BS in Engineering Curriculum
Mechanical Concentration
TIER I – Math ACT of 21 or below/Math RSAT of 530 or below

Freshman Fall Semester			Freshman Spring Semester		
MATH 110	Fundamentals of Math	3	MATH 111	College Algebra	3
ENGR 100	**Freshman Seminar***	**1**	**ENGR 110**	**Introductory Engineering Applications***	**3**
BIOL 111	Basic Biology	4	ENGL 102	Academic Writing & Literature	3
ENGL 101	Academic Writing	3	CHEM 100	Preparatory Chemistry	3
HIST 111/2	Western Civilization 1 or 2	3	HUM/FINE ARTS	Elective	3
			CUC 100	Connections	0.5
	Semester Total:	**14.0**		**Semester Total:**	**15.5**

Summer Semester after Freshman Year					
MATH 115	Precalculus	3	MATH 122	Calculus I	4
				Semester Total:	**7.0**

Sophomore Fall Semester			Sophomore Spring Semester		
MATH 223	Calculus II	4	MATH 224	Calculus III	4
ENGR 120	**Foundations of Engineering Design I***	**3**	**ENGR 121**	**Foundations of Engineering Design II***	**3**
ENGL 2xx	Literature	3	PHYS 252	Fundamentals of Physics II	4
PHYS 251	Fundamentals of Physics I	4	**ENGR 220**	**Statics & Strength of Materials**	**3**
ECON 201	Microeconomics	3	CHEM 111	General Chemistry I	4
CUC 200	Connections	0.5			
	Semester Total:	**17.5**		**Semester Total:**	**18.0**

Summer Semester after Sophomore Year					
CHEM 113	General Chemistry II	4	CHRS 125	Introduction to Christianity	3
				Semester Total:	**7.0**

Junior Fall Semester			Junior Spring Semester		
MATH 310	Differential Equations and Linear Algebra	4	**ENGR 330**	**Fluids***	**3**
ART/MUSIC /THEA 131	Fine Arts	**3**	**ENGR 330**	**Dynamics**	**3**
ENGR 240	**Engineering Materials and Processes***	**4**	**MECH 345**	**Advanced Thermodynamic Systems**	**3**
ENGR 310	**Thermodynamics***	**3**	**ENGR 260**	**Electrical Circuits***	**4**
ENGR 320	**Mechanics of Materials***	**4**	**MECH 375**	**Machine Design**	**3**
	Semester Total:	**18.0**		**Semester Total:**	**16.0**

Senior Fall Semester			Senior Spring Semester		
ENGR 440	**System Dynamics***	**3**	**ENGR 492**	**Senior Design II**	**2**
ENGR 300	**Engineering Economics**	**3**	**ENGR 480**	**Lean Manufacturing & Quality Engineering***	**3**
ENGR 491	**Senior Design I**	**4**	**ENGR 498**	**Special Topics in Engineering**	**3**
ENGR 460	**Statistical Methods for Engineers**	**3**	**MECH 365**	**Heat Transfer**	**3**
MECH 435	**Manufacturing Engineering***	**3**	HUM/FA or SOC/BEH SCI	Elective	3
PE185	Lifetime Wellness	2	ENGL 305	Technical Writing & Presentations	**3**

BS in Engineering Curriculum
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Semester Total:	**18.0**	**Semester Total:**	**17.0**
		Degree Total	**136**

Total Math and Science Hours: 39 (includes statistics for engineers but not pre-calc)
Total Engineering Hours: 60 (includes engineering economics)

ABET Requirements
Math and Basic Science: minimum of 30 semester credit hours
Engineering topics: minimum of 45 semester credit hours

Red Font - 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

Bold-Faced Font – designates a course taught by the School of Engineering

Blue Box – indicates a course taken by all ENGR students in the same Tier

* - indicates class-lab