

DEPARTMENT OF MATHEMATICAL SCIENCES

MAJOR: COMPUTER SCIENCE (37 HOURS)

NO MINOR REQUIRED

NO ADDITIONAL HOURS REQUIRED

TOTAL HOURS TO COMPLETE: 37 HOURS

COMPUTER SCIENCE MAJOR REQUIREMENTS (37 HOURS)				
	COURSE NAME	HRS	TERM	PREREQUISITES
CISS 201	PROGRAMMING LANGUAGE I	3	FALL	
CISS 202	PROGRAMMING LANGUAGE II	3	SPRING	CISS 201
CHOOSE ONE	SELECT 3 CREDIT HOURS FROM THE FOLLOWING:			
CISS 281	PROGRAMMING IN JAVA	3	FALL (ODD YEARS)	
CISS 285	C PROGRAMMING LANGUAGE	3	FALL (EVEN YEARS)	
CISS 360	ASSEMBLY LANGUAGE PROGRAMMING AND ARCHITECTURE	3	FALL	CISS 201
CISS 380	DATA STRUCTURES AND ALGORITHM ANALYSIS	3	FALL	CISS 202
CISS 423	SURVEY OF PROGRAMMING LANGUAGES	3	SPRING (ODD YEARS)	CISS 201
CISS 433	DATABASE MANAGEMENT	3	SPRING	CISS 201
CISS 460	DATA COMMUNICATIONS AND NETWORKING	3	FALL	CISS 201
CISS 471	SOFTWARE ENGINEERING (WI3)	3	FALL	CISS 202
CISS 481	CAPSTONE PROJECT IN COMPUTER SCIENCE (WI3 & PRE)	1	SPRING	CISS 471
MATH 311	DISCRETE MATHEMATICS	3	SPRING	MATH 151
CHOOSE TWO	SELECT 6 CREDIT HOURS FROM THE FOLLOWING:			
CISS 350	INTRODUCTION TO MULTIMEDIA PROCESSING	3	AS NEEDED	CISS 201
CISS 361	OPERATION SYSTEMS AND COMPUTER ARCHITECTURE	3	SPRING (EVEN YEARS)	CISS 201
CISS 375	INTRODUCTIONS TO COMPUTER AND NETWORK SECURITY	3	AS NEEDED	CISS 201
CISS 425	PROGRAMMING FOR ANDROID DEVICES	3	AS NEEDED	CISS 201
CISS 426	IPHONE AND IPAD PROGRAMMING	3	AS NEEDED	CISS 201
CISS 440	ARTIFICIAL INTELLIGENCE	3	SPRING (ODD YEARS)	CISS 201
CISS 450	COMPILER DESIGN	3	AS NEEDED	CISS 380 and CISS 361
CISS 480	TOPICS IN COMPUTER SCIENCE	3	AS NEEDED	
CISS 497, CISS 498	INTERNSHIPS IN COMPUTER SCIENCE (PRE)	3	AS NEEDED	Need Approval from Department Chair
MATH 370	NUMERICAL METHODS	3	AS NEEDED	CISS 201 and MATH 151
	TOTAL MAJOR HOURS	37		

OPTIONAL COMPUTER SCIENCE CONCENTRATIONS (16-17 HOURS)*				
	COURSE NAME	HRS	TERM	PREREQUISITES
SELECT	CONTENT CONCENTRATIONS: PURE COMPUTER SCIENCE or PROGRAMMING (for students intending to pursue a career as software developers or software engineers)**	16-17	SEE BELOW FOR ADDITIONAL INFORMATION	SEE BELOW FOR PREREQUISITES
TOTAL ADDITIONAL HOURS		16-17		

PURE COMPUTER SCIENCE CONCENTRATION (17 HOURS)**				
	COURSE NAME	HRS	TERM	PREREQUISITES
MATH 152	CALCULUS II	4	FALL, SPRING	MATH 151
MATH 331	LINEAR ALGEBRA	3	FALL	MATH 151
PHYS 203	GENERAL PHYSICS FOR SCIENTISTS AND ENGINEERS I	4	FALL	MATH 151 or higher
CISS 361	OPERATING SYSTEMS AND COMPUTER ARCHITECTURE	3	SPRING (EVEN YEARS)	CISS 201
CISS 440	ARTIFICIAL INTELLIGENCE	3	SPRING (ODD YEARS)	CISS 201
TOTAL CONCENTRATION HOURS		17		

PROGRAMMING CONCENTRATION (16 HOURS)**				
	COURSE NAME	HRS	TERM	PREREQUISITES
MATH 105	FUNDAMENTALS OF STATISTICS AND PROBABILITY	3	FALL, SPRING	
PHYS 203	GENERAL PHYSICS FOR SCIENTISTS AND ENGINEERS I	4	FALL	MATH 151 or higher
CISS 375	INTRODUCTION TO COMPUTER NETWORK SECURITY	3	AS NEEDED	CISS 201
CHOOSE ONE	SELECT 3 CREDIT HOURS FROM THE FOLLOWING:			
CISS 281	PROGRAMMING IN JAVA	3	FALL (ODD YEARS)	
CISS 285	C PROGRAMMING LANGUAGE	3	FALL (EVEN YEARS)	
CHOOSE ONE	SELECT 3 CREDIT HOURS FROM THE FOLLOWING:			
CISS 425	PROGRAMMING FOR ANDROID DEVICES	3	AS NEEDED	CISS 201
CISS 426	IPHONE AND IPAD PROGRAMMING	3	AS NEEDED	CISS 201
TOTAL CONCENTRATION HOURS		16		

NOTE: MATH 151 is required to fulfill General Education requirements with a minimum grade of "C"; Chemistry or Physics is recommended to fulfill the General Education Requirement.

*NOTE: A University-approved minor or Computer Science Concentration is strongly recommended

**NOTE: A minimum grade of "C" is required for each course in a concentration area