

Process Safety Engineering, Graduate Certificate (Boston)

Through this graduate certificate program, students explore the identification and analysis of systems and processes relevant to their fields of study. Students have an opportunity to gain a fundamental understanding of considerations and methods for the safe design of engineered processes and to develop skills for creating computational models to represent and analyze hazardous scenarios.

This three-course graduate certificate seeks to provide students with skills to lead efforts within companies to plan and implement process safety designs that assist in meeting the regulatory requirements and confirming code compliance within an industrial firm in order to maintain the safety, health, and welfare of their employees and the public, as well as making industrial firms safer and profitable.

Program Requirements

Complete all requirements listed below unless otherwise indicated.

Core Requirements

Code	Title	Hours
Process Safety Core Courses		
CHME 5510 or CHME 5515	Fundamentals in Process Safety Engineering Process Safety Engineering for Biotechnology and Pharmaceutical Industries	4
CHME 5520	Designing for Process Safety	4
Process Engineering Electives		
Complete one of the following:		4
BIOE 5115	Dynamical Systems in Biological Engineering	
CHME 5630	Biochemical Engineering	
CHME 5692	Carbon Capture, Utilization, and Storage	
CHME 7600	Pharmaceutical Engineering I	
CIVE 5275	Life Cycle Assessment of Materials, Products, and Infrastructure	
CIVE 5365	Climate Technologies for Decarbonization, Mitigation, and Adaptation	
CIVE 5368	Air Quality Management	
IE 5380	Integrated Automation	
IE 5400	Healthcare Systems Modeling and Analysis	
IE 6300	Manufacturing Systems Design	
IE 7285	Statistical Quality Control	
ME 5659	Control Systems Engineering	

Program Credit/GPA Requirements

12 total semester hours required

Minimum 3.000 GPA required