Chang Jung Christian University Department of Green Energy and Environmental Resources Curriculum List

(Curriculum Guides,2021 Academic Year)

obligatory / elective course	No.	course name(ch)	course name	grade	semester	credit	hours/week instruction	parctice	Remark
common course-obligatory	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-obligatory	GE00561	國文	Chinese	1	2	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-obligatory	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	2	1	1	2	
dep. course-obligatory	ER00001	微積分	Calculus	1	1	2	2	0	
	ER00002	能源科技概論Ⅰ	Introduction of Energy Technology Ⅰ	1	1	2	2	0	
	ER00003	自然科學概論Ⅰ	Introduction to Basic Natrual Sciences Ⅰ	1	1	2	2	0	
	ER00004	管理概論	Introduction to Management	1	1	2	2	0	
	ER00006	計算機概論	Introduction to Computer	1	1	2	2	0	
	ER00055	電工學	Eletrotechnics	1	1	2	2	0	
	ER00007	能源科技概論Ⅱ	Introduction of Energy Technology Ⅱ	1	2	2	2	0	
	ER00008	自然科學概論Ⅱ	Introduction to Basic Natrual Sciences Ⅱ	1	2	2	2	0	
	ER00009	環境科學	Environmental Science	1	2	2	2	0	
	ER00011	程式設計	Programming	1	2	2	2	0	
	ER00000	環境倫理	Environmental Ethics	1	2	2	2	0	
	ER00015	自然科學概論Ⅲ	Introduction to Basic Natrual Sciences Ⅲ	2	1	2	2	0	
	ER00087	工程數學	Engineering mathematics	2	1	2	2	0	
	ER00016	電子電路學	Electronic Circuitry	2	1	2	2	0	
	ER00017	能源系統設計規劃	Planning and Design of Energy System	2	2	2	2	0	
	ER00013	流體力學	Fluid Mechanics	2	2	2	2	0	

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dep. course-obligatory	ER00014	天氣與氣候學	Weather and Climate	2	2	2	2	0	
	ER00018	統計學	Statistics	2	2	2	2	0	
	ER00019	能源政策	Energy Policy	3	1	2	2	0	
	ER00023	環境保護法規	Environmental Regulations	3	1	2	2	0	
	ER00012	環境規劃與管理	Environmental Planning and Management	3	2	2	2	0	
	ER00010	環境教育	Environmental Education	3	2	2	2	0	
	ER00033	地理資訊系統	Geographic Information System	3	2	2	2	0	
dep. course-elective	ZE00000	跨領域微學分Ⅰ	Interdisciplinary Microcredit Course I	0	1	1	1	0	
	ZE00001	跨領域微學分Ⅱ	Interdisciplinary Microcredit Course Ⅱ	0	1	1	1	0	
	ZE00002	跨領域微學分Ⅲ	Interdisciplinary Microcredit Course Ⅲ	0	1	1	1	0	
	ER00050	行動裝置APP程式設計	Mobile Device APP Programming	1	1	2	2	0	
	ER00048	科技英文Ⅰ	Technical English I	1	1	2	2	0	
	ER00049	旋翼機基礎實務Ⅰ	Rotorcraft Basic I	1	1	2	2	0	
	ER00053	科技文章選讀	Selected Readings of Technological Articles	1	2	2	2	0	
	ER00051	科技英文Ⅱ	Technical English Ⅱ	1	2	2	2	0	
	ER00052	旋翼機基礎實務Ⅱ	Rotorcraft Basic Ⅱ	1	2	2	2	0	
	ER00084	綠能與環境講座	Lecture on Green Energy and Environment	1	2	2	2	0	
	ER00024	電能與發電概論	Introduction to Electrical Energy and Power Generation	2	1	2	2	0	
	ER00025	風能發電系統理論	Theory of Wind Energy Generation	2	1	2	2	0	
	ER00026	風能發電系統實作	Impletementatio of Wind Energy Generation	2	1	2	2	0	
	ER00038	水質分析	Water Quality Analysis	2	1	2	2	0	
	ER00083	生態風險評估	Ecological Risk Assessment	2	1	2	2	0	
	ER00054	專題實作Ⅰ	Thematic Implementation I	2	1	2	2	0	
	ER00088	環境資訊管理	Environmental Information Management	2	1	2	2	0	
	ER00089	環境採樣與分析	Environmental sampling and analysis	2	1	2	2	0	
	ER00080	全球氣候變遷	Global Climate Change	2	1	2	2	0	
	ER00037	網站建置與實務	Practice of Website Building	2	2	2	2	0	

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dep. course-elective	ER00047	環境污染物分析	Environmental Pollution Analysis	2	2	2	2	0	
	ER00056	噪音與振動	Noise and Vibration	2	2	2	2	0	
	ER00029	氣候變遷減緩	Mitigation to Climate Change	2	2	2	2	0	
	ER00040	環境微生物學	Environmental Microbiology	2	2	2	2	0	
	ER00058	PYTHON程式設計	Python Programming	2	2	2	2	0	
	ER00059	環境教育教材教法	Materials and Methodologies for Environmental Education	2	2	2	2	0	
	ER00060	材料科學導論	Introduction to Materials Science	2	2	2	2	0	
	ER00057	專題實作 Ⅱ	Thematic Implementation Ⅱ	2	2	2	2	0	
	ER00031	太陽能發電系統理論	Theory of Solar Energy Generation	2	2	2	2	0	
	ER00032	太陽能發電系統實作	Impletemetation of Wind Energy Generation	2	2	2	2	0	
	ER00035	光電導論	Introduction to Optoelectronics	2	2	2	2	0	
	ER00027	儲能科技	Energy Storage Technology	3	1	2	2	0	
	ER00043	人與環境關係概論	Relationship Between Humenbeings with Environment	3	1	2	2	0	
	ER00044	工業與環境毒物	Industrial and Environmental Toxicology	3	1	2	2	0	
	ER00045	環境暴露評估	Environmental Explosure Assessment	3	1	2	2	0	
	ER00081	永續循環建築設計	Sustainabe Circular Design of Architecture	3	1	2	2	0	
	ER00062	廢棄物處理	Waste Treatment	3	1	2	2	0	
	ER00063	氣候變遷健康調適	Health Adaptation to Climate Change	3	1	2	2	0	
	ER00064	統計軟體應用	Application of Statistical Software	3	1	2	2	0	
	ER00061	專題討論 I	Seminar I	3	1	2	2	0	
	ER00020	溝通技術與分析方法	Communication Technology and Analysis	3	1	2	2	0	
	ER00021	管理學	Management	3	1	2	2	0	
	ER00034	污染監測與分析	Pollution Monitoring and Analysis	3	1	2	2	0	
	ER00042	資料統計與分析	Statistics for Data Analysis	3	1	2	2	0	
	ER00028	工程圖學	Engineering Graphics	3	2	2	2	0	
	ER00030	循環經濟	Circular Economy	3	2	2	2	0	
	ER00041	流域環境管理	Watershed Environmental Management	3	2	2	2	0	
	ER00022	空氣污染概論	Introduction to Air Pollution	3	2	2	2	0	
	ER00046	水文學	Hydrology	3	2	2	2	0	

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dep. course-elective	ER00039	智慧綠能環境設計	Smart Green Environment	3	2	2	2	0	
	ER00066	河川污染	River Pollution	3	2	2	2	0	
	ER00067	感測器理論與應用	Principle and Applications of Sensors	3	2	2	2	0	
	ER00068	氣候變遷調適	Adaptation to climate change	3	2	2	2	0	
	ER00065	專題討論Ⅱ	Seminar Ⅱ	3	2	2	2	0	
	ER00069	化學分析技術概論	Introduction to Chemical Analysis Techniques	3	2	2	2	0	
	ER00071	有害廢棄物管理	Hazardous Waste Management	4	1	2	2	0	
	ER00072	永續發展專題	Seminar on Sustainable Development	4	1	2	2	0	
	ER00073	人工智慧導論	Introduction of AI	4	1	2	2	0	
	ER00074	污水工程	Sewage Engineering	4	1	2	2	0	
	ER00082	量測與系統控制應用程式	Applied Programming on Measurement and System Control	4	1	2	2	0	
	ER00085	產業實習	Industrial Practice	4	1	9	0	18	
	ER00077	深度學習實務	Practice of Deep Learning	4	2	2	2	0	
	ER00078	環境影響評估	Environmental Impact Assessment	4	2	2	2	0	
	ER00079	建築節能	Energy Saving of Architectures	4	2	2	2	0	
	ER00076	室內空氣品質管理	Management of Indoor Air Quality	4	2	2	2	0	
	ER00086	職場實習	Career Development Practice	4	2	9	0	18	

obligatory 69

elective course 59

credit sum 128

The maximum elective credits from other departments that can be counted is　15