

环境科学专业本科培养方案

Undergraduate Program for the Specialty of Environmental Science

Educational Objectives

The students will master basic theories and knowledge relevant to environmental science in natural science, technological science, and humanistic and social science, and be skilled in basic application. After graduation, they are qualified to take jobs related to environmental protection in governments, enterprises, and scientific research organizations, as well as to be professionals after further studies.

Cultivation Standards

I

Length of Schooling

4

Duration: Four Years

II

Degree

Degrees Conferred: Bachelor of Science

III

Basic Requirements for Cultivation

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The students of this major will learn basic theories and knowledge of environmental science,

and take part in basic professional skill training. They are qualified to be skilled in recognizing, analyzing and resolving environmental problems.

1. Know theoretical frontiers in natural science, technological science, and humanistic and social science relevant to environmental science.

2. Master basic theories and knowledge of environmental science comprehensively and solidly.

3. Master basic skills of experiments in environmental science.

4. Be qualified to recognize, analyze and resolve environmental problems with the knowledge and skills they have learned.

5. Possess the abilities in academic research, practical application as well as the innovative thinking.

Graduation requirement realization matrix

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Core Courses

Environmental Science	Environmental Chemistry	
Environmental Monitoring	Environmental Impact and Assessment	
Environmental Ecology	Environmental Microbiology	Environmental
Soil Science	Environmental Toxicology	Environmental Engineering
	Methods of Environmental Data Analysis	Modern
Environmental Analysis		

Main Internship and Practical Training

Knowledge Acquisition	Environmental Monitoring Practice
Environmental Impact and Assessment: Course Design	
Water Pollution Control Engineering: Course Design	Factory or
Graduation Practice	Graduation Project (Thesis)
Experiments of Modern Environmental Analysis	
Experiments of Environmental Chemistry	Experiments of Environmental
Microbiology	Experiments of Environmental Monitoring
Experiments of Environmental Soil Science	Experiments of Environmental
Engineering	Comprehensive Experiments

Hours/Credits

Table of Hours and Credits

Courses Classified		/	Credits		Proportion of Credits	
			Theory	Practice		
General Courses Platform	General Compulsory	758	28	11	22.7%	
	General Elective		12		7.0%	
Basic Courses Platform	Compulsory	1032	44.5	7.5	30.2%	
	Elective					
Major Courses Platform	Compulsory	512	19	6.5	14.8%	
	Elective	328	20		11.6%	
Practical Teaching Platform	Compulsory	18.5W		18.5	10.8%	
	Elective					
Innovation and Entrepreneurship Platform	Innovation Credits		3		2.9%	
	Entrepreneurship Credits		2			
Amount	Compulsory Credits	140	Elective Credits	32	Proportion of Elective Credits	18.6%
	Theory Credits	123.5	Practice Credits	48.5	Proportion of Internship and Practical Training	23.0%
The Lowest Graduate Credits		172				

Division of Credits of Each Term

Division of Credits of Each Term		Term							
		1st	2nd	3rd	4th	5th	6th	7th	8th
Courses Classified									
General Courses Platform	General Compulsory	9.5	10	7	6	5	1	0.5	
	General Elective suggestive		2	2	2	2	2	2	
Basic Courses Platform	Compulsory	14	12.5	18	7.5				
	Elective								
Major Courses Platform	Compulsory				4.5	15.5	5.5		
	Elective				4		13	3	
Practical Teaching Platform	Compulsory		0.5		1	3	1	3	10
	Elective								
Amount		23.5	25	27	25	25.5	22.5	8.5	10
Innovation and Entrepreneurship Platform	Innovation Credits	3							
	Entrepreneurship Credits	2							
The Lowest Graduate Credits		172							

Teaching Schedule Form

/ Form I:General Course Platform

A /Form I (A):General Compulsory Courses(General Required)

Course Code	Course Names	Crs.	Hrs.	Period Classification	Semester	Notes
				The. Exp. Pra.. Ueb		

Course Code	Course Names	Crns.	Hrs.	Period Classification				Semester	Notes
				The.	Exp.	Pra..	Ueb		
	Introduction to MAO zedong Thought and Socialist Theoretical System with Chinese Characteristics								
20W100000913	4 English 4	2	32	32					1-8/ 9-16
218110000113	4 Physical Education 4	0/1	32			32		4	1-16
		0/0.5	16			16		7	1-16
115100000113	Employment Guidance	1	16	16				6	1-8/ 9-16
112110010718	Labor Education	0/1	32			32		3	1-16

B

/Form I (B): General Elective Courses

Course Classified

Form II. Basic Course Platform

Course Classified	Numbers of courses	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra..	Ueb		
Required Basic Courses	2241000066	Introduction to Ethnic Resources and Environmental Protection	1.5	24	24				1	
	213100035618	B Z Inorganic Chemistry (B) Z	3	48	48				1	
	213110035818	C Inorganic Chemistry Experiments (C)	0.5	16		16			1	
	213103005213	B Analytical Chemistry (B)	2	32	32				1	
	213110036418	B Analytical Chemistry Experiments (B)	1	32		32			1	
	2101000113	A(1) Higher Mathematics A (1)	4	80	64			16	1	
	2101000118	Linear Algebra	2	48	32			16	1	
	210102000413	A(2) Higher Mathematics A (2)	5	96	80			16	2	
	211100011118	B(1) College Physics B (1)	3	56	48			8	2	
	211112000113	B(1) University Physics B(1) Experiments	0.5	16		16			2	
	2241000067	Engineering Surveying	2	32	32				2	
	224100000913	& Descriptive Geometry & Engineering Drawing	2	32	32				2	

Course Classified	Numbers of courses	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra..	Ueb		
Required Basic Courses	2101000112	Probability Theory and Mathematical Statistics	2.5	56	40			16	3	
	211100011218	B(2) College Physics B (2)	2	40	32			8	3	
	211112000213	B(2) University Physics B(2) Experiments	0.5	16		16			3	
	213100035218	C Organic Chemistry (C)	3	48	48				3	
	213110036118	B Organic Chemistry Experiments (B)	1	32		32			3	
	213100034518	B Physical chemistry (B)	3.5	56	56				3	
	213110034618	B Physical Chemistry Experiments	1	32		32			3	
	2241000068	CAD Environmental Engineering CAD	1	16	16				3	
	2241100069	CAD Environmental Engineering CAD Experiments	1.5	48		48			3	
	224100017818	Environmental Science	2	32	32				3	
	224100018918	Methods of Environmental Data Analysis	2	32	32				4	
	2241000073	Modern Environmental Analysis	2	32	32				4	

Course Classified	Numbers of courses	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra..	Ueb		
Required Basic Courses	2241100074	Experiments of Modern Environmental Analysis	1	32	0	32			4	
	214103026713	Environmental Microbiology	2	32	32				4	
	214113026613	Experiments of Environmental Microbiology	0.5	16	0	16			4	
: 52					52				0	
Demand of Credits: Credits: 52			Required: 52			Elective: 0				

Form III: Major Courses Platform

Course Classified	Course Code	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra.	Ueb		
Required Courses	224100017918	Environmental Chemistry	3	48	48				4	
	213113018813	Experiments of Environmental Chemistry	1.5	48		48			4	
	213103022413	A Environmental Monitoring (A)	3	48	48				5	
	213113023713	A Experiments of Environmental Monitoring (A)	1.5	48		48			5	
	213103016013	Environmental Soil Science	2	32	32				5	
	213113031313	Experiments of Environmental Soil Science	1	32		32			5	
	224100018018	A Environmental Engineering (A)	4	64	64				5	
	213113019613	Experiments of Environmental Engineering	1	32		32			5	
	224100018118	A Environmental Ecology (A)	3	48	48				5	
	213103022013	Environmental Toxicology	2	32	32				6	

Course Classified	Course Code	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra.	Ueb		
Required Courses	224100003213	Environmental Impact and Assessment	2	32	32				6	
	224110004113	Comprehensive Experiments	1.5	48		48			6	
Elective courses	2241000124	Physical Pollution Control	2	32	32				4	20 4 13 3
	224100018218	Treatment and Disposal of Solidwaste	2	32	32				4	
	213103020913	Pre-treating Methods for Environmental Samples	1.5	24	24				6	
	213103017313	Protection of Water Environment	2	32	32				6	
	224101006013	Cleaner Production and Circular Economy	1.5	24	24				6	
	213103022613	Specialized English	1.5	24	24				6	
	213103029713	Environmental Plans and Management	2	32	32				6	
	213103023613	Advanced Oxidizing Technology	1.5	24	24				6	
	213103018913	Pollution Control Microbiology Engineering	1.5	24	24				6	
	213103020113	Environmental Laws	1.5	24	24				6	

Course Classified	Course Code	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra.	Ueb		
Elective courses	213103021713	Environmental Economy	1.5	24	24				6	
	224100001413	Regional Ecological Environmental Quality Assessment and Ecological Function Regionalization	1.5	24	24				6	
	224100019618	Environmental Monitoring Instruments and Application	1.5	24	24				6	
	213103019313	Environmental Information Systems	1.5	24	24				6	
	213103014813	Water and Soil Conservation	1.5	24	24				7	
	2241000078	Document Retrieval and Scientific Paper Writing	1.5	32	16	16			7	
		Environmental nanomaterials	1.5	24	24				7	
	213103021413	Ecological Hydrology	1.5	24	24				7	
	213103024313	Membrane Treatment Technology	1.5	24	24				7	
	213103021013	Treatment of Water Supply	1.5	24	24				7	

Course Classi- fied	Course Code	Course Names	Crs.	Hrs.	Period Classification				Semester	Notes
					The.	Exp.	Pra.	Ueb		
Elective courses	213103020613	Water/Wastewater & Environmental Construction	1.5	24	24				7	

Form IV: Practical Teaching Platform

CourseClassified	CourseCode	Course Names	Crs.	Total Period	PeriodClassified		Semester	Place
					Exp.	Pra.		
	Social Practice							

TeachingPractice

Form V: Innovation & Entrepreneurship Platform

Category	Crns.
Innovation Credits	3
Entrepreneurship Credits	2

Amount

5