

Chemical and Biomolecular

Graduate Certificate in Engineering: 12 credits / 4 courses

Students pursuing a Graduate Certificate in Engineering must complete the following courses:

Chemical and Biomolecular Core Courses (take three):		
	ENCH610 Chemical Engineering Thermodynamics	(every fall)
	ENCH620 Methods of Engineering Analysis	(every fall)
	ENCH630 Transport Phenomena	(every spring)

Chemical and Biomolecular Pre-approved Technical Electives (choose one):		
	ENCH648C Control of Air Pollution Sources	
	ENCH648D Biopharmaceutical Process Development and Manufacturing	
	ENCH648K Advanced Fuel Cells and Batteries	
	ENCH648N Bionanotechnology	
	ENCH648Q Mesoscopic and Nanoscale Thermodynamics	
	ENCH648Z Nanoparticle Aerosol Dynamics and Particle Technology	
	Any ENCH648(letter) Special Topics courses can be used as Technical Electives	
	ENCH762 Advanced Biochemical Engineering	
	ENCH781 Polymer Reaction Engineering [ENCH640]	
	ENPM626 Waste and Biomass Energy Conversion*	(every other summer)
	ENPM627 Environmental Risk Analysis*	(every 1.5 semesters)

*NOTE: Any courses not listed above must be approved by the Senior Academic Advisor **PRIOR** to registration.*

KEY	
Online Option *	(offering information)
[Prerequisite course]	