Freshman Year	Hrs.	Sophomore Year	Hrs.
BIOL 113 Principles of Biology - I	3	GET 300 Rising Jr Exam	0
BIOL 115 Principles of Biology - I Lab	1	ENG 200 World Lit. I	3
FYE 101 First Year Experience I	1	ENG 207 Intro. to Technical Writing	3
FYE 102 First Year Experience II	1	THEAT 212 Fund of Pub Speaking	3
ENG 101 Freshman Comp	3	MATH 201 Calculus III (Prereq. MATH 154)	3
ENG 102 Freshman Comp	3	MATH 273 Probability & Statistics I	3
HIST 101 History of Western Civ. I	3	PHYS 153 General Physics I	3
HIST 104 Modern World History	3	PHYS 153L General Physics Lab	1
MATH 153 Calculus I (Prereq. MATH 147/148 or ACT	3	CS 201 Social, legal, and Ethical Issues (Prereq. CS	3
(Math) 22 or above)	3	120 or Permission)	3
MATH 154 Calculus II (Prereq. MATH 153)	3	CS 210 Discrete Structures (Prereq. CS 110)	3
CS 110 Computer Science I	3	CS 236 Data Structures & Algorithm Analysis	3
CS 120 Computer Science II (Prereg. CS 110)		(Prereg. CS 120, CS 210)	
		CS 325 Comp. Org. & Architecture (Prereq. CS 236)	
Total	30	Total	31

Junior Year	Hrs.	Senior Year	Hrs.
SOC 101 Intro. to Social Science	3	ART 105 Intro. To Fine & Performing Arts	3
PHYS 154 General Physics II	3	<b>ECON 201 Principles of Economics</b>	3
PHYS 154L General Physics Lab	1	CS 400 Computer Science Seminar (Prereq. CS	3
MATH 274 Prob & Statistics II (Prereq. MATH 273)	3	236)	3
MATH 309 Intro. to Linear Algebra (Prereq. MATH 154)	3	CS 406 Capstone Project (Prereq. CS 310)	3
MATH 421 Numerical Methods I (Prereq. MATH 201)	3	CS 419 Computer Networks (Prereq. CS 236)	1
CS 310 Software Engineering (Prereq. CS 236)	3	CS 450 Parallel Processing (Prereq. CS 325)	3
CS 311 Information Assurance and Security (Prereq.	3	CS 4xx Major Elective (See List Below)	3
CS 236)	3	CS 4xx Major Elective (See List Below)	3
CS 320 Database Management Systems (Prereq. CS	3	Foreign Language (SPAN 101 or FR 101)	3
236)	3	Foreign Language (SPAN 102 or FR 102)	
CS 336 Programming Language Concepts (Prereq.			
CS 236)			
CS 345 Operating Systems (Prereq. CS 236)			
Total	31	Total	28
		Total hours for degree:	120

- 1. Students deficient in Math are required to take MATH147/148 before taking MATH153.
- 2. Foreign Languages: Spanish 101 and Spanish 102 or French 101 or French 102 or German 101 and German 102

## **Selective General Education electives replaces Foreign Languages:**

(ACCT 201 and ACCCT 202) or (GB 150 and GB202) or (MC 303 and MC 304) or (GB 150 and MAN 301)

## **Transfer Students**

Student must have 30 transfer credit hours to exempt FYE 101 and FYE 102

(CHEM 111 and CEHM 113L) can be substituted for (BIOL 113 and BIOL 115L)

## **Computer Science Electives:**

Course Number/Title	Hrs.
CS 411 Applied Cryptography (Prereq. CS 311)	3
CS 415 Computer Games Programming (Prereq. CS 236)	3
CS 424 Advanced Programming Techniques (Prereq. CS 236)	3
CS 426 Artificial Intelligence (Prereq. CS 236)	3
CS 428 Computer Graphics (Prereq. CS 236)	3
CS 435 Big Data and Cloud Security (Prereq. CS 311)	3
CS 451 Robotics (Prereq. CS 236)	3
CS 456 Special Topics in Comp. Science (Prereq. CS 236)	3
CS 462 Special Topics in Software Engineering (Prereq. CS 310)	3
CO-OP courses	
CS 371 Cooperative Experience I	3
CS 372 Cooperative Experience II	3
CS 471 Cooperative Experience III	3
CS 472 Cooperative Experience IV	3

Click here for PDF (/academics/majors/arts-and-sciences/compsci/docs/CS-Curriculum.pdf)

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## Resources

Information

Office 365

(http://outlook.com/owa/GramblingState.onmicrosoft.com)

Canvas (https://grambling.instructure.com/)

(https://goingto.gram.edu/register/rfi)

GSUNet (/gsunet/)