

Department of Food Science, University of California
Bachelor of Science (BS) Degree Requirements
Brewing Science Option

PREPARATORY COURSEWORK (60 UNITS): Plan to complete these courses during freshman and sophomore year. All courses must be taken for a letter grade.

COURSE NAME	COURSE NUMBER	QUARTER OFFERED	PREREQUISITES	UNITS
General Chemistry	CHE 2A	F, W, SSI	High school chemistry and physics, and concurrent enrollment in mathematics at or above the level of MAT 012 strongly recommended; must earn a qualifying score of 24 or better on the Chemistry Placement Exam	5
General Chemistry	CHE 2B	W, S	CHE 002A C- or better or CHE 2AH C- or better	5
General Chemistry	CHE 2C	F, S, SSI	CHE 002B C- or better or CHE 002BH C- or better	5
Organic Chemistry	CHE 8A	F, S, SSI	CHE 002B C- or better or CHE 002BH C- or better	2
Organic chemistry	CHE 8B	F, W, SSI, SSII	CHE 008A or CHE 118A or CHE 128A	4
Short Calculus	MAT 17A	All	Two years of high school algebra, plane geometry, plane trigonometry, and satisfying the Mathematics Placement Requirement	4
Short Calculus	MAT 17B	All	MAT 017A with a C- or better	4
Short Calculus	MAT 17C	All	MAT 17B with a C- or better	4
Biological Sciences	BIS 2A	All	CHE 2A highly recommended	5
General Physics	PHY 7A	All	MAT 017B (can be concurrent) or MAT 021B (can be concurrent)	4
General Physics	PHY 7B	All	PHY 007A	4
General Physics	PHY 7C	All	PHY 007B	4
Food Preservation	FST 50	F	CHE 2A; BIS 2A	3
Nutrition	NUT 10	F, W, S, SSII	None	3
Statistics	STA 13	All	Two years of high school algebra or MAT D	4

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DEPTH SUBJECT MATTER (59 UNITS): Plan to complete these courses during your junior and senior year. All courses must be taken for a letter grade.

DEPTH SUBJECT MATTER	COURSE NUMBER	QUARTER OFFERED	PREREQUISITES	UNITS
General Biochemistry	BIS 102	F, W, S, SSI	BIS 2A; CHE 8B or CHE 118B or CHE 128B	3
General Biochemistry	BIS 103	F, W, S, SSII	BIS 102	3
General Microbiology	MIC 102	All	BIS 2A; CHE 2B	3
Food Composition	FST 100A	F	CHE 8B or CHE 118B or CHE 128B; BIS 2A recommended	4
Food Composition Lab	FST 101A	F	FST 100A (must be concurrent)	3
Food Properties	FST 100C	W	FST 100A; CHE 8B	4
Food Properties Lab	FST 101B	W	FST 100C (must be concurrent)	2
Food Analysis	FST 103	W	CHE 2C; CHE 8B; BIS 103; FST 100B	4
Food Microbiology	FST 104	W	BIS 2A; BIS 103	3
Food Microbiology Lab	FST 104L	S	BIS 2A; BIS 103; FST 104	4
Food Processing	FST 110	F	PHY 7A-7B-7C; MAT 17C or MAT 21C	4
Food Processing Lab	FST 110L	S	FST 110	2
Food Design and Sensory Analysis	FST 117	F	STA 13	4
Food Sensory Science	FST 127	W	FST 117	4
Food Science Career Seminar	FST 190	S	Junior or Senior standing	1
Malting and Brewing Science	FST 102A	F	(BIS 102 and BIS 103) or BIS 105; senior standing recommended.	4
Practical Malting and Brewing Science	FST 102B	W	FST 102A; CHE 002C	4
Introduction to Enzymology	FST 123	S	BIS 102, BIS 103	3

RESTRICTED ELECTIVES	UNITS
Choose an additional 7 units from these courses: FST 3, FST 102C, FST 109, FST 114, FST 123L, FST 159, FST 160, VEN 140	7

ADDITIONAL NOTES:

- Students are encouraged to meet with a Staff Advisor at least once a year to check their progress toward graduation.
- Freshman and Sophomore Level students should enroll in courses numbered 001-099.
- Students are expected to complete all preparatory coursework before starting their junior-level major requirements.
- All Food Science and Technology (FST) courses are offered once per academic year; please plan accordingly.
- Must complete the 180 unit requirement and maintain a 2.000 cumulative GPA in Depth Subject Matter requirements to be eligible for graduation.

COLLEGE OF AGRICULTURAL & ENVIRONMENTAL SCIENCES (CAES) DEGREE REQUIREMENTS

Additional courses are required to complete the University and CA&ES Bachelor of Science requirements. Meet with your Undergraduate Academic Programs (UAP) Advisor in the CA&ES Dean's Office if you have questions related to the Entry Level Writing Requirement, English Composition Requirement, American History and Institutions, or General Education Requirements. CA&ES UAP Advisors are located in 150 Mrak Hall. To make an appointment with a UAP Advisor, visit appointments.ucdavis.edu or call the front desk at (530) 752-0108.