

SCHOOL OF ENGINEERING			
Degree: MASTER OF SCIENCE Credits: 30		CURRICULUM	
Program: COMPUTER ENGINEERING			
Description: The master's program in Computer Engineering provides students with an in-depth knowledge of the principles of hardware and software design and their interfacing for building complex computer applications.			
Course Code	Course Title	Credits	Requisites
Required Courses			
CPEN 502	Advanced Analysis & Design of Algorithms	3	COMP 315 or instructor consent
CPEN 503	Computer and Network Security	3	CPEN 481 or instructor consent
CPEN 504	Advanced Computer Architectures	3	CPEN 444 or instructor consent
CPEN 505	Database Management Systems	3	CPEN 455 or instructor consent
CPEN 550	Operating Systems Programming	3	CPEN 452 or instructor consent
		15	
Elective Courses (Select a minimum of 15 credits from the list below.)			
CPEN 511	Distributed Systems	3	CPEN 444 & 452, or instructor consent
CPEN 520	Numerical Optimization	3	COMP 411 or instructor consent
CPEN 531	Secure Software Systems	3	CPEN 503 or instructor consent
CPEN 552	Computer Graphics	3	ENGI 223 or instructor consent
CPEN 640	Embedded Systems	3	ELEN 442 or instructor consent
CPEN 696	M.S. Project	3	Permission of project advisor
CPEN 697	M.S. Thesis	6	Permission of thesis advisor
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Program: COMPUTER ENGINEERING			
Course Code	Course Title	Credits	Requisites
FIRST YEAR – FIRST SEMESTER			
CPEN 502	Advanced Analysis & Design of Algorithms	3	COMP 315 or instructor consent
CPEN 504	Advanced Computer Architectures	3	CPEN 444 or instructor consent
		6	
FIRST YEAR – SECOND SEMESTER			
CPEN 503	Computer and Network Security	3	CPEN 481 or instructor consent
CPEN 505	Database Management Systems	3	CPEN 455 or instructor consent
CPEN 550	Operating Systems Programming	3	CPEN 452 or instructor consent
		9	
SECOND YEAR – FIRST SEMESTER			
	Computer Engineering Elective I	3	Depends on elective
	Computer Engineering Elective II	3	Depends on elective
	Computer Engineering Elective III	3	Depends on elective
		9	
SECOND YEAR – SECOND SEMESTER			
	Computer Engineering Elective IV	3	Depends on elective
	Computer Engineering Elective V	3	Depends on elective
		6	