COMPUTER SCIENCE B.S.
Bachelor of Science - Computer Science

College Humanities & Sciences
Degree Specific Credits: 87
Required Cumulative GPA: 2.0

Catalog Year: 2017-2018
General Education Requirements
Information regarding these requirements can be found in the General Education Section (http://catalog.umt.edu/academics/general-education-requirements) of the catalog.

Summary
Computer Science Core Courses 33
Degree Electives 18
Communication 3
Mathematics 18
Science Core 8-10
Biology
Chemistry
Physics
Science Electives 6-10
Total Hours 86-92

Degree Electives
Rule: Must complete 18 credits from the following courses
Note: A total of at most 3 of the 18 credits of CS electives may be in CSCI 398 or CSCI 498.

Select 18 credits from the following: 18
CSCI 340 Database Design
CSCI 390 Research
CSCI 391 Special Topics
CSCI 394 Seminar
CSCI 398 Internship
CSCI 411 Advanced Web Programming
CSCI 412 Game and Mobile App
CSCI 441 Computer Graphics Programming
CSCI 443 User Interface Design
CSCI 444 Data Visualization
CSCI 446 Artificial Intelligence
CSCI 447 Machine Learning
CSCI 448 Pattern Recognition
CSCI 451 Computational Biology
CSCI 460 Operating Systems
CSCI 466 Networks
CSCI 477 Simulation
CSCI 490 Research
CSCI 491 Special Topics
CSCI 494 Seminar
CSCI 498 Internship
CSCI 499 Senior Thesis/Capstone

Total Hours 18
Minimum Required Grade: C-

Communication
Rule: Must complete 1 of the following courses

COMX 111A Intro to Public Speaking 3
or COMX 242 Argumentation

Total Hours 3
Minimum Required Grade: C-

Mathematics
Rule: Take the following:

M 171 Calculus I 4
M 172 Calculus II 4
M 221 Introduction to Linear Algebra 4
M 225 Introduction to Discrete Mathematics 3
STAT 341 Introduction to Probability and Statistics 3

Total Hours 18
Minimum Required Grade: C-
Science Core

Rule: Must complete 1 of the following subcategories of science sequences

9-10 Total Credits Required

Biology

Rule: May complete the following sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOB 160N</td>
<td>Principles of Living Systems</td>
<td>3</td>
</tr>
<tr>
<td>BIOB 161N</td>
<td>Prncpls of Living Systems Lab</td>
<td>1</td>
</tr>
<tr>
<td>BIOB 170N</td>
<td>Prncpls Biological Diversity</td>
<td>3</td>
</tr>
<tr>
<td>BIOB 171N</td>
<td>Prncpls Biological Dvrsty Lab</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
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</table>

Minimum Required Grade: C-

Chemistry

Rule: May complete the following sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHMY 141N</td>
<td>College Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHMY 142N</td>
<td>and College Chemistry I Lab</td>
<td></td>
</tr>
<tr>
<td>CHMY 143N</td>
<td>College Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHMY 144N</td>
<td>and College Chemistry II Lab</td>
<td></td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-

Physics

Rule: May complete the following sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHSX 215N</td>
<td>Fund of Physics w/Calc I</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 216N</td>
<td>Physics Laboratory I w/Calc</td>
<td>1</td>
</tr>
<tr>
<td>PHSX 217N</td>
<td>Fund of Physics w/Calc II</td>
<td>4</td>
</tr>
<tr>
<td>PHSX 218N</td>
<td>Physics Laboratory II w/Calc</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-

Science Electives

Rule: Must complete 2 of the following courses

Note: The Biology, Chemistry, or Physics sequence chosen to fulfill the science core may not count toward the science electives requirement.

Laboratory courses must be taken in conjunction with their associated lecture course.

Select two of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 131N</td>
<td>Planetary Astronomy</td>
<td></td>
</tr>
<tr>
<td>&amp; ASTR 134N</td>
<td>and Planetary Astronomy Lab</td>
<td></td>
</tr>
<tr>
<td>ASTR 132N</td>
<td>Stars, Galaxies, and the Universe</td>
<td></td>
</tr>
<tr>
<td>&amp; ASTR 135N</td>
<td>and Stars, Galaxies, and the Universe Lab</td>
<td></td>
</tr>
<tr>
<td>BIOB 160N</td>
<td>Principles of Living Systems</td>
<td></td>
</tr>
<tr>
<td>&amp; BIOB 161N</td>
<td>and Prncpls of Living Systems Lab</td>
<td></td>
</tr>
<tr>
<td>BIOB 170N</td>
<td>Prncpls Biological Diversity</td>
<td></td>
</tr>
<tr>
<td>&amp; BIOB 171N</td>
<td>and Prncpls Biological Dvrsty Lab</td>
<td></td>
</tr>
<tr>
<td>BIOM 250N</td>
<td>Microbiology for Hlth Sciences</td>
<td></td>
</tr>
<tr>
<td>&amp; BIOM 251</td>
<td>and Microbiology Hlth Sciences Lab</td>
<td></td>
</tr>
<tr>
<td>CHMY 141N</td>
<td>College Chemistry I</td>
<td></td>
</tr>
</tbody>
</table>

CHMY 143N College Chemistry II
FORS 201 Forest Biometrics
GEO 101N & GEO 102N Introduction to Physical Geology and Introduction to Physical Geology Lab
GEO 225 Earth Materials
PHSX 215N & PHSX 216N Fund of Physics w/Calc I and Physics Laboratory I w/Calc
PHSX 217N & PHSX 218N Fund of Physics w/Calc II and Physics Laboratory II w/Calc
PHSX 343 Modern Physics & PHSX 444 and Advanced Physics Lab

Total Hours 6-10

Minimum Required Grade: C-

This is an advising track only and not an official program as recognized by the University of Montana (UM) or the Montana University System. This information will not appear on your UM transcript, diploma, university lists, student data system, or university publication. You do not fill out a major change for a track. After completion of this track the student will be awarded a Bachelor of Science in Computer Science.