# Bachelor of Science – Computer Science

The following outlines those courses that are required for the Bachelor of Science degree in Computer Science. Of particular importance in the listing is the sequence of computer science and mathematics courses. Students deviating from the suggested listing should be aware of course prerequisites and that all courses are not conducted each semester. Consultation with an academic advisor in computer science is strongly recommended prior to making changes to the suggested course sequence.

<table>
<thead>
<tr>
<th>First Semester Freshman</th>
<th>Cat. No.</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC 1104</td>
<td>Foundations I</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CSC 1104L</td>
<td>Foundations I Lab</td>
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<tr>
<td>GEN 1031</td>
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<tr>
<td>English</td>
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<tr>
<td>Physical Well Being</td>
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<tr>
<td>Social Sciences</td>
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</tr>
<tr>
<td>Elective/Minor</td>
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<th>Second Semester Freshman</th>
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<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CSC 1114</td>
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<tr>
<td>COM 2013</td>
<td>Oral Communications</td>
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<tr>
<td>English</td>
<td></td>
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<td>3</td>
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<tr>
<td>Social Sciences</td>
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</tr>
<tr>
<td>Fine Arts &amp; Humanities</td>
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<tbody>
<tr>
<td>CSC 2173</td>
<td>Assembler Language</td>
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<tr>
<td>CSC 2203</td>
<td>Data Structures</td>
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<td>3</td>
</tr>
<tr>
<td>MTH 1294</td>
<td>Calculus I</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Fine Arts &amp; Humanities</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td>Social Sciences</td>
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<th>Cat. No.</th>
<th>Course</th>
<th>Hours</th>
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<tr>
<td>CSC 3223</td>
<td>Algorithm Analysis</td>
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<td>CSC 3443</td>
<td>Computer Organization</td>
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<td>MTH 2044</td>
<td>Calculus II</td>
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<tr>
<td></td>
<td>Biological or Life Science</td>
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<tbody>
<tr>
<td>CSC 3193</td>
<td>Operating Systems</td>
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<td>CSC 3463</td>
<td>Software Engineering</td>
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<td>MTH 2283</td>
<td>Discrete Mathematics</td>
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<tr>
<td>ENG 3613</td>
<td>Technical Writing</td>
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<td></td>
<td>Non-Western Culture</td>
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<table>
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<th>Second Semester Junior</th>
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<th>Course</th>
<th>Hours</th>
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<tr>
<td>CSC 3133</td>
<td>Database Theory</td>
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<td>3</td>
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<tr>
<td>CSC 3453</td>
<td>Programming Languages</td>
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<td>3</td>
</tr>
<tr>
<td>CSC</td>
<td>Jr/Sr Computer Science</td>
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</tr>
<tr>
<td>STA 2323</td>
<td>Statistical Methods</td>
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<td>Elective/Minor</td>
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<td>3</td>
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<tr>
<td><strong>Total Hours</strong></td>
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<thead>
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<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CSC 3433</td>
<td>Computational Complexity</td>
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<td>3</td>
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<tr>
<td>CSC 3472</td>
<td>Technology &amp; Society</td>
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<tr>
<td>CSC</td>
<td>Jr/Sr Computer Science</td>
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<tr>
<td>MTH</td>
<td>Jr/Sr Mathematics</td>
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<td>3</td>
</tr>
<tr>
<td></td>
<td>Science Sequence I</td>
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<td>4</td>
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<tr>
<td><strong>Total Hours</strong></td>
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<table>
<thead>
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<th>Second Semester Senior</th>
<th>Cat. No.</th>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CSC 4483</td>
<td>Capstone</td>
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<td>3</td>
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<tr>
<td>CSC</td>
<td>Jr/Sr Computer Science</td>
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<tr>
<td>COM 3813</td>
<td>Business &amp; Prof. Comm.</td>
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<td>Elective/Minor</td>
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</tr>
<tr>
<td></td>
<td>Science Sequence II</td>
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<td>4</td>
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<td><strong>Total Hours</strong></td>
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</table>
Liberal Arts Core Requirements (45 hours):  (consult university catalog for current requirements)

Essential Skills (13 hours)

English (6 Hours)  (Students must pass English courses with a grade of “C” or above.)

Required:
ENGL 1463  English A*

Choose One:
ENGL 1473  English B
ENGL 1803  Honors English

Students with a score of 25 or higher on the English and Reading sections of the ACT will be exempt from ENG 1463 after completion of 15 hours at Henderson with a 2.00 or higher GPA, and after completion of ENG 1473 with a grade of “C” or above.

Communication (3 hours)

Required:
COMN 1301  Oral Communication

Mathematics (3 hours)

Choose One:
MATH 1033  Mathematics for Liberal Arts
MATH 1243  College Algebra

Note: Alternatively, any mathematics course as sophisticated as Precalculus Mathematics may be substituted.

Physical Well-Being (1 hour)

Choose One:
HPR 1111  Life Fitness Concepts

Note: The Computer Science degree requirement of MTH 1294 – Calculus I fulfills this core requirement.

Academic Enrichment (23 hours)

Fine Arts and Humanities (6 hours)

Choose One:
ART 2033  Humanities: Studio Art
ART 3003  Humanities: Music

Choose One:
HUM 2093  Fine Arts Honors

Note: The Computer Science degree requirement of CHM 1014/1024 – General Chemistry I/II fulfills this core requirement other than the biology requirement.

Social Sciences (9 hours)

Choose One:
HIS 1013  Civilization to 1660

Choose One:
HIS 1023  Civilization since 1660

Choose One:
HIS 1033  United States since 1865

Choose One:
PSC 1013  American National Government

Choose One:
ANT 2053  Intro. to Cultural Anthropology

Choose One:
ANT 2013  Intro. to Criminal Anthropology

Choose One:
FCS 2103  Family and Consumer Science

Choose One:
PSY 1073  General Psychology

Choose One:
PHI 3113  Philosophy

Choose One:
REH 1153  Dance

Choose One:
THA 2012  Theatre Dance I

Choose One:
THA 2773  Jazz Dance I

Choose One:
THA 3053  Theatre Arts

Choose One:
ENG 3313  American Literature

Choose One:
ENG 3043  Introduction to Forensic Science

Choose One:
ENG 3053  Introduction to Forensic Chemistry

Choose One:
ENG 3613  Technical Writing

Choose One:
ENG 1803  Honors English

Choose One:
ENG 1463  English A*

Choose One:
HPR 1111  Life Fitness Concepts

Note: Alternatively, one year or more of active duty military service will satisfy this requirement.

Natural Science (8 hours)

Choose One:
BIO 1013/1021  Intro. to Biology (with lab)

Choose One:
BIO 2114  General Zoology

Choose One:
CHM 1004  Intro. to Chemistry

Choose One:
CHM 1014  General Chemistry I

Choose One:
CHM 1034  General Chemistry II

Choose One:
CMN 1004  Intro. to Criminal Anthropology

Choose One:
CMN 2014  Intro. to Criminal Anthropology

Choose One:
CMN 2043  Intro. to Forensic Chemistry

Choose One:
CMN 1024  Intro. to Forensic Chemistry

Choose One:
PHY 2043  General Physics I

Choose One:
PHY 3043  Technical Physics

Choose One:
PSY 1073  General Psychology

Choose One:
MUS 1013  General Music

Choose One:
MUS 2033  Fine Arts Honors

Choose One:
MUS 4543  General Music

Choose One:
MUS 3473  General Music

Note: The Computer Science degree requirement of CHM 1014/1024 – University Chemistry I/II, PHY 2034/2044 – General Physics III/IV, or PHY 2334/2444 University Physics III/IV fulfills this core requirement other than the biology requirement.

Other (9 hours)

Non-Western Culture (3 hours)

Choose One:
ANT 3043  North American Native Indians

Choose One:
ART 4103  Art of the Nonwestern World

Choose One:
BIO 4044  Nonwestern Ecology

Choose One:
BIO 4041  Tropical Marine Biology

Choose One:
EDU 4541  Culturally Diverse Learners

Choose One:
ENG 3403  Nonwestern Literature

Choose One:
GEN 4063  Study Asian Non-Western

Choose One:
GES 4773  Islam and the West

Choose One:
HIS 4743  Asia: Civilizations

Choose One:
HIS 4693  The Modern Middle East

Choose One:
HPR 1273  History of Nonwestern Europe

Choose One:
HPR 2273  History of Nonwestern Europe

Choose One:
MUS 4734  Survey of Nonwestern Music

Choose One:
PSC 3423  Comparative Politics

Choose One:
PSC 3433  South Asian Politics

Choose One:
PSY 3483  Cross-Cultural Psychology

Choose One:
PSY 3463  Multicultural Mental Health

Choose One:
SOC 3463  World Cultures

Choose One:
SOCI 2003  Comparative Politics

Choose One:
SOC 3003  World Cultures

Note: The Computer Science degree requirements fulfill this core requirement.

Core Elective (3 hours)

Choose One:
GER 1013  German I (or higher level)

Choose One:
HUM 2153  Intro. Women’s & Gender Studies

Choose One:
HUM 3113  Ethnic

Choose One:
PHI 2983  Introduction to Philosophy Honors

Choose One:
PHI 4043  Ancient Philosophy

Choose One:
PHI 4053  Modern Philosophy

Note: Any course listed in the Liberal Arts Core that has not been used to fulfill any other category.

Writing Across the Curriculum Requirements (3 hours)

Choose One:
CCAM 4063  Magazine & Feature Writing

Choose One:
COM 4293  Creative Nonfiction

Choose One:
ENG 3313  University Writing

Choose One:
ENG 3613  Technical Writing

Choose One:
ENG 4453  Advanced Composition

Choose One:
HIS 3383  Writing History

Choose One:
NSC 3603  Healthcare Research

Note: Writing Intensive (WI) Requirement. While not part of the Liberal Arts Core, each student must take one additional 3000- or 4000- level writing intensive course in the major area of study. Approved courses are identified with “WI.” The courses must be passed with a grade of “C” or above.

Additional Requirements: (consult latest university catalog for most current requirements)

- While not part of the Liberal Arts Core, GEN 1031 Henderson Seminar is required of all freshmen during the first semester. Students who fail the class have the option to retake it during their second semester. This course must be taken at the freshman level.
- No more than seven (7) hours of “D” may be counted in the Liberal Arts Core.
- In order to obtain a bachelor’s degree, a minimum of 120 semester hours of work must be completed with a passing grade and a minimum GPA of 2.00 must be met on all work.
- A total of forty-two (42) semester hours of credit must be earned from junior- and/or senior-level courses.