



CATALOG YEAR 2008-2009
(Please use separate form for each add/change)

COLLEGE/SCHOOL/SECTION: Arts and Sciences
 Current Catalog Page(s) Affected: pp. N/A (new program)

Course: Add: _____ Delete: _____ Change: Number _____ Title _____
 (check all that apply) SCH _____ Description _____ Prerequisite _____

If new, provide Course Prefix, Number, Title, SCH Value, Description, prerequisite, lecture/lab (hours if applicable) and **student learning outcomes**. If in current catalog, provide change and attach page with changes in red and provide a brief justification.

Program: Add: _____ Change: X Attach new/changed Program of Study description and 4-year plan. If in current catalog, provide change and attach page with changes in red.

B.S. Major in System Engineering (see the attached sheets for details)

Minor: Add: _____ Delete: _____ Change: _____ Attach new/changed minor.
 If in current catalog, provide change and attach page with changes in red.

Faculty: Add: _____ Delete: _____ Change: _____ Attach new/changed faculty entry.
 If in current catalog, provide change and attach page with changes in red.

College Introductory Pages: Add information: _____ Change information: _____
 Attach new/changed information. If in current catalog, provide change and attach page with changes in red.

Other: Add information: _____ Change information: _____
 Attach new/changed information. If in current catalog, provide change and attach page with changes in red.

Approvals:	Signature	Date
Chair Department Curriculum Committee	_____	_____
Chair Department	_____	_____
Chair College Curriculum Committee	_____	_____
Dean	_____	_____

Summary of Curriculum Changes:

Total degree hours (SCH) have been reduced from 128 SCH to 126 SCH. ENG 2370 Introduction to Systems Engineering (3 SCH) and ENG 2170 Introduction to Systems Engineering Lab (1 SCH) were removed, while ENG 1202 Foundation of Engineering II (2 SCH) has been added into the engineering curriculum (New total = $128 - 3 - 1 + 2 = 126$ SCH). This change does not affect the quality of the program since ENGR 1202 was modified to include some important topics of ENGR 2370 and 2170. Other important topics are already covered in ENG 1202 and other upper level courses, including SENG 3330 Operation Research and SENG 3350 Production Control. Also, ENGR 2105 Laboratory and SENG 3340 Robotics and Automation already cover some of the laboratory topics of ENGR 2170.

Justification of 126 SCH:

We believe that the contents of the courses of the System Engineering Degree are necessary to equip our graduates with the knowledge to advance in their professional careers, as well as to prepare them for graduate school. Any reduction in the number of courses, either by eliminating courses, or distributing the content of other courses would affect the quality of the degree.

Degree Requirements for BS with a Major in System Engineering

- 1. Hours Required:** A minimum of 126 semester credit hours (SCH): 45 hours must be advanced, and fulfillment of degree requirements as specified in the “Requirements for Graduation” section of this catalog.
- 2. University Core Curriculum:** 43 SCH (because of MATH 2413 in Core) as outlined in the suggested plan and as specified in the “Requirements for Graduation”.
- 3. Major Courses:** 48 SCH including ENGR1201, 1202, 1204, 2103, 2105, 2303, 2305, 2372, and 2376; COSC 1136, and 1336; SENG 3300, 3301, 3310, 3320, 3330, 3340, 3350, and 3380.
- 4. SENG Electives:** 18 SCH of Engineering Track courses (SENG 3370, 4330, 4340, 4350, 4360, and 4390) or 18 SCH of Business Track courses (MKT 3310, MIS 3310, TIL 3310, 3311, 3340, and BA 4390).
- 5. Mathematics Required:** 11 SCH including MATH 2414, 2415, and 3310.
- 6. BUS/SENG Electives:** 6 SCH selected from the following courses: BA 3320, and 4199-4399, MKT 4310, and 4390; SENG 4370, 4380, 4385, and 4195-4395.

BACHELOR OF SCIENCE IN SYSTEMS ENGINEERING








FALL FRESHMAN YEAR				HRS	SPRING FRESHMAN YEAR				HRS
ENGL	1301	English Composition I		3	ENGL	1302	English Composition II		3
ENGR	1201	Foundations of Engineering I		2	ENGR	1202	Foundations of Engineering II		2
PSCI	2305	American National Govt		3	PSCI	2306	American State Govt		3
MATH	2413	Calculus I		4	MATH	2414	Calculus II		4
PHYS	2125	University Physics I Lab		1	PHYS	2126	University Physics II Lab		1
PHYS	2325	University Physics I		3	PHYS	2326	University Physics II		3
				16					16

FALL SOPHOMORE YEAR					SPRING SOPHOMORE YEAR				
COSC	1136	Fundamentals of Progrmng Lab		1	ENGR	2105	Princ Elec Engineering Lab		1
COSC	1336	Fundamentals of Programming		3	ENGR	2305	Princ Elec Engineering		3
ENGL	2311	Technical Writing		3	ENGR	2372	Intro Design Experiments Cons Princ Thermal Sciences		3
ENGR	1204	Engineering Graphics		2	ENGR	2376	Sciences		3
ENGR	2103	Engineering Mech & Dyn Lab		1	MATH	3310	Intro to Linear Algebra		3
ENGR	2303	Engineering Mech & Dynamics		3			Visual&Performing Arts		3
MATH	2415	Calculus III		4					16
				17					16

FALL JUNIOR YEAR					SPRING JUNIOR YEAR				
HIST	1301	The US to 1877		3	HIST	1302	The US since 1877		3
SENG	3300	Engineering Economics		3	SENG	3330	Operations Research I Eng Stat and Quality Control		3
SENG	3310	Intro to Control Sysms Engineering Modeling & Design		3	SENG	3380	Control		3
SENG	3320	SE Elective		3	SENG		SE Elective		3
SENG		SE Elective		3			Soc/Behavioral Science*		3
		Activity or Wellness		1	ENGL		Survey of English Lit*		3
				16					18

FALL SENIOR YEAR					SPRING SENIOR YEAR				
SENG	3301	Technical Reports & Proj Mngmnt		3	SENG	3350	Production Planning&Control		3
SENG	3340	Robotics and Automation		3	SENG		SE Elective		3
SENG		SE Elective		3	SENG		SE Elective		3
SENG		SE Elective		3			BUS/SENG Elective		3
		BUS/SENG Elective		3					12
				15					12

Sub Total	64		Sub Total	62
Degree Total	126			

	Core*	43	
	Required Courses	48	
	SENG Electives	18	
	Required MATH Courses	11	
	Track Electives	6	
		126	

*Total is 43 hours because of MATH 2413 in Core.