## 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) |
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|  | 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) |
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|  | 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 <br> 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)
$\geq 40$ : eligible for MATH 155, MATH 160 (pre-requisite course for MATH 211)
$\geq 75$ : eligible for all math courses including MATH 211 (Calculus I)
*you may need to take MATH 095 prior to taking MATH 155 requirement depending on Math Placement Test ** you may need to take MATH 095, MATH 160 prior to MATH 170 requirement depending on Math Placement Test

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

