

Degree Program Assessment Plan

Name of Department: Engineering Technology

Name of Degree Program: Safety and Fire Engineering

Date Plan Submitted: February 2008

Dean's Approval *George Pincus*
 (Dean's signature)

A minimally competent fire protection engineer (technologist) must demonstrate sound knowledge and judgment in the application of science and engineering to protect the health, safety, and welfare of the public from the impacts of fire; this includes the ability to apply and incorporate a thorough understanding of fundamental systems and practices as they pertain to life safety and fire prevention, detection, control, and extinguishment. As a minimum, a competent fire protection engineer (technologist) must demonstrate the ability to:

Learning Objectives	Methods of Assessment	Direct or Indirect	Time-Table 2006 - 2012
1. be familiar with the nature and characteristics of fire and the associated products of combustion, understand how fires originate, spread within and outside of buildings/structures, its detection, control and extinguishment;	Evaluation of Course Outcomes. Evaluation of exams (ENGR 1402, ENGR 1403, ENGR 1404). Exit interviews.	Direct Direct Indirect	Fall 08 Fall 10 Fall 12
2. apply mathematics and the basic sciences (including physics and chemistry) to the solution of problems commonly encountered in fire engineering technology, apply the principles of engineering mechanics, fluid mechanics, thermodynamics, heat transfer	Evaluation of Course Outcomes. Evaluation of exams (ENGR 1402, ENGR 1403, ENGR 1404, ENGR 2409, ENGR 3308, ENGR 4360, ENGR 4411, ENGR 4420). Exit interviews.	Direct Direct Indirect	Fall 08 Fall 10 Fall 12

and fire dynamics to fire protection design and analysis, evaluate safety and fire protection systems, and apply computer modeling to fire analysis and building design;			
3. anticipate the behavior of materials, structures, machines, apparatus, and processes as related to the protection of life and property from fire;	Evaluation of Course Outcomes. Evaluation of exams (ENGR 2409, ENGR 4350, ENGR 4411). Exit interviews.	Direct Direct Indirect	Fall 08 Fall 10 Fall 12
4. have a basic knowledge of the human response principles and how fire and smoke affect people, it's relation-ship to evacuation movement, and fire cues. Through timed egress analysis, assess adequacy of means of egress through exits, occupancy types, occupant loads, emergency lighting, the marking of the means of egress, the latest technology to alert people to danger, and provide means for escape can be implemented;	Evaluation of Course Outcomes. Evaluation of exams (ENGR 1480, ENGR 4330, ENGR 4370, ENGR 4450). Exit interviews.	Direct Direct Indirect	Fall 08 Fall 10 Fall 12
5. communicate effectively, engage in lifelong learning, understand professional, ethical and social responsibilities, and have a respect for diversity and knowledge of contemporary professional, societal and global issues.	Evaluation of Course Outcomes. Evaluation of exams (ENGR 4323, ENGR 4330). Exit interviews.	Direct Direct Indirect	Fall 08 Fall 10 Fall 12

