

生物工程专业教学计划

Curriculum by semester for BUCT-ESF CCE Joint program in Bioengineering

学期/term	课程编号BUCT course code	课程名称BUCT course name	英文名称 course name in English	BUCT credit	总学时 /teaching hours	外方课程编号 ESF course code	ESF course name	外方学分 ECTS	ESF course year	课程来源 course from	教师来源 taught by
1st year autumn	MXI17202T	思想道德与法治	Ideology Morality and Law	2.0	32					BUCT	BUCT
	MXI19001P	思想道德与法治实践	the practice of Ideological morality and law	1.0	16					BUCT	BUCT
	MXI14401E	习近平新时代中国特色社会主义思想概论	An Introduction to Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era	3.0	48					BUCT	BUCT
	PHE19200P	军事技能	Military Skills Training	2.0	40					BUCT	BUCT
	PHE10200T	军事理论	Military Theory	2.0	36		General Ed: Other world civilization	3.0		BUCT	BUCT
	PHE10001T	体育 (I)	Physical Education (I)	1.0	32					BUCT	BUCT
	CCE118204T	英语阅读 (I)	English Reading (I)	2.0	32					BUCT	BUCT
	ENG11206T	英语听说 (I)	Listening and Speaking (I)	2.0	32					BUCT	BUCT
	CCE 18206T	基础写作 (I)	English Writing (I)	2.0	32					BUCT	BUCT
	CCE18002T	英语口语 (I)	Oral Communication (I)	1.0	96					BUCT	BUCT
	HSS18000T	大学生身心健康	Psychologically Healthy Education of University Students	1.0	18					BUCT	BUCT
	CCE19000P	新生学业指导课	Orientation Seminar	1.0	16	BPE 132	Orientation Seminar: Bioprocess Engineering	1.0	1	ESF	ESF
	MAT13904T	高等数学A (I)	Single variable calculus A (I)	5.5	88	APM 205 APM 206	Calculus I Calculus II	6.0	1	BUCT	BUCT
	CHM11401T	无机化学	Inorganic Chemistry	3.0	48	FCH 150 FCH 151 FCH 152	General Chemistry I General Chemistry Laboratory I	6.5	1	BUCT	BUCT
	CHM11005L	无机化学实验 (B)	Experiments of Inorganic Chemistry (B)	1.0	32		General Chemistry II			BUCT	BUCT
				29.5							
	CCE18207T	基础写作 (II)	English Writing (II)	2.0	32					BUCT	BUCT

1st year spring	CCE18004T	英语口语 (II)	Oral Communication (I I)	1.0	32					BUCT	BUCT
	CCE18205T	英语阅读 (II)	English Reading (II)	2.0	32					BUCT	BUCT
	ENG11207T	英语听说(II)	Listening and Speaking (II)	2.0	32					BUCT	BUCT
	MXI12400E	中国近现代史纲要	Outline of Modern and Contemporary Chinese History	3.0	48		General Ed: Other world civilization	3.0		BUCT	BUCT
	MAT13905T	高等数学A (II)	Multivariable Calculus A (II)	5.5	88	APM 206 APM 307	Calculus II Multivariable Calculus	6.0	1/2	BUCT	BUCT
	PHY11402T	普通物理B(I)	General Physics B(I)	3.0	48	PHY 211	General Physics I	3.0	1	BUCT	BUCT
	PHE10002T	体育 (II)	Physical Education (II)	1.0	32					BUCT	BUCT
	CHM13600T	有机化学	Organic Chemistry	4.0	64	FCH221	Organic Chemistry I	3.0	1	BUCT	BUCT
	CHM32200T	分析化学	Analytical Chemistry	2.0	32	FCH 150 FCH 151 FCH 152	General Chemistry I General Chemistry Laboratory I General Chemistry II	6.5	1	BUCT	BUCT
	CHM12001L	分析化学实验(B)	Experiments of Analytical Chemistry (B)	1.0	32					BUCT	BUCT
	MXI10011T	国家安全教育	National Security Education	1.0	16					BUCT	online
	MXI42H01E	形势与政策 (I)	Political Situation and Policies (I)	0.5	32					BUCT	BUCT
CSE24101C	Python语言程序设计	Python Programming Language	1.5	32					BUCT	BUCT	
1 st year summer	CCE21400C	计算方法	Computing Methods	3.0	48	GENE 160	Computing Methods	3.0	1	ESF	ESF
	CCE22000T	工艺过程概论	Introduction to Process Engineering	1.0	16	BPE133	Introduction to Process Engineering	1.0	1	ESF	ESF
	CCE10400T	写作与环境	Writing and the Environment	3.0	48	EWP 190	Writing and the Environment	3.0	1	ESF	ESF
				36.5							
	MXI21400E	马克思主义基本原理	The Basic Principles of Marxism	3.0	48	FOR 207	Introduction to Economics	3.0	3	BUCT	BUCT
	CCE28201T	进阶英语	Advanced English	2.0	32					BUCT	BUCT
	MAT11501T	线性代数A	Linear Algebra A	3.5	56					BUCT	BUCT
	PHY11403T	普通物理B(II)	General Physics II	3.0	48	PHY 212	General Physics II	3.0	1	BUCT	BUCT
	PHY11000L	大学物理实验(I)	Experiments of College Physics (I)	1.0	32	PHY 221	General Physics Laboratory I	1.0		BUCT	BUCT

2nd year autumn	CHM34400T	物理化学(I)	Physical Chemistry I	3.0	48	FCH 360	Physical Chemistry I	3.0		BUCT	BUCT
	BIO31700T	生物化学	Biochemistry	4.5	72	FCH 223	Organic Chemistry II	3.0		BUCT	BUCT
	CHM13000L	有机化学实验 B (I)	Experiments of Organic Chemistry B (I)	1.0	32	FCH 153	General Chemistry Laboratory II	1.5		BUCT	BUCT
	CCE26400T	工业生物过程导论	Introduction to Industrial Bioprocessing	3.0	48	BPE 300	Introduction to Industrial Bioprocessing	3.0	2	ESF	ESF
	PHE20000T	体育 (III)	Physical Education (III)	1.0	32					BUCT	BUCT
				25.0							
	PHE20001T	体育 (IV)	Physical Education (IV)	1.0	32					BUCT	BUCT
2nd year spring	MXI13401T	毛泽东思想和中国特色社会主义理论体系概论	Introduction to Mao Zedong Thought and the Chinese Characteristic Socialism Theory System	3.0	48					BUCT	BUCT
	CCE21000T	微分方程	Differential Equations	1.0	16	APM 485	Differential Equations	3.0		ESF	ESF
	CCE21403T	概率论与数理统计	Probability and Statistics	3.0	48	APM 395	Probability and Statistics for Engineers	3.0	3	ESF	ESF
	BIO33500T	微生物学	Microbiology	3.5	56	EFB103	General Biology II: Cell Biology and Genetics	3.0	2	BUCT	BUCT
	CHM34402T	物理化学(II)	Physical Chemistry II	3.0	48					BUCT	BUCT
	CHM14003L	物理化学实验C	Experiment of Physical Chemistry C	1.0	32	FCH 222	Organic Chemistry Lab I	1.0	2	BUCT	BUCT
	CHM13001L	有机化学实验 B (II)	Experiments of Organic Chemistry B (II)	1.0	32	FCH 153	General Chemistry Laboratory II	1.5	1	BUCT	BUCT
	BIO31100L	生物化学实验	Biochemistry Experiment	1.5	48	FCH 224	Organic Chemistry Lab II	1.0		BUCT	BUCT
	PHY11001L	大学物理实验(II)	Experiments of College Physics (II)	1.0	32	PHY 222	General Physics Laboratory II	1.0		BUCT	BUCT
	MEE29201P	工程训练	Engineering Training	2.0	2周 (weeks)	BPE 304	Summer Internship in Bioprocess Engineering	2.0		BUCT	BUCT
	MXI42H02E	形势与政策 (II)	Political Situation and Policy (II)	0.5	32					BUCT	BUCT
	CCE10401T	写作、人文与环境	Writing, Humanities, and the Environment	3.0	48	EWP 290	Writing, Humanities, and the Environment	3.0		ESF	ESF
2nd year summer	CCE22400T	物料与能量衡算原理	Principles of Mass and Energy Balances	3.0	48	ECH 202	Principles of Mass and Energy Balances	3.0	2	ESF	ESF
	CCE36101T	化工热力学	Chemical Engineering Thermodynamics	1.5	24	ECH 212	Engineering Thermodynamics	3.0	2	ESF	ESF
	CCE36102T	胶体界面科学	Colloid Interface Science	1.5	24	ECH 312	Chem. Eng. Therm. & Colloids	3.0	2	ESF	ESF

				30.5							
3rd year autumn	CHE21500E	化工原理(I)	Unit Operations of Chemical Engineering (Part I)	3.5	64	ECH 322	Fluid Mechanics	3.0		BUCT	BUCT
	CCE36401T	生化动力学	Biomolecular Kinetics	3	48	BPE 321	Biomolecular Kinetics	3.0	3	ESF	ESF
	BIO33401T	细胞生物学与细胞工程	Cell Biology & Cell Engineering	3	48	EFB 325	Cell Biology	3.0	3	BUCT	BUCT
	BIO32402T	分子生物学与基因工程	Molecular Biology & Genetic Engineering	3	48					BUCT	BUCT
	BIO33100L	微生物学实验	Microbiology Experiment	1.5	48	EFB104	General Biology II Laboratory	1.0	2	BUCT	BUCT
	MEE11200T	工程制图	Graphics of Engineering	2.0	32					BUCT	BUCT
	BIO29301P	认识实习	Practicum	1.0	1周(week)					BUCT	BUCT
				17.0							
3rd year spring	CHE24400E	化工原理(II)	Unit Operations of Chemical Engineering (Part II)	3.0	48	ECH 323	Transport Phenomena	3.0	3	BUCT	BUCT
	CCE35400T	控制过程	Process Control	3.0	48	ECH 371	Process Control	3.0	3	ESF	ESF
	CCE27400T	工程设计经济	Engineering Design Economics	3.0	48	ECH 355	Engineering Design Economics	3.0	3	ESF	ESF
	BIO32100L	分子生物学实验	Experiment of Molecular Biology	1.5	48					BUCT	BUCT
	BIO44202L	生化分离实验及设计	Biochemical Separation Experiment	2.0	2周 (weeks)					BUCT	BUCT
	MXI42H03E	形势与政策 (III)	Political Situation and Policy (III)	0.5	32					BUCT	BUCT
3rd year summer	BIO39305P	仿真生产实习	Simulation Practice of Production	1.0	1周(week)					BUCT	BUCT
				14.0							
4th year	BIO44302T	生化反应工程与设备	Bioengineering and equipment	2.0	40						
	BIO44300T	生化分离工程	Bio-Separations	2.5	40						
	BIO39301P	生产实习	Advanced Practicum	2.0	2周						
	MXI42H04E	形势与政策(IV)	Political Situation & Policies (IV)	0.5	32						
	BIO49A01P	毕业环节: 毕业设计 (论文)	Graduation: Graduation Thesis (Design)	8.0	32						

				15.0							
“四史”模块	MXI10007T	社会主义道路探索史	History of Socialist road Exploration	1.0	16					BUCT	BUCT
	MXI10008T	社会主义五百年	Five Hundred Years of Socialism	1.0	16					BUCT	BUCT
	MXI10009T	中国共产党的光辉历程和伟大成就	The Glorious Course and Great Achievements of the Communist Party of China	1.0	16					BUCT	BUCT
	MXI10010T	中国共产党人的精神谱系	The Genealogy of Spirits of the Communist Party of China	1.0	16					BUCT	BUCT
	MXI10006T	中国共产党与改革开放	the Communist Party of China and the Reform and Opening up	1.0	16					BUCT	BUCT
素质教育	HSS10001E	大学生就业与创业指导	College students employment and entrepreneurship guidance	1.0						BUCT	BUCT
	HSS39001P	劳动与社会实践	Labor and Social Practice	2.0	4周 (weeks)					BUCT	BUCT
	其他素质教育课程			7.0						BUCT	BUCT
				10.0							
Total				178.5							