Courses

SFTY 510 Industrial Hygiene & Toxicology  3 Credits (3,0)
This course addresses the technical concepts and application of industrial hygiene and toxicology as it pertains to preventing occupational illnesses. Topics include the recognition of occupational health hazards, hazard evaluation through screening and sampling, and the prevention and control of occupational health hazards in order to mitigate occupational illnesses. The course also prepares the student to select, interpret and apply federal and state occupational health and safety laws and regulations.

SFTY 530 Safety, Health and Environmental Legislation, Litigation & Compliance  3 Credits (3,0)
This course is a survey of the complex regulatory and legal settings surrounding occupational safety, health and environmental management. Occupational safety, health and environmental regulations, and how they affect industry, legal responsibility, and accountability; ethical considerations in and external to the organization; and the international environment and how it may affect projects are all examined.

SFTY 540 Disaster Preparedness and Emergency Response  3 Credits (3,0)
This course is designed to increase the student's knowledge of disaster preparedness and emergency response procedures, safety and health hazards and controls, and enforcement issues. Topics include elements of an emergency response plan, training requirements, the incident command system, medical surveillance, and post-emergency recovery. Major elements involved in disasters and emergencies, systems use, and attention to essential human services are covered.

SFTY 570 Fire Safety Management  3 Credits (3,0)
This course is designed to teach the essentials of fire protection and prevention in the context of safety, health and environmental management. The course will provide an introduction to fire behavior and combustion to include fire chemistry, fire dynamics and concepts related to the development and spread of fire. The course will also address fire prevention methods, fire detection systems and fire protection including control systems, fire suppression and extinguishment. Lastly, the development of fire safety programs will be addressed, along with emergency action plans and response.

SFTY 580 Environmental Protection for the Safety, Health and Environmental Manager  3 Credits (3,0)
This course is designed to equip students with the knowledge, skills and techniques used by the safety, health and environmental manager to protect workers, the community and the environment from environmental hazards; to facilitate a strategic approach to environmental conservation and sustainable business practices; and, to comply with EPA, OSHA and state and local regulations. Prevention and mitigation of environmental problems will be paramount in the course, but management techniques and programs focused on containment and clean-up of spills and releases will also be addressed.

SFTY 590 Hazard Control Methods in Occupational Safety and Health  3 Credits (3,0)
This course focuses on the application of scientific, engineering and technical principles and methods used to identify, evaluate and control workplace safety and health hazards. Hazard elimination and engineering controls are emphasized in the course. General industry topics, such as the following, are addressed: job safety analysis; inspections and audits; facility design, layout and maintenance; machine safeguarding; walking and working surfaces; materials handling; production operations; and, occupational health hazards and controls.

SFTY 600 Occupational Safety and Health Management  3 Credits (3,0)
This course provides a broad overview of occupational safety. It begins with an exploration of the history of the subject, moves through the OSH Act, workers' compensation, safety program development and management, and finally addresses hazards and controls. The application of safety and health management principles to the management of complex technical industries is covered.

SFTY 619 Human Factors and Ergonomics  3 Credits (3,0)
This course emphasizes the role of human factors in workplace and work task design with emphasis on complex technical industries. Topics include traditional material such as anthropometry, control/display design, visual and auditory acuity and their importance in work design, circadian rhythms and their implications for work design and shift work, psychomotor skills, and learning and memory. Also included are concepts of physiological aspects in ergonomics and the anthropometric principles in workspace and equipment design.

SFTY 630 System Safety Programs  3 Credits (3,0)
This course emphasizes the specialized integration of systems engineering and sound management practices into all phases of a system's life cycle, to achieve acceptable risk, given the confines of operational effectiveness and fiscal responsibility. Hazard recognition, assessment and risk mitigation strategies and resources are applied to systems from conception and design phases to operational and disposal phases, as a means to minimize legal risk and maximize safety and health.

SFTY 691 Graduate Capstone Course  3 Credits (3,0)
The Master of Science in Occupational Safety Management Graduate Capstone Course is the culminating effort of the student's entire learning experience. The student will identify an occupational safety and health research problem; complete a thorough review of the scholarly literature; formulate and test hypotheses or research questions; collect and appropriately analyze qualitative or quantitative data; and, interpret and report research findings using scientific judgement to improve the field of occupational safety and health or to provide solutions to an occupational safety and health problem. The Capstone Course will be taken at the end of the student's degree program.

Prerequisites: SFTY 510 SFTY 530 SFTY 540 SFTY 570 SFTY 580 SFTY 590 SFTY 600 SFTY 619 SFTY 630 RSCH 665 RSCH 670.

SFTY 700A MSOSM Thesis I  3 Credits (3,0)
This course is the first of a two-course sequence (SFTY 700A and 700b) to complete the degree program through the accomplishment of a thesis. The student will propose and begin to develop a written document on an Occupational Safety and Health Management topic, supervised throughout its preparation by the student’s Thesis Committee. The document is intended to demonstrate the student’s mastery in a topic of Occupational Safety and Health Management and be of satisfactory quality for publication. Following satisfactory performance within this course, the student will continue on to SFTY 700B for the completion and submittal of the thesis.

SFTY 700B MSOSM Thesis II  3 Credits (3,0)
This course is the second of a two-course sequence (SFTY 700A and 700b) to complete the degree program through the accomplishment of a thesis. The student will complete his or her thesis under the supervision of the student's Thesis Committee. The document is intended to demonstrate the student's mastery of the topic and be of satisfactory quality for publication. Following satisfactory performance within this course, the student will be permitted to graduate from the program.

Prerequisites: SFTY 700A.