

# FERMENTATION SCIENCE - ACADEMIC CERTIFICATE (AC)

Explore More About This Program: <https://cwi.edu/program/science-technology-engineering-and-math-stem>

## Related Degree Plan of Study Guide: Fermentation Science Academic Certificate and STEM Associate of Science Degree

The course sequence listed below is strongly recommended in order to complete all of the requirements for multiple programs. Please register for each semester as shown using the Student Planning tool in myCWI. Consult your Student Success Advisor for any questions regarding this course sequence plan.

The courses listed below are strongly recommended to facilitate the completion of requirements for both an Academic Certificate (AC) in Fermentation Science **and** an Associate of Science (AS) degree in Science, Engineering, Technology, and Math (STEM). The prerequisites that must be met prior to enrollment in the courses required for the AC have been accounted for; if students complete the courses listed here, they will be eligible to graduate with **both** an AC in Fermentation Science **and** an AS degree in STEM.

NOTE: If you would like to earn the STEM AS **without** the AC, please visit the [STEM AS](#) catalog page for a detailed list of requirements.

Course	Title	Credit Hours
<b>First Year</b>		
<b>Fall</b>		
CHEM 101	Introduction to Chemistry (GEM 4)	3
CHEM 101L	Introduction to Chemistry Lab (GEM 4)	1
CWI 101	Connecting With Ideas	3
ENGL 101	Writing and Rhetoric I (GEM 1)	3
MATH 147	College Algebra and Trigonometry (GEM 3)	5
<b>Total Semester Credit Hours</b>		<b>15</b>
<b>Spring</b>		
ENGL 102	Writing and Rhetoric II (GEM 1)	3
FERM 120	Introduction to Fermented Foods (GEM 4)	3
MATH 170	Calculus I	5
GEM 2 - Oral Communication course <sup>1</sup>		2-3
GEM 5 - Humanistic & Artistic Ways of Knowing course		3
<b>Total Semester Credit Hours</b>		<b>16</b>
<b>Second Year</b>		
<b>Fall</b>		
CHEM 102	Essentials of Organic and Biochemistry	4
CHEM 102L	Essentials of Organic and Biochemistry Lab	1
FERM 110	Grapes and Hops: Specialty Crops	3
MMBS 111	Introductory Microbiology	3
MMBS 111L	Introductory Microbiology Lab	1
SCIE 102	Ethics in Science (GEM 6) <sup>3</sup>	3
<b>Total Semester Credit Hours</b>		<b>15</b>
<b>Spring</b>		
AGRI 290	Agricultural Science Capstone <sup>4</sup>	2
BUSA 201	Business Communication and Professionalism	3
GEM 5 - Humanistic & Artistic Ways of Knowing course <sup>2</sup>		3
GEM 6 - Social & Behavioral Ways of Knowing course <sup>2</sup>		3
Global Perspectives course		3
<b>Total Semester Credit Hours</b>		<b>14</b>
<b>Minimum Credit Hours Required</b>		<b>60</b>

- <sup>1</sup> COMM 101 Fundamentals of Oral Communication is the recommended course to fulfill the GEM 2 requirement.
- <sup>2</sup> Course must come from a different discipline.
- <sup>3</sup> This course fulfills the Ethical Reasoning requirement for an associate degree from CWI.
- <sup>4</sup> Students wishing to earn **both** the Fermentation Science AC **and** the STEM AS should complete AGRI 290 instead of SCIE 290 for their capstone course.