Cumberland University

Labry School of Business & Technology

Program of Study
Engineering Science

Freshman Fall		Hr's	Pre-Req's	Freshman Spring		Hr's	Pre-Req's	Tot Hr's
ENG 101	English Composition I	3		ENG 102	English Composition II	3	ENG 101	
SPAN 111	Elementary Spanish I	3		SPAN 112	Elementary Spanish II	3	SPAN 111	
MATH 121	Calculus I	4		MATH 122	Calculus II	4	MATH 121	
Arts and Humanities Req.	ART 191, MU 129, PHIL 201, or THE 100	3		Social Science Req.	ANTH/SOC 210, PSY 201, PSY 211, SOC 221	3		
BIO 111	General Biology I	4		BIO 112	General Biology II	4	BIO 111	
ENGR 101	Cohort Challenge 1	0		ENGR 102	Cohort Challenge 2	0	ENGR 101	
		17				17		34
Sophomore Fall				**Sophomore Spring**				
ENG 215 or 216	Intro to Literature or Topics in Literature	3						
MATH 331	Linear Algebra	3	MATH 121	MATH 321	Calculus III	4	MATH 122	
CHEM 111	Chemistry I	4		CHEM 112	Chemistry II	4	CHEM 111	
PHYS 210	General Physics I	4	MATH 122	PHYS 211	General Physics II	4	PHYS 210	
HIS 191 or 201	World Civilization I or History of the US I	3		ECON 242	Microeconomics	3		
ENGR 201	Cohort Challenge 3	1		ENGR 202	Cohort Challenge 4	1	ENGR 201	
		18				16		34
Junior Fall				**Junior Spring**				
MATH 329	Differential Equations	3	MATH 321	ENGR/PHYS 325	Thermal Fluids	3	MATH 329, PHYS 211	
MGT 363	Principles of Management	3	ECON 242	CHEM/BIO 400	Biochemistry	4	Chem 311	
Chem 311	Organic Chemistry I	4	CHEM 112	ENGR/PHYS 327	Electrical Circuits	3	MATH 321, PHYS 211	
ENGR 365	Engineering Statistics	3		ENGR 329	Materials Science and Bio-Material Engineering	3	Chem 311	
HIS 192 or 202	World Civilization II or History of the US II	3		SPEE 220	Fundamentals of Speech	3		
ENGR 301	Cohort Challenge 5	1	Math 321, ENGR 202	ENGR 302	Cohort Challenge 6	1	ENGR 301	
		17				17		34
Senior Fall				**Senior Spring**				
ENGR/PHYS 367	Advanced Mechanics	3	MATH 321, PHYS 211	MGT 430	Technology Management	3	MGT 363	
ENGR/ECON 366	Engineering Economics	3	ECON 242	ENGR 420	Measurement and Instrumentation	3		
ENGR 400	Digital Electronics and Embedded Systems (Note 3)	3	ENGR 327	MBA 5254	Techonomics	3		
ENGR 415	Controls and Communications (Note 3)		ENGR 33X	BUA 3XX or 4XX	Business Elective (Note 1)	3		
CIS XXX	Elective - Computer Programming Class	3						
ENGR 401	Cohort Challenge 7	3	ENGR 302	ENGR 402	Cohort Challenge 8	3	ENGR 401	
		15				15		30
					Total Hours =			132

Notes:
1. Recommended Upper Division Business Electives include: Entrepreneurship, Production management, Business Law, Research in Business, …
2. By completion of the Freshman year, all Engineering Science students must have passed a proficiency test in lieu of CIS-170.
3. Either Digital Electronics or Controls & Communication - must be taken in the Fall semester of the senior year

Rev: **M**
Date: **3-Apr-09**