Sample 4-year Course Schedule for Engineering

B.S. OF ENGINEERING - Mechanical Concentration (Sample Schedule)

FIRST YEAR - Fall Semester	Units	*Prerequisit(s)*	*FIRST YEAR - Spring Semester*	Units	*Prerequisit(s)*
Engineering & the Liberal Arts	3	NA	***Statics & Engineering Software***	3	Calc I, Physics I
General Physics I (Common Inquiries #2)	4	NA	**General Physics II**	4	Calc I
General Physics I Lab (W.I.)	1	coreq Phy I	**General Physics II Lab**	1	coreq Phy II
Calculus I (Common Inquiries # 4; also QAR)	4	MA 08 or precalc	**Calculus II**	4	MA 09 (Calc I)
G.E. (Intro to New Testament)	4	NA	**G.E. (Intro to Old Testament)**	4	NA
P.E. (Fit for Life)	1	NA	**P.E.**	1	NA
Units this semester	**17**		**Units this semester**	**17**	
SOPHOMORE YEAR - Fall Semester	Units		*SOPHOMORE YEAR - Spring Semester*		
General Chemistry + Lab	4	NA	***Dynamics***	4	Statics
Multivariable Calculus	4	Calc II	**Circuits & Electronics**	4	Phy II & Calc II
G.E. (Christian Doctrine)	4	NA	**Electronics Lab**	0	coreq Circuits
G.E. (Writing for the Liberal Arts)	4	NA	**Linear Algebra & Differential Equ.**	4	Calc II
Mechanics of Materials	3	Statics	**G.E. (World History)**	4	NA
Units this semester	**19**		**Units this semester**	**16**	
ENGINEERING MAYTERM	Units				
Materials Engineering	3	Mechanics of Materials			
Manufacturing Processes	3	Statics			
Units this semester	**6**				
JUNIOR YEAR - Fall Semester	Units		*JUNIOR YEAR - Spring Semester*	Units	
Thermodynamics	4	Dynamics	***Fluid Mechanics***	3	Thermo
Control Systems	3	Dynamics	***Junior Design: interdisciplinary (Service-Learning)***	3	Junior status
G.E. (Foreign Language)	4	NA	**G.E. (Common Inquiries #1 & #5)**	4	NA
G.E. (Philosophical Reflections)	4	NA	**G.E. (Common Inquiries #8)**	4	NA
Optional: Engineering internship	0 to 3	Junior status	**P.E**	1	NA
			Optional: Engineering internship	0 to 3	Junior status
Units this semester	**15**		**Units this semester**	**15**	
Summer - internship 1 to 3 units	0 to 3	Junior status			
SENIOR YEAR - Fall Semester	Units		*SENIOR YEAR - Spring Semester*	Units	
Instrumentation & Measurement	3	Thermo	***Senior Design Capstone II***	3	Sr Design I
Mechanical Design	3	Mechanics of Materials	***Engineering Elective #2***	3	Senior status
Engineering Elective #1	3	Senior status	**G.E. (Common Inquiries #6 & #7)**	4	NA
G.E. (Common Inquiries #3)	4		**P.E.**	1	Senior status
Senior Design Capstone I	3	Senior status	***Engineering Seminar: Faith, Technology, and Christian Responsibility - Writing Intensive***	1	Senior status
			Preperation for FE exam	0	NA
Units this semester	**16**		**Units this semester**	**12**	
Notes					
Some curriculum is still in the approval process by Westmont Leadership					
Orange --> Core Science / Math courses					
Black --> G.E. & P.E. courses					
Red --> Engineering courses					
G.E. and P.E. classes may be taken in a different order					
An internship may be able to count for Engineering Elective credit					
Upper level Science or Math courses (beyond the core science/math requirements) may be able to count as Engineering Electives					

Curriculum Categories for Engineering

CURRICULUM BY CATEGORY	
Courses	**Units**
G.E. & P.E. classes	4
G.E. (Intro to New Testament)	4
G.E. (Intro to Old Testament)	4
G.E. (Christian Doctrine)	4
G.E. (Writing for the Liberal Arts)	4
G.E. (World History)	4
G.E. (Foreign Language)	4
G.E. (Philosophical Reflections)	4
G.E. (Common Inquiries #1 & #5)	4
G.E. (Common Inquiries #8)	4
G.E. (Common Inquiries #3)	4
G.E. (Common Inquiries #6 & #7)	4
4 PE 1-unit classes	4
Core Science / Math	
General Physics I (Common Inquiries #2)	4
General Physics I Lab (W.I.)	1
Calculus I (Common Inquiries # 4; also QAR)	4
General Physics II	4
General Physics II Lab	1
Calculus II	4
General Chemistry + Lab	4
Multivariable Calculus	4
Circuits & Electronics	4
Electronics Lab	0
Linear Algebra & Differential Equ.	4
Engineering Courses	
Engineering & the Liberal Arts	3
Statics & Engineering Software	3
Mechanics of Materials	3
Dynamics	4
Thermodynamics	4
Control Systems	3
Fluid Mechanics	3
Junior Design: interdisciplinary (Service-Learning)	3
Instrumentation & Measurement	3
Mechanical Design	3
Engineering Elective #1	3
Senior Design Capstone I	3
Senior Design Capstone II	3
Engineering Elective #2	3
Engineering Seminar: Faith, Technology, and Christian Responsibility - Writing Intensive	1