

Associate of Science with an emphasis in

## Chemistry/Biochemistry

### MHCC Faculty Advisers

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The science of chemistry deals with the composition, analysis, structure, and properties of matter and the various transformations matter may undergo. Chemical processes are the foundation of many diverse systems that are of great interest to mankind, including biological functions, the natural and polluted environment, industrial processes, food and agriculture, etc.

### Curricular Outcomes

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

- Retain and apply critical chemistry concepts while enrolled in the curriculum
- Use chemistry principles and logical reasoning skills to solve problems
- Demonstrate proper laboratory techniques with attention to detail, including the use of associated equipment and instrumentation
- Communicate scientific topics effectively
- Transfer to four-year institutions and succeed in upper-division coursework
- Recognize connections between chemistry and other disciplines.

The two-year program listed below is designed to meet the requirements for an Associate of Science degree from MHCC and prepare a student for obtaining a Bachelor of Science/Arts in Chemistry/Biochemistry at Eastern Oregon University, Oregon State University, Portland State University, Southern Oregon University, University of Oregon or Western Oregon University. However, students from MHCC seeking a baccalaureate degree may also transfer to other institutions that require different courses within the various subject areas of General Education. Students interested in transferring to a four-year college or university after MHCC should consult with the institution they will be attending,

NOTE: The course requirements for this program are subject to change each academic year. For MHCC certificate/degree requirements, a student must follow the program requirements the year the student is officially admitted to the program or the year the student is completing the program.

the faculty adviser, and/or the MHCC Academic Advising and Transfer Center.

First Quarter		Credits
CH221	General Chemistry I .....	5
MTH251	Calculus I: Differential Calculus .....	4
WR121	English Composition .....	3
	Humanities requirement <sup>1</sup> .....	3-4

15-16

Second Quarter		Credits
CH222	General Chemistry II .....	5
MTH252	Calculus II: Integral Calculus .....	4
WR122	English Composition: Critical Thinking .....	3
	Humanities requirement <sup>1</sup> .....	3-4

15-16

Third Quarter		Credits
CH223	General Chemistry III .....	5
MTH253	Calculus III .....	4
WR123	English Composition: Research or WR227 Technical Report Writing .....	3
	Social Science requirement <sup>1</sup> .....	3-4

15-16

Fourth Quarter		Credits
CH241	Organic Chemistry I <sup>2</sup> .....	5
MTH254	Calculus IV: Vector Calculus .....	5
PH211	General Physics with Calculus I .....	5

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Fifth Quarter		Credits
CH242	Organic Chemistry II <sup>2</sup> .....	5
PH212	General Physics with Calculus II .....	5
SP111	Fundamentals of Public Speaking .....	3
	Social Science requirement <sup>1</sup> .....	3-4

16-17

Sixth Quarter		Credits
CH243	Organic Chemistry III <sup>2</sup> .....	5
CIS120	Computer Concepts I .....	3
CIS120L	Computer Concepts Lab I .....	1
PH213	General Physics with Calculus III .....	5
	Health and Physical Education requirement <sup>1</sup> .....	3

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<sup>1</sup> Refer to Associate of Science degree requirements, page 14.

<sup>2</sup> This sequence replaces the 300-level Organic Chemistry requirement at colleges and universities. With an acceptable score on the ACS National Exam and a minimum

of a C or better in each course, this sequence transfers as 11-15 credits of 300-level coursework to all OUS schools. Check with your transfer institution to determine any additional Organic Chemistry requirements.

### Transfer Schools' Web Links

Eastern Oregon University - [www2.eou.edu/chem/](http://www2.eou.edu/chem/)

Oregon State University - [www.chem.orst.edu/](http://www.chem.orst.edu/)  
or <http://oregonstate.edu/dept/biochem>

Portland State University - <http://chem.pdx.edu/>

Southern Oregon University - [www.sou.edu/chemistry/](http://www.sou.edu/chemistry/)

University of Oregon - <http://darkwing.uoregon.edu/~chem/>

Western Oregon University -  
[www.wou.edu/las/physci/chem.html](http://www.wou.edu/las/physci/chem.html)

### Related MHCC Program Web Links

[www.mhcc.edu/programs](http://www.mhcc.edu/programs)

### Disclaimer

This information is meant to serve as a general guide for students intending to major in Chemistry/Biochemistry. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact his/her four-year transfer school to confirm specific admission requirements.