

RECOMMENDED ACADEMIC PLAN – COMPUTER SCIENCE

Semester I		Semester II	
ENGL 015 Rhetoric and Composition or 030 Honors Freshman Composition GWS	3	CAS 100 Effective Speech GWS	3
*MATH 140 ² Calculus With Analytic Geometry I GQ	4	*MATH 141 ² Calculus with Analytic Geometry II GQ	4
Humanities GH	3	Arts GA	3
Social and Behavioral Science GS	3	*CMPSC 201 Computer Programming for Engineers Using C GQ, or CMPSC 121 Introduction to Programming Techniques GQ ²	3 - 4
First-Year Seminar	1	Sciences GN (PHYS 211 General Physics: Mechanics and 212 General Physics: Electricity and Magnetism recommended)	3 - 4
Health and Physical Activity GHA	1.5		16 - 18
	15.5		
Semester III		Semester IV	
Arts GA	3	Sciences GN	3
Humanities GH	3	Social and Behavioral Science GS	3
Sciences GN (PHYS 211 General Physics: Mechanics and 212 General Physics: Electricity and Magnetism recommended)	3 - 4	ENGL 202 C Effective Writing: Technical Writing GWS	3
MATH 017 ² Finite Mathematics GQ	3	Select 3 credits from CMPSC 122 Intermediate Programming GQ or 360 Discrete Mathematics for Computer Science or CMPEN 271 ² Introduction to Digital Systems	3
Select 3 credits from CMPSC 122 Intermediate Programming GQ or 360 Discrete Mathematics for Computer Science or CMPEN 271 ² Introduction to Digital Systems	3	Elective	3
	15 - 16	SSET 295 Internship	1
		Health and Physical Activity GHA	1.5
			17.5
Semester V		Semester VI	
CMPSC 312 Computer Organization and Architecture	3	CMPSC 469 Formal Languages with Applications	3
CMPSC 462 Data Structures	3	CMPSC 463 Design and Analysis of Algorithms	3
CMPSC 422 Object-Oriented Programming with C++	3	Select 3 credits from: CMPSC 313 Assembly Language Programming, 402 UNIX and C, 426 Object-Oriented Design, 428 Introductory Ada and Program Design, 429 Advanced Ada Programming Language, 430 Database Design I, 436 Communications and Networking, 441 Artificial Intelligence, 457 Computer Graphics Algorithms I, 470 Compiler Construction, MATH 411 Ordinary Differential Equation, 412 Fourier Series and Partial Differential Equations, 425 Introduction to Operations Research, 445 Mathematical Statistics and Applications II, 450 Mathematical Modeling, 475 W Introduction to the History of Mathematics, 497 Special Topics	3
MATH 315 Foundations of Mathematics	3	MATH 444 Mathematical Statistics and Applications I	3
MATH 430 Linear Algebra I	3		12
	15		
Semester VII		Semester VIII	
CMPSC 472 Operating Systems Concepts	3	CMPSC 452 Numerical Analysis I	3
CMPSC 487W Software Engineering and Design	3	Select 6 credits of 300-400 level courses in consultation with an academic adviser and in support of the student's interests	6
CMPSC 460 Principles of Programming Languages	3	Select 6 credits from: CMPSC 313 Assembly Language Programming, 402 UNIX and C, 426 Object-Oriented Design, 428 Introductory Ada and Program Design, 429 Advanced Ada Programming Language, 430 Database Design I, 436 Communications and Networking, 441 Artificial Intelligence, 457 Computer Graphics Algorithms I, 470 Compiler Construction, MATH 411 Ordinary Differential Equation, 412 Fourier Series and Partial Differential Equations, 425 Introduction to Operations Research, 445 Mathematical Statistics and Applications II, 450 Mathematical Modeling, 475 W Introduction to the History of Mathematics, 497 Special Topics	6
Select 3 credits from: CMPSC 313 Assembly Language Programming, 402 UNIX and C, 426 Object-Oriented Design, 428 Introductory Ada and Program Design, 429 Advanced Ada Programming Language, 430 Database Design I, 436 Communications and Networking, 441 Artificial Intelligence, 457 Computer Graphics Algorithms I, 470 Compiler Construction, MATH 411 Ordinary Differential Equation, 412 Fourier Series and Partial Differential Equations, 425 Introduction to Operations Research, 445 Mathematical Statistics and Applications II, 450 Mathematical Modeling, 475 W Introduction to the History of Mathematics, 497 Special Topics	3		15
Elective	3		
	15		

Advising Notes

- **Bold type** require a grade of C or better.
- *Italics* indicates courses that satisfy both major and General Education requirements.
- **Bold Italics** indicates courses requiring a quality grade of C or better and that satisfy both major and General Education requirements.
- GWS, GHA, GQ, GN, GA, GH, and GS are codes used to identify General Education requirements.
- US, IL, and US;IL are codes used to designate courses that satisfy University United States/International Cultures requirements.
- W is the code used to designate courses that satisfy University Writing Across the Curriculum requirements.

*Entry to major requirement.

² Cumulative GPA required for these courses

Students must complete a 3-credit course in "United States Cultures (US)" and a 3-credit course in "International Cultures (IL)."

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