FS100: Introduction to Fire and Emergency Services
This course introduces you to careers in fire and emergency services and the fire and emergency management programs. Pertinent skill sets and professionalism will be discussed. You will learn about the historical background of modern fire service while learning research skills for the future. This course is designed to acclimate you to the academic environment while providing a solid foundation for success in the fire and emergency services profession.
Quarter Credit Hours: 5 | Prerequisite: None

FS101: Fire Behavior and Combustion
This course investigates the basic concepts of fire, its spread, and its control. The course discusses the nature and properties of the three states of matter, explains the components of fire, and describes the physical and chemical properties of fire.
Quarter Credit Hours: 5 | Prerequisite: None

FS102: Building Construction for Fire Protection
This course explores the fundamentals of building construction, types of structures, and structure designs, as well as the impact of building construction on firefighting. Students will study the forces that impact these structures and the codes applied to buildings and fire safety. They will also learn how buildings are constructed and how fire behaves with various building materials.
Quarter Credit Hours: 5 | Prerequisite: FS101

FS103: Fire Protection Hydraulics and Water Supply
This course explores the fundamentals of water usage in fire protection and explains how hydraulic principles are employed in the resolution of water supply problems. The course also discusses the methods used to effectively deliver water, foam, and other extinguishing agents to the fire scene.
Quarter Credit Hours: 5 | Prerequisite: FS101

FS104: Fire Protection Systems
This course describes the principles of fire protection and system design. Students will explore fire control and suppression methods, including sprinkler, water spray, water mist, standpipe, and ultra high-speed water spray systems. The course also provides an overview of recent fire protection and suppression developments.
Quarter Credit Hours: 5 | Prerequisite: FS101

FS105: Fire Prevention Practices
This course examines fire avoidance measures, including fire prevention education, fire safety inspection, fire code enforcement, and fire investigation. You will gain an overview of the procedures and principles of inspections commonly conducted for control of structures, occupancy, or combined purposes.
Quarter Credit Hours: 5 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS120: Introduction to Emergency Management
This course covers the four pillars of emergency management: mitigation, preparedness, response, and recovery. Topics include the history of emergency management, risk and threat assessment, mitigation, preparedness, the administrative functions of the emergency management program, and the response and recovery efforts that assist in the restoration of communities and in encouraging resiliency in the aftermath of a disaster. Upon completion of this course, you should be able to demonstrate an understanding of comprehensive and all-hazards emergency management.
Quarter Credit Hours: 5 | Prerequisite: CM107

FS201: Strategy and Tactics
This course explores firefighting strategy and tactics, methods of fire attack, and prefire planning. You will gain in-depth knowledge of fire control principles as well as how to utilize personnel, equipment, and extinguishing agents on the fireground. This course also discusses special situations such as hazmat emergencies, multicausualty incidents, and emergency management incidents.
Quarter Credit Hours: 5 | Prerequisite: FS101

FS202: Principles of Emergency Services
This course provides an overview of fire protection as well as the philosophy and history of fire protection. You will gain an understanding of career opportunities in fire protection and related fields, fire loss analysis, and the organization and function of public and private fire protection services. This course discusses the role of fire departments as part of local governments, as well as fire service laws, regulations, and terminology. There is also an introduction to multiagency planning and operations as related to multialarm incidents, target hazards, and major disasters.
Quarter Credit Hours: 5 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS204: Occupational Safety and Health for Emergency Services
This course examines the fundamentals of occupational health and safety for emergency service agencies. Students will gain knowledge of risk evaluation and control policies for fire stations, emergency vehicles, and training sites as well as for incidents involving fire, hazardous materials, and other EMS responses. Students will also gain knowledge of the basic principles and history to firefighter life safety initiatives.
Quarter Credit Hours: 5 | Prerequisite: FS101

FS205: Ethics for the Fire and Emergency Services
This course provides an understanding of the types of ethical issues that can arise in the fire and emergency services. Students will examine philosophical concepts as they relate to modern ethics. The course will also provide an overview of various approaches to the ethical situations faced by fire and emergency service organizations.
Quarter Credit Hours: 5 | Prerequisite: FS120

FS208: Legal Aspects of Emergency Services
This course explores the legal issues that relate to emergency services, such as arson law and legal responsibilities of emergency services officers, as well as criminal and civil law. Students will gain an understanding of laws that impact emergency services management at both the state and local levels. The course also examines recent case law and legal decisions that impact emergency services agencies.
Quarter Credit Hours: 5 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS220: Preparedness and Planning for Emergency Management
This course analyzes the rationale for and methods related to all-hazards emergency preparedness and planning. Topics include preparedness strategies, planning concepts and processes, public awareness programs, and training and exercise programs.
Quarter Credit Hours: 5 | Prerequisite: FS120

FS225: Emergency Management Response
This course provides an overview of the response phase of emergency management including government policies related to disaster response. The content will include the purpose of the National Response Plan.
Quarter Credit Hours: 5 | Prerequisite: FS120
FS299: Associate's Capstone in Fire Science
This course is designed as the culminating experience of the Associate of Applied Science in Fire Science. This course consists of a series of assignments that integrate concepts from the fire science curriculum. The assignments are designed to test application and critical thinking skills as students work through fact-based scenarios and analyze issues affecting contemporary practice.
Quarter Credit Hours: 5 | Prerequisite: Last term or permission from the Dean

FS301: Fire Investigation and Analysis
This course analyzes fire ignition dynamics, flame spread, and room fire growth. Students explore all aspects of incident investigation, financial management, and other functions related to fire analysis and investigation.
Quarter Credit Hours: 6 | Prerequisite: FS101

FS302: Advanced Principles of Firefighter Safety and Survival
This course provides an advanced analysis of firefighter life safety initiatives as well as an evaluation of the behavioral changes necessary in emergency services. Through case studies and scenarios, students develop the effective decision-making skills that are necessary for survival in fire and related emergency situations.
Quarter Credit Hours: 6 | Prerequisite: FS101

FS304: Community Risk Reduction for Fire and EMS
This course analyzes theories for understanding ethical, social, organizational, political, and legal aspects of community risk reduction for fire and EMS agencies. You will learn to utilize common methods for developing effective and comprehensive community risk-reduction plans.
Quarter Credit Hours: 6 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

This course describes how people, groups, organizations, communities, and governments manage disasters in the immediate aftermath and recover from their effects, including social, physical, business, and infrastructure problems as well as intra- and interorganizational planning.
Quarter Credit Hours: 6 | Prerequisite: FS120

FS401: Fire Prevention Organization and Management
This course explores the modern management and planning techniques that are utilized to organize a fire department's comprehensive fire prevention program. You will examine fire department organization and management through the lens of community risk reduction, codes and standards, inspections, plan review, incident investigation, fire prevention research, and the relationship of master planning to fire prevention.
Quarter Credit Hours: 6 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS402: Political, Ethical, and Legal Foundations of Emergency Services
This course will examine the political, legal, and ethical processes that are specific to the administration and deployment of emergency services. There will be an analysis of legal and political issues and their relationship to human resource principles, laws, and practices. The legislative process will be explored as it relates to emergency services. The concepts of ethics will be applied to functional roles and relevant decision-making needed in emergency services.
Quarter Credit Hours: 6 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS403: Leadership and Management
This course examines the knowledge and skills needed to become a responsible leader and manager in a modern fire service or emergency management setting. Topics within the course encompass leadership and management, the management of a budget, human capital management, and administrative law. The course also analyzes challenges related to the creation of a team environment, situational leadership, and ethical decision making.
Quarter Credit Hours: 6 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS412: Safety Risk Management for Fire and EMS
This course examines the evolution of organizational and leadership dynamics in fire and EMS agencies. You will examine common aspects of organizational behavior and leadership, including organizational development, communications, decision making, and stress and conflict management.
Quarter Credit Hours: 6 | Prerequisite: FS101

FS413: Research Analysis for Fire Emergency Services
This course explores current research methods utilized in the analysis of fire-related data. Students will gain an in-depth understanding of methods used to conduct and evaluate independent research in fire dynamics, test standards, safety, modeling, structural safety, firefighter health and safety, automatic detection and suppression systems, and transportation fire hazards. The course also introduces research methods for risk analysis and trend identification.
Quarter Credit Hours: 6 | Prerequisite: FS101

FS414: Personnel Management for Fire and EMS
This course examines fundamental issues in personnel administration and human resource development in fire and EMS agencies. Students will explore concepts and responsibilities such as management, organizational development and training, employee recruitment, selection, and productivity, as well as performance management and labor relations.
Quarter Credit Hours: 6 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS420: Mitigation and Risk Assessment in Emergency Management
This course describes the methods and techniques used to lessen the potential impact of disasters and improve readiness to respond. Included are the principles related to mitigation as they pertain to sustainability and building resilient communities. Students will design a risk assessment plan.
Quarter Credit Hours: 6 | Prerequisite: FS100 or FS120 for students enrolled in the Bachelor of Science in Fire and Emergency Management

FS425: Disaster Policy in Emergency Management
This course focuses on the administrative roles of local, state, and federal governments in times of disaster and the importance of intergovernmental relations. The policymaking process and the historical evolution of disaster policy are reviewed.
Quarter Credit Hours: 6 | Prerequisite: FS120

FS498: Bachelor's Capstone in Fire Science
This course is designed as the culminating experience of the bachelor's degree programs in fire science. This course consists of a series of assignments that integrate concepts from the fire science curricula. The assignments are designed to test application and critical thinking skills as students work through fact-based scenarios and analyze issues affecting contemporary practice.
Quarter Credit Hours: 6 | Prerequisite: Last term or permission from the Dean