

# ASSOCIATE OF SCIENCE IN COMPUTER SCIENCE (ASCS)

The Associate of Science in Computer Science (ASCS) is an associate degree that is intended to prepare students to transfer into an upper division baccalaureate degree program in computer science at a university. In selecting computer science electives for this degree, students are highly encouraged to consult the specific faculty adviser and the institution to which they intend to transfer to determine if the chosen electives meet their requirements.

**Note:** This plan is specifically designed for transfer to a four-year institution and is not intended for students who seek direct entry into the job market after completion of an associate degree.

## Degree Requirements

Code	Title	Credits
Computer Science Core, 5 courses (p. 1)		20
Computer Science Electives, 3 courses (p. 1)		9-13
Mathematics, 3 courses (p. 1)		15
Written Communication, 2-3 courses (p. 1)		8
Oral Communication, 1 course (p. 1)		3-4
Health and Physical Education (p. 1)		3
Arts and Letters courses, 3 courses (p. 2)		9-12
Social Science courses, 3 courses (p. 3)		9-12
200-level Lab Science sequence, 3 courses (p. 4)		15
Total Credits		91-102

## Computer Science Core

Code	Title	Credits
CS160	Computer Science Orientation ★	4
CS161	Computer Science I	4
CS162	Computer Science II	4
CS260	Data Structures	4
CS250	Discrete Structures I	4
Total Credits		20

## Computer Science Electives

Three (3) courses. Work with MHCC's Computer Science adviser and university transfer adviser(s) to select appropriate electives.

Code	Title	Credits
CS201	Computer Architecture Assembly Programming	4
CS251	Discrete Structures II	4
CIS151	Introduction to Networks	4
CIS197CSP	Web Authoring: Client-Side Programming	3
CIS197HTM	Web Authoring: HTML5 and CSS3 ★	3
CIS279S	Windows Server OS	4
CIS284S	Preparation for Security+ ★	4
ISTM140L	Preparation for Linux ★	4
ISTM183C	Fundamentals of CyberSecurity	3
ISTM235MA	Mobile Apps 1: Introduction to iOS Mobile Applications Development	3

ISTM283F	Practical Digital Forensics	3
ISTM284E	Ethical Hacking	3
ENGR201	Electrical Fundamentals I	5
ENGR248	Engineering Graphics: Solidworks	3
MTH243	Statistics I ★	4

## Mathematics

Three (3) courses, Calculus I and II, plus either Linear Algebra or Calculus III:

Code	Title	Credits
MTH251	Calculus I: Differential Calculus	5
MTH252	Calculus II: Integral Calculus	5

MTH261 (offered spring) or MTH253 (offered winter) - depending on university requirement

## Writing

Two (2) courses:

Code	Title	Credits
WR121	English Composition ★	4
WR227	Technical Report Writing ★ (recommended)	4
or WR122	English Composition: Critical Thinking ★	

## Oral Communication

One (1) course:

Code	Title	Credits
COMM111	Fundamentals of Public Speaking ★ (recommended)	4
COMM100	Basic Speech Communication ★	3
COMM114	Argument and Critical Discourse	3
COMM115	Introduction to Intercultural Communication ★ 🌐	4
COMM218	Interpersonal Communication ★	4
COMM219	Small Group Communication	3

## Health and Physical Education (HPE)

Three (3) credits in Physical Education (PE) and/or in Health Education (HE/HPE):

Code	Title	Credits
HE151	Drug Education: Stimulants and Performance Enhancing Drugs	3
HE152	Drug Education: Opioids, Cannabis, Depressants and Hallucinogens	3
HE202	Adult Development and Aging	1
HE204	Nutrition for Health	3
HE205	Diet Appraisal ★	1
HE207	Stress Control Through Activity Intervention	1
HE208	HIV and Other Sexually Transmitted Infections	1
HE250	Personal Health ★	3
HE251	Wilderness First Aid	2
HE252	First Aid: Responding to Emergencies	3
HE255	Alcohol and the Family	3
HE261	CPR - Cardiopulmonary Resuscitation	1

HE265	Women's Health Issues ★	2
PE185 - activity course		1
HPE170	Structure and Function of the Human Body	3
HPE172	Exercise Science	3
HPE174	Fitness Assessment and Programming	3
HPE270	Introduction to Sport Psychology	3
HPE285OL	Wilderness Survival	3
HPE291	Lifeguard Training	2
HPE295	Health and Fitness for Life ★ (requirement at OSU and WOU)	3

*HPE295 is recommended for easiest transfer. Three credit hours of PE185 may be granted toward an Associate degree at MHCC for completion of military basic training. A copy of the DD214 form or a Joint Services Transcript is required.*

## Arts and Letters

Three (3) courses from at least two (2) disciplines. Please note that performing art and/or visual art may not transfer for Computer Science majors at several universities. Work with MHCC's Computer Science adviser and university transfer adviser(s) to select appropriate electives.

Code	Title	Credits
<b>Art/Art History</b>		
ART115	Basic Design I: Two-Dimensional	4
ART116	Basic Design II: Color Theory	4
ART117	Basic Design III: Three- Dimensional	4
ART204	History of Western Art: Prehistoric - Byzantine ★	4
ART205	History of Western Art: Medieval - Renaissance ★	4
ART206	History of Western Art: Baroque - Modern ★	4
ART211	Survey of Visual Arts ★🌐	4
ART215P	Survey in Visual Arts: Photography	3
ART225	Adobe Illustrator: Digital Art	4
ART226	Adobe Photoshop: Digital Art	4
ART231	Drawing I	4
ART232	Drawing II	4
ART233	Drawing III	4
ART234	Life Drawing I	4
ART235	Life Drawing II (if taken in 2019 or later)	4
ART236	Life Drawing III (if taken in 2019 or later)	4
ART240	Illustration and Cartooning	4
ART254	Ceramics I	4
ART255	Ceramics II	4
ART256	Ceramics III	4
ART257	Jewelrymaking/Metalsmithing I	4
ART258	Jewelrymaking/Metalsmithing II	4
ART259	Jewelrymaking/Metalsmithing III	4
ART260	Digital Photography and Imaging	4
ART261	Photography I	3
ART262	Photography II	3
ART271	Printmaking I: Screenprint and Woodcut	4
ART272	Printmaking II: Silkscreen, Woodcut, and Intaglio	4
ART273	Printmaking III	4
ART281	Painting I	4

ART282	Painting II (if taken in 2019 or later)	4
ART283	Painting III (if taken in 2019 or later)	4
ART291	Sculpture I	4
ART292	Sculpture II	4
ART293	Sculpture III	4
ART294	Watercolor I	4
ART296	Watercolor II	4
ART297	Watercolor III (if taken in 2019 or later)	4

## Communication / Speech (cannot be same course used to fulfill Oral Communication requirement)

COMM100	Basic Speech Communication ★	3
COMM111	Fundamentals of Public Speaking ★	4
COMM114	Argument and Critical Discourse	3
COMM115	Introduction to Intercultural Communication ★🌐	4
COMM218	Interpersonal Communication ★	4
COMM219	Small Group Communication	3

## Creative Writing

WR240	Creative Writing: Nonfiction	3
WR241	Creative Writing: Fiction I ★	4
WR242	Creative Writing: Poetry I ★	4
WR244	Creative Writing: Poetry II	4
WR245	Creative Writing: Fiction II	4

## English / Literature

ENG104	Introduction to Literature: Fiction ★	4
ENG105	Introduction to Literature: Drama ★	4
ENG106	Introduction to Literature: Poetry	4
ENG201	Shakespeare	4
ENG204	British Literature I: Old English to Renaissance ★🌐	4
ENG205	British Literature II: Age of Enlightenment to Present ★🌐	4
ENG218	Arthurian Legends	4
ENG222	Women's Literature 🌐	3
ENG250	Introduction to Mythology	4
ENG253	Survey of American Literature I ★🌐	4
ENG254	Survey of American Literature II ★🌐	4
ENG257		
ENG261	Literature of Science Fiction ★🌐	4
ENG271	World Literature: The Classical World (Ancient Literature to 1000 C.E.) 🌐	4
ENG272	World Literature: 1000 to 1800 C.E. 🌐	4
ENG273	World Literature: 1800 C.E. to the Present 🌐	4

## Ethics in the Workplace

HUM202	Ethics in the Workplace ★	3
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## Film Studies

FA257	Films and Society ★🌐	4
FA258	Understanding the Film ★🌐	4
FA266	The Great Film Directors 🌐	4

## Modern Languages (second-year)

ASL201	Second-year American Sign Language I 🌐	4
ASL202	Second-year American Sign Language II 🌐	4

ASL203	Second-year American Sign Language III 🌐	4
JPN201	Second-year Japanese I 🌐	5
JPN202	Second-year Japanese II 🌐	5
JPN203	Second-year Japanese III 🌐	5
SPAN201	Second-year Spanish I 🌐	4
SPAN202	Second-year Spanish II 🌐	4
SPAN203	Second-year Spanish III 🌐	4

**Music**

MUS101	Music Fundamentals	3
MUS103	Jazz History	3
MUS105	Music Appreciation/Music for the Listener	3
MUS111	Music Theory I	3
MUS112	Music Theory II	3
MUS113	Music Theory III	3
MUS211	Music Theory IV 🌐	3
MUS212	Music Theory V 🌐	3
MUS213	Music Theory VI 🌐	3
MUS268	Music History: Baroque to Romantic 🌐	4

**Philosophy**

PHL191	Language and the Layout of Argument	4
PHL201	Introduction to Philosophy ★🌐	4
PHL202	Fundamental Ethics ★🌐	4

**Reading**

RD117	Critical Reading ★🌐	3
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**Religion**

R210	World Religions ★🌐	3
R211	History of the Old Testament ★🌐	3
R212	History of the New Testament ★🌐	3

**Theatre Arts**

TA101	Appreciating Theatre	3
TA106	Theatre History: Origins to the Renaissance ★🌐	3
TA107	Theatre History: Restoration to Contemporary ★🌐	3
TA141	Acting Fundamentals I	3
TA142	Acting Fundamentals II	3
TA143	Acting Fundamentals III	3

**Social Science**

Three (3) courses from at least two (2) disciplines:

Code	Title	Credits
<b>General Social Science</b>		
SSC100	Introduction to Social Entrepreneurship	4
<b>Anthropology</b>		
ANTH101	Introduction to Biological Anthropology ★	4
ANTH102	Introduction to Archaeology and World Prehistory ★🌐	4
ANTH103	Introduction to Cultural Anthropology 🌐	4
ANTH180	Language and Culture ★🌐	4
<b>Economics</b>		
EC115	Introduction to Economics ★	3
EC201	Principles of Economics I: Microeconomics ★	4
EC202	Principles of Economics II: Macroeconomics ★	4

**Geography**

GEOG105	Introduction to Physical Geography	3
GEOG106	Introduction to World Regional Geography 🌐	3
GEOG107	Introduction to Cultural Geography 🌐	3
GEOG202	The Geography of Europe 🌐	3
GEOG206	Geography of Oregon 🌐	3
GEOG209	Geography of the Middle East and North Africa 🌐	3
GEOG214	Geography of Mexico and Central America 🌐	3
GEOG290	Environmental Problems and Restoration	3

**History**

HST101	Western Civilization: Ancient and Classical Europe 🌐	4
HST102	Western Civilization: Medieval and Early Modern Europe 🌐	4
HST103	Western Civilization: Modern Europe 🌐	4
HST110	Ancient World History ★🌐	4
HST111	Medieval World History ★🌐	4
HST112	Modern World History ★🌐	4
HST195	History of the Vietnam War 🌐	3
HST201	U.S. History: Pre-Colonial-1840 ★	4
HST202	U.S. History: 1840 - 1917 ★	4
HST203	U.S. History: 1910 - Present ★	4
HST204	Women in U.S. History 🌐	4
HST225	Women in World History 🌐	4
HST237	America in the 1960s	3
HST264		
HST265		

**International Studies**

INTL101	Introduction to International Studies ★🌐	4
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**Journalism**

J211	Introduction to Mass Communications	3
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**Music History**

MUS105	Music Appreciation/Music for the Listener	3
MUS268	Music History: Baroque to Romantic 🌐	4

**Political Science**

PS200	Introduction to Political Science ★	4
PS201	American Government ★	4
PS203	State and Local Governments	4
PS204	Introduction to Comparative Politics	4
PS205	International Relations ★🌐	4
PS209	Problems in American Politics	4
PS215	Global Issues	4
PS217	Introduction to Public Land Management: The Politics of Recreation	3
PS225	Political Ideology: Ideas About Government	4
PS241	Introduction to Political Terrorism ★	4

**Psychology**

PSY101	Psychology of Human Relations ★	3
PSY151	Introduction to the Social Sciences	3
PSY201	General Psychology ★	4
PSY202	General Psychology ★	4

PSY214	Introduction to Personality 🌐	4
PSY216	Social Psychology	3
PSY231	Human Sexuality	3
PSY232	Sexuality and Society ★🌐	3
PSY237	Human Development ★	4
PSY239	Introduction to Abnormal Psychology ★	4
<b>Sociology</b>		
SOC204	General Sociology: Principles of Sociology ★	3
SOC205	General Sociology: Social Institutions ★	3
SOC206	General Sociology: Social Problems ★	3
SOC213	Race Relations in the United States ★🌐	3
SOC215	Gender and Society ★🌐	3
SOC216	Sociology of the Family ★	3
SOC223	Sociology of Aging ★	3
<b>Women's Studies</b>		
WS101	Introduction to Women's Studies ★🌐	3
<b>World Literature</b>		
ENG271	World Literature: The Classical World (Ancient Literature to 1000 C.E.) 🌐	4
ENG272	World Literature: 1000 to 1800 C.E. 🌐	4
ENG273	World Literature: 1800 C.E. to the Present 🌐	4

## Science

One 200-level sequence of lab science:

Code	Title	Credits
BI211	Principles of Biology I	5
BI212	Principles of Biology II	5
BI213	Principles of Biology III	5
CH221	General Chemistry I	5
CH222	General Chemistry II	5
CH223	General Chemistry III	5
CH241	Organic Chemistry I	5
CH242	Organic Chemistry II	5
CH243	Organic Chemistry III	5
PH201	General Physics I	5
PH202	General Physics II	5
PH203	General Physics III	5
PH211	General Physics with Calculus I	5
PH212	General Physics with Calculus II	5
PH213	General Physics with Calculus III	5

## Electives

Complete electives to reach a total of 90 degree credits. Up to 6 credits of PE185, 15 credits of IECC (200-level), and 12 credits of Cooperative Education Internship may be applied as elective credits to the ASOT. See the Course Information section for elective credit/course eligibility.

Transfer students may need a foreign language to fulfill university admission requirements. Those seeking a Bachelor of Arts degree must complete the second year of a language other than English (201/202/203 or equivalent) before graduating from a public Oregon university. Second-year language courses offered at MHCC include American Sign Language (ASL), Spanish, and Japanese.

### To be awarded an AS in Computer Science degree, students must:

- Complete all requirements to total 90 applicable degree credits.
- Earn a grade of "C" or better in each course and have a minimum cumulative GPA of 2.0 at the time the degree is awarded.
- Satisfactorily earn 12 credit hours at MHCC. Non-traditional credit (College Level Examination Program, Experience-Based Credit, Challenge, etc.) does not satisfy this requirement.
- Please note: Courses may not be repeated for credit unless specified in the course description.

To check your official progress toward graduation, log on to MyMHCC and click "View My Degree Audit."

## Transfer Schools

- Eastern Oregon University (<https://www.eou.edu/computer-science/>)
- Oregon Institute of Technology (<http://www.oit.edu/academics/degrees/>)
- Oregon State University (<http://eecs.oregonstate.edu/academics/undergraduates/computer-science/>)
- Portland State University (<https://www.pdx.edu/computer-science/>)
- Southern Oregon University (<https://inside.sou.edu/cs/>)
- University of Oregon (<https://cs.uoregon.edu/>)
- Western Oregon University (<http://www.wou.edu/cs/>)

★ Course offered online

🌐 Cultural Literacy course