BSE ENGINEERING (HUMANITARIAN CONCENTRATION)

B.S.E. Degree Requirements for a Major in Engineering (Humanitarian Concentration)

Code	Title	Hours
Required Courses		
Minimum 124 hours including the following:		
Literature and Writing		
ENG 1310	Research Writing: Writing and Academic Inquiry Seminars	3
GTX 2301	Intellectual Traditions of the Ancient World : Literature and Thought	3
or GTX 2302	Medieval Intellectual Traditions: Literature and Thought in Context	
PWR 3300	Technical Writing	3
Religion		
REL 1310	The Christian Scriptures	3
REL 1350	The Christian Heritage	3
Foreign Language and Culture		
Select 3 hours from the Foreign Language and Culture Distribution List for ECS Majors. Second-level proficiency must be reached if a foreign language is chosen.		3
Other Requirements		
PSC 1387	The U.S. Constitution, Its Interpretation, and the American Political Experience	3
or ENG 2301	British Literature	
EGR 2108	Engineering Economics	1
EGR 3305	Social and Ethical Issues in Engineering	3
EGR 1101	Engineering New Student Experience	1
Lifetime Fitness: Any two LF 11XX courses. ECS 2101 and select leadership courses may fulfill one of the Lifetime Fitness requirements.		2
Chapel: Two Semesters		0
General Elective Credit		1
Mathematics and Basic Sciences		
CHE 1301	Basic Principles of Modern Chemistry I	3
MTH 1321	Calculus I	3
MTH 1322	Calculus II	3
MTH 2311	Linear Algebra	3
MTH 2321	Calculus III	3
MTH 3325	Ordinary Differential Equations	3
STA 3381	Probability and Statistics	3
One additional "3000" or "4000" level approved math or science class		3
PHY 1420	General Physics I	4
PHY 1430	General Physics II	4
Engineering Major (Humanitarian)		
EGR 1301	Introduction to Engineering	3
EGR 1302	Introduction to Engineering Analysis	3
EGR 3380	Engineering Design I	3
EGR 4390	Engineering Design II	3
ME 2320	Statics	3
ME 2321	Dynamics	3
ME 2345	Thermodynamics	3
ME 3420	Instrumentation and Measurements	4
ELC 2330 & ELC 2130	Electrical Circuit Theory and Electrical Circuit Laboratory	4
ELC 3335	Signals and Systems	3
Select one of the following:		4
ELC 2337 & ELC 2137	Digital Logic Design and Digital Logic Design Laboratory	
CSI 1401	Introduction to Programming I	
CSI 1430	Introduction to Computer Science I with Laboratory	
Engineering Electives (Humanitarian)		
ME 4305	Sustainable Engineering	3
ME 4360	Renewable Energy Devices	3
Any 3000-4000 level ELC/ME/BME/EGR Elective		3
Concentration Requirements (Humanitarian)		
EGR 3315	Ethics of International Service	3
Choose one course from the following group		3
ENV 3333	Watershed Assessment	
ENV 4310	World Food Problems	
ENV 4345	Water Management	
Choose one course from the following group		3
REL 3382	Cross-Cultural Ministry	
REL 3345	World Religions	
ENV 4350	Development and Indigenous Peoples	
REL 4340	Christian Missions	
Choose one course from the following group		3
MGT 4353	Social Entrepreneurship and Economic Development	
ECO 3355	Introduction to the Economics of Poverty and Discrimination	
Choose two additional courses from the groups above.		6
A grade of "C" or better in all of the Engineering hours counted towards the major.		
Total Hours		**124**