

PAPER ENGINEERING											2018-2019				
Cr. Hrs	SEM 1	Cr. Hrs	SEM 2	Cr. Hrs	SEM 3	Cr. Hrs	SEM 4	Cr. Hrs	SEM 5	Cr. Hrs	SEM 6	Cr. Hrs	SEM 7	Cr. Hrs	SEM 8
4	MATH 1220 or 1700 Calculus I (F, Sp, Sul, Sull)	4	MATH 1230 or 1710 Calculus II (F, Sp, Sul, Sull)	3+1	CHEM 3750/3760 Organic Chemistry I (L) (F, Sp)	4	MATH 2720 Multivariate Calculus (F, Sp, Sul, Sull)	3	CHEM 4300 Physical Chemistry I (L) (F)	4	MATH 3740 Differential Equations (F, Sp, Sull)	1	CHEG 3810 Computer Modeling and Simulation (L) (F)	3	PAPR 4300 Surface and Wet End Science (Sp)
	MATH 1180 ≥ C or placement		MATH 1220 or 1700 ≥ C		CHEM 1120/1130 ≥ C		MATH 1230 or 1710 ≥ C		PHYS 2050/2060 + 2070/2080 ≥ C		MATH 2720 ≥ C		CHEG 2960 ≥ C		CHEM 3750/3760 ≥ C
									MATH 2720 ≥ C						
									CHEM 1120/1130 ≥ C						
3+1	CHEM 1100/1110 Gen. Chemistry I (L) (F, Sp, Sul, Sull)	3+1	CHEM 1120/1130 Gen. Chemistry II (L) (F, Sp, Sul, Sull)	4+1	PHYS 2050/2060 University Physics I (L) (F, Sp, Sul)	4+1	PHYS 2070/2080 University Physics II (L) (F, Sp, Sull)	3	CHEG 3110 Unit Operations in Chemical Engineering I (L) (F)	3	CHEG 3120 Unit Operations II (L) (Sp)	4	CHEG 4830 Process Control I (L) (F)	1	CHEG/GPS 4400 Seminar (Sp)
	MATH 1110 ≥ C or placement		CHEM 1100/1110 ≥ C		MATH 1220 or 1700 ≥ C		PHYS 2050 ≥ C		CHEG 2960 ≥ C		CHEG 3110 ≥ C		CHEG 3120 ≥ C		Junior Standing
					MATH 1230 or 1710 ≥ C or taking concurrently		MATH 1230 or 1710 ≥ C						PHYS 2070 ≥ C		
							MATH 2720 or 2300 ≥ C or taking concurrently						MATH 3740 ≥ D		
3	IEE 1020 Technical Comm. (F, Sp)	2	CHEG 1810 Intro to Eng. Comp. (L) (F, Sp)	3	IEE 2610 Engineering Statistics (L) (F, Sul)	4	CHEG 2960 Material and Energy Balance (L) (F, Sp)	4	PAPR 3030 Pulp and Bleaching (L) (F)	3	PAPR 3330 Carbohydrate & Lignin Chem (L) (Sp)	3	PAPR 4600 Plant Economics and Project Design (L) (F)	3	PAPR 4860 Independent Research (Sp)
	ENGL 1000 or placement		MATH 1180 ≥ C		MATH 1220 or 1700 ≥ C		MATH 1230 and CHEM 1100 ≥ C		CHEG 2960 ≥ C		PAPR 3030 ≥ C		CHEG 3120 ≥ C		PAPR 4850 ≥ C
			PAPR 1000 ≥ C or CHEG 1010 ≥ C				Co-reqs CHEG 1810 and PHYS 2050		CHEM 3750 ≥ C		CHEM 3750/3760 ≥ C		PAPR 3030 ≥ C		CHEG 3810 ≥ C or taking concurrently
3	PAPR 1000 Introduction to Pulp and Paper Manufacture (L) (F)	4	PAPR 2040 (L) (Sp)	4	PAPR 2550 Paper Physics Fundamentals (L) (F)	3	CHEG 2611 Environmental Engineering (F, Sp)	4	GEN ED II Humanities	3	CHEG 3300 Mass Transfer	1	PAPR 4400 Seminar (F)	1	CHEG 4811 Unit Operations Lab (L) (F, Sp)
	Co-requisite CHEM 1100/1110		PAPR 1000 ≥ C or PAPR 1040 ≥ C		PAPR 2040 ≥ C		CHEM 1100/1110 ≥ C				CHEG 3120 ≥ C or taking concurrently		Junior Standing		CHEG 3120 ≥ C
					Co-requisite IEE 2610 or STAT 3640		MATH 1230 or 1710 ≥ C								IEE 2610 ≥ C
3	GEN ED I* Fine Arts	2	GEN ED VIII Health & Well-Being	3	ECON 2010 Principles of Microeconomics	4	ELECTIVE**	3	GEN ED III U.S. Culture & Issues	3	GEN ED IV Other Cultures & Civilizations	3	ELECTIVE**	3	ELECTIVE**
												3	ELECTIVE**	3	ELECTIVE**
	17 hours		16 hours		19 hours		20 hours		18 hours		16 hours		15 hours		14 hours
															133 total hours

NOTE: Prerequisite courses are shown in smaller print.

*See your academic advisor for general education requirements.

** See page 2 for the elective core courses.

33 Cr. Pre-Engineering Req. 85 Cr. Paper Req. 15 Cr. Gen Ed Req. 17 Cr. Electives

A 'C' or better is required for

PAPER ENGINEERING PROCESS - ELECTIVE CORE COURSES

(Select 17 credits from the following)

Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective				
3	CHEG 3200 Chemical Engineering Thermo. (F)	1	CHEG 3810 Computer Modeling and Simulation (L) (F)	3	CHEG 4100 Chemical Reaction Engineering (F)	4	ECE 2100 Circuit Analysis (L) (F, Sp, Su)	3	IEE 3100 Engineering Economy (F, Sp, Su)	4	STAT 5670 Statistical Design and Analysis of Experiments (F)	3	GPS 5100 Printability Analysis	4	CHEG 4840 Process Control II (Sp)
	CHEM 1120 ≥ C		CHEG 2960 ≥ C		CHEG 3200 or CHEM 4300 ≥ C		Co-requisite PHYS 2070		MATH 1230 ≥ C		Intro stat course		GPS 3500 OR GPS 2580 OR GPS 3590 OR PAPR 2420 OR PAPR 3420		CHEG 4830 ≥ C
	CHEG 2960 ≥ C						MATH 1230 or 1710 ≥ C		Junior Standing						
1	CHP 3100 Work Experience/Co-op	4	PAPR 2420 Coating *REQUIRED (Sp)												
			PAPR 2040 or PAPR 2550 or GPS 2150												

PAPER ENGINEERING - ENVIRONMENTAL ENGINEERING & SUSTAINABLE PROCESSES

ELECTIVE CORE COURSES (Minimum of 17 credits)

Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective	Cr. Hrs	Elective				
3	Energy Management Engineering (F)	4	Microbiology & Infectious Diseases (F, Sp)	1	Work Experience/Co-op (F, Sp, Su)	3	Chemical Engineering Thermo. (F)	3	CHEG 4100 Chemical Reaction Engineering (F)	3+	CHEM 2250/2260 Quantitative Analysis (Sp)	3+	Introductory Biochemistry (Sp, Su)	3	ECON 3190 Environmental Economics
	CHEG 3120 & 3200 ≥ C				Junior Standing		CHEM 1120 ≥ C		CHEM 4300 ≥ C		CHEM 1120/1130 ≥ C		CHEM 3700/3710 or CHEM 3770/3780 ≥ C		ECON 2010 ≥ C
	or CHEG 3120 & CHEM 4300 ≥ C						CHEG 2960 ≥ C								
	or ME 4310 & 4320 ≥ C														
3	IEE 3100 Engineering Economy (F, Sp, Su)	4	PAPR 2420 Coating (Sp)												
	Math 1230 or 1710 ≥ C		PAPR 2040 or PAPR 2550 or GPS 2150 ≥ C												
	Junior Standing														

*CHEG 4440 is a required course.