Program Curriculum of B.Sc. (Environmental Science and Technology)

Operated by Faculty of Environment at Bang khan and Kamphaeng Seng Campuses

with total credits of 135 credits

Course's structure

1) General Education Section	at least	30	credits
- Wellness Group	at least	6	credits
- Entrepreneurship Group	at least	3	credits
- Language and Communication Group	at least	13	credits
- Thai Citizen and Global Citizen Group	at least	5	credits
- Aesthetics Group	at least	3	credits
2) Specific Course Section	at least	99	credits
2.1) Core courses		40	credits
2.1.1) Basic courses in Sciences and Mathematics		25	credits
2.1.2) Specific coursesin Sciences		15	credits
2.2) Specific Courses Required		47	credits
2.3) Specific Elective Courses	at least	12	credits
3) Free Elective Course	at least	6	credits
4) Internship	at least	150	hours

Program's course information

1) General E	ducation Section	at least	30	credits
1.1) Wellness Group		at least	6	credits
01175xxx	Physical Education Activities			1(0-2-1)
8	and select to study at least 2 more credits from	om the list of cou	arse in the	Wellness Group
1.2) E	Intrepreneurship Group	at least	3	credits
	Select courses from the list of course in the	Entrepreneurship	g Group	
1.3) L	anguage and Communication Group		13	credits
01355xxx	English			9()
	Thai language			3()
	Informatics/Computer			1()
1.4) T	hai Citizen and Global Citizen Group	at least	5	credits
01999111	Knowledge of the Land			2(2-0-4)
		and select to	study at	least 3 more credits
from the list	of course in the Thai Citizen and Global Ci	tizen Group		
1.5) A	esthetics Group	at least	3	credits
Select courses from the list of course in the Aesthetics Group				
2) Specific C	ourse Section	at least	99	credits
2.1) Core courses		40	credits	
2.1.1) Basic Courses in Science and Mathematic		25	credits	
01403113	Basic Chemistry I			3(3-0-6)
01403115	Basic Chemistry II			3(3-0-6)
01403118	Basic Chemistry Laboratory			1(0-3-2)
01417111	Calculus I			3(3-0-6)
01417112	Calculus II			3(3-0-6)
01419211	General Microbiology			3(3-0-6)
01419214	Laboratory in Fundamental Microbiology	7		1(0-3-2)
01420113	Laboratory in Physics I			1(0-3-2)

01420114	Laboratory in Physics II		1(0-3-2)
01420117	Basic Physics I		2(2-0-4)
01420118	Basic Physics II		2(2-0-4)
01424111	Principles of Biology		3(3-0-6)
01424112	Laboratory in Biology		1(0-3-2)
	2.1.2 Specific Courses in Sciences	15	credits
01402311	Biochemistry I		2(2-0-4)
01402312	Laboratory in Biochemistry I		1(0-3-2)
01403222	Laboratory in Organic Chemistry		1(0-3-2)
01403227	Basic Organic Chemistry		4(4-0-8)
01403231	Chemical Quantitative Analysis		2(2-0-4)
01403232	Laboratory in Chemical Quantitative Analysis		2(0-6-3)
01422111	Principles of Statistics		3(3-0-6)
2.2)	Specific Courses Required		
1)	For the Major of Environmental Science and Technology	47	credits
1)	For the Major of Environmental Science and Technology (1) Basic Courses in Environment	47 9	credits credits
01651311			credits
	(1) Basic Courses in Environment		credits 3(1-6-5)
01651311	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis		credits 3(1-6-5) 3(3-0-6)
01651311 01671211	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment		credits 3(1-6-5) 3(3-0-6)
01651311 01671211	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science	9	3(1-6-5) 3(3-0-6) 3(3-0-6)
01651311 01671211	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group	9 18	3(1-6-5) 3(3-0-6) 3(3-0-6) credits
01651311 01671211 01671212	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group -Environmental Pollution and Control	9 18	3(1-6-5) 3(3-0-6) 3(3-0-6) credits credits 3(2-3-6)
01651311 01671211 01671212 01651362	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group -Environmental Pollution and Control Wastewater and Water Pollution Management	9 18	credits 3(1-6-5) 3(3-0-6) 3(3-0-6) credits credits 3(2-3-6) 3(2-3-6)
01651311 01671211 01671212 01651362 0651363	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group -Environmental Pollution and Control Wastewater and Water Pollution Management Air Pollution	9 18	3(1-6-5) 3(3-0-6) 3(3-0-6) credits
01651311 01671211 01671212 01651362 0651363 01651361	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group -Environmental Pollution and Control Wastewater and Water Pollution Management Air Pollution Introduction to Solid Waste	9 18	credits 3(1-6-5) 3(3-0-6) 3(3-0-6) credits credits 3(2-3-6) 3(2-3-6)
01651311 01671211 01671212 01651362 0651363 01651361	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group -Environmental Pollution and Control Wastewater and Water Pollution Management Air Pollution Introduction to Solid Waste Hazardous Material and Waste Management	9 18 12	credits 3(1-6-5) 3(3-0-6) 3(3-0-6) credits credits 3(2-3-6) 3(2-3-6) 3(3-0-6) credits
01651311 01671211 01671212 01651362 0651363 01651361 01651461	(1) Basic Courses in Environment Environmental Sampling Techniques and Analysis Natural Environment Principles of Environmental Science (2) Environmental Technology Group -Environmental Pollution and Control Wastewater and Water Pollution Management Air Pollution Introduction to Solid Waste Hazardous Material and Waste Management - Environmental Technology	9 18 12	credits 3(1-6-5) 3(3-0-6) 3(3-0-6) credits credits 3(2-3-6) 3(2-3-6) 3(3-0-6)

	(3) Environmental Managemen	t Group	12	credits
01651431	Environmental Risk Assessment			3(3-0-6)
01651451	Ecosystem and Natural Resource N	Management		3(3-0-6)
01671332	Environmental Impact Study			3(2-3-6)
01671333	Laws and Environmental Manager	nent Tools for Sustai	nable	3(2-3-6)
	Development Goals			
	(4) Research and Ethics Group		8	credits
01651341	Environmental Science and Techno	ology Writing		1(1-0-2)
01651342	Environmental Statistical Data Ana	alysis		3(3-0-6)
01651497	Seminar			1
01651499	Environmental Science and Techno	ology Project		3
2.3)	Specific Elective Courses	at least	12	credits
	Select courses (at least 12 credits) f	rom the following co	ourses	
	(1) Ecology and Resources	Management Grou	p	
01651312	Environmental Pollutant Ana	alysis		3(2-3-6)
01651313	Environmental Water Science	ce		3(3-0-6)
01651351	Environmental Conservation	ı		3(3-0-6)
01651352	Coastal Environment and Ec	ology		3(3-0-6)
01651353	Management of Invasive No	n-indigenous Specie	S	3(3-0-6)
01651452	Aquatic Environmental Bioi	ndicators		3(3-0-6)
01651453	Monitoring and Restoration	Strategies of Marine	Biological	3(3-0-6)
	Resources			
01651454	Climate Change on Environ	ment)		3(3-0-6)
	(2) Technology and Pollut	ion Control Group		
01651345	Toxicology for Environment	al Management		3(3-0-6)
01651421	Recycling Technology			3(3-0-6)
01651422	Eco-energy			3(3-0-6)
01651423	Environmental Sanitation			3(3-0-6)
01651463	Technologies for Air Pollution	on Control		3(3-0-6)

01651464	Solid Waste Treatment Technology and Mana	agement		3(3-0-6)
01651465	Noise Pollution and Vibration			3(3-0-6)
01651466	Biodegradation and Bioremediation			3(3-0-6)
01651467	Principles of Environmenttal Remediation			3(3-0-6)
	(3) in Environmental Management Group			
01651314	Urban Environment and Management			3(3-0-6)
01651332	Geospatail Analysis for Pollution Manageme	nt		3(3-0-6)
01651432	Environment Management Standard			3(3-0-6)
01651433	Environmental Labels for Green Marketing a	nd Business		3(3-0-6)
01651434	Corporate Social and Environmental Respons	sibility for Sustainal	ole	3(3-0-6)
	Development			
01651435	Environmental Database Management			3(3-0-6)
01651436	Modeling in Environmental Science			3(3-0-6)
01651437	Workplace Safety and Hygiene			3(3-0-6)
01651438	Circular Economy for Sustainable Business			3(3-0-6)
01661353	Health and Social Environmental Impact Ass	essment		3(3-0-6)
	(4) Research and Ethics Group			
01651496	Selected Topics in Environmental Science an	d Technology		3(3-0-6)
01651498	Special Problems			1-3
3) Free elective course at least		6	credits	
4) Internship		at least	150	hours