson Planning

The students will:

1. Describe the importance of using a lesson plan in teaching.
2. Discuss the essential components of a lesson plan.
3. Differentiate between a lesson plan and a lecture outline.
4. Construct an effective lesson plan for an EMS class.

Module 17: Methods of Instruction

The students will:

1. Compare and contrast methods of instruction in terms of their uses, advantages and disadvantages.
2. Given a description of class learning needs, select an appropriate instructional method for accomplishing the intended learning outcomes.
3. Prepare notes for lectures and discussions.
4. Relate principles of effective communication to the teaching-learning transaction.
5. Deliver an effective presentation.
6. Utilize questions to facilitate discussion.
7. Discuss principles of using written papers, projects and assignments as student learning activities.
8. Discuss the appropriate use of games and case-based teaching.
9. Describe the essential features of computer-based instruction.

Module 18: Classroom Management

The students will:

1. Describe the characteristics of a positive learning environment.
2. Identify dysfunctional student behaviors.
3. Given a description of a learning environment issue, formulate a plan for approaching the problem.
4. Role-model positive classroom behaviors.
5. Describe measures to maintain group order and productivity.
6. Discuss means for encouraging student participation.
7. Relate theories of motivation to student behavior.
8. Discuss means for handling specific dysfunctional student behavior.
9. Identify barriers to student motivation.
10. Discuss measures that can reduce or eliminate barriers to student motivation.

Module 19: Considerations in Laboratory and Clinical Teaching

The students will:

1. Discuss considerations for the effective administration of laboratory and clinical activities.
2. Employ effective methods for teaching skills.
3. Describe considerations in developing scenarios for laboratory practice.
4. Discuss the purposes of clinical education.
5. Describe the tasks of the clinical coordinator.
6. Explain the need for clinical preceptor and lab instructor training.
7. Discuss characteristics of effective clinical and laboratory learning situations.
8. Explain the value of authenticity and fidelity in laboratory learning.

Module 20: Roles and Responsibilities of Key Institutions and Personnel

The students will:

1. Discuss the general organizational structure related to EMS education in academic institutions, public safety agencies, and hospitals.
2. Discuss the roles and responsibilities of program and institutional administrative personnel.
3. List the types of agencies that might have oversight of EMS programs in your state.
4. Discuss the roles and responsibilities of faculty.
5. State the responsibilities and qualifications for the EMS educational program director and medical director.
6. Discuss the roles of admissions departments and the office of the registrar in the higher education system.
7. Model effective interactions with clerical and support staff.
8. Differentiate between the meanings of role and title.
9. Explain the purpose of faculty and organizations.

Module 21: Professional Development

The students will:

1. Describe the importance of continuing professional development.
2. Discuss the importance of belonging to professional organizations.
3. Explain the value of attending professional conferences.
4. Explore avenues for undergraduate and/or graduate education.
5. Discuss the benefits of writing for publication.
6. Suggest avenues for professional networking.
7. List venues where EMS education jobs are commonly posted.
8. Distinguish between the formats of resumes and curricula vitae.
9. Discuss the use of professional portfolios.
10. Plan for a job interview.

11. List considerations in deciding whether or not to accept a job offer.
12. Value the importance of research, writing and presenting in professional development.

Outcomes:

1. Discuss adult learning theory and the six principles of adult learning.
2. Be familiar with the national and state regulations, policies and procedures related to EMS educational programs.
3. Develop curriculum content based on the National EMS Standards.
4. Discuss the importance of selecting teaching materials, media formats, and other resources.
5. Devise a lesson plan, lecture outline, and PowerPoint for an EMS class.

Suggested Student Texts:

“Foundations for the Practice of EMS Education,” (2006); Alexander, Melissa; Prentice Hall, New Jersey

“Foundations of Education an EMS Approach,” (2006); National Association of EMS Educators (NAEMSE); Elsevier, Missouri

Supporting References:

www.naemse.org

National EMS Standards

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Dr. Jeffrey Lindsey, Professor EMS, St. Petersburg College/NAEMSE rep. jtlindsey1@aol.com

Emergency Medical Services Risk Management and Safety (C0241)

Course Description: This course introduces the student to the risk management principles of an Emergency Medical Services (EMS) agency. Emphasis is on safety from the perspective of the field provider.

Prerequisites: None

Course Objectives:

Module 1: Introduction

The students will:

1. Differentiate between risk management and loss control.
2. Define safety as it applies to EMS risk management.

Module 2: Safety Program Management

The students will:

1. Discuss current cultural perspective on safety.
2. Design a safety management program.
3. Outline financial aspects of a risk management program.
4. Identify the need for insurance and coverage necessary.

Module 3: Developing a Safety Program

The students will:

1. Identify goals of a risk management program.
2. Discuss staffing positions and roles.
3. Define program components.
4. Discuss methods of creating a safety culture.
5. Identify required postings.
6. Outline safety committee structure roles and responsibilities.

Module 4: Risk Management Process

The students will:

1. Define risk management.
2. Outline methods of risk identification and prevention.
3. Identify the cost associated with risk control.

Module 5: Vehicle Driving

The students will:

1. Discuss defensive driving techniques.
2. Identify criteria for driver selection.
3. Outline vehicle maintenance procedures.
4. Write standard operating procedures/standard operating guidelines for a driver/operator position.

Module 6: Scene Operations

The students will:

1. Identify potential risks associated with street and roadway scenes.
2. Identify EMS risks present at structure fires.
3. Discuss infectious diseases and associate risks to EMS responders.
4. Identify risks associated with patient handling.
5. Identify risks associated with crime scenes.
6. Describe procedures for handling violent situations.
7. Identify risks associated with acts of terrorism.
8. Identify risks and EMS procedures at hazmat scenes.

Module 7: Station Safety

The students will:

1. Define office safety.
2. Identify the risks in handling compressed gases.
3. Identify safety hazards associated with various station work areas.
4. Discuss safety issues in vehicle maintenance areas.
5. Identify risks associated with various storage facilities within a station.

Module 8: Accident Investigation

The students will:

1. Outline the preparation needs to conduct an investigation.
2. Define the reporting process and report agency requirements.
3. Identify proper investigation process and procedures.
4. Define the investigation phases.
5. Execute an investigation scenario beginning with initial reporting and ending with final report.

Module 9: Record Keeping

The students will:

1. Identify infectious diseases and risk management programs.
2. Define safety audits and how they are related to a risk management program.
3. Outline a staff training program.
4. Identify necessary information required of accident reports.
5. Discuss the necessity of injury reports.
6. Present a topical safety meeting.

Module 10: Safety Officer

The students will:

1. Define the role of the safety officer.
2. Differentiate between a safety officer, incident safety officer, and health and safety officer.

Module 11: Resources for Risk Management and Safety

The students will:

1. Identify regulating agencies as information resources.
2. Identify associations as resource providers.
3. Identify education and training resources.

Outcomes:

1. Define risk management and differentiate this concept from the concepts of prevention and loss control.
2. Outline the steps that are required to conduct a comprehensive investigation into a workplace accident.
3. Identify five safety-related areas of concern within their organization that could be addressed or improved by the application of risk management principles and practices.
4. Identify and analyze the major causes of line-of-duty deaths (LODDs) related to health, wellness, fitness and vehicle operations.
5. Draft a model policy, procedure or guideline that can be implemented within an organization to address a specific area of safety or risk management.
6. Identify and analyze the major causes involved in LODDs related to health, wellness, fitness and vehicle operations.

Suggested Student Texts:

No single text available at this time.

Supporting References:**National Institute for Standards and Technology**

<http://www.fire.nist.gov>: Fire Tests/Data, Software/Models, Publications, FIREDOC (under Publications)

Lessons Learned Information Sharing

<https://www.llis.dhs.gov/member/secure/index.cfm>

Current Events/News**Assessment:**

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Dr. Jeffrey Lindsey, Professor EMS, St. Petersburg College/NAEMSE rep. jtlindsey1@aol.com

Emergency Medical Services Communications Management (C0242)

Course Description: This is an upper-level baccalaureate course for students interested in the management of an Emergency Medical Services (EMS) communications system. This course introduces the EMS professional to the communications systems and methodologies available to governmental and private EMS providers. Students explore issues in EMS communications technology, software, data management, and physical plant considerations.

Prerequisites: None

Course Objectives:

Module 1: History of EMS Communications

The students will:

1. Chronicle the development of a single universal call number to access emergency assistance:
 - a. Internationally.
 - b. Nationally.
 - c. Locally.
2. Discuss the significance of White House Office of Telecommunications National Policy Bulletin 73-1.
3. Discuss the evolution of 911 as a single call access number to selective routing providing phone and location services.

Module 2: Processing Calls for Service

The students will:

1. Differentiate the benefits and weaknesses of commercially available call processing EMD programs such as Medical Priority Dispatch System and the Association of Public-Safety Communications Officials (APCO) Criteria-Based Dispatch protocol.
2. Compare and contrast their usage with the benefits and weaknesses of an internally developed community program as needed.
3. Develop a training curriculum for the EMD program utilized or selected by community.

Module 3: Dispatching Calls for Service

The students will:

1. Compare and contrast the commercially available call processing and computer-aided dispatch programs.
2. Identify the advantages and disadvantages of utilizing a particular program for a community ranging from rural, suburban, urban, Metro city sized, and regional centers.

3. Identify the System Status Management plan for a community and discuss modifications if needed.
4. Discuss priorities of balancing contractually obligated consumers and handling emergency calls for service.

Module 4: Telephony Infrastructure

The students will:

1. Understand the interrelationships between the competitive local exchange carrier (CLEC) and public safety answering point (PSAP) in relationship to emergency call routing to the emergency call center in regard to call trunking.
2. Identify the routing of the caller utilizing a three-digit emergency access number to their CLEC and then PSAP and subsequent secondary PSAPs.
3. Articulate the advantages and disadvantages of how a caller may access the emergency caller when using a hard-wired landline versus a phone system utilizing voice over internet protocol and/or wireless phone sets.
4. Discuss the use of selective routing in a community and how to properly manage the feature to ensure equal access to emergency service.
5. Discuss the challenges of properly geo-locating a wireless caller according to the latest Federal Communications Commission docket for wireless access to 911.

Module 5: Radio Infrastructure

The students will:

1. Discuss the different public safety frequencies allocated in the 700 MHz, 800 MHz, and 900 MHz frequency bands.
2. Discuss the commercial very high frequency and ultra high frequency Analog frequency bands available to commercial EMS providers.
3. Discuss the strengths and weaknesses of a trunked versus nontrunked radio system.
4. Articulate the importance of radio interoperability and system design as it relates to APCO P25 and Department of Homeland Security directives regarding emergency radio interoperability.
5. Compare and contrast the use of radio equipment made by different manufacturers.
6. Discuss the use of wireless handsets with direct call capabilities versus radio handsets.
7. Compare and contrast the utilization of hard-wired data cables versus microwave data links to connect base stations to the EMS Communications Center.
8. Be able to develop a communications plan for the center for normal operations.
9. Be able to develop a communications plan for the center for disaster operations.
10. Be able to develop a communications plan for the center for special event operations.

Module 6: Information Network Infrastructure

The students will:

1. Identify the priorities when directing the development and/or selection of the network software for the EMS Communications Center's data network.
2. Properly identify the security priorities when directing the development of a network security plan to prevent access by unauthorized users.
3. Articulate the federal, state and local regulations governing the data security of an emergency call center.

Module 7: Physical Plant

The students will:

1. Be able to articulate the need for redundant systems in telephony, radio infrastructure, and information network services and software.
2. Be able to identify the proper backup systems for mission critical programs in the center.
3. Discuss the need to properly select call center furniture and call processing work stations for personnel in compliance with federal, state and local regulations.
4. Discuss the process to ensure that the communications center is safe from natural disaster
5. Develop contingency plans for extended operations in the event of a significant event.

Module 8: Quality Assurance (QA)/Quality Improvement (QI)

The students will:

1. Articulate the priorities and essential qualifications for medical direction of an EMS Call Center.
2. Develop the duties and responsibilities of the EMS Call Center Medical Director.
3. Develop policies and protocols to ensure the confidentiality of the EMD QA/QI process.
4. Develop policies and protocols to reflect local employment regulations and or collective bargaining agreements in relationship to the EMD QA/QI performance improvement process.
5. Discuss the advantages and disadvantages of commercially available EMS QA/QI programs.
6. Develop a risk management protocol for the EMS Communications Center as it relates to call taking, call processing, and call dispatching.

Module 9: Regional Coordination

The students will:

1. Identify the relationship of the local EMS Communications Center with the Local/County Emergency Operations Center.

2. Identify the relationship of the EMS Communications Center to other emergency communication centers in the community.
3. Articulate the differences in a consolidated regional EMS Communications Center versus separate centers.
4. Discuss the benefits and disadvantages of consolidated regional EMS Communications Centers versus separate centers.
5. Discuss the relationship of the local EMS Communications Center with a Regional Emergency Operations Center.
6. Discuss the relationship of the local EMS Communications Center with a State Communication/Coordination Center.

Outcomes:

1. Draw an organizational matrix that is representative of the anatomy of EMS communication.
2. Demonstrate the communication role of EMS from field application to the emergency department.
3. Identify the common terminology used by EMS technicians and paramedics during emergency field operations.
4. Evaluate the role of Geographic Information System mapping and enhanced 911 systems.
5. List the various state and federal regulations that affect the emergency medical communications.
6. Describe the role of call dispatcher as it applies to prehospital emergency medical care.
7. List and describe techniques for relaying clear, effective EMS communications.
8. Identify the technical aspect of how basic radio systems work for use in the public radio system and how they are licensed.
9. Articulate the foundational security concepts and best practice principles of analog and digital public radio systems.
10. Compare and contrast “right to know” information and protected personal and personally identifiable information.

Suggested Student Texts:

No single text available at this time.

Supporting References:

National EMS Standards

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Sebastian Wong, BA EMT-P, Adjunct Faculty, Las Positas College, Livermore, California, sewong@laspositascollege.edu

Finance of Emergency Medical Services Systems (C0243)

Course Description: This is an upper-level baccalaureate course for students interested in the practice and principles of Emergency Medical Services (EMS) systems finance and budget and the processes that contribute to assets and liabilities of an EMS system. This course introduces the EMS professional to topics that include but are not limited to budgeting, auditing, billing, risk financing and internal auditing.

Prerequisites: EMS Management

Course Objectives:

The students will:

1. Identify the effective characteristics of a successful EMS finance model.
2. Demonstrate an understanding of areas and responsibilities related to financing an EMS system, including but not limited to:
 - a. Personnel.
 - b. Supplies.
 - c. Call volume.
 - d. Quantitative data.
 - e. Qualitative data.
 - f. Resource demand.
 - g. System status management.
 - h. Cost versus outcome.
 - i. Reimbursement.
3. Demonstrate an understanding of asset and liability management and the impact upon an organization's ability to operate effectively.

Module Objectives:

(Modules are based on a 15-week, 45 contact-hour semester.)

Module 1: Accounting Conventions

The students will:

1. Identify and use financial statements and reports.
2. Build an income statement, cash flow and balance sheet.
3. Discuss accrual accounting.
4. Describe a cash flow cycle.
5. Conduct a cash flow analysis.

Module 2: Accounting Discipline

The students will:

1. Differentiate various accounting schemes.
2. Compare and contrast tax and financial accounting.
3. Identify cost accounting.
4. Explain cost management.
5. Discuss operational management.

Module 3: Accounting Principles

The students will:

1. Define accounting and business management principles.
2. Build an EMS financial program plan.

Module 4: Inventory Control

The students will:

1. Identify procedures for determining inventory.
2. Discuss ordering cost.
3. Define procedures for economic ordering quantity.

Module 5: Depreciation

The students will:

1. Describe straight line depreciation.
2. Differentiate declining balance from straight line depreciation.
3. Discuss sum of the year.

Module 6: Role of Finance I

The students will:

1. Explain criteria for financial management.
2. Define the following economic concepts:
 - a. Microeconomics.
 - b. Macroeconomics.
 - c. Supply and demand.
 - d. Cost benefit analysis.
 - e. Interest rates.
 - f. Present and future value of money.

Module 7: Role of Finance II

The students will:

1. Define allocation of resources.
2. Explain and model:
 - a. Forecasting.
 - b. High end and low end forecasting.
 - c. Forecasting models.

Module 8: Financial Decision-Making

The students will:

1. Explain territory and finance.
2. Discuss sensitivity testing.
3. Describe a break even analysis.
4. Discuss how to measure uncertainty.
5. Explain cash management.
6. Discuss working capital.
7. Write a cash budget.
8. Explain idle cash.
9. Provide examples of long-term debt financing.

Module 9: Budgeting

The students will:

1. Develop a basic company operational budget.

Module 10: Purposes and Benefits of a Master Budget

The students will:

1. Develop a company master budget.

Module 11: Role of Risk Management

The students will:

1. Explain Transaction Cost Theory.
2. Define Resource Dependency Theory.
3. Discuss risk sharing and the following aspects:
 - a. Reactive purchasing.
 - b. Strategic partnerships and vendors.
 - c. Competitive bidding.

Module 12: Contracts

The students will:

1. Differentiate and discuss various contract types.
2. Identify contract execution special considerations.

Module 13: Quality Control

The students will:

1. Define warranty.
2. Identify a waiver and its application.
3. Describe bonds.
4. Discuss breaches and their impact on business.

Module 14: Negotiation

The students will:

1. Identify the stages of negotiation.
2. Explain negotiation tactics.
3. Discuss how to properly prepare for negotiation.

Module 15: EMS Billing Rules and Regulations

The students will:

1. Identify Medicare and Medicaid rules and requirements.
2. Discuss the False Claims Act.

Module 16: Checks and Balances

The students will:

1. Describe the auditing process.
2. Discuss accounting assurance.
3. Explain corporate governance.
4. Compare and contrast different types of audits.

Outcomes:

1. Demonstrate an understanding of areas and responsibilities related to financing an EMS system.
2. Identify significant importance of additional funding resources such as EMS billing, grant preparations, and other available revenues.

3. Define the fundamental components within a budgeting process such as research, analysis, calculation and forecast budgeting.
4. Communicate budgetary and financial information in various written documents, including the creation of financial reports.
5. Evaluate a company's proposal contract to determine the significance involving future revenue.
6. Develop a request for proposal involving a significant capital EMS purchase including a presentation of a budgetary or financial request, orally or using electronic media.

Suggested Student Texts:

No single text available at this time.

Supporting References:

No single source available at this time.

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Diane C. Flint, University of Maryland, Baltimore County, dflint1@umbc.edu

Management of Emergency Medical Services (C0244)

Course Description: This is an upper-level baccalaureate course for students interested in the practice and principles of Emergency Medical Services (EMS) systems management and the processes that contribute to the effectiveness of day-to-day operations within an EMS organization. This course introduces the EMS professional to topics that include government structure, strategic planning, injury prevention, risk management and safety, customer service, human resources management, financial management, fleet management, career development, quality management, data collection and research, labor relations, and special operations.

Prerequisites: None

Course Objectives:

The students will:

1. Identify the effective characteristics of a successful leadership for an EMS system.
2. Demonstrate an understanding of areas and responsibilities related to the management of an EMS system not limited to:
 - a. Management Essentials.
 - b. Organizational Behavior.
 - c. Billing/Third Party Reimbursement.
 - d. Risk Management/Business Insurance.
 - e. Leadership.
 - f. Quality Improvement.
 - g. Human Resource Management.
 - h. Corporate Compliance.
 - i. Government Affairs/EMS Legislation.
 - j. Business Development.
 - k. Emergency Management Planning.
 - l. Corporate Communications.
3. Demonstrate an understanding of revenue management and the impact upon an organization's ability to operate effectively.
4. Demonstrate an understanding of organization structure for an EMS system from a local, regional, state and national perspective.
5. List and describe the data required prior to entering into a provider arrangement with a community, health care facility, or health care organization.

Module Objectives:

Module 1: Government Structure and EMS

The students will:

1. Identify key historical events and key figures that have impacted the progress of EMS and discuss their collective influence.
2. Identify key federal, state and local legislative events that have formed the EMS and discuss their collective influence.
3. Identify federal, state and local EMS system components, and discuss their interrelationship.
4. Identify the components of an EMS system.
5. Explain the various National Highway Traffic Safety Administration EMS agendas for EMS-related topics.
6. Identify the various trade organizations that support EMS activities.

Module 2: Strategic Planning for EMS

The students will:

1. Define strategic planning and the time frames that are incorporated in strategic planning.
2. Define the contingent planning model for strategic planning.
3. Use a multipoint plan to create components of a strategic plan.
4. Demonstrate how to prioritize strategic planning concepts and items.
5. Define the strategic planning items — and their purposes — that would be included in a fire or EMS plan.
6. Explain and incorporate a strengths, weaknesses, opportunities, threats analysis into the planning cycle for a strategic plan.
7. Discuss the various considerations for calculating the cost of EMS services.
8. Define or identify the stakeholders in EMS.
9. Identify the management tools used to conduct project planning.
10. Describe the primary components of an EMS budget.
11. Identify proactive approaches to EMS funding.

Module 3: Manager to Leader

The students will:

1. Define the difference between management and leadership.
2. Identify the skills needed to be an EMS manager.
3. Identify the management processes and sentinel events in EMS operations.
4. Develop and define leadership activities and roles.
5. Understand how to create a vision and values statement.
6. Apply the concept of values to organizational leadership.
7. Understand and apply the principles of mentoring and coaching to EMS workers.

Module 4: Injury Prevention and EMS

The students will:

1. Describe the extent of the injury-prevention problem.
2. Establish what constitutes an injury.
3. Define the Centers for Disease Control and Prevention injury-prevention model.
4. Describe the EMS manager's role in the public-health model.
5. Explain the implementation process for injury-prevention programs.
6. Identify resources available for EMS agencies to conduct injury-prevention activities.
7. Design and implement prevention activities.
8. Evaluate prevention activities.
9. Build and manage a prevention program to disseminate information.
10. Stimulate change through policy, enforcement, engineering and education.
11. Define and describe concepts of attributable risk, and explain how injuries are preventable.
12. Describe general approaches to prevention, and demonstrate how conceptual models are used to describe multiple risk factors.

Module 5: Customer Service and Marketing

The students will:

1. Understand the principles of customer service.
2. Create a customer service program for an EMS organization.
3. Understand and apply marketing concepts for any EMS agency.
4. Identify image-building activities to be conducted by EMS agencies.
5. Analyze and modify customer service programs from EMS industry standards.
6. Understand the branding process for EMS agencies.

Module 6: Risk Management and Safety

The students will:

1. Identify principles of risk management.
2. Identify how to calculate the risk in EMS operations.
3. Conduct an analysis of a system failure.
4. Create an infection control program for EMS agencies.
5. Recognize and identify the safety issues surrounding EMS operations and how to mitigate those events.
6. Diagram the progression and response to litigation against an EMS organization.

Module 7: EMS Human Resources Management

The students will:

1. Identify the issues surrounding the EMS workforce of the future and the generation-specific issues that apply to managerial techniques in an organization.
2. Employ techniques to identify staffing needs for future EMS operations.
3. Perform a job-task analysis on an EMS position in the organization.
4. Identify and apply the techniques to conduct an effective performance appraisal, and identify problems associated with conducting performance appraisals.
5. Identify the components of a positive discipline program, and implement a due-process procedure involving a disciplinary action.
6. Create a list of and identify the warning signs of workplace violence, and employ management activities to contain or prevent workplace violence.
7. Build an employee-screening and -hiring process.
8. Understand the application of labor laws that influence EMS operations.

Module 8: Management of EMS Education

The students will:

1. Understand the EMS Education Agenda for the Future.
2. Identify national resources to conduct EMS training.
3. Understand the national curriculums and application to each provider level.
4. Build an EMS refresher course for any level of EMS provider.
5. Identify EMS management training programs and opportunities.
6. Conduct a training analysis of EMS needs.
7. Identify how to conduct training encompassing psychomotor skills, affective domain, and didactic knowledge.
8. Apply standard procedures to evaluate training in accordance with accreditation standards.

Module 9: Financial Management

The students will:

1. Discuss the Medicare Ambulance Fee Schedule Final Rule, and identify strategies for optimizing reimbursement within its requirements and limitations.
2. Describe the historical development of and programs administered by the Centers for Medicare and Medicaid Services.
3. Identify the requirements of Medicare Part B as they apply to ambulance suppliers, including levels of service, medical necessity, physician certification, origins and destinations, vehicles, and staffing.
4. Explain the alternative components used to fund ambulance service.
5. Describe the financial policies that are addressed in budgeting and in types of budgets.

6. Calculate the unit hour utilization and various benchmarks and seasonal fluctuations for various levels of service for local areas.
7. Discuss various methods and considerations for costing out service.
8. Understand managed-care contracting strategies.

Module 10: Medical Practice

The students will:

1. Understand and define the role of the physician medical director for an EMS service.
2. Understand the selection process and qualifications desired in a medical director.
3. Differentiate between on-line and off-line medical control.
4. Identify the areas of responsibility that need physician involvement in an EMS organization.
5. Understand and create a system that involves the physician in due process to apply discipline to an EMS worker.
6. Identify the training and opportunities to promote professional development for a physician involved with or entering the field of EMS.
7. Understand the role of the EMS medical director in developing on-line and off-line medical control.
8. Describe the network opportunities for a physician medical director.

Module 11: Fleet Management

The students will:

1. Discuss various considerations for calculating the cost of an EMS service.
2. Distinguish between functional and direct services for operating budgets.
3. Describe the inspection processes for equipment.
4. Compare and contrast the concepts of unit-hour utilization and in-service ratios when determining workload.
5. Calculate cost per capita and cost per response for EMS runs.
6. Apply cost-out strategies for a variety of EMS system components.
7. Track and apply costing mechanisms for soft supplies.
8. Understand the types of inventory systems and replacement plans.
9. Track fleet maintenance and vehicle cost, including failure rates.
10. Determine the equipment needed in the system and the specifications of that equipment.
11. Understand and apply federal, state, and local specifications and procurement processes for ambulances, biomedical equipment, and durable equipment.

Module 12: Career Development and Staff Focus

The students will:

1. Create a map of a career plan and personal growth path to an EMS leadership position.
2. Understand how to develop and participate in a mentoring program.
3. Identify activities that enhance professional development.
4. Recognize, select and participate in staff development opportunities.
5. Identify education pathways for career and staff development.
6. Identify common experiences needed to be an effective EMS manager or leader.
7. List possible outside activities that enhance professional growth within the organization.

Module 13: EMS Quality Management

The students will:

1. Define the activities involved with quality assurance (QA).
2. Define the activities involved with quality improvement (QI).
3. Apply QI techniques to various aspects of EMS operations.
4. Identify the techniques to measure quality indicators in EMS operations.
5. Locate and identify other sources of quality data information that can improve EMS operations.
6. Create and implement a customer service assessment as part of a QI program.
7. Understand and create a process that helps document trends that require increased education or modification of the EMS systems.
8. Evaluate and apply the historical aspects of QI to modern EMS efforts.
9. Chronicle the history of Continuous Quality Improvement activities.

Module 14: Incident Management

The students will:

1. Apply the National Incident Management System (NIMS) to a mass casualty incident.
2. Describe the major components of an incident management system.
3. Describe the functions of the incident commander at all EMS incidents.
4. Describe the federal typing of the EMS resources.
5. Identify the component of an EMS strike team and EMS task force.
6. Map the federal requirement and resources for NIMS training and EMS.
7. Differentiate between types of incident management teams and their applications.
8. Develop an incident management system for an EMS incident.

Module 15: Interagency Relations and Operations

The students will:

1. Compare and contrast mutual aid and automatic aid.
2. Identify the hierarchical organization of resources that respond to disaster from a regional, state and federal perspective.
3. Identify the intrastate and interstate mutual-aid components.
4. Understand the needs and organizational applications of area and unified command.
5. Identify the components of the national response plans.
6. Match and define the emergency support functions within the national response plan.
7. Navigate the progress and communication chain for an agency to secure resources from local, state and federal resources.

Module 16: Data Collection and EMS Research

The students will:

1. Evaluate the different types of research.
2. Understand the domains of EMS research.
3. Deploy specific research methodologies to the prehospital setting.
4. Define validity and reliability in scientific research and data.
5. Apply Geographic Information System concepts to EMS-related activities.
6. Recognize the federal, state and local data collection systems.
7. Link data to quality improvement initiatives in EMS.

Module 17: Legal and Labor Relations

The students will:

1. Define the types of law applicable to EMS.
2. Identify and apply the federal legislation to EMS.
3. Understand and apply legislative mandates to EMS operations.
4. Design and understand the privacy compliance for an EMS operation that meets federal Health Insurance Portability and Accountability Act regulations.
5. Identify case law affecting EMS operational systems.
6. Define due process, and apply the principles of progressive discipline to labor disputes involving EMS.
7. Recognize the Fair Labor Standards Act applications to EMS workers and fire-based EMS.
8. Define ethical behaviors and apply decision-making strategies when faced with ethical decisions.
9. Identify contemporary issues in EMS litigation.

Module 18: EMS Management of Communications Centers

The students will:

1. Establish programs that use Emergency Medical Dispatch (EMD).
2. Discuss EMD programs.
3. Suggest improvements for EMD operations.
4. Explain training criteria for personnel for EMD operations.
5. Evaluate and implement QI/QA programs.
6. Identify and implement training programs for EMD.
7. Recognize the legal case law related to communications centers.

Module 19: EMS Special Operations

The students will:

1. Explain the new mission of customer service in an all-hazards environment.
2. Describe the risk analysis process.
3. Describe the mitigation role of local community officials as it relates to EMS response.
4. Define an all-hazards approach, and apply a checklist to preparing special events.
5. Given a medical evacuation of a patient by helicopter, identify the elements that affect or support local EMS special operations.
6. Identify existing documentation resources to use for special operations during a special event.
7. Identify the methods for developing and accessing state or statewide regional resource pools.
8. Contrast the missions of tactical EMS.
9. Analyze the role of EMS in a special operations environment as it relates to the medical support of hazardous materials operations.
10. Explain the medical-legal issues involved in spectator care at mass gatherings.
11. Discuss the process for implementing care systems at mass gatherings.

Outcomes:

1. Discuss the basic philosophy, organization and operation of injury prevention and risk-reduction programs.
2. Compare and contrast management and leadership.
3. Provide practical examples of the principles of customer service in EMS.
4. Apply the technique for conducting an effective performance appraisal.
5. Identify strategies to optimize reimbursement for EMS services.
6. Apply quality improvement techniques to various aspects of EMS operations.
7. Define due process and apply the principles of a progressive disciplinary program.
8. Define ethical behaviors and the decision-making strategies when faced with an ethical dilemma.

Suggested Student Texts:

“Management of EMS,” Bruce E. Evans, Jeff T. Dyar

Supporting References:

No single source available at this time.

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Points of Contact:

Robert Seitz, University of Pittsburgh, seitzsr@upmc.edu

David S. Becker, MA, EMT-P, EFO, IAFC, dsbeckermo@msn.com

Emergency Medical Services Public Information and Community Relations (C0245)

Course Description: This is an upper-level baccalaureate course for students interested in public information and community relations in Emergency Medical Services (EMS). This course introduces the EMS professional to benefits of community information and community relations. Students explore issues in marketing, crafting the message, identifying the audience, developing programs, and creating press releases.

Prerequisites: None

Course Objectives:

Module 1: Value of Public Information, Education and Relations

The students will:

1. Define the meanings and importance of public information, education and public relations.
2. Describe the various audiences to keep informed.
3. Identify the qualities of a successful public information officer.

Module 2: Principles of Marketing

The students will:

1. Develop core concepts of marketing and how they relate to EMS agency operations.
2. Describe the different marketing environments that exist within an agency's jurisdiction.
3. Develop a SWOT analysis.
4. Discuss how to perform marketing research.
5. Explain how to target messages to markets.

Module 3: Public Information and Education Tool

The students will:

1. Explain the four steps of creating a Public Information and Education (PIE) Tool.
2. Adapt a model PIE Tool to a specific department.

Module 4: Audience Identification

The students will:

1. Define the four main groups of audiences.
2. Identify different audiences within each of the four main groups of audiences.
3. Explain the difference between reporters, editors and columnists.

Module 5: Categorizing Messages by Type and Audience

The students will:

1. Recognize the different types of incoming and outgoing messaging needs in an EMS agency.
2. Match message topics and content with targeted audiences.
3. Recognize, create and capitalize on opportunities to inform and educate different audiences.

Module 6: Craft the Message

The students will:

1. Explain what message content different audiences require.
2. Discuss how to write effectively for the delivery method chosen to be used.
3. Describe the tools and techniques to blend data with other elements to improve messages.

Module 7: Deliver the Message

The students will:

1. Describe how to use different written, oral and electronic methods to effectively deliver information to audiences.
2. Discuss how to give effective oral presentations.
3. Explain how to maintain relationships with print and electronic media.
4. Describe how to use electronic media and social networking to inform and educate audiences.

Module 8: Press Releases

The students will:

1. Describe the different reasons and ways to use press releases.
2. Discuss the essential elements of a lead.
3. Explain the fundamentals of clear writing.
4. Describe the difference between hard news and features.

Outcomes:

1. Demonstrate an understanding of public information and community relations as they pertain to EMS.
2. Describe public information modes of communications.
3. Develop a public education plan to satisfy a specific need targeting a specific audience.
4. Identify the role of EMS in community risk-reduction programs.
5. Explain the various components of the public information and community relations:

- a. Marketing.
 - b. Messaging.
 - c. Audience identification.
 - d. SWOT analysis.
 - e. Press releases.
6. Compare and contrast the role of EMS public education as it relates to fire, police and city administration public education programs.

Suggested Student Texts:

“Public Information Officer,” Politano, Prentice Hall ISBN-10: 0-13-171923-8, ISBN-13: 978-0-13-171923-1

Supporting References:

Public Information, Education and Relations manual from U.S. Fire Administration

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Dr. Jeffrey Lindsey, Professor EMS, St. Petersburg College/NAEMSE rep. jtlindsey1@aol.com

Legal, Political and Regulatory Environment of Emergency Medical Services (C0246)

Course Description: This is an upper-level baccalaureate course for students interested in the field of legal, political and regulatory environment of Emergency Medical Services (EMS). This course introduces the EMS professional to the legal aspects of EMS. Students explore issues in malpractice, consent and refusal of treatment, Occupational Safety and Health Administration (OSHA), employment issues, and risk management. EMS students gain insights into the legal liabilities in EMS.

Prerequisites: None

Course Objectives:

Module 1: Basic Framework of the United States Legal System

The students will:

1. Identify federal and state laws, which affect EMS.
2. Describe how the three branches of government work together to form laws and regulations that apply to EMS.
3. Differentiate between statutory law and case law, and be able to explain their applicability to the EMS world.
4. Possess a basic understanding of administrative and regulatory law, and be familiar with how administrative laws apply to the EMS system.
5. Identify several situations where EMS personnel could be subject to various provisions of the criminal laws.
6. List checks and balances built into the EMS system.
7. Describe the legal systems in the U.S., with federal and state courts, and their impact on EMS.
8. Within the context of the U.S. legal system, describe what challenges EMS organizations face in ensuring compliance with various laws.

Module 2: The Many Faces of Negligence

The students will:

1. Identify the elements of a negligence claim, and apply situational factors to each element.
2. Recognize common EMS negligence scenarios, and explain how to avoid them.
3. Identify the burden of proof placed upon a plaintiff in an EMS negligence case.
4. Apply knowledge of negligence to the special factors involved in EMS patient refusals to explain their special “high risk” nature.
5. Analyze best practices in the areas of training record keeping and equipment logs and their significance in defense of a negligence claim.
6. Distinguish best practices to avoid liability during emergency vehicle operations.

Module 3: History of EMS Law

The students will:

1. Examine the “White Paper,” and understand how the principles contained therein apply to the current EMS system.
2. Grasp how the National Highway Transportation Act has shaped the development of EMS.
3. Comprehend Emergency Medical Treatment and Active Labor Act and how it affects EMS.
4. Explain Consolidated Omnibus Budget Reconciliation Act and its purpose.
5. Identify how “KKK-A-1822 Federal Specs for Ambulances and revisions” were developed with future application of National Fire Protection Association specifications.

Module 4: Forming an EMS System

The students will:

1. List and explain the primary differences between public and private EMS services in the areas of funding, oversight and regulatory issues.
2. Analyze the strengths and weaknesses of different structural concepts for EMS.
3. Examine the role of the EMS medical director, and describe the role of the medical director in the EMS system.
4. Describe the various EMS reimbursement systems and federal regulations on billing for advanced life support and basic life support ambulance transports.

Module 5: Safety Considerations

The students will:

1. Identify security issues faced by EMS personnel, including the scene, patient transport, and emergency rooms in hospitals.
2. Discuss the steps EMS personnel can take to enhance their personal safety while at the scene, during transport, and at hospital emergency rooms.
3. Describe the risks of exposure to infectious disease, and discuss the key elements of an infection control policy.
4. Describe why Congress established OSHA and its applicability to EMS, including those in public service in various jurisdictions and those employed in private EMS companies.
5. Describe the background and purpose of the Ryan White Care Act and how that statute impacts the EMS.
6. Discuss workers’ compensation system and the concept of an administrative system to compensate injured employees without regard to whether the employee was “at fault” when injured.

Module 6: Employment

The students will:

1. Analyze the issues associated with recruiting and retaining EMS personnel, and identify best practices in each area.
2. Describe the importance of background checks, and be familiar with the rules and regulations governing employer and employee rights during background checks.
3. Develop a basic understanding of the Civil Rights Act of 1964, and relate its provisions to the hiring of emergency medical technicians.
4. Identify the applicability of the Immigration and Naturalization Act, the Rehabilitation Act of 1973, and the Fair Credit Reporting Act, and analyze the ways in which each statute governs hiring practices.
5. Identify the critical incident stress management services available to EMS and the importance of confidentiality for those who receive such services.

Module 7: Staffing

The students will:

1. Review best practices in staffing of EMS personnel, including background checks (criminal history and credit history).
2. Identify the advantages of conducting skills testing of EMS applicants.
3. Describe the staffing requirement in your state for an ambulance responding to a scene and transporting a patient to the hospital.
4. Describe why affirmative action consent decrees were issued in the 1970s, requiring dual hiring or dual promotions.
5. Identify best practices in managing EMS personnel to avoid Equal Employment Opportunity Commission complaints concerning racial or religious discrimination.

Module 8: Compensation and Benefits

The students will:

1. Describe the Equal Pay Act, and apply its implications to a modern EMS organization.
2. Analyze the Fair Labor Standards Act, and gain an understanding of its basic provisions that apply to EMS, including hours of work and overtime pay requirements.
3. Develop an understanding of the Family Medical Leave Act, and identify its applicability to the EMS organization.
4. Identify the components of the Uniformed Services Employment and Re-employment Rights Act, and identify best practices for EMS organizations who have service members going into active military service.
5. Describe 401(k) plans and cafeteria plans and the advantages to employees to participate in such employer plans.

Module 9: Operational Laws

The students will:

1. Define sexual harassment, identify the components of a sexual harassment claim, and describe best practices for preventing or handling such issues.
2. Identify the components of the Americans with Disabilities Act, and apply the components to common scenarios faced by EMS organizations.
3. Describe the Age Discrimination in Employment Act.
4. Identify the responsibilities of the EMS organization in a “Drug-Free Workplace” program.
5. Identify the issues associated with random drug testing and other substance abuse issues.
6. Analyze the issues associated with EMS blood draws for police-related matters, and be able to apply the analysis to the needs of the individual EMS organization.

Module 10: Funding Laws

The students will:

1. Develop a conceptual understanding of the Federal Anti-Kickback Statute as it relates to Medicare/Medicaid billing.
2. Identify business practices that could potentially place the EMS organization in violation of the Federal Anti-Kickback Statute.
3. Define “Whistleblower Protection,” identify the many areas within EMS where a “whistleblower” may have protections, and analyze best practices for the EMS organization to handle these issues.
4. Identify the various methods of “fee for service” arrangements, and identify pros and cons of each type of arrangement.
5. Describe the special issues associated with an EMS service that is a “Not-For-Profit” organization under the Internal Revenue Service code.
6. Analyze the role of the EMS organization in grant writing and grant acceptance.

Module 11: Legal Pitfalls of Discipline, Terminations, Layoffs

The students will:

1. Define due process, and apply the concepts of due process to common situations encountered during employment investigations in EMS organizations.
2. Describe the concept of retaliation, and review best practices to minimize the risk of a retaliation claim.
3. Define the Workers Adjustment and Retraining Notification Act, and define its purpose and compliance requirements.
4. Identify the importance of adequate policy manuals, and be able to apply the concepts to several scenarios within the EMS organization.
5. Explain “Employment-at-Will” legal doctrine, which applies in many states, and its effect on EMS personnel issues.

6. Discuss “Right-to-Work” statutes, which apply in some jurisdictions, and how these laws affect EMS personnel issues.
7. Analyze the issues associated with severance and layoffs, and form conclusions with best practices for the EMS organization.

Module 12: Records Retention

The students will:

1. Gain an understanding of the components of the Health Insurance Portability and Accountability Act and analyze the issues that face EMS organizations in the areas of compliance, training and handling violations.
2. Analyze the issues associated with maintaining patient confidentiality with regard to written reports and other patient documents.
3. Identify the confidentiality requirements for employment records, and develop a basic understanding of public records law.
4. Draw conclusions on best practices for maintaining patient, employment and other necessary records that EMS organizations possess.

Module 13: National EMS Representation

The students will:

1. Identify where EMS falls in the political structure of the U.S.
2. Develop an understanding of how EMS fits into various types of interagency operations and how the National Incident Management System affects EMS organizations.
3. Identify the pitfalls associated with the position of the EMS within the governmental structure of the U.S.
4. Analyze how local EMS organizations can play a role in the national EMS response programs.

Module 14: Professional Organizations

The students will:

1. Identify the professional organizations that play a role in the EMS field, and describe what role each organization plays.
2. Identify key standards written by the organizations and how they apply to the EMS organization.
3. Gain a general understanding of EMS accreditation and the steps EMS organizations must take to achieve accredited status.

Module 15: Lobbying for Change

The students will:

1. Define “lobbying” and the role lobbyists play in the development of EMS legislation.
2. Describe the various rules and regulations associated with lobbying and how to avoid ethical violations.
3. Analyze the pros and cons of political activity at both the local and national levels.
4. Explain the role that organized labor and other professional organizations play in the political process.

Outcomes:

1. Identify potential legal and political issues in EMS.
2. Describe legal lessons learned from recent cases, and identify best practices in EMS to avoid legal liability.
3. Analyze and apply legal rules and political issues to manage risk.
4. Formulate political and legal conclusions and recommendations based on the analysis.
5. Locate and apply recent legal and legislative online resources.

Suggested Student Texts:

“EMS and the Law,” Jones and Bartlett, Jacob Hafter and Victoria L. Fedor
“EMS Law - Legal Lessons Learned,” Lawrence Bennett

Supporting References:

No single source available at this time.

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Dr. Jeffrey Lindsey, Professor EMS, St. Petersburg College/NAEMSE rep. jtlindsey1@aol.com

Analytical Approaches to Emergency Medical Services (C0297)

Course Description: This is an upper-level baccalaureate course for students interested in the practice and principles of Emergency Medical Services (EMS) systems management and the processes that contribute to the effectiveness of day-to-day operations within an EMS organization. This course introduces the EMS professional to topics that include introduction and purpose of analysis; analysis in parallel professions; problem identification; foundational analysis; data collection; financial analysis; cost-benefit analysis; policy and impact analysis; and project development.

Prerequisites: None

Course Objectives:

Module 1: Introduction and Purpose of Analysis

The students will:

1. Describe the historical perspectives of EMS that make problem identification and resolution difficult.
2. Demonstrate an understanding of why analysis of an organization or EMS system may be necessary.
3. Identify common circumstances that make an effective analytical approach in EMS essential.
4. Describe the components that constitute the overall analytical approach.

Module 2: Analysis in Parallel Professions

The students will:

1. Compare system and organizational analytical principles and practices in disciplines similar to that of EMS.
2. Distinguish differences in the analytical approach between analysis of treatment variances, outcome analysis, and system analysis in the health care professions.
3. Identify common analytical practices within professions that have potential benefit and utility to the EMS profession and that can be adapted to the EMS discipline.

Module 3: Problem Identification, Opportunities for Growth, and Public Behavior

The students will:

1. Describe the complexity of problem identification and its importance, including the need for multiple revisions and the importance of empirical information.
2. Recognize that biases and preconceived notions may erroneously influence problem identification.

3. Describe the general, overall approach to problem identification and commonly applied approaches.
4. Describe the process of mind mapping and the application of logic models in problem identification.
5. Describe the importance and application of conducting literature searches on the identified problem.
6. Explain bounded rationality and how it applies to problem identification, problem-solving, and decision-making.
7. Identify common biases and errors in judgment, and describe how to avoid them in problem identification processes.

Module 4: Foundational Analysis — Research Design and Basics

The students will:

1. Relate the importance of problem identification and the empirical process in the analysis of EMS problems.
2. Describe the various typologies of design in research, their varied purposes, and how each applies to analytical approaches in EMS.
3. Describe the fundamental features, common forms, differing utility, and theoretical differences between quantitative, qualitative, and a mixed methods analytical approach.
4. Describe the fundamental features, differences, utilities, and proper applications between descriptive, exploratory, and explanatory styles of research designs.
5. Describe the inductive approach and deductive approach as theoretical foundations of research inquiry.
6. Identify the common essential considerations for executing a comprehensive research endeavor for analytical purposes in EMS.
7. Relate the identified problem to each of the integrative steps in the formulation of research design.
8. Describe the data collection process, its relevance to the research design, and its importance to valid and reliable outcomes.
9. Describe the different forms of validity and identify each of the common threats to internal and external validity.

Module 5: Foundational Analysis — Quantitative Research

The students will:

1. Demonstrate an understanding of the principles and concepts of standard quantitative research, including hypothesis testing, pre-experimental design, experimental design, quasi-experimental design, and the survey design approaches.
2. Describe the differences and applicability of the scientific method and the social investigative research method in analysis of EMS.
3. Describe the differences and applicability of experimental design approaches and that of quasi-experimental design approaches in the analysis of EMS systems and the applicable utilities of each.

4. Describe common quantitative research designs including randomized control trials, control study designs, and other true experimental design forms.
5. Identify the differences and applicability of the idiographic and nomothetic forms of explanatory research in EMS analysis.
6. Describe the role and features of variables in quantitative research designs, the criteria for variable selection, units of analysis, and the operationalization methodologies for the various study variables.
7. Demonstrate an understanding of the procedures and methodologies in quantitative research, including consent, data collection, data analysis, and interpretation of findings.

Module 6: Foundational Analysis — Qualitative Research

The students will:

1. Demonstrate an understanding of the principles and concepts of standard qualitative research, including grounded theory approach, investigative inquiry, case studies, unobtrusive research principles, conversational analysis, and content analysis approaches.
2. Describe the coding process, the memoing process, and the application of concept mapping to communicative content.
3. Describe the process of conducting qualitative analysis on quantitative data.
4. Describe content analysis, its constituent types, its utility, and the common methods of application.
5. Describe the concepts and differences in manifest content and latent content analyses.
6. Demonstrate an understanding of validity and reliability in qualitative research and how they differ from quantitative research as well as the unique ethical dimensions of qualitative inquiry.

Module 7: Foundational Analysis — Mixed Methods Research

The students will:

1. Demonstrate an understanding of the principles and concepts of combining qualitative research with quantitative research in a mixed methods approach and the various forms of mixed method designs that exist.
2. Describe the foundational basis for convergent parallel mixed methods design, explanatory sequential mixed methods design, exploratory sequential mixed methods design, and several other contemporary mixed method designs.
3. Explain the conceptual basis for mixed methods research and how it can bolster research of either origin, how mixed methods can be as robust as quantitative research methods, and the rationale for the increasing popularity of the mixed methods approach.

Module 8: Data Collection Methods

The students will:

1. Explain the various data collection methods common to the quantitative research approach, the qualitative research approach, and the mixed methods research approach; how they are similar and how they differ.
2. Describe the principles, guidelines and process for data collection through experimental and quasi-experimental design procedures.
3. Describe the principles, guidelines and process for data collection through observation, including participant observation, and observation principles in experimental designs.
4. Describe the principles, guidelines and process for data collection through the survey method, including questionnaires, online and telephonic surveys.
5. Describe the principles, guidelines and process for data collection through the process of interview, including individual interviews, intensive interviews, focus group interviews, and virtual interviews.
6. Describe the principles and logic of the sampling process in various populations and subgroups, including nonprobability sampling, randomized sampling, stratified sampling, purposive sampling, snowball sampling, and multistage cluster sampling.

Module 9: Financial Analysis

The students will:

1. Relate the importance of the basics of financial analysis in the overall analysis approach and the relevance of financial statements.
2. Describe the features and components of the balance sheet, how each component is derived, and how they relate to each other.
3. Describe the features and components of the income statement, how each component is derived, and how they relate to each other.
4. Describe the features and components of the cash flow statement, how each component is derived, how they relate to each other, what the various sources of cash may be, and how cash is recorded.
5. Demonstrate an understanding of the importance of footnotes to financial statements and the Generally Accepted Accounting Principles.
6. Describe the compositional elements of the more common financial ratios, their benefits, limitations, interrelationships and contributions toward the analytical approach.
7. Describe the basic process, theoretical foundation, and benefits and limitations of a breakeven analysis in financial assessment.
8. Describe the nature and benefits of pro forma statements and their contribution to financial analysis.
9. Describe the concept of the time value of money and relate those principles to financial analysis.
10. Demonstrate an understanding of how the financial analytical processes contribute to the overall analytical approach for EMS.

Module 10: Cost-Benefit Analysis

The students will:

1. Demonstrate an understanding of the purpose, applicability and components of cost-benefit analysis.
2. Describe the basic elements of cost-benefit analysis with regard to monetization, benefits, costs and net benefits.
3. Describe the differences between cost-benefit analysis and cost-effective analysis and how each applies to the analytical approach.
4. Describe each of the basic steps to a cost-benefit analysis, how each is applied, and how each influences subsequent steps.
5. Demonstrate an understanding of impacts, how to quantify impacts, how to monetize impacts, and how to determine their present value and future value in the time value of money.
6. Describe the social discount rate and how that relates to net present value and the cost-benefit analytical approach.
7. Demonstrate an understanding of the sensitivity analysis process, including Monte Carlo sensitivity analysis, how that can be applied, and what relevance that has to the cost-benefit analysis process.
8. Demonstrate an understanding of the theoretical premises of valuing a human life, what options exist, what a statistical life is, how it applies to welfare economics, and how to apply these concepts to cost-benefit analysis.
9. Describe the meanings of Pareto efficiency and the Kaldor-Hicks criterion and how they can be applied to cost-benefit analysis.

Module 11: Policy and Impact Analysis

The students will:

1. Describe the application, importance and utility of conducting a policy or impact analysis as a stand-alone process and as an integral part of an overall analysis.
2. Describe the conceptual foundation and origin of impact analysis from policy analysis and how it can be adapted to EMS analytical approaches.
3. List the sequential steps in performing an impact analysis with details of the subcomponents for each step and emphasis on a multigoal approach.
4. Describe the importance and meaning of primary goals, impact categories, the process of valuation, the development of alternative solution options, and political feasibility in impact analysis.
5. Describe the standard format of an impact analysis matrix, its relevance to a recommendation, and how it can be integrated into a final report.

Module 12: Putting It All Together

The students will:

1. Demonstrate how to compile each of the analytical components into an overall analytical approach.
2. Describe how the findings and conclusion of each analytical component can be integrated into a continuous, cumulative summation to render a final, overall conclusion and recommendation.
3. Describe how each component may influence the final recommendation but not each other component conclusion.
4. Describe the importance of formulating the entire analytical process into a logical and seamless continuity of individual analytical components.
5. Describe the importance of revising or repeating individual analytical components when findings and conclusions from other analytical components necessitate a re-examination of data.

Module 13: Generating the Analysis Report

The students will:

1. Demonstrate an understanding of the importance of the final report on the overall analytical approach, what it represents, and what impact it may have on the decision-maker.
2. Describe several approaches to writing the final report, and identify the most common format.
3. Identify the common sections in the final report, define their content, and explain the importance of their proper order.
4. Describe how the final section of the conclusion and recommendation should be crafted, specify what it should contain, and define its purpose.

Module 14: Project Development

The students will:

1. Demonstrate the process for identifying the true nature of a problem or growth opportunity through an analytical approach and translating that problem into a key research question and purpose statement.
2. Demonstrate the best approach for deciding upon a suitable research design based upon the known problem and key research question, including all components and data collection considerations.
3. Design the proper research model based upon the progressive findings from the above steps, including data collection methods, units of analysis, variable identification, operationalization of variables, data collection instruments, and the identification of an appropriate sample size and time line for the research.

Module 15: Project Development

The students will:

1. Demonstrate the process for continuing the analysis based upon the foundation established from the identified problem, the key research question, the purpose statement, and the application of research principles.
2. Demonstrate the necessary process and elements of each of the subsidiary analytical components, including the financial analysis, cost-benefit analysis, and impact analysis.
3. Demonstrate the process of integrating each of the analytical components into a final conclusion and recommendation.
4. Demonstrate the process of creating a formal report of the overall analytical approaches to decision-makers and stakeholders that contains all of the essential elements in a properly structured format.

Outcomes:

1. Identify the variety of data to be collected in EMS.
2. Demonstrate an understanding of the value of accurate information when performing an EMS analysis.
3. Analyze a problem, issue or growth aspect in an EMS system or organization.
4. Construct a process to address EMS issues, and determine the most appropriate course of action for improvement.
5. Prepare an effective EMS analysis report as part of a fire/EMS department's strategic planning process.

Suggested Student Texts:

“The Practice of Social Research,” 12th edition, (2010); Earl Babbie; Thompson-Wadsworth CENGAGE Learning; ISBN-13: 9780495598411

“Research Design: Qualitative, Quantitative, and Mixed Methods Approaches,” third edition, (2009); John W. Creswell; Sage Publishing; ISBN: 978-1-4129-6557-6

Additional materials may be distributed to supplement the above textbooks.

Supporting References:

“EMS Management: Beyond the Street,” Publisher: Jems Communications, second edition (January 1994); ISBN-10: 0936174102, ISBN-13: 978-0936174105

“Management of EMS,” Publisher: Brady Publications, first edition (Feb. 6, 2009); ISBN-10: 0132324326, ISBN-13: 978-0132324328

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Points of Contact:

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Community Risk Reduction in Emergency Medical Services (C0298)

Course Description: This is an upper-level baccalaureate course for students interested in public health and community relations in Emergency Medical Services (EMS). This course introduces the EMS professional to benefits of community risk analysis, program development, and ongoing program analysis. Students explore issues in identifying and communicating risk, crafting appropriate risk-reduction programs, building appropriate response guides, developing recovery procedures, and creating press releases.

Prerequisites: None

Course Objectives:

Module 1: Overview of Injury Prevention

The students will:

1. Discuss the history of injury prevention.
2. Explain injury prevention countermeasures.
3. Discuss the epidemiology of injuries.

Module 2: Categorizing Injuries

The students will:

1. Discuss unintentional injury including:
 - a. Motor vehicle accidents.
 - b. Falls.
 - c. Poisonings.
 - d. Fires and burns.
 - e. Drowning.
 - f. Asphyxiation.
 - g. Sports and recreational injuries.
 - h. Occupational injury.
2. Discuss intentional injury including:
 - a. Self-inflicted violence.
 - b. Homicide.
 - c. Violence.
 - d. Sexual assault.
 - e. Child abuse.
 - f. Elder abuse.

Module 3: Injury Prevention Program Development

The students will:

1. Explain the general principles of injury prevention.
2. Describe educational strategies.
3. Describe environmental strategies.

Module 4: Policy and Resource Development

The students will:

1. Discuss injury prevention laws.
2. Explain the role of advocates.
3. Describe community partners.
4. Discuss state and federal players.

Module 5: Injury Surveillance

The students will:

1. Define real-time surveillance.
2. Provide examples of information sources.
3. Discuss how to provide information to the public.
4. Discuss access to patients.
5. Discuss reporting patterns.

Module 6: Public Health

The students will:

1. Explain health promotion.
2. Discuss the role in immunization.
3. Describe surveillance.
4. Describe their role in public education.
5. Describe their role in home health care.
6. Describe their role in behavioral health care.
7. Describe their role in environmental health.
8. Discuss the functions of the health department.

Module 7: Public Health Community

The students will:

1. Discuss the various associations.
2. Describe the role of the U.S. Department of Health and Human Services.
3. Compare and contrast EMS and public health.

Module 8: Assessment of Injury Prevention Program

The students will:

1. Discuss benefits of data collection.
2. Describe risk assessment.
3. Explain cost versus benefit.
4. Discuss an evaluation of program.

Outcomes:

1. Analyze current public health issues that result in repeated calls for EMS service in the student's community.
2. Identify effective programs to address public health issues.
3. Formulate a comprehensive public education program to address a specific public health issue.
4. Prepare a business plan for a community risk reduction program including a cost/benefit analysis.
5. Identify evaluation criteria to determine effectiveness of community risk reduction programs.

Suggested Student Texts:

No single text available at this time.

Supporting References:

Risk Reduction in the Community, National Fire Academy, Emmitsburg, Maryland

Assessment:

Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.

Point of Contact:

Dr. Jeffrey Lindsey, Professor EMS, St. Petersburg College/NAEMSE rep. jtlindsey1@aol.com