# B.S. COMPUTER SCIENCE

**80 credits**

| **CS Core (all courses required):** | |
|---|---|
| CSCI 2101 Programming & Problem Solving I | (4) |
| CSCI 2102 Programming & Problem Solving II | (4) |
| CSCI 3103 Data Structures & Algorithms I | (4) |
| CIST 3230 Computer Networking Principles | (4) |
| CSCI 3250 Computer Organization | (4) |
| CSCI 4104 Data Structures & Algorithms II | (4) |
| CSCI 4485 Software & Security Engineering | (4) |
| CSCI 4600 Senior Seminar | (2) |
| **Math Core (all courses required):** | |
| MATH 2215 Calculus I | (5) |
| MATH 2216 Calculus II | (5) |
| MATH 2225 Discrete Mathematics I | (4) |
| CSCI 2226 Foundations of Computer Sci | (4) |
| CSCI 3327 Probability & Applied Statistics | (4) |
| **Science Core (choose 1):** | |
| BIOL 1200/1205 Cells and Molecules (w/ lab) | (5) |
| CHEM 2110/2115 Chemisty I (w/ lab) | (5) |
| PHYS 2220/225 Physics I (w/ lab) | (6) |

| **Math/Science Elective (choose 1)*:** | |
|---|---|
| MATH 2217 Calculus III | (5) |
| MATH 3323 Linear Algebra | (4) |
| BIOL 1400/1405 Biodiversity & Evolution (w/ lab) | (5) |
| CHEM 2120/2125 Chemistry II (w/ lab) | (5) |
| PHYS 2230/2235 Physics II (w/ lab) | (6) |
| **CS Electives (choose 4):** | |
| CIST 3222 Database Systems | (4) |
| CIST 3381 Information Assurance & Security | (4) |
| CSCI 4105 Knowledge Discovery & Data Mining | (4) |
| CSCI 4135 Web Application Engineering | (4) |
| CSCI 4251 Operating Systems | (4) |
| CSCI 4463 Artificial Intelligence | (4) |
| CSCI 4464 Computer Vision | (4) |
| CSCI 4465 Machine Learning | (4) |
| CSCI 4469 Computer Architecture | (4) |
| CSCI 4481 Cryptography and Data Security | (4) |
| CSCI 4510 Topics in Computer Science | (4) |
| CSCI 4800 Independent Study*** | (0-4) |
| **Cognates** (0-3+ credits as needed):** | |
| CSCI 4800 Independent Study / CSCI 4900 Internship | (0-4) |
| Other cognates** | as needed |

*Students may also use a 2nd course from the Science Core here

**Any Stockton CSCI may be used as a cognate. (CSCI 1100 may not be taken by any CSCI major who has credit for a CSCI course at the 2000 level or above.) Any other course used for a cognate requires preceptor approval.

***To use CSCI 4800 as a CS elective, student must submit a proposal to the CSCI faculty mapping topic to CS learning goals.

++MATH 1100 and any CIST courses other than those listed above, if taken, count only as At Some Distance.

| **GENERAL STUDIES REQUIREMENTS:** | | | | **48 credits** |
|---|---|---|---|---|
| **G COURSES:** (32 total credits) No more than 12 credits in any "G" category may be applied towards the BS degree. | | | | |
| GEN General Interdisciplinary | | GNM General Natural Science & Math | | |
| GIS-General Integration & Synthesis (Jr. yr.) | | GNM General Natural Science & Math | | |
| GAH General Arts & Humanities | | GSS General Social Science | | |
| GAH General Arts & Humanities | | GSS General Social Science | | |
| **AT SOME DISTANCE Electives:** (16 total credits) Courses unrelated to your major | | | | |
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**GENERAL STUDIES OUTCOME REQUIREMENTS:** These course attributes should be completed within the 128 credits needed to graduate.

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**GENERAL STUDIES WRITING REQUIREMENT: (4 courses)**

Two W1 courses may be in transfer. W2 courses must be taken at Stockton.

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| | | | | | | W1/W2 at 3000 Level | |

**GENERAL STUDIES QUANTITATIVE REASONING REQUIREMENT: (3 courses)**

Two Q1 courses may be in transfer. Q2 courses must be taken at Stockton.

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Rev. 1/15/21