

Chemical Engineering Course Prerequisites

Note: Prerequisites with Concurrency (PWC) describes a situation where you must have already taken a specific course or be enrolled to take the course. If you do not pass the PWC course then you may not use the course which had the PWC as a prerequisite to take subsequent courses even if you pass that course. Also, if you drop a PWC course, you must also drop any courses for which you were using the PWC course. For more information, consult with the Academic Advisor.

CHEN	Short Name	CrHr	Lec	Lab	Prerequisites	Prerequisites with Concurrency (PWC)
2AA0	Progress Assessment I	0		0		CHEN 2100
2100	Principles of Chemical Engineering	4	3	3	(CHEM 1110 or CHEM 1030 or CHEM 1117), (MATH 1610 or MATH 1710 or MATH 1617)	(CHEM 1120 or CHEM 1040 or CHEM 1127), (MATH 1620 or MATH 1720 or MATH 1627), (PHYS 1600 or PHYS 1607)
2610	Transport I	3	3		(MATH 1620 or MATH 1720 or MATH 1627), (PHYS 1600 or PHYS 1607), CHEN 2100#	ENGR 2010
3AA0	Progress Assessment II	0		0	CHEN 2AA0	CHEN 3650, CHEN 3660, CHEN 3700
3090	Pulp and Paper Technology	3	3		CHEM 1110 or CHEM 1030 or CHEM 1117), ENGR 2010, JS/DA	
3370	Phase and Reaction Equilibria	3	3		(MATH 2630 or MATH 2730 or MATH 2637), CHEN 2100#, ENGR 2010#	CHEN 3600
3410	Creativity and Critical Thinking in Engineering	3	3		JS in COE	
3600	Computer-Aided Chemical Engineering	3	2	3	COMP 1200, MATH 2650, CHEN 2610#	
3620	Transport II	3	3		(MATH 2630 or MATH 2730 or MATH 2637), ENGR 2010#, CHEN 2610#	CHEN 3600
3650	Chemical Engineering Analysis	3	2	3	CHEN 3600#, CHEN 3620#, CHEN2AA0	
3660	Chemical Engineering Separations	3	3		CHEN 3620#, CHEN 3370#	
3700	Chemical Reaction Engineering	3	3		MATH 2650, CHEN 2610#, ENGR 2010#	CHEN 3620
3820	Chemical Engineering Lab I	2	1	3	CHEN 3600, CHEN 3620	
4100	Pulp and Paper Processing Laboratory	2		6	CHEN 2610, CHEN 3090, CHEN 3820 or DA	
4160	Process Dynamics and Control	3	2	3	CHEN 3600#, CHEN 3650#	
4170	Digital Process Control	3	2	3	CHEN 3650#	
4180	Advanced Digital Process Control				CHEN4170#	
4450	Process Economics and Safety	3	2	3	CHEM 2080, CHEN 3370#, CHEN 3650#, CHEN 3660#, CHEN 3700#	
4460	Process Simulation and Optimization	2	1	3	CHEM 2080, CHEN 3370#, CHEN 3650#, CHEN 3660#, CHEN 3700#	
4470	Process Design Practice	3	2	3	CHEN 3AA0, CHEN 4450, CHEN 4460	
4560	Pulp and Paper Process Simulation	2	1	3	CHEM 2080, CHEN 3090#; CHEN 3370#, CHEN 3650#, CHEN 3660#, CHEN 3700#	CHEN 4100, CHEN 5110
4570	Pulp and Paper Process Design	3	2	3	CHEN 3AA0, CHEN 4450, CHEN 4560	

4630	Introduction To Transport Phenomena	3	3		CHEN 3620#, CHEN 3650#	
4860	Chemical Engineering Laboratory II	2	1	3	CHEN 3660, CHEN 3820	CHEN 3700
4880	Pulp and Paper Engineering Laboratory	3		9	CHEN 4100#, CHEN5110#	
4970	Special Topics in Chemical Engineering	1-10			DA	
4980	Undergraduate Research	1-3			JS and DA, GPA above 3.0	
4997	Honors Thesis	1-6			Membership in the Honors College, JS and DA	
5110	Pulp and Paper Engineering	3	3		CHEN 3090, CHEN 3620, CHEN 3700	CHEN 4450
5120	Surface and Colloid Science	3	3		CHEN 3620#, CHEN 4100#	
5400	Molecular Engineering	3	3		CHEM 2080, CHEN 3370#	CHEN 3700
5410	Macromolecular Engineering	3	3		CHEM 2080, CHEN 3370#	
5420	Polymer Chemical Engineering	3	2	3	CHEM 2070, CHEN 3620#, CHEN 5410#	
5430	Business Aspect of Chemical Engineering	3	3		SS or DA	
5440	Electrochemical Engineering	3	3		CHEN 3370#, CHEN 3620#, CHEN 3700#	
5650	Hazardous Materials Management and Engineering	3	3		CHEM 2030 or CHEM 2080, CHEN 3820 or CIVL 5210	
5670	Pollution Prevention Engineering	3	3		CHEM 2080, CHEN 3370#, CHEN 3620#, CHEN 3660#, CHEN 3700#	
5700	Advanced Separation Processes	3	3		CHEN 3370#, CHEN 3660#	
5800	Biochemical Engineering	3	3		CHEN 3700#	
5810	Biomedical Engineering	3	3		CHEM 2080, CHEN 3620#, CHEN 3700#	
5820	Advanced Topics in Environmental Biotechnology	3	3		DA	
5970	Advanced Special Topics in Chemical Engineering	1-6			DA	
ENGR 1110	Introduction to Engineering	2	1	3	PEng	
ENGR 2010	Thermodynamics	3	2	3	(CHEM 1110 or CHEM 1030 or CHEM 1117), (MATH 1620 or MATH 1627 or MATH 1720)	(PHYS 1600 or PHYS 1607)
ENGR 2200	Introduction to Thermodynamics, Fluids and Heat	3	3		(CHEM 1110 or CHEM 1030 or CHEM 1117), (PHYS 1610 or PHYS 1617)	MATH 2650
6110	Pulp and Paper Engineering	3	3		Departmental Approval	
6120/6	Surface and Colloid Science	3	3		Departmental Approval	
6400/6	Molecular Engineering	3	3		Departmental Approval	
6410/6	Macromolecular Engineering	3	3		Departmental Approval	
6420	Polymer Chemical Engineering	3	2	3	Departmental Approval	
6430	Business Aspect of Chemical Engineering	3	3		Departmental Approval	
6440/6	Electrochemical Engineering	3	3		Departmental Approval	
6650/6	Hazardous Materials Management and	3	3		Departmental Approval	

	Engineering				
6670/6	Pollution Prevention Engineering	3	3	Departmental Approval	
6700/6	Advanced Separation Processes	3	3	Departmental Approval	
6800/6	Biochemical Engineering	3	3	Departmental Approval	
6810/6	Biomedical Engineering	3	3	Departmental Approval	
6820	Advanced Topics in Environmental Biotechnology	3	3	Departmental Approval	
Graduate Courses w/o equivalent undergraduate courses are not listed in this document.					

- PEng: PreEngineering Standing
- SoS: Sophomore Standing
- JS: Junior Standing
- SS: Senior Standing
- DA: Departmental Approval
- #: Requires grade of C or higher