

# COMPUTER SCIENCE - EOU / SOU / WOU - TRANSFER - DEGREE

## Associate of Science Transfer (AST) in Computer Science

### Faculty Adviser

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Computer science is the study of computers, hardware, software design, and the way humans work with technology. Students will study programming in a variety of languages for different purposes. MHCC's program prepares students to transfer to a four-year degree at EOU, SOU, or WOU. Because of the many options for electives, contact your advisor and transfer school for advising.

Students who complete this program will also complete the Oregon Major Transfer Map (MTM) and Core Transfer Map (CTM).

## Curricular Outcomes

At the completion of this curriculum, students should be able to:

- Develop software using both structured and object-oriented paradigms that meets the requirements of a written specification.
- Explain the software development lifecycle and the specific tools and processes used to create software.
- Design, analyze, and implement algorithms to solve computational problems using various data structures as problem-solving tools. These data structures must include arrays, stacks, queues, linked lists, trees, and hash tables.
- Communicate effectively in a variety of professional contexts.
- Function effectively as a members or leader of a team engaged in activities appropriate to the programs' discipline.

### First Quarter

Fall		Credits
CS160	Computer Science Orientation ★	4
MTH251Z	Differential Calculus	4
WR121Z	Composition I ★	4
Elective / university requirement		3
<b>Credits</b>		<b>15</b>

### Second Quarter

Winter		Credits
CS161	Computer Science I	4
MTH252Z	Integral Calculus	4
WR122Z	Composition II ★	4
Elective / university requirement		4
<b>Credits</b>		<b>16</b>

### Third Quarter

Spring		Credits
COMM111Z	Public Speaking ★	4
CS162	Computer Science II	4
Arts and Letters requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#al">https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#al</a> )		3-4

Elective / university requirement		4
<b>Credits</b>		<b>16</b>
<b>Fourth Quarter</b>		
<b>Fall</b>		
CS260	Data Structures	4
Arts and Letters requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#al">https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#al</a> )		3-4
Social Science requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#ss">https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#ss</a> )		3-4
Elective / university requirement		4
<b>Credits</b>		<b>16</b>
<b>Fifth Quarter</b>		
<b>Winter</b>		
Lab science requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#science">https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#science</a> )		3-5
Social Science requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#ss">https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#ss</a> )		3-4
Elective / university requirement		6
<b>Credits</b>		<b>15</b>
<b>Sixth Quarter</b>		
<b>Spring</b>		
Lab science requirement ( <a href="https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#science">https://catalog.mhcc.edu/degree-certificate-requirements/ast-cs-eou-sou-wou/#science</a> )		3-5
Electives, to reach 90 credits		8-10
<b>Credits</b>		<b>12-14</b>
<b>Total Credits</b>		<b>90-92</b>