

BS in Engineering Curriculum – CHPH Concentration

CHPH ENGR - TIER II – Math ACT of 22-24/Math SAT of 520-560

Freshman Fall Semester			Freshman Spring Semester		
MATH 111	College Algebra*	3	MATH 115	Precalculus	3
ENGR 100	Freshman Seminar	1	BIOL 111	Basic Biology & Lab	4
ENGR 110	Introductory Engineering Applications*	3	ENGR 120	Foundations of Engineering Design I	3
ENGL 101	Academic Writing	3	ENGL 102	Academic Writing & Literature	3
CHEM 111	General Chemistry I & Lab	4	CHEM 113	General Chemistry II & Lab	4
CUC 100	Connections	0.5	CUC 100	Connections	0.5
Semester Total:		14.5	Semester Total:		17.5

Summer Semester after Freshman Year		
MATH 122	Calculus I	4
ENGR 121	Foundations of Engineering Design II	3
Semester Total:		7.0

Sophomore Fall Semester			Sophomore Spring Semester		
MATH 223	Calculus II	4	MATH 224	Calculus III	4
PHYS 251	Physics I & Lab	4	ENGR 260	Electrical Circuits & Lab	4
ENGR 220	Statics/Strength of Materials	3	CHEM 228	Organic Chemistry II	4
CHPH 215	Mass and Energy Balances	3	PE 185	Lifetime Wellness	2
CHEM 227	Organic Chemistry I	4	ENGL 2xx	English Literature	3
			CUC 200	Connections	0.5
Semester Total:		18.0	Semester Total:		17.5

Junior Fall Semester			Junior Spring Semester		
MATH 337	Differential Equations	3	ENGR 320	Fluids	3
BIOL 280	Biochemistry and Microbiology	4	ENGR 240	Engineering Materials & Processes	4
ENGR 380	Thermodynamics	3	CHPH 325	Thermodynamics II and Heat Transfer	3
ENGL 305	Technical Writing and Presentations	3	CHPH 345	Microbiological, Fermentation & Separation Processes	2
CHPH 315	Transport Processes	3	CHPH 350	Chemical Reaction Engineering	2
			ENGR 300	Engineering Economics	3
			CUC 200	Connections	0.5
Semester Total:		16.0	Semester Total:		17.5

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Senior Fall Semester			Senior Spring Semester		
ENGR 440	Sensors & Controls & Lab	3	ENGR 491	Senior Design II	3
HIST 111 or 112	Western Civilization I or II	3	ENGR 460	Statistical Methods for Engineers	3
ENGR 490	Senior Design I	3	HUM/FINE ARTS or SOC/BEH SCI	Elective	3
CHPH 445	Chemical Engineering Principles, Unit Operations & Validation	4	ART 131, MUSIC 131 or THEA 131	Fine Arts	3
CHRS 125	Introduction to Christianity	3	ECON 201	Microeconomics	3
			HUM/FINE ARTS	Elective	3
Semester Total:		16.0	Semester Total:		18.0
Degree Total					136

#ABET Requirements (2015-2016 Cycle)

Total Math and Science Hours: 46 (includes statistics for engineers but not pre-calc)

Total Engineering Hours: 53 (includes engineering economics)

1 year Math and Science: minimum of 32 hours

1.5 years Engineering: minimum of 48 hours

1 year = minimum of 32 hours or 0.25 of total credit hours

BOLD-FACED FONT – designates a course taught by the School of Engineering

BLUE BOX – indicates a course taken by both MECH and CHPH concentration students

LEGEND:

* this course does not count toward the BS ENGR degree; this course is required for students who enter the program without the required pre-requisite knowledge