ENFP250 Introduction to Life Safety Analysis

Credits: Three (3)

Contact hours: Two lectures per week, 75 minutes each. One recitation per week, 50 minutes.

Table 5-1 category: Engineering topic

Instructor: Hrybyk

Textbook: NFPA 101, Life Safety Code (2024 edition) SFPE Handbook of Fire Protection Engineering, 5th edition (On-line versions provided free to students). *Other supplemental materials:* OSHA Fire Service Features of Buildings and Fire Protection Systems (electronic copy provided free to students)

Catalog description:
Introduction to fire protection engineering and building regulation focusing on building safety systems, egress system design and evacuation modeling.

Prerequisites and Corequisites:
Permission of ENGR-Fire Protection Engineering department.

Table 5-1 Course Type: Required

Specific outcomes of instruction:
Upon completion of this course, students should:
- Understand the discipline of FPE, with roles/relationships of interested parties;
- Develop an understanding of fire phenomena, including ignition, fire growth & enclosure effects
- Understand roles/ features/elements of systems used to mitigate fires in buildings
- Be able to perform life safety analyses.

Student outcomes assessed: SO2.3, SO2.4, SO4.1

Brief list of topics covered:
The Profession of Fire Protection Engineering
Fire statistics, international fire problem including social and global factors
Major events that have shaped fire protection
Building regulation in the U.S. (codes and standards)
Fire protection features of buildings
Engineering Ethics
Fire service operations; Life Safety Code; core chapters; occupancy chapters
Occupant load and egress capacity; egress systems; assembly occupancies; timed egress analysis
Performance-based options