

**Chang Jung Christian University Bachelor Degree Program in Environment and Food Safety Laboratory
Sciences Curriculum List**

(Curriculum Guides, 2021 Academic Year)

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obligatory / elective course	No.	course name(ch)	course name	grade	semester	credit	hours/week		Remark
							instruction	parctice	
common course-ob ligatory	PE00217	體育 I	Physical Education I	1	1	0	2	0	
	PE00218	體育 II	Physical Education II	1	2	0	2	0	
	PE00219	體育 III	Physical Education III	2	1	0	2	0	
	PE00220	體育 IV	Physical Education IV	2	2	0	2	0	
language course-ob ligatory	GE00561	國文	Chinese	1	1	2	2	0	
	LE00297	英文 I	Freshman English I	1	1	2	2	0	
	LE00298	英文 II	Freshman English II	1	2	2	2	0	
	LE00299	外語初級 I	Foreign Language (basic)I	2	1	2	2	0	
	LE00300	外語初級 II	Foreign Language (basic)II	2	2	2	2	0	
general course-ob ligatory	GE00206	音樂欣賞	Music Appreciation	1	2	2	2	0	
	GE00562	長榮精神	University and Holistic Pastoral Education	1	1	2	2	0	
	GE00567	通識課程		0	1	8	2	0	
	GE00656	體驗學習	Experience Learning	1	1	1	1	2	
dep. course-ob ligatory	FS00002	普通生物學	General Biology	1	1	2	2	0	
	FS00003	生物統計	Biostatistics	1	1	2	2	0	
	FS00000	普通化學	General Chemistry	1	1	2	2	0	
	FS00004	普通化學實驗	General Chemistry Laboratory	1	1	1	0	2	
	FS00005	環境與食品安全 檢驗概論	Introduction to Environmental and Food Safety Laboratory Science	1	1	2	2	0	
	FS00001	微積分	Calculus	1	2	2	2	0	
	FS00009	分析化學實驗	Analytical Chemistry Laboratory	1	2	1	0	2	
	FS00103	有機化學	Organic Chemistry	1	2	2	2	0	
	FS00104	分析化學	Analytical Chemistry	1	2	2	2	0	
	FS00112	食物學原理	Food Fundamentals	1	2	3	3	0	
	FS00119	生物化學 I	Biochemistry I	2	1	2	2	0	
	FS00078	食品加工學實驗	Food Processing Laboratory	2	1	1	0	2	
	FS00042	營養學	Nutrition	2	1	2	2	0	
	FS00089	食品加工學 I	Food Processing I	2	1	2	2	0	
	FS00114	微生物學	Microbiology	2	1	2	2	0	
	FS00014	檢驗品保	Quality Assurance of Testings	2	2	2	2	0	
	FS00035	食品化學	Food Chemistry	2	2	3	3	0	
	FS00120	生物化學 II		2	2	2	2	0	
	FS00040	食品微生物學	Food Microbiology	3	1	2	2	0	

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dep. course-ob ligatory	FS00041	食品微生物學實驗	Food Microbiology Laboratory	3	1	1	0	2	
	FS00071	食品衛生與安全	Food Sanitation and Safety	3	1	3	3	0	
	FS00106	儀器分析(含實驗)	Instrumental Analysis (and Laboratory)	3	1	2	2	0	
	FS00092	食品分析 I	Food Analysis I	3	1	2	2	0	
	FS00107	食品分析實驗 I	Food Analysis Laboratory I	3	1	1	0	2	
	FS00044	食品工廠管理	Management of Food Factory	3	2	2	2	0	
dep. course-el ective	FS00006	環保法規	Environmental Laws and Regulations	1	1	2	2	0	
	FS00083	工業衛生概論	Introduction of Industrial Hygiene	1	1	2	2	0	
	FS00087	食品科學概論	Introduction to Food Science	1	1	2	2	0	
	FS00020	環境倫理	Environmental Ethics	1	1	2	2	0	
	FS00010	實驗室安全與衛生	Laboratory Safety and Health	1	2	2	2	0	
	FS00025	資料統計與分析	Statistical Data Analysis	1	2	2	2	0	
	FS00027	環境化學	Environmental Chemistry	1	2	2	2	0	
	FS00026	計算機概論	Introduction to Computer	1	2	2	2	0	
	FS00115	食品安全衛生法規	Act and regulation of food safety and sanitation	1	2	2	2	0	
	FS00030	作業環境測定 I	Workplace Monitoring I	2	1	2	2	0	
	FS00064	環境教育	Environmental Education	2	1	2	2	0	
	FS00073	職業安全衛生法規	Laws and Regulations on Occupational Safety and Health	2	1	2	2	0	
	FS00024	環境採樣與分析	Environmental Sampling and Analysis	2	1	2	2	0	
	FS00102	噪音與振動	Noise and Vibration	2	1	2	2	0	
	FS00019	毒物學原理	Principles of Toxicology	2	1	2	2	0	
	FS00015	化學分析技術概論	Introduction to Chemical Analysis Techniques	2	2	2	2	0	
	FS00032	環境污染物分析	Environmental Pollutant Analysis	2	2	2	2	0	
	FS00033	環境污染物分析實驗	Environmental Pollutant Analysis Laboratory	2	2	1	0	2	
	FS00036	食品化學實驗	Food Chemistry Laboratory	2	2	1	0	2	
	FS00062	食品工程學	Food Engineering	2	2	2	2	0	
	FS00105	環境微生物學	Environmental Microbiology	2	2	2	2	0	
	FS00090	食品加工學 II	Food ProcessingII	2	2	2	2	0	
	FS00088	食品品質管制	Food Quality Control	2	2	2	2	0	
	FS00108	作業環境測定 II	Workplace Monitoring II	2	2	2	2	0	
	FS00039	水質檢驗	Water Quality Testing	3	1	2	2	0	

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dep. course-el ective	FS00051	發酵學	Fermentation	3	1	2	2	0	
	FS00080	作業環境測定實務	Practices of Environmental Monitoring at Workplaces	3	1	2	2	0	
	FS00091	食品保存技術	Food Preservation Technology	3	1	2	2	0	
	FS00079	工業與環境毒物	Industrial and Environmental Toxicology	3	1	2	2	0	
	FS00018	實驗室認證作業程序	Laboratory Accreditation Process	3	2	2	2	0	
	FS00072	環境污染調查評估	Investigation and Assessment of Environmental Pollutions	3	2	2	2	0	
	FS00048	分子生物學	Molecular Biology	3	2	3	3	0	
	FS00049	分子生物學實驗	Molecular Biology Laboratory	3	2	1	0	2	
	FS00075	粉塵測定與控制	Measurement and Control on Dust	3	2	2	2	0	
	FS00081	工業安全衛生管理實務	Practical Management on Industrial Safety and Health	3	2	2	2	0	
	FS00082	職業病防治與介紹	Introduction to Occupational Diseases	3	2	2	2	0	
	FS00095	食品分析實驗 II	Food Analysis Laboratory II	3	2	1	0	2	
	FS00097	食品安全管制系統	Food Safety Control	3	2	2	2	0	
	FS00093	食品分析 II	Food Analysis II	3	2	2	2	0	
	FS00121	食品衛生管理實務		3	2	2	2	0	
	FS00122	健康風險評估		4	1	2	2	0	
	FS00056	食品毒物學	Food Toxicology	4	1	2	2	0	
	FS00052	專題研究 I	Special Topics I	4	1	2	2	0	
	FS00059	農藥殘留檢驗	Pesticide Residue Analysis	4	1	2	2	0	
	FS00084	生物性危害評估	Biological Hazards and Assessment	4	1	2	2	0	
	FS00016	鑑識科學概論	Introduction to Forensic Science	4	1	2	2	0	
	FS00043	食品添加物	Food Additives	4	1	2	2	0	
	FS00099	基因改造食品	Genetically Modified Foods	4	1	2	2	0	
	FS00100	食品風險管理	Food Risk Management	4	1	2	2	0	
	FS00101	職場英文	Workplace English	4	1	2	2	0	
	FS00096	食品生物技術	Food Biotechnology	4	1	2	2	0	
	FS00116	專題討論 I	Seminar I	4	1	2	2	0	
	FS00067	食品行銷學	Food Marketing	4	2	2	2	0	
	FS00066	食品官能品評	Food Sensory Evaluation	4	2	2	2	0	
	FS00068	新產品開發	Development of Products	4	2	2	2	0	
	FS00109	專題研究 II	Special Topics II	4	2	2	2	0	

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dep. course-el ective	FS00117	專題討論 II	Seminar II	4	2	2	2	0	
	FS00123	職場實習	Field Internship	4	2	9	0	18	
<p>obligatory 71</p> <p>elective course 57</p> <p>credit sum 128</p> <p>The maximum elective credits from other departments that can be counted is 15</p>									