FST3040 - EMS RISK MANAGEMENT & SAFETY
3 credit hours

(Steve Kelly)
Lead Professor

(Doug Wehmeyer)

This course is designed to introduce the student to the risk management principles of an EMS agency with an emphasis on safety from the perspective of the field EMS provider. Students will be asked to apply various safety and risk management principles to their own organizations in an effort to improve their understanding of the importance of these concepts and their ability to participate in these processes in a meaningful manner.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Define risk management and differentiate this concept from the concepts of prevention and loss control.
2) Outline to 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 related to health, wellness, fitness and vehicle operations in a manner that can be related and applied to the student’s organization.
5) Draft a model policy, procedure or guidance that can be implemented with their organization to address an area of safety or risk management that has not previously been addressed.
This is a National Fire Academy core course in the Fire and Emergency Services Higher Education program (FESHE). The course is a comprehensive course designed to provide education to ensure public trust by creating a safe, quality, effective and efficient experience for medical patients. Course materials and lessons learned can be utilized in emergency services in various capacities and applications to make improvements in the response, treatment and transportation of medical patients. Students will develop skills to measure and identify operational changes, identify protocol changes to make improvement of care, identify and justify needed resources for improvements and identify data to objectively benchmark progress. This is a required course for all students seeking a Bachelor of Science Degree in the EMS Administration Track. If a student is not an active firefighter or EMS provider, they must establish a mentor who is a fire or EMS Officer providing this service.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Identify and apply the history, terminology and developments that have fostered EMS quality management and current health care reform.
2) Demonstrate competency in the structure, process and measuring outcomes for EMS Quality Improvement.
3) Analyze databases and apply the capturing of information and data for EMS quality management.
4) Examine and apply how to facilitate change or create a culture of quality.
5) Discuss and apply the legal aspects of EMS Quality Management.
This course provides a big picture overview of community-based programs to address public health issues. The course goes beyond the process of delivering basic EMS services such as staffing an ambulance, stocking the cabinets and budgeting, to review community-based risks that result in calls for service. The course will evaluate a broad range of risks such as issues of the elder (falls, accidental overdose) cardiac arrest (bystander CPR and community AED programs), drug addiction problems (heroin and meth overdoses), and other current and anticipated public health issues. The course will examine effective approaches to managing these risks; including not only EMS but other stakeholders and students will consider how to work collaboratively with these organizations.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Analyze current public health issues that increase the demand of the emergency response system in a community of any size, including data collection and the identification of community stakeholders.
2) Identify or create effective programs to address public health issues, including programs to assist the elderly (falls, accidental overdose), cardiac arrests (bystander CPR and community AED programs), drug addiction (heroin and meth overdoses), community paramedicine, and other health issues.
3) Formulate a comprehensive public education program to address a public health issue in the student’s community.
4) Prepare a business plan for a community risk reduction program for the student’s community, including a cost / benefit analysis.
5) Identify evaluation criteria to determine effectiveness of community risk reduction programs, including elimination of ineffective programs.
This course examines frequent callers to 911 for EMS services, and how some Fire/EMS agencies are finding unique solutions. Community paramedics interact and treat patients in changing ways engaging a wide variety of community resources to meet the needs of frequent users of the EMS system. Community paramedics are able to serve the patient and the community by providing a wider array of services more closely matched to the patient's need.
Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Describe Community Paramedicine programs around the Nation which effectively assist “frequent 911 callers.”
2) Explain the changes in protocol, and state laws and regulations, needed to practice Community Paramedicine in your state.
3) Compare and contrast Community Paramedicine programs that are Fire / EMS based, with those that are based at hospitals, social service agencies, or private EMS services.
4) Examine the financial and other impacts on your community’s Fire / EMS department if a Community Paramedicine program is launched in your service area.
5) Discuss the differences in patient advocacy between a paramedic who only responds to 911 calls and a community paramedic.

FST 3045 - EMS EDUCATION
3 credit hours

(Adam Howard)
Lead Professor

(Tyler McCoy)

(Mark Fyffe)

This is a technical elective course specifically designed for the Bachelor of Science in Fire & Safety Engineering Technology and EMS Administration degree programs. Topics focus on all aspects of EMS education including personal career development, educational program management, and industry advancement. This course will expose current national standards, as well as state laws and regulations that effect EMS. The history of the EMS industry will be revealed and the potential future will also be examined.
Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Identify the personal attributes of a successful EMS provider, educator, leader, and mentor.
2) Analyze educational curriculums and certification requirements to achieve a position as an EMS provider and educator.
3) Identify the different types of EMS education programs and the requirements of each.
4) Realize the alternative career transition opportunities for an EMS provider to a Community Paramedic, Nurse, Physician’s Assistant, Physician, etc. Develop recommendations to further the future of the EMS industry within the overall healthcare system.

FST3046 - EMS COMMUNICATIONS & IT
3 credit hours

(William “BJ” Jetter)
Lead Professor

(Jayson Dunn)

Gradsutes will be able to apply and demonstrate the principles of EMS Communication requirements and constraints following an open-ended decision process involving tradeoffs and completing a synthesis and evaluation of the complexity of EMS Communications. Students will understand how the future of EMS Communication and IT will evolve into a seamless approach from the field to the emergency department.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Organize a final organizational matrix that is representative on the anatomy of Emergency Medical Communication.
2) Demonstrate the communication role of Emergency Medical Service from field application to the emergency department.
3) Identify the common terminology use by Emergency Medical Service technicians and paramedic's during emergency field operations.
4) Evaluate the primary modes of Emergency Medical of EMS communications through various communications medians.
5) Describe the role of call talker dispatcher as it applies to pre-hospital emergency medical care and formulating the constraints of data collection and the transfer electronic medical surveillance from the field to Physician in the Pre-Hospital environment.

FST3047 - EMS PUBLIC INFORMATION & COMMUNITY RELATIONS
3 credit hours

(Perry Gerome)
Lead Professor

(Rob Leininger)

(Patrick Strausbaugh)

Mike Washington

In this course students will examine the widening role of a Fire / EMS Public Information Officer and develop skills needed to conduct effective on camera interviews and print media interviews to provide timely and accurate information to the public. Students will also learn to
develop community risk reduction educational programs. If student is not an active firefighter, must establish a mentor who is a FD Officer.

**Student Learning Outcomes**
Upon completion of this course, students will be able to:

1) Write accurate and informative press releases for Fire / EMS departments.
2) Demonstrate their ability to be interviewed by the media while being filmed on camera.
3) Utilize print, televised and social media to inform and educate audiences on various topics, including emergency response actions and event planning.
4) Research and define specific community risk reduction educational needs, analyze the data and develop a framework to address the plan of action.
5) Create community educational programs based on established needs and available resources, evaluate the programs and develop continuous improvement.

**FST3048 - EMS SPECIAL OPERATIONS**
3 credit hours

(Robert Warfel)
Lead Professor

(Tim Sabransky)

(Kay Vonderschmidt)

This course focuses on special operation activities not common to everyday EMS operations. The expanding role of EMS in our nation and abroad requires special planning, training & education to prepare for changing and special needs such as mass casualty, terrorism, and tactical operations that exceed the normal scope of
The importance of EMS special operation planning is such that the safety, health and well-being of both responders and the public hinges upon the level of preparedness of the response organizations and their ability to manage special events.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Identify unique planning requirements for special events and mass casualty incident response.
2) Analyze case examples and identify best practices regarding mass casualty response and preparedness.
3) Identify barriers and obstacles to all hazard response planning.
4) Formulate recommendations for effective integration and resource management.
5) Identify parallel and divergent goals and objectives for local, state, and federal agency preparedness particularly the relationship between law enforcement and Fire/EMS response.

FST3049 - MANAGEMENT OF TRANSPORT SERVICES
3 credit hours

(Brian Carlson)
Lead Professor

(Mary Ahlers)

This course provides an overview of the application of management principles to the provision of transport services. It includes an analysis of the economic, geographic, temporal and clinical characteristics of ambulance demand, the key processes for providing transport services and an evaluation of industry best practices.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Examine the challenges and opportunities for transport services.
2) Determine key performance indicators of transport services.
3) Review and summarize EMS research and trends.
4) Identify funding models for the future of transport.
5) Discuss the integration of new technology to improve service and reduce risk

FST3050 - EMS FINANCE
3 credit hours

(Mark Ober)
Lead Professor

(Mark Kissling)

This course introduces principles and practices of budget and finance, combining them with the methods and techniques of both oral and written communication. The course is intended to prepare students for tasks and challenges related to emergency medical services (EMS) systems financial management, and to effectively communicate those business-related matters through either presentations or documents. The course is to be delivered as a hybrid of distance learning and intensive lecture.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Research, analyze, calculate and forecast budgetary matters.
2) Perform fundamental financial analyses and create financial reports relating to financing an EMS system.
3) Research and identify additional funding sources, such as EMS billing, grant preparations and other available revenues.
4) Communicate budgetary, financial and business information in various documents.
5) Present budgetary and financial information for a significant capital EMS purchase orally, or using other media.
This course focuses on extracting and analyzing accurate data and applying the results towards the betterment of any EMS or Fire organization. Findings from this class may help initiate effective organizational change using various categories including: financial analysis; cost-benefit analysis; comparative analysis; quality improvement; strategic planning.

**Student Learning Outcomes**

Upon completion of this course, students will be able to:

1) Identify various aspects of data analysis, and utilize them for decision making.
2) Demonstrate an understanding of the statistical tools available when performing an analysis.
3) Develop the knowledge and skills needed to effectively investigate a problem, or gauge the value of a potential new opportunity.
4) Using an analytical approach, construct a process to address the issue at hand, and determine the most appropriate course of action for change or improvement.
5) Through the implementation of effective analysis techniques, the student’s input may be applied to strategic planning development for his/her respective EMS or Fire organization.
FST 3089 - EMS MANAGEMENT
3 credit hours

(Randy Johann)

This course examines many aspects of building and managing an effective EMS system. This online program will require substantial reading, project work and interaction with your cohort team. Conceptual understanding and real-world application are outcome guideposts for learners. Computer access with a high speed internet connection and web cam are required. Offered Spring Semester only.

Student Learning Outcomes
Upon completion of this course, students will be able to:

1) Understand the basic philosophy, organization and operation of injury prevention and risk-reduction programs.
2) Define the differences between management and leadership.
3) Understand the principles of customer service in EMS.
4) Identify and apply the techniques for conducting an effective performance appraisal.
5) Apply quality improvement techniques to various aspects of EMS operations.

FST3093 - EMS LEGAL & POLITICAL ISSUES
3 credit hours

(Larry Bennett)

This course examines the legal aspects of emergency medical services and the political and social impacts of EMS. This course includes a review of the American legal system and in-depth coverage of legal and political issues involving administrative and operational matters, and legislative and political processes with regard to EMS. If student is not an active paramedic or EMT, must establish a mentor who is a FD Officer and also a paramedic or EMT.

Student Learning Outcomes
Upon completion of this course, students will be able to:

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

**FST5044 - LEADERSHIP IN FIRE & EMS**

3 credit hours

CAPSTONE COURSE

*(Alan “Chip” Terry)*

*(Lead Professor)*

*(Mike Hayes)*

*(Tom Lakamp)*

This capstone course will develop critical thinking, personal competency and relationship management skills to assist the student in achieving a leadership position in a public service environment. Through this educational experience the student will learn self-awareness, self-control, social awareness and relationship management skills necessary to manage and lead oneself and other individuals in an ever-changing modern and dynamic Fire/EMS industry.

**Student Learning Outcomes**

Upon completion of this course, students will be able to:

1) Identify and describe the difference between leadership and management.
2) Identify and describe the qualities of effective leadership in the context of self-awareness, self-management, social awareness and relationship management.
3) Identify the negative effects upon leadership competencies when leaders fail to leverage diversity.
4) Evaluate one’s self-awareness and leadership skills through the application of feedback provided through self-assessment and 360 degree feedback tools.
5) Describe the relationship between effective self-management and effective emergency scene leadership.