

Food Biochemistry Option

Restricted Electives (10 units) (One letter graded course may be taken Pass/No Pass)

#	Course Title	Prerequisites	Units	Quarter
Food Science & Technology (FST)				
102A	Malting and Brewing Science	BIS 102, 103	4	W
102B	Practical Malting and Brewing	FST 102A	4	S
107	Food Sensory Science (127 for depth)	PLS 120, or FST 117	4	F
119	Che. & Tech. Of Milk and Dairy Products	BIS 1A, BIS 102	4	S
120	Principles of Meat Science	BIS 1A	3	S
120L	Meat Science Laboratory	BIS 1A, FST 120 (may be concurrent)	2	S
128	Food Toxicology	BIS 102, BIS 103	3	S
131	Food Packaging	CHE 8B, BIS 1A, PHY 7C	4	F
192	Internship for Advanced UG	consent of instructor	1-3	All
198	Directed Group Study		1-4	All
213	Flavor Chemistry of Foods and Bevs.	CHE 8A, 8B, VEN 123/L, or FST 103	3	S
219	Cheeses of the World		4	S (ev. Yr.)
Biological Sciences (BIS)				
101	Genes and Gene Expression	BIS 1A, 1B or 2A, 2B & 2C(con); CHE 8B or 118B or 128B (con)	4	All/Sum
Cell Biology and Human Anatomy (CHA)				
101	Human Gross Anatomy	BIS 1B	4	W
Chemistry (CHE)				
108	Physical Chemistry of Macromolecules	CHE 107B or 110C	3	S
Microbiology (MIC)				
101	Introductory Microbiology	BIS 1A or 2A & CHE 2B	5	WS
102L	General Microbiology Lab		3	All
105	Microbial Diversity	MIC 102 BIS 102	3	W
120	Microbial Ecology	MIC 105, BIS 102 or 105	3	S
140	Bacterial Physiology	BIS 101,102,103 or BIS 101,105	3	F
150	Bacterial Genetics	BIS 101,102, or 105	3	W
155L	Bacterial Physiology Lab	MIC 140 or 150, 102L	4	S
162	General Virology	BIS 102 or 105	4	W
170	Yeast Molecular Genetics	BIS 101,102 or 105	3	S
Molecular and Cellular Biology (MCB)				
120L	Biochemistry Laboratory	BIS 103 (con)	6	All
121	Molecular Biology of Eukaryotic Cells	BIS 101, 103	3	WS
123	Behavior & Analysis of Enzyme and Receptor Systems	BIS 103	3	FS
126	Plant Biochemistry	BIS 103 or 105	3	W
140L	Cell Biology Lab	BIS 104 (con)	5	W
150	Developmental Biology	BIS 101 and (con) MCB 150L	4	F
150L	Laboratory in Development Biology	Con 150	1	F
160L	Principle of Genetics Lab	BIS 101	4	All
161	Molecular Genetics	BIS 101 or BIS 102 (con)	3	W
Neurobiology, Physiology, and Behavior (NPD)				
101	Systemic Physiology	BIS 1A or 2A CHE 2B	5	All
101L	Systemic Physiology Lab	NPD 101	3	All
Population Health and Reproduction (PHR)				
250	Food-borne Infections & Intoxications	FST 104 or PMI 127	4	
450	HACCP and Risk Assessment	consent of instructor	3	W

Plant Biology (PLB)

105	Developmental Plant Anatomy	PLS 2 (or equivalent course)	5		F
111	Plant Physiology	BIS 1C, or 2A, 2B, 2C, CHE 8B, PHY 7C (maybe taken con)	3		F
126	Plant Biochemistry	BIS 103 or 105	3		W
140	Culinary & Medicinal herbs	PLS 2 (or equivalent course)	3		S
148	Introductory Mycology	BIS 1A, 1B, 1C	4		F

Plant Pathology (PLP)

130	Fungal Biotechnology and Biochem	PLB 119, BIS 103	3		W
148	Introductory Mycology	BIS 1A, 1B, 1C	4		F (od. Yr)

Plant Sciences (PLS)

151	Plant Natural Product Chemistry	BIS 101 and 103 (or equivalent)	3		F
172	Postharvest Physiology & Technology		4		F
174	Mic. And Safety of Fresh Fruits & Veggies.	PLS 2 or BIS 1C or 2C (or equiv.)	3		F
196	Postharvest Tech. Of Horticultural Crops		3		S

Pathology, Microbiology and Immunology (PMI)

126	Fundamentals of Immunology	BIS 102 (or equivalent)	3		S
127	Medical Bacteria and Fungi	MIC 102, 102L, PMI 126 or MMI 188	5		S (od. Yr)

Viticulture & Enology (VEN)

128	Wine Microbiology	FST 123, 124, MIC 102, 102L or FST 104, 104L	2		W
140	Distilled Beverage Technology	CHE 8B, FST 110A	3		S (ev. Yr.)