

# EXPLORE SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH - ASSOCIATE OF ARTS OREGON TRANSFER (AAOT)

## Description

Explore Science, Technology, Engineering and Math (STEM) is an Associate of Arts Oregon Transfer (AAOT) degree. It is designed for students who wish to explore their options in science, technology, engineering, and math. Ideally students in this degree will choose a more specific field of study within their first year. Completion of an AAOT will prepare a student to transfer to an Oregon university with all their lower division general education requirements met and some of their lower division math and science courses completed. Completion of this degree does not necessarily guarantee junior standing in any specific major upon transfer.

Explore STEM AAOT may be best suited to students who are exploring science-related pathways, considering blending STEM and humanities interests, or those that require developmental math preparation in their first year at COCC. Students may also choose this degree option if they prefer a terminal associates degree that allows for a variety of courses while taking electives in STEM disciplines.

Students who wish to obtain a Bachelor's of Science in STEM fields and be guaranteed junior status upon transfer to an Oregon university may want to consider choosing a more specific degree within the STEM Education Pathway. Speak with your advisor about which degree is best for you.

## Statewide General Education Student Learning Outcomes

Please see the [General Education page](#) for statewide general education student learning outcomes.

## Entrance Requirements

While this degree has no formal entrance requirements, individual courses may have prerequisites which must be met before enrollment.

## Course Requirements

Course	Title	Credits
<b>General Education/Foundational</b>		
<u>Health:</u>		
Choose 3 credits <sup>1</sup>		3
<u>Mathematics:</u>		
Choose one course		4
<u>Oral Communication:</u>		
Choose one course		3-4
<u>Writing:</u>		
WR 121Z	Composition I	4
WR 122Z	Composition II	4
or WR 227Z	Technical Writing	
<b>General Education/Discipline studies</b>		
<u>Cultural Literacy:</u>		
One course from the following categories must be designated as cultural literacy on the Discipline Studies list (credits count once).		
<u>Arts and Letters:</u>		

Choose three courses from at least two prefixes 9-12

### Social Science:

Choose four courses from at least two prefixes 12-16

### Science/Math/Computer Science:

Choose four courses from at least two prefixes including at least three laboratory courses in biological and/or physical science 12-20

### Electives

Choose any course numbered 100 or above that brings the total credits to 90 quarter hours. This may include up to 12 credits of Career and Technical Education courses designated by COCC as acceptable. 39

**Total Credits 90-106**

<sup>1</sup> HHPA activity courses (1 credit each) are not to be duplicated.

## Advising Notes

Register for one or more exploratory/orientation courses to gauge interest in pursuing different fields of study in STEM disciplines: BI 100 Career Exploration in the Life Sciences; CS 160 Computer Science Orientation; CH 150Z Preparatory Chemistry; DATA 101 Introduction to Data Science; ENGR 100 Introduction to Engineering I; G 100 Introduction to Geology; GEOG 101 Introduction to Geospatial Science & GIS; PH 100 Introductory Physics.

Register for MTH at placement level in the first term and continue MTH courses according to recommended STEM transfer preparation: MTH 015 Basic Mathematics; MTH 060 Beginning Algebra; MTH 095 Intermediate Algebra; MTH 111Z Precalculus I: Functions; MTH 112Z Precalculus II: Trigonometry; MTH 251Z Differential Calculus; MTH 252Z Integral Calculus; and higher.

Register for STEM sequences when MTH prerequisites are met and field of study is determined:

- Biology: BI 221Z Principles of Biology: Cells or BI 223Z Principles of Biology: Ecology and Evolution
- Health Careers: BI 231Z Human Anatomy and Physiology I
- Chemistry: CH 221Z General Chemistry I + CH 227Z General Chemistry I Laboratory
- Computer & Info Systems: CS 161 Computer Science I
- Engineering: ENGR 102 Introduction to Engineering II & PH 211 General Physics I
- Geographic Info Systems: GEOG 265 Geographic Information Systems
- Geology: G 201 Geology I - The Dynamic Earth
- Math: MTH 251Z Differential Calculus or higher
- Physics: PH 211 General Physics I

Other general education STEM courses may help define your pathway but do not always meet requirements for Bachelor's degrees in specific STEM disciplines. Recommend limiting elective general education science classes to make room for STEM majors course sequences to avoid excess elective credits.

## Performance Standards

- Academic Requirements:
  - Students must have a 2.0 cumulative GPA to earn a COCC certificate or degree.
- Options for additional standards:
  - All courses in the program must be completed with a grade of C or higher.

## Sample Plan

First Term	Credits
Discipline Studies Social Science	4
Elective	3
Elective	4
Foundational Writing or Math Course <sup>1</sup>	4
<b>Credits</b>	<b>15</b>
<b>Second Term</b>	
Discipline Studies Arts & Letters	4
Elective	3
Elective	4
Foundational Writing or Math Course <sup>1</sup>	4
<b>Credits</b>	<b>15</b>
<b>Third Term</b>	
Discipline Studies Science/Math/Computer Science	4
Elective	4
Foundational Writing or Math Course <sup>1</sup>	4
<u>Oral Communication:</u>	3-4
<b>Credits</b>	<b>15-16</b>
<b>Fourth Term</b>	
Discipline Studies Arts & Letters	4
Discipline Studies Science/Math/Computer Science	4
Discipline Studies Social Science	4
Health (3 credits with HHP or HHPA prefix)	3
<b>Credits</b>	<b>15</b>
<b>Fifth Term</b>	
Discipline Studies Arts & Letters	3-4
Discipline Studies Science/Math/Computer Science	4
Discipline Studies Social Science	4
Elective	4
<b>Credits</b>	<b>15-16</b>
<b>Sixth Term</b>	
Discipline Studies Science/Math/Computer Science	4
Discipline Studies Social Science	4
Elective	4
Elective	3-4
<b>Credits</b>	<b>15-16</b>
<b>Total Credits</b>	<b>90-93</b>

<sup>1</sup> The AAOT requires one foundational math course and two foundational writing courses (WR 121Z Composition I and WR 122Z Composition II or WR 227Z Technical Writing). Please view the program requirements for details.