UNDERGRADUATE PROGRAM CURRICULUM
FOOD SCIENCE – USP/ESALQ
2014

Courses are sorted by recommended completion sequence		Credits			Hours	
	Mandatory Courses	**In class**	**Workload**	**Total**	**Total**	**Semester**
LAN0127	Introduction to Food Science	2	1	3	60	1
LAN0132	Scientific Information	2	1	3	60	1
LCE0166	Calculus and Mathematics Applied to Food Science	4	0	4	60	1
LEB0140	Physics	4	0	4	60	1
LGN0115	Cell Biology	4	0	4	60	1
LPV0156	Plant Raw Materials	4	1	5	90	1
	First Semester - Total	**20**	**3**	**23**	**390**	
LCE0151	Principles of Inorganic and Analytical Chemistry	4	0	4	60	2
LCE0161	Organic Chemistry	4	0	4	60	2
LCE0190	Applied Analytical Chemistry	4	0	4	60	2
LCE0212	Statistics Applied to Food Science	4	0	4	60	2
	LCE0166 - Calculus and Mathematics Applied to Food Science					
LFN0325	Principles of Microbiology	4	0	4	60	2
	LGN0115 - Cell Biology					
	Second Semester - Total	**20**	**0**	**20**	**300**	
LAN0112	Food Epidemiology and Toxicology	4	1	5	90	3
LAN1690	Food Microbiology	5	0	5	75	3
	LFN0325 - Principles of Microbiology					
LCB0218	Biochemistry	4	0	4	60	3
	LCE0161 - Organic Chemistry					
LCE0134	Information and Intelligence Systems for Research and Production Management	2	0	2	30	3
LES0144	Principles of Economics	2	0	2	30	3
LES0521	Food Anthropology	4	2	6	120	3
	Third Semester - Total	**21**	**3**	**24**	**405**	
LAN0216	Physical Chemistry and its Application to Foods	4	1	5	90	4
	LCE0151 - Principles of Inorganic and Analytical Chemistry					
	LCE0161 - Organic Chemistry					
LAN0310	Nutritional Biochemistry	4	0	4	60	4
	LCB0218 - Biochemistry					
LAN0400	Public Health Nutrition	4	0	4	60	4
LAN1700	Food Hygiene and Legislation	4	1	5	90	4
	LAN1690 - Food Microbiology					
LGN0217	General Genetics	4	0	4	60	4
	LGN0115 - Cell Biology					
	Fourth Semester - Total	**20**	**2**	**22**	**360**	
LAN0200	Food Biochemistry	4	0	4	60	5
	LCB0218 - Biochemistry					
LAN0405	Food Analysis	4	1	5	90	5
	LCE0151 - Principles of Inorganic and Analytical Chemistry					
LAN2660	Principles of Food Preservation	4	1	5	90	5
	LAN1690 - Food Microbiology					
LCE0100	Quality Management in the Agri-food Sector	4	0	4	60	5
LES0107	Administration Theory	4	1	5	90	5
	LES0144 - Principles of Economics					
	Fifth Semester - Total	**20**	**3**	**23**	**390**	

** Courses in italics are prerequisites to courses displayed above them*

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	Mandatory Courses	In class	Workload	Total	hours	Semester
CEN0260	Instrumental Methods of Chemical Analysis	4	0	4	60	6
	LCE0151 - Principles of Inorganic and Analytical Chemistry					
	LCE0212 - Statistics Applied to Food Science					
LAN0155	Oils, Fats, Oilseeds and By-products	4	1	5	90	6
	LAN2660 - Principles of Food Preservation					
LAN0451	Sugar and Alcoholic Beverages	4	1	5	90	6
LAN2670	Starchy Products	4	1	5	90	6
	LAN2660 - Principles of Food Preservation					
LAN2680	Fruit and Vegetable Technology	4	1	5	90	6
	LAN2660 - Principles of Food Preservation					
LAN2690	Dairy Products	4	1	5	90	6
	LCB0218 - Biochemistry					
	Sixth Semester - Total	**20**	**4**	**24**	**420**	
LAN0166	Sensory Analysis	4	1	5	90	7
	LCE0212 - Statistics Applied to Food Science					
LAN0318	Meat and Eggs	4	1	5	90	7
	LAN2660 - Principles of Food Preservation					
LAN0415	Functional Foods	4	0	4	60	7
	LAN0310 - Nutritional Biochemistry					
LAN2695	Seafood and Freshwater Fish Technology	4	1	5	90	7
	LAN2660 - Principles of Food Preservation					
LES0452	Economics and Management on Agribusiness	4	0	4	60	7
	LES0144 - Principles of Economics					
	Seventh Semester - Total	**20**	**3**	**23**	**390**	
CEN0002	Food Preservation by Non-Conventional Methods	2	1	3	60	8
LAN0152	Food Product Development I	4	2	6	120	8
	LAN0166 - Sensory Analysis					
	LAN2660 - Principles of Food Preservation					
LAN0451	Sugar and Alcoholic Beverages	4	1	5	90	8
LAN0528	Food Security and Nutritional Safety	4	0	4	60	8
	LAN0400 - Public Health Nutrition					
LAN1000	Final Report I in Food Science	2	3	5	120	8/9
	LCE0212(4) - Statistics Applied to Food Science					
LAN1880	Quality Assurance in the Agri-food System	2	2	4	90	8
	LAN1700 - Food Hygiene and Legislation					
LAN2740	Statistical Quality Control in the Agri-Food Industry	4	1	5	90	8
	LCE0212 - Statistics Applied to Food Science					
	Eighth Semester - Total	**22**	**11**	**33**	**660**	
LAN0250	Food Product Development II	2	3	5	120	9
	LAN0152 - Food Product Development I					
	LAN0150 – Food Product Development					
LAN2000	Final Report II in Food Science	2	5	7	180	9/10
	LAN1000 - Final Report I in Food Science					
LAN3000	Final Report in Food Science	2	5	7	180	9/10
	Ninth Semester - Total	**5**	**13**	**18**	**465**	
	Grand Total	**168**	**42**	**203**	**3780**	

** Courses in italics are prerequisites to courses displayed above them*

Students admitted after 2011 must work 210 hours in internship courses of their own choice

Ideal duration: 10 semesters ***Minimum duration: 9 semesters*** ***Maximum duration: 15 semesters***

For students admitted up to 2010: Total credits required for program completion: 200 (mandatory + optional courses)

For students admitted in 2011: Total credits required for program completion: 210 (mandatory + optional courses)

For students admitted in 2012 and thereafter: Total credits required for program completion: 215 (mandatory + optional courses)