Bachelor of Science in Integrated Engineering composite
— Worksheet & Pre-requisites— 2012-13

Course #	Course title	Credits	Of'rd	Pre-requisites
CORE				
MATH 1220	Calculus II	4	F/S	"C" in MATH 1210 **or** AP Calculus
MATH 2210	Calculus III	4	F/S	"C" in MATH 1220
MATH 2250	Linear Algebra & Diff Equations	4	F	MATH 1210 & MATH 1220
ENGR 1030	Computer Assisted Drafting	3	F/S	
ENGR 2010	Statics	3	F/S	ENGR 1010, MATH 1210 & PHYS 2210/15
ENGR 2030	Dynamics	3	S	ENGR 1030, ENGR 2010 & MATH 1220. Co-requisite: ENGR 2145
ENGR 2140	Strength of Materials	3	S	ENGR 2010 Co-req: ENGR 2140
ENGR 2145	Strength of Materials lab	1	S	Co-req ENGR 2140
ENGR 2270	Electro Mechanical Systems	3	S	PHYS 2220 & PHYS 2225. Co-requisite: ENGR 2275 & MATH 2250
ENGR 2275	Electro Mechanical Systems Lab	1	S	Co-req ENGR 2270
ENGR 3000	Thermodynamics	3	F	pre-req: PHYS 2220 & co-req: MATH 2210
ENGR 3010	Material Science Engineering	3	F	CHEM 1210/15, ENGR 2140/45 & co-req: ENGR 3015
ENGR 3015	Material Science Engineering lab	1	F	co-req: ENGR 3010
ENGR 3045	Engineering Design Lab I	2	F	ENGR 1030, ENGR 2140, ENGR 2145 and CSIS 1040 or CSIS 1400
ENGR 3050	Fluid Mechanics	3	S	ENGR 3000
ENGR 3055	Fluid Mechanics Lab	1	S	Co-req ENGR 3050
ENGR 3095	Engineering Design Lab II	3	S	ENGR 3045, ENGR 4030 & ENGR 4035
ENGR 4000	Mechatronics	3	S	ENGR 2030, ENGR 4030/35
ENGR 4005	Mechatronics Lab	2	S	Co-requisite: ENGR 4000
ENGR 4010	Heat Transfer	3	F	MATH 2250 & ENGR 3050/55
ENGR 4025	Integrated Engineering Design Lab I	3	F	ENGR 3010, ENGR 3095, ENGR 4000, ENGR 4005 & ENGR 4070. Co-requisite: ENGR 4010 and ENGR 4060
ENGR 4030	Electronics	3	F	ENGR 2270 & ENGR 2275, Co-requisite: ENGR 4035
ENGR 4035	Electronics Lab	1	F	Co-req ENGR 4030
ENGR 4050	Structural Analysis	3	F	ENGR 2140 & 2145
ENGR 4060	Manufacturing	3	F	ENGR 3010 & ENGR 3015
ENGR 4070	Intro to Steel & Concrete Design	3	S	ENGR 4050
ENGR 4085	Integrated Engineering Design Lab II	3	S	ENGR 4025, ENGR 4010 & ENGR 4060
PHYS 2210	Physics for Scientists & Engineers I	4	F/S	MATH 1210 Co-req-PHYS 2215
PHYS 2215	Physics for Scientists & Engineers I Lab	1	F/S	Co-req PHYS 2210
PHYS 2220	Physics for Scientists & Engineers II	4	F/S	PHYS 2210/15 & MATH 1220
PHYS 2225	Physics for Scientists & Engineers II Lab	1	F/S	Co-req PHYS 2220
ENGL 3120	Writing in the Sciences	3	F	ENGL 2010 at least one 3000 science
UNIV 1010	Introduction to Experiential Education	1		
UNIV 3925	EER Proposal	1		
UNIV 4925	Synthesis and Reflection	1		
GENERAL EDUCATION				
ENGL 1010	Intro to Academic Writing	3		
ENGL 2010	Intermediate Writing	3		
MATH 1210	**Calculus I**	4	F/S/M	"C" in MATH 1050/60 **or** pre-college 2-1/2 yrs-Alg/1 yr-Geo/1/2 yr-Trig
LM 1010	Information Literacy	1		
American Institution		3		
CSIS 1040	**Intro to Programming with MatLab**	3	S	"C" in MATH 1010 or ACT of 23
FINE ARTS:		3		
HUMANITIES:ENGR 1010	**Engineering in the 21st Century**	3	F/S	
SOCIAL SCIENCE:FIN 3250	**Managerial Finance I**	3	F/S	Advisor sign in after MATH 1220
LIFE SCIENCE		3		
PHYS SCI: Chem 1210/15	**Principles of Chemistry I/Lab**	5	F/M	MATH 1050 **or** H.S. chemistry