College of Engineering

Bachelor of Science
Chemical Engineering

Basic Chemical Engineering Curriculum

Freshman Year/Fall Semester		Cr.
___25.107	Intro to Engineering I	2
___42.101	(Gen. Ed.) College Writing I[+]	3
___84.121	Chemistry I[+]	3
___84.123	Chemistry I Lab	1
___92.131	Calculus I *[+]	4
___ __. ___	(Gen. Ed.) SS (Social Science)	3
		16

Freshman Year/Spring Semester		Cr.
___25.108	Intro to Engineering II	2
___42.102	(Gen. Ed.) College Writing II [+]	3
___84.122	Chemistry II[+]	3
___84.124	Chemistry II Lab	1
___92.132	Calculus II[+]	4
___95.141	Physics I[+]	3
___96.141	Physics I Lab[+]	1
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Sophomore Year/Fall Semester		Cr.
___10.201	Material Balances	3
___10.205	Fundamentals of Electricity	3
___84.221	Organic Chemistry I [1+]	3
___92.231	Calculus III[+]	4
___ __. ___	(Gen. Ed.) AH (Arts/Humanities)	3
		16

Sophomore Year/Spring Semester		Cr.
___10.202	Energy Balances & Intro to Thermodynamics	3
___84.205	Organic Chemistry Lab[1]	1
___84.222	Organic Chemistry II [1+]	3
___92.234/236	Differential Equations[+]	3
___92.385/386	Applied Statistics	3
___49.201/202	(Gen. Ed.) SS Economics I/II	3
		16

Junior Year/Fall Semester		Cr.
___10.303	Fluid Mechanics	3
___10.311	Chem. Eng. Thermodynamics	3
___10.315	Unit Operations Lab I	2
___10.317	Appl. Eng. Prob. Solving/Matlab	3
___84.344	Physical Chemistry I [2]	3
___ __.___	(Gen. Ed.) AH (Arts/Humanities)	3
		17

Junior Year/Spring Semester		Cr.
___10.304	Heat Transfer	3
___10.308	Intro to Material. Sci. & Eng	3
___10.310	Separation Processes w/ Mass Transfer	3
___10.316	Unit Operations Lab II	2
___84.347	Physical Chemistry Lab	1
___45.203/334	(Gen. Ed.)AH Ethics/Eng. Ethics	3
___ __. ___	(Gen. Ed.) SS (Social Science)	3
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Senior Year/Fall Semester		Cr.
___10.403	Chemical Reaction Engineering	3
___10.409	Engineering Economics	3
___10.413	Process Dynamics & Control	3
___10.415	Processes & Controls Lab	2
___10. ___	Chemical Eng. Technical Elective[3]	3
___ __. ___	Technical Elective[3]	3
		17

Senior Year/Spring Semester		Cr.
___10.410	Plant Design	3
___10. ___	Chemical Eng. Tech Elective[3]	3
___10. ___	Chemical Eng. Tech Elective [3]	3
___ __. ___	Technical Elective[3]	3
___ __. ___	Advanced Chemical Elective[3] or Equivalent	3
		15

Total minimum credits: 132

See reverse side for additional information.

Refer to the General Education Program Course Website: *http://www.uml.edu/gened/courses.html* for General Education requirements. The University General Education requirements must be satisfied. A General Education course that fulfills the Diversity requirement must be taken.

(1) The listed co-requisite, 84.229 or 84.230, Organic Chemistry Lab, is not required for Chemical Engineering majors. 84.205 is the required lab.

(2) The listed co-requisite, 84.346, Physical Chemistry Lab, is not required for Chemical Engineering majors. 84.347 is the required lab.

(3) Chemical Engineering Technical Electives, Advanced Chemical Electives and Technical Electives should be chose from an approved list. Consult with your advisor.

*Calculus I A, and Calculus I B instead of Calculus I, will be required for students that do not pass the Calculus Readiness Test.

+ Honors level courses may be taken instead.