B.S. IN 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	
			3 		
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	
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ENGINEERING MAYTERM	Units]		
Materials Engineering	3	Mechanics of Materials			
Vanufacturing Processes	3	Statics	1		
Units this semester	6				
Units this semester	6]		
Units this semester	6		IIINIOD VEAD Soring Somester	Unite	
Jnits this semester JUNIOR YEAR - Fall Semester Thermodynamics	6 Units 4	Dynamics	JUNIOR YEAR - Spring Semester Fluid Mechanics	Units 3	Thermo
Juits this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Sustance	6 Units 4	Dynamics Dynamics	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service-	Units 3	Thermo Junior status
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems C 5 (Exercise Lenguage)	6 Units 4 3	Dynamics Dynamics NA	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning)	Units 3 3	Thermo Junior status
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language)	6 Units 4 3 4	Dynamics Dynamics NA	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5)	Units 3 3 4	Thermo Junior status NA
Juits this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections)	6 Units 4 3 4 4	Dynamics Dynamics NA NA	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8)	Units 3 3 4 4	Thermo Junior status NA NA
Units this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship	6 Units 4 3 4 0 to 3	Dynamics Dynamics NA NA Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E	Units 3 3 4 4 1	Thermo Junior status NA NA NA
Units this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship	6 Units 4 3 4 4 0 to 3	Dynamics Dynamics NA NA Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship	Units 3 3 4 4 1 0 to 3	Thermo Junior status NA NA NA Junior status
Units this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester	6 Units 4 3 4 4 0 to 3 15	Dynamics Dynamics NA NA Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester	Units 3 3 4 4 1 0 to 3 15	Thermo Junior status NA NA NA Junior status
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester	6 Units 4 3 4 4 0 to 3 15	Dynamics Dynamics NA NA Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester	Units 3 3 4 4 1 0 to 3 15	Thermo Junior status NA NA NA Junior status
Jnits this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems 3.E. (Foreign Language) 3.E. (Philosophical Reflections) Optional: Engineering internship Jnits this semester Summer - internship 1 to 3 units	6 Units 4 3 4 4 0 to 3 15 0 to 3	Dynamics Dynamics NA NA Junior status Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester	Units 3 3 4 4 1 0 to 3 15	Thermo Junior status NA NA NA Junior status
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SEMIOR YEAR - Fall Semester	6 Units 4 3 4 4 0 to 3 15 0 to 3 Units	Dynamics Dynamics NA NA Junior status Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester	Units 3 3 4 4 1 0 to 3 15	Thermo Junior status NA NA Junior status
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester Instrumentation & Measurement	6 Units 4 3 4 4 0 to 3 15 0 to 3 Units 3	Dynamics Dynamics NA NA Junior status Junior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II	Units 3 4 4 1 0 to 3 15 Units 3	Thermo Junior status NA NA Junior status Sr Design I
Units this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester Instrumentation & Measurement Wechanical Design	6 Units 4 3 4 0 to 3 15 0 to 3 Units 3 3	Dynamics Dynamics NA NA Junior status Junior status Thermo Mechanics of Materials	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II Engineering Elective #2	Units 3 4 4 1 0 to 3 15 Units 3 3	Thermo Junior status NA NA Junior status Sr Design I Senior status
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester Instrumentation & Measurement Wechanical Design Engineering Elective #1	6 Units 4 3 4 0 to 3 15 0 to 3 Units 3 3 3	Dynamics Dynamics NA NA Junior status Junior status Thermo Mechanics of Materials Senior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II Engineering Elective #2 G.E. (Common Inquiries #6 & #7)	Units 3 4 4 1 0 to 3 15 Units 3 4	Thermo Junior status NA NA Junior status Sr Design I Senior status NA
Units this semester UNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester Instrumentation & Measurement Wechanical Design Engineering Elective #1	6 Units 4 3 4 0 to 3 15 0 to 3 Units 3 3 3 3	Dynamics Dynamics NA NA Junior status Junior status Thermo Mechanics of Materials Senior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II Engineering Elective #2 G.E. (Common Inquiries #6 & #7)	Units 3 4 4 1 0 to 3 15 Units 3 3 4	Thermo Junior status NA NA Junior status Sr Design I Senior status NA
Jnits this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems 3.E. (Foreign Language) 3.E. (Philosophical Reflections) Optional: Engineering internship Jnits this semester Jnits this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester Instrumentation & Measurement Mechanical Design Engineering Elective #1 3.E. (Common Inquiries #3)	6 Units 4 3 4 4 0 to 3 15 0 to 3 Units 3 3 4 4	Dynamics Dynamics NA NA Junior status Junior status Thermo Mechanics of Materials Senior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II Engineering Elective #2 G.E. (Common Inquiries #6 & #7) P.E.	Units 3 4 4 1 0 to 3 15 Units 3 3 4 1	Thermo Junior status NA NA Junior status Sr Design I Senior status NA Senior status
Units this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester Instrumentation & Measurement Mechanical Design Engineering Elective #1 G.E. (Common Inquiries #3) Senior Design Canstone I	6 Units 4 3 4 0 to 3 15 0 to 3 Units 3 3 4 4 3	Dynamics Dynamics NA NA Junior status Junior status Junior status Thermo Mechanics of Materials Senior status Senior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II Engineering Elective #2 G.E. (Common Inquiries #6 & #7) P.E. Engineering Seminar: Faith, Technology, and Christian Responsibility - Writing Intensive	Units 3 4 4 1 0 to 3 15 Units 3 3 4 1 1	Thermo Junior status NA NA Junior status Senior status NA Senior status Senior status
Units this semester JUNIOR YEAR - Fall Semester Thermodynamics Control Systems G.E. (Foreign Language) G.E. (Philosophical Reflections) Optional: Engineering internship Units this semester Summer - internship 1 to 3 units SENIOR YEAR - Fall Semester SENIOR YEAR - Fall Semester SENIOR YEAR - Fall Semester Mechanical Design Engineering Elective #1 G.E. (Common Inquiries #3) Senior Design Capstone I	6 Units 4 3 4 0 to 3 15 0 to 3 Units 3 3 4 4 3 3 4	Dynamics Dynamics NA NA Junior status Junior status Junior status Mechanics of Materials Senior status Senior status	JUNIOR YEAR - Spring Semester Fluid Mechanics Junior Design: interdisciplinary (Service- Learning) G.E. (Common Inquiries #1 & #5) G.E. (Common Inquiries #8) P.E Optional: Engineering internship Units this semester SENIOR YEAR - Spring Semester Senior Design Capstone II Engineering Elective #2 G.E. (Common Inquiries #6 & #7) P.E. Engineering Seminar: Faith, Technology, and Christian Responsibility - Writing Intensive Preparation for EE exam	Units 3 4 4 1 0 to 3 15 Units 3 3 4 1 1 0 0	Thermo Junior status NA NA Junior status Senior status NA Senior status Senior status

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 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
SUM G.E.	52
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
SUM Core Science	34
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
Materials Engineering	3
Manufacturing Processes	3
Junior Design: interdisciplinary (Service-Learning)	3
Instrumentation & Measurement	3
Mechanical Design	2
Engineering Elective #1	3
Senior Desian Capstone I	3
Senior Design Capstone II	3
Engineering Elective #2	3
Responsibility - Writing Intensive	1
SUM Engineering Technical Content	51