BS in Engineering Curriculum – CHPH Concentration

CHPH ENGR - TIER I – Math ACT of 21 or below/Math SAT of 510 or below

Freshman Fall Semester			Freshman Spring Semester		
MATH 110	Fundamentals of Math*	3	MATH 111	College Algebra*	3
ENGR 100	**Freshman Seminar**	**1**	BIOL 111	Basic Biology & Lab	4
ENGR 110	**Introductory Engineering Applications***	**3**	CHEM 111	General Chemistry I & Lab	4
ENGL 101	Academic Writing	3	ENGL 102	Academic Writing & Literature	3
CHEM 100	Preparatory Chemistry*	3	HIST 111 or 112	Western Civilization 1 or 2	3
CUC 100	Connections	0.5	CUC 100	Connections	0.5
	Semester Total:	**13.5**		**Semester Total:**	**17.5**

Summer Semester after Freshman Year		
MATH 115	Precalculus	3
CHEM 113	General Chemistry II & Lab	4
	Semester Total:	**7.0**

Sophomore Fall Semester			Sophomore Spring Semester		
MATH 122	Calculus I	4	MATH 223	Calculus II	4
ENGR 120	**Foundations of Engineering Design I**	**3**	**ENGR 121**	**Foundations of Engineering Design II**	**3**
ENGL 2xx	English Literature	3	PHYS 251	Physics I & Lab	4
HUM/FINE ARTS	Elective	3	**ENGR 220**	**Statics/Strength of Materials**	**3**
CHEM 227	Organic Chemistry I	4	PE 185	Lifetime Wellness	2
CUC 200	Connections	0.5	CUC 200	Connections	0.5
	Semester Total:	**17.5**		**Semester Total:**	**16.5**

Summer after Sophomore Year		
MATH 224	Calculus III	4
CHEM 228	Organic Chemistry II	4
CHPH 215	**Mass and Energy Balances**	**3**
	Semester Total:	**11.0**

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**
ENGR 260	**Electrical Circuits & Lab**	**4**	**CHPH 345**	**Microbiological, Fermentation & Separation Processes**	**2**
CHPH 315	**Transport Processes**	**3**	**CHPH 350**	**Chemical Reaction Engineering**	**2**
			ENGR 300	**Engineering Economics**	**3**
	Semester Total:	**17.0**		**Semester Total:**	**17.0**

BS in Engineering Curriculum – CHPH Concentration

CHPH ENGR - TIER I – Math ACT of 21 or below/Math SAT of 510 or below

Senior Fall Semester			**Senior Spring Semester**		
ENGR 440	**Sensors & Controls & Lab**	**3**	**ENGR 491**	**Senior Design II**	**3**
ENGR 490	**Senior Design I**	**3**	**ENGR 460**	**Statistical Methods for Engineers**	**3**
CHPH 445	**Chemical Engineering Principles, Unit Operations & Validation**	**4**	HUM/FINE ARTS or SOC/BEH SCI	Elective	3
ENGL 305	Technical Writing and Presentations	3	ART 131, MUSIC 131 or THEA 131	Fine Arts	3
CHRS 125	Introduction to Christianity	3	ECON 201	Microeconomics	3
	Semester Total:	**16.0**		**Semester Total:**	**15.0**
				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