Food Biology/Microbiology Option

Restricted Electives (15 units) ***(One letter graded course may be taken Pass/No Pass)***

#	Course Title	Prerequisites	Units		Quarter
Food Science & Technology (FST)					
47	Food Pruduct Development Field Study		1		S
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
123	Introduction to Enyzmology	BIS 103	3		S
123L	Enzymology Lab	BIS 103 FST 103 (conc)	2		S
128	Food Toxicology	BIS 102, BIS 103	3		S
131	Food Packaging	CHE 8B, BIS 1A, PHY 7C	4		F
151	Food Freezing	FST 110A or equivalent	1		S
192	Internship for Advanced UG	consent of instructor	1-3		All
198	Directed Group Study		1-4		All
199	Special Study for Advanced Undergrad		1-5		All
219	Cheeses of the World		4		S (ev. Yr.)
Biological Sciences (BIS)					
101	Genes and Gene Expression	BIS 1A, 1B or 2A, 2B & 2C(conc); CHE 8B or 118B or 128B (conc)	4		All/Sum
101D	Genes and Gene Expression Disc.	BIS 101 (conc)	1		All
104	Regulation of Cell Function	BIS 101; 102 or 105	3		All
Chemistry (CHE)					
107A	Physical Chemistry for Life Sciences	CHE 2C, MAT 16C, 1 yr. College PHY	3		S, SS
107B	Physical Chemistry for Life Sciences	CHE 107A	3		W, SS
Microbiology (MIC)					
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 (conc)	6		All
121	Molecular Biology of Eukaryotic Cells	BIS 101, 103	3		WS
126	Plant Biochemistry	BIS 103 or 105	3		W
140L	Cell Biology Lab	BIS 104 (conc)	5		W
150	Developmental Biology	BIS 101 and (conc) MCB 150L	4		F
150L	Laboratory in Devolopment Biology	Con 150	1		F
160L	Priniple of Genetics Lab	BIS 101	4		All
161	Molecular Genetics	BIS 101 or BIS 102 (conc)	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 & Vegs.	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.)