

Master of Engineering (MEng) – Course Requirements

Process Control and Safety (PCS)

CORE COURSES ¹ (SELECT 1 FROM EACH CATEGORY)		
Category 1: CBE 9461 - Advanced Process Control CBE 9430 – Dynamic Modeling and Optimization-based Control		
Category 2: CBE 9435 - Artificial Intelligence (AI) for Chemical Engineers		
Category 3: CBE 9173 – Chemical process safety		
PROFESSIONAL ENGINEERING COURSES (SELECT 2 COURSES ONLY – TAUGHT IN SUMMER TERM ONLY)		
ENGSCI 9010 - Intellectual Property for Engineers	ENGSCI 9015 – Commercializing Innovation	ENGSCI 9185 - Risk Assessment and Management Engineering Systems
ENGSCI 9501 – Business and Management	ENGSCI 9510 – Engineering Planning and Project Management	ENGSCI 9670 – Engineering Communication
ELECTIVE COURSES ²		
CBE 9424 - Computer Process Control	CBE 9115 – Fund. of Heat & Mass Transfer	ECE 9508 - Adaptive Controls
CBE 9150 - Advanced Chemical Engineering Thermodynamics	CBE 9132 – Energy & Fuel Production Systems	ECE 9507 - Advanced Digital Control Systems
CBE 9160 - Transport Processes	CBE 9180 - Instrumental Methods of Analysis	
CBE 9190 - Statistical Process Analysis	CBE 9211 - Fundamentals of Biochemical Eng.	
CBE 9170 - Mathematical Methods in Engineering	CBE 9260 - Advanced Bioengineering and Biotechnology	
CBE 9155 – Advanced Fluid Mechanics	CBE 9334 - Green Fuels and Chemicals	
CBE 9417 - Industrial Catalysis	CBE 9263 - Biosensors: Principles and Applications	
CBE 9561 - Adv. High Velocity Fluidization	CBE 9450 - Advanced Chemical Reaction Engineering	
ECE 9506 - Linear Systems and Modern Control Systems	ECE 9505 - Control, Instrumentation and Electrical Systems	
NOTES		
1. If a core course is not currently being offered, it will be replaced by another similar course subject to the program director approval. 2. Graduate courses from other disciplines in the Faculties of Engineering may be taken as technical electives subject to the approval of the Associate-Chair, MEng.		