COLLEGE OF ARTS AND SCIENCES

BACHELOR OF SCIENCE IN APPLIED AND COMPUTATIONAL MATHEMATICS MATHEMATICAL MODELING CONCENTRATION

ADMITTED IN 2023-2024 ACADEMIC YEAR

YEAF FERN		MAJOR COURSES						GENERAL EDUCATION	TOTAL CREDITS
YEAR 1	FALL	MATH 170 4 CALCULUS I Pre-Req: Requires Placement or MATH 136 or MATH 141		CSCI 125 3 COMPUTER PROGRAMMING I Co-Req: MATH 136, MATH 141 or higher		GENERAL ELECTIVE	3	FCWR 101/1113DATA 1013FOUNDATIONS OF COLLEGE COMPOSITION Pre-Req: Requires PlacementMAKING SENSE OF A DATA-ORIENTED SOCIETY	16
Å	SPRING	MATH 180 4 CALCULUS II Pre-Req: MATH 170		CSCI 1853COMPUTERPROGRAMMING IIPre-Req: CSCI 125	PHYS 170 4 GENERAL PHYSICS I Co-Req: MATH 170	GENERAL ELECTIVE	3	FCWR 151/1613FOUNDATIONS OFRESEARCH WRITINGPre-Req: FCWR 101/111	17
12	FALL	MATH 260 4 CALCULUS III Pre-Req: MATH 180	MATH 2203PROBABILITY &STATISTICSPre-Req: MATH 180		PHYS 1804GENERAL PHYSICS IIPre-Req: PHYS 170;Co-Req: MATH 180	GENERAL ELECTIVE	3		14
YEAR	SPRING	MATH 350 3 ADVANCED CALCULUS Pre-Req: MATH 260	MATH 3103LINEAR ALGEBRAPre-Req: MATH 180	MATH 330 4 COMPUTATIONAL ANALYSIS Pre-Req: MATH 260	PHYS 2204GENERAL PHYSICS IIIPre-Req: PHYS 180			FCWR 3XX 3 PROFESSIONAL COMMUNICATION CHOICE Pre-Req: FCWR 151/161	17
R 3	FALL	MATH 320 3 DIFFERENTIAL EQUATIONS Pre-Req: MATH 260	MATH 4103NUMERICAL LINEARALGEBRAPre-Req: MATH 310		PHYS 225 3 INTRO TO MODERN PHYSICS Pre-Req: PHYS 180	COMPUTER SCIENCE ELECTIVE	3	ICXX 3XX * 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS**) Pre-Req: FCWR 101/111 and FCWR 151/161	15
YEAR	SPRING	MATH 4503PARTIAL DIFFERENTIALEQUATIONSPre-Req: MATH 320			PHYS 450 3 MATHEMATICAL PHYSICS Pre-Req: MATH 260 AND PHYS 220	GENERAL ELECTIVE	3	ICXX 3XX * 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS**) Pre-Req: FCWR 101/111 and FCWR 151/161	12
K 4	FALL	MATH 470 3 MATHEMATICAL FLUID DYNAMICS Pre-Req: MATH 450	MATH 3 ELECTIVE	MATH 3 ELECTIVE		GENERAL ELECTIVE	3	ICXX 3XX * 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS**) Pre-Req: FCWR 101/111 and FCWR 151/161	15
YEAR	SPRING	MATH 490 5 MATHEMATICAL MODELING CAPSTONE Pre-Req: MATH 450 r MATH 455			COMPUTER 3 SCIENCE	GENERAL ELECTIVE	3	ICXX 3XX * 3 SEMINAR CHOICE (ICBS, ICLT, ICPH, or ICSS**) Pre-Req: FCWR 101/111 and FCWR 151/161	14
	ITS								120

*Of the four required ICXX seminar courses (ICBS, ICLT, ICPH, ICSS), at least three must be in different subject areas.

** IENG 400 (Technology and Global Issues) may be substituted for an ICSS choice.

(Rev. 3/24)

Course names, numbers and/or pre-requisites are subject to change.