### **B.S. COMPUTER SCIENCE** (120 credits)

## Science, Mathematics and Computer Science Department Revised July 2022

#### A. **CORE REQUIRED** COURSES (39 Credits)

ENGL 160 Composition/Rhetoric (3)	RST 112 (3)	PHIL 113 (3)
ENGL 180 World Literature (3)	RST Elective (3)	PHIL Elective (3)
ENGL Elective (3)	Modern Language I (3)	Global History (3)
Fine Arts Elective (3)	Modern Language II (3) or	History Elective (3)
Social Science Elective (3)	Elective (3)	

### B. **REQUIRED MAJOR** COURSES (54 credits)

# C. **SUGGESTED ELECTIVE** COURSES (choose 27 Credits)

CS 142 Programming in C++ (3) (F/S)	ASTR 250 The Solar System (3) (S)
CS 150 Object Oriented Programming (3) (F/S)	ASTR 260 Galaxies, Relativity and Cosmology (3) (S)
CS 242 Computer Architecture (3) (F/S)	MATH 213 Calculus III (4) (S)
CS 245 Computer Data Structures (3) (F/S)	MATH 219 History of Mathematics (3) (F-Odd
	years)
CS 250 Database and Applications (3) (S)	MATH 323 Theory of Numbers (3) (F-Odd years)
CS 322 Computer Networks (3) (F/S)	MATH 324 College Geometry (3) (F)
CS 341 Analysis of Algorithms (3) (F-Odd years)	PHYS 112 Intro to Astronomy (3) (F)
CS 342 Principles of Compilers (3) (F-Even years)	PHYS 304 + L General Physics II (4) (S)
CS 344 Operating System Principles (3) (S-Even)	CS 111 Problem Solving and the Computer (3) (F)
CS 352 Web Applications/Development (3) (S-Odd)	CS 241 Machine Language with Assembler (3)
CS 490 Computer Science Capstone (3) (F)	CS 314 Math Models and Computer Techniques (3)
*MATH 155 or MATH 220 Statistics (3) (F) (S) (SI)	CS 320 Software Engineering (3) (S)
MATH 211 Calculus I (4) (S)	CS 350 Computer Graphics (3) (S)
MATH 212 Calculus II (4) (F)	CS 456 Intro to Programming Languages (3)
MATH 322 + Lab Linear Algebra (3) (S)	CS 463 Intro to Numerical Methods (3)
MATH 420 Discrete Mathematics (3) (F)	CS 483 Intro to Theory of Computation (3)
PHYS 303 + L General Physics I (4) (F)	CS 498 Special Topics in Computer Science (3)

Math Placement Test: all students must take this test unless they have AP or dual enrollment credits which meet **all** required courses for the major.

< 40: must take MATH 095 before any other math course (credits do not count towards graduation)

>40: eligible for MATH 155, MATH 160 (pre-requisite course for MATH 211)

≥75: eligible for all math courses including MATH 211 (Calculus I)

One or two semesters of required Modern Language depends on Foreign Language Placement Exam.

F: fall semester; S: spring semester; SI: summer I semester; SII; summer II semester; F/S: fall or spring semester

<sup>\*</sup>you may need to take MATH 095 prior to taking MATH 155 requirement depending on Math Placement Test

<sup>\*\*</sup> you may need to take MATH 095, MATH 160 prior to MATH 170 requirement depending on Math Placement Test