

2007-2008 Catalog Pre-Requisite Structure Computer Engineering Option

Lower Division Courses		
COURSE NUMBER	Title	Pre Requisite
CHEM 1601 (or 1605)	Basic Chemistry for the Health Sciences	
CS 1160	Intro to Computer Science and Programming	Math 1300 or equivalent
CS 2360	Prog Methods & Intro to Software Engr	CS 1160
CS 2430	Comp Org & Assembly Language Prog	an introductory programming course
ECON 2301	Principles of Microeconomics	
ENGR 1010	Introduction to Engineering	
ENGR 1420	Engineering Graphics	
ENGR 2010	Electric Circuit Theory	Phys 1002 Co-requisite
ENGR 2060	Materials Science	Chem 1601 or 1605 and Math 1304
MATH 1304	Calculus I	Math 1300 or Dept. Permission
MATH 1305	Calculus II	Math 1304
MATH 2101	Elements of Linear Algebra	Math 1305 or 1820 (may be taken simultaneously with, or after, Math 2304)
MATH 2304	Calculus III	Math 1305
MATH 2150	Discrete Structures	Math 1304
PHYS 1001	Physics I	Math 1304 Pre- or Co-req
PHYS 1002	Physics II	Math 1305 Pre- or Co-req & Phys 1001
PHYS 1003	Physics III	Math 2304 Pre- or Co-req & Phys 1002
Upper Division Core Courses		
CS 3120	Program Language Concepts	CS 2360 and 2430
CS 3240	Data Structures & Algorithms	Math 2150, CS 2360, CS 2430
CS 3430	Computer Architecture	Math 2150, CS 2430
CS 3432	Digital Design Lab	CS 3430
CS 3434	Microprocessor Lab	CS 3430
CS 3590	Data Comm & Networking	CS 3430 and knowledge of C or C++
CS/ENGR 3752	Intro to Digital Signal Processing	Math 1304, 2101; CS 1160
CS 4430	Computer Architecture II	CS 3430; recommended: knowledge of C++ programming
CS 4432	VLSI Circuit Design	CS 3430, 3432
CS 4560	Operating Systems	CS 3240 and CS 3430
ENGR 3010	Electric Circuit Theory II	ENGR 2010
ENGR 3101	Statics and Dynamics	Phys 1003
ENGR 3140	Engineering Economy	
ENGR 4610	Senior Design I	Senior standing and Departmental approval.
ENGR 4620	Senior Design II	Engr 4610
MATH 3331	Differential Equations	Math 2304
STAT/ENGR 3601	Stat & Probability for Sci & Engr I	Math 1305
ELECTIVES:		
<i>Select eight (8) units from the following (or other 3000 and/or 4000 level courses with department approval)</i>		
CS 3560	Intro to System Programming	CS 2360
CS 4310	Software Engineering I	CS 3240
CS 4590	Computer Networks	CS 3560, 3590
CS 4594	Broadband Networks & Com	CS 3590
CS 4596	Wireless & Mobile Networking	CS 3590
CS 4840	Computer Graphics	CS 3240, 3430
ENGR 4200	Systems Simulation	CS 1160, ENGR 3601 & co-req ENGR 3841
ENGR 4280	Design & Mgmt of Human Works Systems	ENGR 3020, 3190
ENGR 4300	Quality Engineering	ENGR 2070, STAT/ENGR 3601
ENGR 6200	Project Management	Stat 1000 or Stat 3601 or 5601
ENGR/STAT 6300	Applied Quality Assurance	Stat/Engr 3601
ENGR 6400	Management	
STAT/ENGR 4603	Operations Research II	Math 3401 or Stat/Engr 3601