

生物技术

一、培养目标

本专业旨在培养具有高度的社会责任感、良好的科学素养、竞争与合作意识、创新精神与创造能力、坚实的数理化和生命科学理论基础，系统掌握生物技术基本方法与实验技能，能熟练运用生命科学理论与技术的专业知识与相关工具，具备研究、开发与应用生物技术专业技能的科学研究与技术人才，可在本专业及相关领域继续深造，或直接从事科学研究、技术开发、教学及管理等方面的工作。

二、基本规格要求

本专业学生要求掌握以下九项核心能力：

1. 生命科学与生物技术基础学科知识运用能力；
2. 生物技术专业基本实验技能；
3. 生物技术应用实践能力；
4. 独立思考、分析和解决问题能力；
5. 专业论文研读及表达能力；
6. 健康全面的人文素养；
7. 科学研究的数理能力；
8. 国际视野与国际交流能力；
9. 创新研究与设计能力。

三、培养特色

现代生物技术的快速发展，是代表新世纪全球经济飞速发展的显著标志之一。生物技术专业以培养适应经济、科技和社会发展需要的“厚基础、宽口径、高素质、强能力”的，特别是具有创造、创新、创业精神和能力的复合型高级人才作为人才培养为目标。通过多年的探索实践，本专业的培养特色体现在以下两个方面：一是践行“教学做合一”，以专业为核心重视学生的科研实践训练，培养学生良好科学素质、敏锐分析思辨能力、实践创新能力与意识为特色。二是注重加强实习基地的建设，建立了生物农业、生物新能源以及生物医药等方向的校外专业实践教学基地。目前形成了以培养学生的“创新能力、实践能力和拓展能力”为核心，构建衔接顺畅的生物科技“学研产”链条和体系的办学特色。

四、学制、毕业基本要求及授予学位

1. 本科基本学制 4 年，弹性学习年限 3—6 年，按照学分管理制度管理。
2. 生物技术专业学生毕业最低学分数为 165 学分，其中各类别课程及环节要求学分数如下表：

课程类别	通识必修	学门核心	学类核心	专业核心	专业选修	通识选修	集中实践	合计
学分数	29	21	33	23	21	8	30	165

3. 学生修满培养方案规定的必修课、选修课及有关环节，达到规定的最低毕业学分数，并修完规定必修但不记学分的所有课程和环节，德、智、体合格，即可毕业。满足学位授予相关文件要求

的，授予理学学士学位。

五、课程设置及学分分布

(一) 通识教育课程 [必修 29 + (6) 学分 + 选修 8 学分]

通识教育课程包括必修和选修两部分。通识选修课程按《湖南大学通识选修（文化素质教育）课程方案》实施，通识必修课程如下：

编码	课程名称	学分	备注
GE01101	毛泽东思想和中国特色社会主义理论体系概论	3+ (3)	
GE01039	思想道德修养与法律基础	1.5+ (1.5)	
GE01100	形势与政策	0.5+ (1.5)	
GE01102	中国近现代史纲要	2	
GE01103	马克思主义基本原理（上）	2	
GE01104	马克思主义基本原理（下）	2	
GE01012（-15）	大学英语	8	
GE01088	计算机基本能力测试	0.5	
GE01095	计算机导论与程序设计	2.5	
GE01107（-13）	心理素质与生涯发展	1	
GE01089（-92）	体育	4	
GE01011	中国语文	2	

(二) 学门核心（21 学分）

编码	课程名称	学分	备注
GE03025— (26)	高等数学 A	10	
GE03003	线性代数 A	3	
GE03004	概率论与数理统计 A	3	
GE03009	普通物理 B	4	
GE03007	普通物理实验 A（1）	1	

(三) 学类核心（33 学分）

编码	课程名称	学分	备注
BS04020	专业导论课程	1	
BS04031	有机化学 B	3	
BS04005	有机化学实验 B	1	
GE02006	普通化学	2	
BS04033	分析化学	3	
BS04004	基础分析化学实验 A	1	
BS04021 BS04022	生物化学（1、2）	6	
BS04009 BS04011	生物化学实验（1、2）	2	
BS04023	微生物学	3	
BS04024	微生物学实验	1	
BS04025	普通生物学（1）	3	动物生物学
BS04026	普通生物学（2）	3	植物生物学
BS04027	细胞生物学	3	
BS04028	细胞生物学实验	1	

(四) 专业核心 (23 学分)

编码	课程名称	学分	备注
BS05022	分子生物学	3	
BS05004	分子生物学实验	1	
BS05023	遗传学 *	3	
BS05008	遗传学实验	1	
BS05024	酶与发酵工程	3	
BS05025	细胞工程	3	
BS05026	基因工程 * *	3	
BS05027	蛋白质工程与蛋白质组学 *	3	
BS05028	生物信息学	3	

(五) 专业选修课 (21 学分)

编码	课程名称	学分	备注
BS06012	生化仪器原理与方法	2	生物医药模块; 生物农业模块
BS06061	纳米生物学进展	1	生物医药模块 (研讨课)
BS06023	现代免疫学	2	生物医药模块
BS06004	发育生物学	2	生物医药模块
BS06010	生化分离工程	2	生物医药模块; 生物农业模块
BS06043	细胞信号转导	2	生物医药模块 (研讨课)
BS06024	药理学	2	生物医药模块
BS06042	生物化学进展 * *	1	生物医药模块 (研讨课)
BS06041	寄生虫学 * *	2	生物医药模块
BS06006	分子遗传学进展 *	1	生物医药模块 (研讨课)
BS06007	化工原理	2	生物医药模块; 生物农业模块
BS06046	人体生理学	2	生物医药模块
BS06014	生命科学前沿	1	生物医药模块; 生物农业模块
BS06015	生物材料学	2	生物医药模块; 生物农业模块
BS06003	发酵工程大实验	3	生物医药模块; 生物农业模块
BS06020	生物制药技术	2	生物医药模块
BS06017	生物技术专业英语	2	生物医药模块; 生物农业模块
BS06047	植物生理学	2	生物农业模块
BS06048	生态学	2	生物农业模块
BS06049	农业生物实用技术	2	生物农业模块
BS06050	生物统计学	2	生物医药模块; 生物农业模块
BS06051	物理化学	2	生物医药模块
BS06052	科研实践	2	可抵一门 2 学分的选修课
BS06053	大学生创新性实验计划项目 (sit)	2	可抵一门 2 学分的选修课

注: ①有 * * 标注的为全英文课, 有 * 标注的为双语课。

②专业选修课中的 10 学分, 可在全校范围内跨专业选修。

(六) 集中实践 (30 学分)

编码	课程名称	学分	备注
GE04010	军事训练	0	
GE09030	中文写作实训	1	
GE09027	英文应用写作实训	2	
GE09024	工程认知实习 A	1	
GE09037	电子电工实习 B	1	
GE09002	仿真平台与工具应用实践	2	
BS10008	专业认知实习	2	
BS10002	发酵工程专业课程设计	2	

续表

编码	课程名称	学分	备注
BS10007	生物技术综合大实验	3	
BS10012	导师课程	2	与导师制有机结合, 导师负责对应本科生的入学辅导、在校期间的专业认识教育、修课指导、专业发展方向介绍、有关实践环节指导等。 新增
BS10003	毕业实习	4	
BS10013	毕业论文	10	

六、课程责任教师一览表

序号	姓名	职称	学历学位	专业特长	课程 (专业核心、专业选修、通识选修)	导师课程
1	朱咏华	教授	博士	生物化学与分子生物学、应用微生物	蛋白质工程与蛋白质组学、毕业实习	资源与环境微生物
2	刘选明	教授	博士	植物学、细胞生物学	细胞生物学、生命科学前沿	植物功能基因组与发育调控
3	李丹	教授	博士	分子与细胞生物学	分子生物学、分子生物学实验、现代免疫学	遗传与发育分子生物学
4	郭新红	教授	博士	植物分子生物学	遗传学、遗传学实验、分子遗传学进展	细胞信号转导
5	谭拥军	教授	博士	分子生物学、细胞生物学	基因工程、生命科学前沿	基因表达调控
6	覃宏涛	教授	博士	遗传学及神经生物学	遗传学、遗传学实验	神经生物学
7	何晓晓	教授	博士	生物分析化学、生物医学工程	纳米生物学进展	纳米生物技术与医学
8	朱海珍	教授	博士	病毒学、药理学	药理学、生命科学前沿	分子医学
9	谭蔚泓	教授	博士	生物医学工程、分子医学	生命科学前沿	核酸分子识别与探针
10	王柯敏	教授	博士	生物分析化学、生物医学工程	生命科学前沿	纳米生物学与分子工程
11	张健	教授	博士	分子生物学、转基因动物	生命科学前沿	转基因技术
12	赵小英	教授	博士	植物学、生化与分子生物学	生物化学 II、生物技术综合大实验	植物分子生物学
13	罗弘	教授	博士	神经生物学	发育生物学、生物化学	神经系统的发育
14	谭钟扬	副教授	博士	生物信息理论与技术研究	生物信息学、微生物学	生物信息技术应用
15	刘斌	副教授	博士	生物化学与分子生物学	分子生物学、分子生物学实验、专业认知实习	现代分子诊断技术
16	孟祥贤	副教授	博士	生物分析化学	微生物学实验	分子工程学
17	郭秋平	副教授	博士	生物技术、生物分析化学	普通生物学 I、专业认知实习、生物技术综合大实验	分子探针设计

续表

序号	姓名	职称	学历学位	专业特长	课程 (专业核心、专业选修、通识选修)	导师课程
18	廖红东	副教授	博士	微生物及其代谢物	酶与发酵工程、生物技术综合大实验、微生物学(给排水工程专业)	植物内生微生物
19	于峰	副教授	博士	植物分子生物学	分子生物学实验、细胞工程、专业认知实习	植物受体激酶功能分析
20	林建中	副教授	博士	植物学、生物化学与分子生物学	细胞生物学、细胞生物学实验、现代农业生物技术	水稻遗传转化
21	王洪辉	副教授	博士	分子细胞药理学	基因工程、发酵工程课程设计	细胞移动信号机制的研究
22	周征	讲师	博士	分子生物学、细胞工程、基因工程	基因工程、细胞工程、生物技术专业英语、分子生物学进展	DNA 损伤与修复
23	朱洪	讲师	博士	分子免疫学	发育生物学、微生物学	肿瘤的细胞和分子生物学
24	李新梅	讲师	硕士	生物化学与分子生物学、植物培养	生物化学 I、生物化学 II、生物化学实验、人体生理学	生物化学进展
25	唐冬英	讲师	硕士	植物资源与分类学、植物生理与分子生物学	普通生物学 II、专业认知实习、毕业实习	淡黄叶标记性状的表观特征与应用
26	童春义	讲师	博士	生物化学、分析化学	生物化学、生物化学实验、生物分离技术、生物技术综合大实验	生物检测技术
27	余雳	讲师	博士	生物医学工程	发酵工程专业课程设计	生物医学光子学
28	Lukas	讲师	博士	生物化学	寄生虫学、生物化学进展	
29	谭志凯	助理教授	博士	生物医学工程	生物材料学	生物快速制造
30	胡小晓	助理教授	博士	癌症医学及药物研究	基因工程、生物制药技术	

七、专业责任教授

序号	姓名	职称	学历学位	专业特长	职责与承担授课课程
1	朱咏华	教授	博士	生物化学与分子生物学、应用微生物	全面负责该专业的建设 蛋白质工程与蛋白质组学、生物制药技术、毕业实习、生命科学导论

Biotechnology

I . Objectives

This undergraduate program aims to allow students to learn the ideas of competition, collaboration, and innovation in scientific world and develop a profound understanding of the principles of life science and the basic methodology as well as common techniques in biotechnology. In this program, students will learn how to apply theories, principles and methods of life science into real-world practice. This program would lay a solid foundation for students who wish to continue their studies in a master or Ph. D program in biotechnology or other related fields, and they will be prepared for diverse career paths in research, technology development, teaching and administration, among many others.

II . Basic Specifications

Upon graduation, students will be able to demonstrate:

1. A fundamental understanding of life sciences and biotechnology;
2. Professional use of common techniques in biotechnology experiments;
3. The ability of applying biotechnology principles into real-world practice;
4. The capability for independent thinking, analyzing and solving problems;
5. Be able to read and write research papers;
6. Healthy and comprehensive humanistic qualities;
7. Mathematical ability of scientific research;
8. An international vision and communication skills;
9. A capacity for innovative research and design.

III . Characteristics

The rapid development of modern biotechnology is one of the significant signs of global economic boost in the 21st century. Modern students in biotechnology are required to meet the diversified needs of the economy, science and technology and social development of “solid foundation, broad fields, high quality, strong ability”. Students are expected to develop the concept of innovation, creation and entrepreneurship. Through years of practices, the professional training characteristics are embodied in the following two aspects. First, we focus on improving students’ scientific research practice and raising the student’s good scientific quality, keen analysis ability, practice innovation ability and consciousness by incorporating a Teach-Learn-Do amalgamation with professionalism as the core. Second, we pay close attention to the establishment of a biological agriculture, new biological energy and biological medicine base. With the core of developing students’ innovation, practical and extended ability, we have developed a good Learn-research-production biological teaching system.

IV . Length of Schooling, Basic Requirements for Graduation and Degree Conferment

1. The length of schooling for undergraduate studies is four years, with a flexible length lasting from 3 to 6 years, based on the regulation of credit system.

2. Students of biotechnology majors are expected to complete a minimum of 165 credits upon graduation, and the required credits for different courses are illustrated in the following table.

Course Category	Required General Education Courses	Introductory Major Courses	Major Survey Courses	Required Core Courses	Restricted Electives	General Education Electives	Intensive Practice	Total
Credits	29	21	33	23	21	8	30	165

3. On successful completion of the prescribed courses and intensive practice, students, who are qualified enough to meet all the requirements of this program, will thus be awarded the Bachelor's Degree of Science.

V. Curriculum and Credits

1. General Education Courses [required 29 + (6) + elective 8 credits]

The general education courses consist of required courses and elective courses. General education electives are designed according to the *Curriculum Design of General Education Electives of Hunan University*. Required general education courses are illustrated in the following table.

Code	Course Title	Credit(s)	Remarks
GE01101	Introduction to Maoism and Theoretical System of Socialism with Chinese Characteristics	3 + (3)	
GE01039	Moral Cultivation and Law Basics	1.5 + (1.5)	
GE01100	Current Situation and Policies	0.5 + (1.5)	
GE01102	Outline of Modern Chinese History	2	
GE01103	Fundamentals of Marxism I	2	
GE01104	Fundamentals of Marxism II	2	
GE01012(-15)	College English	8	
GE01088	Computer Proficiency Test	0.5	
GE01095	Introduction to Computer Science and Programming	2.5	
GE01107(-13)	Psychological Health & Career Planning	1	
GE01089(-92)	Physical Education	4	
GE01011	Chinese Language Arts	2	

2. Introductory Major Courses (21 credits)

Code	Course Title	Credit(s)	Remarks
GE03025—(26)	Advanced Mathematics A	10	
GE03003	Linear Algebra A	3	
GE03004	Probability Theory and Mathematical Statistics A	3	
GE03009	General Physics B	4	
GE03007	General Physics Experiment A (I)	1	

3. Major Survey Courses (33 credits)

Code	Course Title	Credit(s)	Remarks
BS04020	Introduction to Major	1	
BS04031	Organic Chemistry B	3	
BS04005	Organic Chemistry Experiment B	1	
GE02006	General Chemistry	2	
BS04033	Analytical Chemistry	3	
BS04004	Basic Analytical Chemistry Experiment A	1	

Cont

Code	Course Title	Credit(s)	Remarks
BS04021 BS04022	Biochemistry I; II	6	
BS04009 BS04011	Biochemical Experiment I; II	2	
BS04023	Microbiology	3	
BS04024	Microbiology Experiment	1	
BS04025	General Biology I	3	Animal Biology
BS04026	General Biology II	3	Plant Biology
BS04027	Cell Biology	3	
BS04028	Cell Biology Experiment	1	

4. Required Core Courses (23 credits)

Code	Course Title	Credit(s)	Remarks
BS05022	Molecular Biology	3	
BS05004	Molecular Biology Experiment	1	
BS05023	Genetics *	3	
BS05008	Genetics Experiment	1	
BS05024	Enzyme and Fermentation Engineering	3	
BS05025	Cell Engineering	3	
BS05026	Genetic Engineering * *	3	
BS05027	Protein Engineering and Proteomics *	3	
BS05028	Bioinformatics	3	

5. Restricted Electives (21 credits)

Code	Course Title	Credit(s)	Remarks
BS06012	Principles and Methods of Biochemical Instruments	2	Block of Biomedicine; Block of Bioagriculture
BS06061	Nanobiology Progress	1	Block of Biomedicine (Group Discussion Course)
BS06023	Modern Immunology	2	Block of Biomedicine
BS06004	Developmental Biology	2	Block of Biomedicine
BS06010	Biochemical Separation Engineering	2	Block of Biomedicine; Block of Bioagriculture
BS06043	Cell Signal Transduction	2	Block of Biomedicine (Group Discussion Course)
BS06024	Pharmacology	2	Block of Biomedicine
BS06042	Advanced Biochemistry * *	1	Block of Biomedicine (Group Discussion Course)
BS06041	Parasitology * *	2	Block of Biomedicine
BS06006	Advanced Molecular Genetics *	1	Block of Biomedicine (Group Discussion Course)
BS06007	Principles of Chemical Engineering	2	Block of Biomedicine; Block of Bioagriculture
BS06046	Physiology	2	Block of Biomedicine
BS06014	Frontiers of Life Science	1	Block of Biomedicine; Block of Bioagriculture

Cont

Code	Course Title	Credit(s)	Remarks
BS06015	Biomaterials	2	Block of Biomedicine; Block of Bioagriculture
BS06003	Fermentation Engineering Experiment	3	Block of Biomedicine; Block of Bioagriculture
BS06020	Biological Pharmaceutical Technology	2	Block of Biomedicine
BS06017	Professional English for Biotechnology	2	Block of Biomedicine; Block of Bioagriculture
BS06047	Plant Physiology	2	Block of Bioagriculture
BS06048	Ecology	2	Block of Bioagriculture
BS06049	Modern Agricultural Biotechnology	2	Block of Bioagriculture
BS06050	Biostatistics	2	Block of Biomedicine; Block of Bioagriculture
BS06051	Physical Chemistry	2	Block of Biomedicine
BS06052	Research Practice	2	Can substitute for a 2 credits elective course
BS06053	Student Innovation Training Program (SIT)	2	Can substitute for a 2 credits elective course

Note:①Courses marked with * * are taught in English,courses marked with * are taught in bilingual (Chines and English).

②Students may take cross-major electives within the 10 elective credits.

6. Intensive Practice (30 credits)

Code	Course Title	Credit(s)	Remarks
GE04010	Military Training	0	
GE09030	Chinese Practical Writing and Training	1	
GE09027	English Practical Writing Training	2	
GE09024	Engineering Cognitive Practice A	1	
GE09037	Electrical and Electronic Engineering Practice B	1	
GE09002	Simulation Platforms and Tools Practice	2	
BS10008	Field Professional Cognitive Practice	2	
BS10002	Course Design of Fermentation Engineering	2	
BS10007	Biotechnology Comprehensive Experiment	3	
BS10012	Mentor Course	2	The format of this course includes classroom lectures and scientific research practices in the mentor's laboratory. This course is a component of the undergraduate mentor system. The responsibilities of the mentor include orientation, professional knowledge education, curricula consulting, professional development guidance, practical training guidance.
BS10003	Graduation Internship	4	
BS10013	Graduation Thesis	10	

VI. Course Instructor List

No.	Name	Academic Title	Educational Background	Research Areas	Courses (Disciplinary Core Courses, Disciplinary Electives, General Electives)	Seminar (Immediate Employment and Further Education)
1	Zhu Yonghua	Professor	Ph. D	Biochemistry and Molecular Biology, Applied Microorganism	Protein Engineering and Proteomics, Graduation Internship	Resources and Environmental Microorganism
2	Liu Xuanming	Professor	Ph. D	Botany, Cell Biology	Cell Biology, Frontiers of Life Science	Plant Functional Genomics and Developmental Regulation
3	Li Dan	Professor	Ph. D	Molecular and cellular biology	Molecular Biology, Molecular Biology Experiment, Modern Immunology	Genetics and Development Molecular Biology
4	Guo Xinhong	Professor	Ph. D	Plant molecular biology	Genetics, Genetics Experiment, Progress in Molecular Genetics	Cellular Signaling Transduction
5	Tan Yongjun	Professor	Ph. D	Molecular Biology, Cell Biology	Genetic engineering, Frontiers of Life Science	Gene Expression Regulation
6	Qin Hongtao	Professor	Ph. D	Genetics, Neurobiology	Genetics, Genetics Experiment	Neurobiology
7	He Xiaoxiao	Professor	Ph. D	Bioanalytical Chemistry, Biomedical Engineering	Nanobiology Progress	Nanobiotechnology and Medicine
8	Zhu Haizhen	Professor	Ph. D	Virology, Pharmacology	Pharmacology, Frontier of Life Science	Molecular Medicine
9	Tan Weihong	Professor	Ph. D	Biomedical engineering, Molecular medicine	Frontiers of Life Science	The Molecular Recognition and Molecular Probe
10	Wang Kemin	Professor	Ph. D	Bioanalytical Chemistry Biological Engineering	Frontiers of Life Science	Nanobiology and Molecular Engineering
11	Zhang Jian	Professor	Ph. D	Molecular Biology, Transgenic animals	Frontiers of Life Science	Transgene Technology
12	Zhao Xiaoying	Professor	Ph. D	Botany, Biochemistry and Molecular Biology	Biochemistry II, Biotechnology Comprehensive Experiment	Plant Molecular Biology
13	Luo Hong	Professor	Ph. D	Neurobiology	Developmental Biology, Biochemistry	Developmental Neuroscience
14	Tan Zhongyang	Associate Professor	Ph. D	Biological information theory and technology research	Bioinformatics, Microbiology	Application of Bioinformatics Technology

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No.	Name	Academic Title	Educational Background	Research Areas	Courses (Disciplinary Core Courses, Disciplinary Electives, General Electives)	Seminar (Immediate Employment and Further Education)
15	Liu Bin	Associate Professor	Ph. D	Biochemistry and Molecular Biology	Molecular Biology, Molecular Biology Experiment, Professional Cognitive Practice	Modern Molecular Diagnostic Technology
16	Meng Xiangxian	Associate Professor	Ph. D	Biology Analytical Chemistry	Microbiology Experiment	Molecular Engineering
17	Guo Qiuping	Associate Professor	Ph. D	Biology Analytical Chemistry, Biotechnology	General Biology I, Professional Cognitive Practice, Biotechnology Comprehensive Experiment	Molecular Probes Design
18	Liao Hongdong	Associate Professor	Ph. D	Microbiology and metabolites	Enzyme and Fermentation Engineering, Biotechnology Comprehensive Experiment, Microbiology	Endophytic Micro Organism
19	Yu Feng	Associate Professor	Ph. D	Plant molecular biology	Molecular Biology Experiment, Cell engineering, Professional Cognitive Practice	Plant receptor Kinase Function Analysis
20	Lin Jianzhong	Associate Professor	Ph. D	Botany, Biochemistry and Molecular Biology	Cell Biology, Cell Biology Experiment, Modern Agricultural Biotechnology	Rice Genetic Transformation
21	Wang Honghui	Associate Professor	Ph. D	Molecular and cellular pharmacology	Genetic Engineering, Course Design of Fermentation Engineering	Signal Mechanism of Cell Migration
22	Zhou Zheng	Lecturer	Ph. D	Molecular Biology, Cell Engineering, Genetic Engineering	Genetic Engineering, Cell Engineering, Professional English for Biotechnology, Progress in Molecular Biology	DNA Damage and Repair
23	Zhu Hong	Lecturer	Ph. D	Molecular Immunology	Developmental Biology, Microbiology	Cellular and Molecular Biology in Tumor
24	Li Xinmei	Lecturer	M. S.	Biochemistry and Molecular Biology, Plant Cultivation	Biochemistry I, Biochemistry II, Biochemical Experiment, Physiology	Progress in Biochemistry
25	Tang Dongying	Lecturer	M. S.	Plant resources and taxonomy, Plant physiology and molecular biology	General Biology II, Professional Cognitive Practice, Graduation Internship	Characteristics and Application of Yellow Leaf Markers
26	Tong Chunyi	Lecturer	Ph. D	Biochemistry, Analytical Chemistry	Biochemistry, Biochemical Experiment, Bioseparation Techniques, Biotechnology Comprehensive Experiment	Biological Detection Method

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No.	Name	Academic Title	Educational Background	Research Areas	Courses (Disciplinary Core Courses, Disciplinary Electives, General Electives)	Seminar (Immediate Employment and Further Education)
27	Yu Li	Lecturer	Ph. D	Biological Medicine Program	Professional Course Design, Course Design of Fermentation Engineering	Biomedical Photonics
28	Lukas	Lecturer	Ph. D	Biochemistry	Parasitology, Progress in Biochemistry	
29	Tan Zhikai	Assistant professor	Ph. D	Biological Medicine Program	Biomaterials	Biological Rapid Manufacturing
30	Hu Xiaoxiao	Assistant professor	Ph. D	Cancer and drug research	Genetic Engineering, Biological Pharmaceutical Technology	

VII. Course Scheduler

No.	Name	Academic Title	Educational Background	Research Areas	responsibility for teaching courses
1	Zhu Yonghua	Professor	Ph. D	Biochemistry and Molecular Biology, Applied Microorganism	In charge of the overall construction of the program , In charge of the instruction of Protein Engineering and Proteomics, Biological Pharmaceutical Technology , Introduction to Life Science and Graduation Internship

(翻译人:李丹)