

A List of Courses for Natural Science Experimental Class (Biotechnology) 2018

Course Code	Course Title	Credit	Total Hours	Scheduling Hours	Time Allocation			Semester
					Theoretical Teaching	Practice Teaching		
						Lab.	Internship	
Common Cognition Courses								
General Courses								
Compulsory Courses								
All courses are required to taken (4 times for Situation and Policy(2 credits))								
TH028	Modern Chinese History	3	48	48	32			1
TH000	Cultivation of Ethics and Fundamentals of Law	3	48	48	32		16	2
TH029	Introduction to Mao Zedong's Thoughts & Theoretical System of Socialism with Chinese Characteristics	3	48	48	48			3
TH007	Basic Theory of Marxism	3	48	48	32		16	4
PE001	Physical Education (1)	1	32	32			32	1
PE002	Physical Education (2)	1	32	32			32	2
PE003	Physical Education (3)	1	32	32			32	3
PE004	Physical Education (4)	1	32	32			32	4
TH004	Military Theory	1	16	16	16			2
	Total Credits	17						
Optional Courses								
6 credits are required for English electives during the whole period of study.								
EN061	English (1)	3	48	48	48			1
EN062	English (2)	3	48	48	48			1,2
EN063	English (3)	3	48	48	48			1,2,3
EN064	English (4)	3	48	48	48			1,2,3
EN065	English (5)	3	48	48	48			2
	Total Credits	15						
Common Cognition Core Courses								
Minimum 12 credits.								
BI902	Bioethics	2	32	32	32			4
	Humanities	2						
	Social Sciences	2						
	Natural Science							
	Engineering Sciences and Technology	2						
	Total Credits	12						
Cognition Practice								
Compulsory Courses								
All required to taken								
XP004	Social Cognition Practice in the New Era	2	32				32	2
	Total Credits	2						
Specialized Courses								
Basic Courses								
Compulsory Courses								
All required to taken								
BI143	Natural Science Foundation	2	32	32	32			1
CA150	Inorganic & analytical chemistry	4	64	64	64			1
MA077	Linear Algebra (B)	3	48	48	48			1
MA080	Advanced Mathematics (A) (1)	6	96	96	96			1
CA239	Organic Chemistry (1)	4	64	64	64			2
IN100	Information Retrieval and Utilization	1	16	16	16			2
MA081	Advanced Mathematics (A) (2)	4	64	64	64			2
MA119	Probability & Statistics	3	48	48	48			2
PH003	Physics (B) (1)	3	48	48	48			2
BI131	Introduction to Biology	3	48	48	48			3
CA240	Biochemistry (1)	4	64	64	64			3
CS154	Thinking and Approach of Programming (C++)	3	48	48	48			3
PH004	Physics (B类) (2)	3	48	48	48			3
	Total Credits	43						
Specialized Courses								
Compulsory Courses								

All required to taken									
BI144	Biochemistry	3	48	48	48				3
BI145	Advanced Biochemistry	3	48	48	48				4
BI211	Microbiology (D)	3	48	48	48				4
BI310	Genetics (A)	2	32	32	32				4
BI307	Cell Biology (B)	3	48	48	48				5
BI318	Molecular Biology (F)	4	64	64	64				5
BI437	Applied Bioinformatics	2	32	32	32				5
BI419	Developmental Biology	2	32	32	32				6
BI461	Biostatistics & mathematical model	3	48	48	48				6
Total Credits		25							
Specialized Courses									
Optional Courses									
10 credits are required for English elective courses during the whole period of study									
BI286	Anatomy & Physiology	2	32	32	32				4
BI287	Ecology & Evolution	2	32	32	32				4
BI382	Gene Engineering	2	32	32	32				5
BI423	Immunology	2	32	32	32				5
BI486	Bioreaction & Bioprocess Engineering	2	32	32	32				5
BI326	Cell Engineering	2	32	32	32				6
BI487	Protein and Enzyme Engineering	2	32	32	32				6
Total Credits		14							
Specialized Practical Courses									
Courses in Lab.									
Compulsory Courses									
All required to taken									
CA156	Inorganic & Analytical Chemistry Experiment	2	64	64	64				1
CA155	Organic Experiment I	2	64	64	64				2
ME130	Eco-Tech Innovation Experiment	2	64	64	64				2
PH028	Physics Lab. I	1	24	24	24				2
BI299	Biochemistry Lab.	1.5	48	48	48				3
CA241	Physical Chemistry Experiment I	2	64	64	64				3
PH029	Physics Lab. II	1	24	24	24				3
BI285	Advanced Biochemistry Lab	1.5	48	48	48				4
BI356	Microbiology Experiment	1.5	48	48	48				4
BI357	Cell Biology Lab.	1	32	32	32				5
BI362	Genetics Lab.	1	32	32	32				5
BI411	Comprehensive Experiments of Biotechnology	2	64	64	64				7
Total Credits		18.5							
Internship & Practice									
Compulsory Courses									
All required to taken									
TH010	Military Training	3	48	48				48	2
BI288	Science & Technology Internship and Innovation—Biotechnology (1)	2	64				64		4
BI328	Science & Technology Internship and Innovation—Biotechnology (2)	1	32				32		5
BI344	Science & Technology Internship and Innovation—Biotechnology (3)	1	32				32		6
BI366	Professional Practice (Biotechnology)	2	64	64			64		6
Total Credits		9							
Professional Comprehensive Practice									
All required to taken									
BS447	Undergraduate project (Thesis) (Biotechnology)	12	384	384				384	8
Total Credits		12							
Other Optional Courses									
6 credits are required during the whole period of study									
ME124	Engineering Practice (B)	2	64	64				64	2 (in summer semester)
BI278	Field Trip on Biology (B)	1	32	32			32		3

