

# 安全工程专业 2018 版本本科培养方案

## Undergraduate Education Plan for Specialty in Safety Engineering (2018)

专业名称	安全工程	主干学科	安全科学与工程
Major	Safety Engineering	Major Disciplines	Safety Science and Engineering
计划学制	四年	授予学位	工学学士
Duration	4 Years	Degree Granted	Bachelor of Engineering

### 最低毕业学分规定

#### Graduation Credit Criteria

课程性质 Course Nature	课程分类 Course Classification	通识教育课程 Public Basic Courses	专业教育课程 Specialized Courses	个性课程 Personalized Course	集中性实践教学环节 Practice Courses	课外学分 Study Credit after Class	总学分 Total Credits
必修课 Required Courses		29	66	\	31	\	170
选修课 Elective Courses		9	19	6	\	10	

### 一、培养目标与毕业要求

#### I Educational Objectives & Requirement

##### (一) 培养目标

本专业旨在对接国家公共安全与应急管理重大战略需求，为交通、能源、建筑、化工、消防等行业的企事业单位以及政府应急管理部门培养安全技术开发、安全生产监察监管及应急管理的高级安全工程技术人才。学生应具备城市与工业安全、工程安全与防护、职业卫生与环境安全、安全信息化与应急管理等方面的研究设计、系统开发、安全管理、监察监管与安全教育培训技术服务等知识和技能，具有良好的科学素养与创新能力、实践能力、国际化能力和终身学习能力。

毕业生通过 3-5 年实际工作的锻炼，预期达到：

- (1) 具有良好的人文社会科学素养，较强的社会责任感和安全职业道德；
- (2) 具备注册安全工程师的基本素质和能力，能够利用科学原理、专业知识和现代工具设计、分析、研究、评价和解决安全领域复杂工程问题，成长为安全工程及相关领域的技术骨干或管理人才；
- (3) 具有良好的沟通和表达能力，能够独立或团队协作开展职业活动，并具备一定的国际视野；
- (4) 具有终身学习能力，能够在安全工程领域保持竞争力并适应职业发展。

#### Educational Objectives

This major aims to meet the major strategic needs of national public safety and emergency management, and train senior safety engineering technical talents for safety technology development, safety production supervision and emergency management for enterprises and institutions in transportation, energy, construction, chemical industry, fire protection and other industries as well as government emergency management departments. Students should have the knowledge and skills of research and design, system development, safety management, supervision and safety education and training technical services in urban and industrial safety, engineering safety and protection, occupational health and environmental safety, safety informatization and emergency management, and have good scientific literacy and innovation ability,

practical ability, international ability and lifelong learning ability.

Through 3-5 years of practical work, graduates should have the basic quality and ability of registered safety engineer, and are expected to achieve:

1. Solid foundation in science and engineering; qualified foundation in humanities and social sciences and, meanwhile possess good humanism quality, strong societal responsibility and professional ethics, healthy body and mind, and good safety awareness.
2. Have the ability to solve practical problems in industrial safety, engineering safety and other industries by using the theories and technical methods related to safety science and engineering, and have systematic training in safety design and production, safety evaluation and emergency management, safety monitoring and information technology.
3. Qualified foundation in Oral communication and written expression; have good team awareness and cooperation spirit, and have a certain international vision.
4. Have life-long learning ability, and keep up with the theoretical frontier, application prospect and latest development trend of international safety science and engineering, as well as the development status of related industries in the field of safety engineering.

## (二) 毕业要求

本专业毕业生应获得以下几个方面的知识和能力:

- (1) **工程知识:** 具有从事安全工程工作所需的数学、自然科学、工程基础知识以及安全工程的基本原理和方法, 并能够将这些知识运用于解决工业、建筑、能源等领域中关于安全分析、安全评价、安全技术等方面的复杂工程问题;
- (2) **问题分析:** 能够针对工业、建筑、能源等领域中的复杂安全问题, 合理应用数学、自然科学和安全科学基本原理, 对危险因素、事故模式等问题进行识别和表达, 并通过文献研究分析调研相应的安全方案, 以获得有效的结论;
- (3) **设计/开发解决方案:** 掌握安全领域复杂工程问题的基本设计方法和技术, 能够针对工业、建筑、能源等领域的复杂安全问题, 综合考虑社会、法律、经济、文化及环境因素, 设计安全检测、安全设施、人机界面等方面的系统、部件、单元或流程, 并能在设计环节体现出创新意识;
- (4) **研究:** 能够基于安全相关的科学原理和科学方法, 针对工业、建筑、能源等领域的复杂安全问题, 分析其内在的物理、化学、生物等方面的内在机理, 并开展科学研究, 包括文献调研、实验设计、数据分析, 并通过综合分析得出合理有效的结论;
- (5) **使用现代工具:** 了解安全领域常用的现代仪器、信息技术及其他工具 and 软件的使用原理和方法, 能够针对工业、建筑、能源等领域复杂安全问题, 开发、选择与使用恰当的仪器设备、信息技术、软件工具等现代工具, 能够实现复杂安全问题进行安全预测与模拟, 并理解其结论的局限性;
- (6) **工程与社会:** 了解安全生产相关法律法规、标准体系框架, 掌握风险辨识分析、评价和控制的方法和理论, 能够基于安全工程相关背景知识进行合理分析、评价安全工程实践和复杂安全工程问题解决方案对社会、健康、安全、法律以及文化的影响, 并理解应承担的责任;
- (7) **环境和可持续发展:** 具有强烈的安全环保意识和社会责任感, 理解安全问题对环境、社会和经济的重要性, 并能够评价工业、工程领域的复杂安全问题对环境、社会可持续发展的影响;
- (8) **职业规范:** 具有良好的身体素质、心理素质, 以及文化修养、社会道德和责任感等人文素养, 能够在安全工程实践中理解并遵守安全工程职业道德和规范, 具备较强的安全意识, 自觉履行安全职责。
- (9) **个人和团队:** 具备团队合作精神, 能够在多学科背景下的团队中承担个体、团队成员以及负责人的角色。
- (10) **沟通:** 能够就安全工程问题与业界同行及社会公众进行有效沟通和交流, 包括撰写报告和设计文稿、陈述发言、清晰表达或回应指令。并具备一定的国际视野, 能够熟练运用英语在跨文化

背景下进行安全工程技术方面的表达、沟通和交流。

- (11) **项目管理:** 理解并掌握安全工程管理基本原理与经济决策方法, 并能在多学科环境下应用于安全检查、安全评价、安全管理等项目中
- (12) **终身学习:** 具有自主学习和终身学习的意识, 实时掌握安全工程领域的前沿问题, 有不断学习和适应发展的能力。

### **Graduated Requirements**

The graduates should master the knowledge and abilities as following:

1. Engineering knowledge: Natural science knowledge and some Humanistic and social science required by engaging in safety engineering work. Master solid foundation knowledge in safety engineering, and have the knowledge about status and trend of this major. Be able to solve the complex issues of design, research, examine, assessment, supervision, management, etc. using the knowledge above.
2. Problematic analysis: be able to identify and demonstrate the complex issues of engineering industries including chemistry, mining, construction, etc., by utilizing Mathematics, Natural Sciences and Principles of Safety Science.
3. Design/explore the solutions: Specifically to the complexity of safety issues in industry and engineering, the graduates should be able to identify, evaluate, inspection, manage the hazards by considering the factors of social, laws, economics and environment; furthermore, the design, debug, applications of the safety system, the investigation and analysis of accidents with creativity should be also required.
4. Research: Have the ability to analyze complex issues of industry and engineering by using principles of safety science; have the potential to research on these safety issues using induction and deduction methods including experiments design, data analysis, and literature review to gain rational and effective conclusions.
5. Apply the modern facilities: to aim at complicated safety issues of industry and engineering, be able to explore, choose and utilize numerical technologies, visional reality techniques, modern facilities and information technologies to predict and simulate the complex safety issues and understand the limitations of the conclusions.
6. Engineering and society: be able to rationally analyze, evaluate the effects of practice and solutions of safety issues on society, health, safety, laws and culture, and furthermore to understand the taken responsibilities.
7. Environment and sustainability: understand the significance of safety issues to the environment, society and economics; be able to analyze the effects of safety issues of industry and engineering on the sustainability of environment and society.
8. Professional morality: possess good physical quality, psychological quality, and cultural cultivation, social morality and responsibility; be able to understand and obey the professional morality and criteria with strong safety awareness.
9. Individuals and team: be able to play multiple roles as an individual, team member, and team leader with strong teamwork spirits.
10. Communication: be able to communicate with peers and social public for safety issues in terms of writing reports, design manuscripts, giving presentations with clear expressions and responses; Furthermore, the graduates should possess international views with English abilities to express, communicate the safety engineering issues.
11. Project management: understand and master the principles of engineering management and methodology of economic decisions to apply on the multi-disciplines.
12. Lifelong learning: be able to conduct self-study and lifelong learning; master the frontier issues of safety engineering fields; be able to continuous learning and adapt the development.

附：培养目标实现矩阵

	培养目标 1	培养目标 2	培养目标 3	培养目标 4
毕业要求 1		✓		
毕业要求 2		✓		
毕业要求 3		✓		
毕业要求 4		✓		
毕业要求 5		✓		
毕业要求 6	✓			
毕业要求 7	✓			
毕业要求 8	✓			
毕业要求 9			✓	
毕业要求 10			✓	
毕业要求 11			✓	
毕业要求 12				✓

## 二、专业核心课程与专业特色课程

### II Core Courses and Specialty Courses

#### (一) 专业核心课程 Core Courses

安全系统工程、安全人机工程、职业安全卫生、燃烧与爆炸学、安全检测与监测、风险分析与安全评价。

Safety Systems Engineering, Safety man-machine Engineering, Occupational Safety and Health, Combustion and Explosion, Safety Detection and Monitoring Technology, Risk Analysis and Safety assessment.

#### (二) 专业特色课程 Specialty Courses

工矿通风与除尘、防火防爆工程、爆破工程、公共安全应急与管理、建筑工程安全、灾害防治理论与技术、安全信息系统、矿山安全工程。

Mine Ventilation and Dedusting, Fire Prevention and Protection, Blasting Engineering, Public Safety and Emergency Management, Construction Safety, Calamity Prevention Theory and Technology, Safety Information System, Mine Safety Engineering.

附：毕业要求实现矩阵：

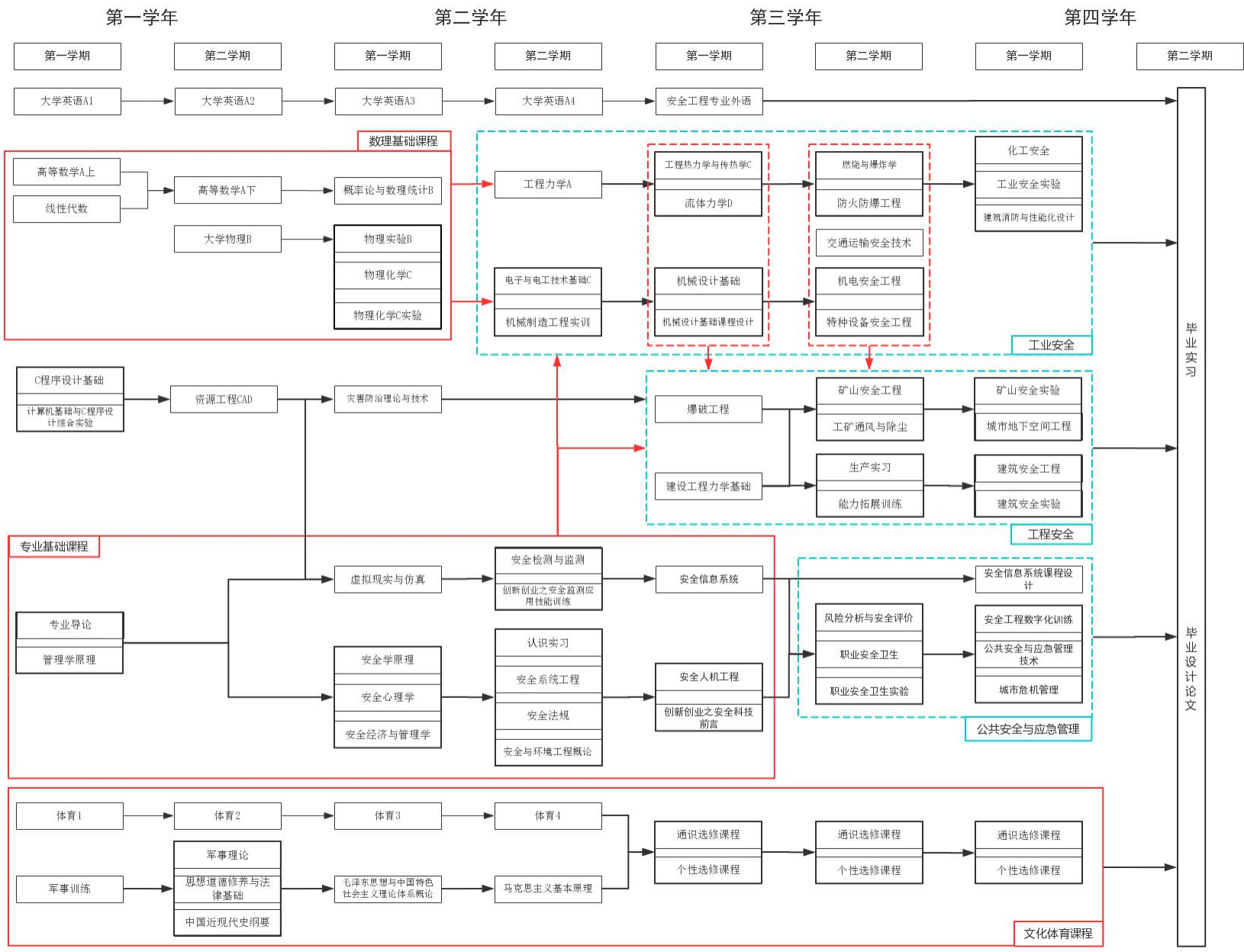
专业 核心 课程	专业 特色 课程	课程名称	安全工程专业毕业要求											
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		思想道德修养与法律基础							✓	✓				
		中国近现代史纲要						✓	✓					
		毛泽东思想和中国特色社会主义理论体系概论					✓	✓	✓					
		马克思主义基本原理					✓		✓					
		军事理论							✓					
		体育								✓				
		大学英语									✓		✓	
		C 程序设计基础			✓		✓							

专业 核心 课程	专业 特色 课程	课程名称	安全工程专业毕业要求													
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
		计算机基础与 C 程序设计综合实验			✓		✓									
		高等数学 A	✓	✓												
		专业导论	✓								✓					
		线性代数	✓	✓												
		概率论与数理统计 B	✓	✓												
		物理化学 C	✓													
		物理化学 C 实验				✓	✓									
		大学物理 B	✓													
		物理实验 B				✓	✓									
		电工与电子技术基础 C	✓													
		资源工程 CAD			✓		✓									
	√	灾害防治理论与技术	✓	✓												
		管理学原理													✓	
		安全经济与管理学	✓		✓				✓						✓	
		安全心理学			✓			✓								
		虚拟现实与仿真					✓									
		机械设计基础			✓											
		工程力学	✓			✓										
	√	工程热力学与传热学	✓			✓										
		流体力学	✓			✓										
		安全学原理	✓								✓					
	√	安全检测与监测			✓		✓									
	√	燃烧与爆炸学	✓	✓		✓										
	√	安全信息系统			✓		✓									
		建设工程力学基础	✓	✓		✓										
	√	安全人机工程		✓	✓	✓		✓								
	√	风险分析与安全评价	✓	✓				✓	✓							
	√	职业安全卫生			✓	✓		✓	✓							
	√	安全系统工程	✓	✓				✓								
		机电安全工程	✓	✓												
		特种设备安全	✓	✓												
		创新创业之安全科技前沿			✓								✓		✓	
		安全工程专业外语											✓		✓	

专业 核心 课程	专业 特色 课程	课程名称	安全工程专业毕业要求											
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	√	公共安全与应急管理技术		√									√	
		城市危机管理											√	
		化工安全	√	√										
		安全与环境工程概论						√	√					
	√	爆破工程		√	√									
	√	防火防爆工程	√	√		√								
	√	工矿通风与除尘			√									
	√	矿山安全工程	√	√										
	√	建筑工程安全	√	√										
		城市地下空间工程	√											
		交通运输安全技术	√	√										
		建筑消防与性能化设计		√	√									
		安全法规						√	√					
		军事训练								√	√			
		认识实习							√	√	√	√		√
		机械制造工程实训					√			√				√
		机械设计基础课程设计			√									
		职业安全卫生实验				√	√		√					
		工业安全实验				√	√							
		建筑安全实验				√	√							
		矿山安全实验				√	√							
		生产实习		√							√	√	√	√
		创新实践之安全监测应用技能训练					√				√			
		安全信息系统课程设计			√		√							
		安全工程数字化训练			√		√							
		毕业实习								√	√	√	√	√
		毕业设计（论文）		√	√	√	√					√	√	√

### 三、课程教学进程图

### III Teaching Process Map



#### 四、理论教学建议进程表 IV Theory Course Schedule

(一) 通识教育必修课程 General Education Required Courses									
课程编号 Course Number	课程名称 Course Title	学分Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ration	实践 Prac- tice	课外 Extra- cur		
4220001110	思想道德修养与法律基础 Morals, Ethics and Fundamentals of Law	3	48			8		2	
4220002110	中国近现代史纲要 Outline of Contemporary and Modern Chinese History	2	32					2	
4220003110	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 Socialism with Chinese Characteristics	4	96			32		3	
4220005110	马克思主义基本原理 Marxism Philosophy	3	48			8		4	
1060003130	军事理论 Military Theory	1	32				16	2	
4210001170	体育1 Physical Education I	1	26					1	
4210002170	体育2 Physical Education II	1	34					2	
4210003170	体育3 Physical Education III	1	34					3	
4210004170	体育4 Physical Education IV	1	34					4	
4030002180	大学英语1 College English 1	3	60				12	1	
4030003180	大学英语2 College English II	2	44				12	2	大学英语1
4030004180	大学英语3 College English III	2	44				12	3	大学英语2
4030004180	大学英语4 College English IV	2	44				12	4	大学英语3
4120335170	C程序设计基础 Fundamentals of Computer Program Design(C)	2	32					1	
4120336170	计算机基础与C程序设计综合实验 Foundations of Computer and C language programming experiments	1	32	32				1	
小 计 Subtotal		29.0	640.0	32.0	0.0	48.0	64.0		
(二) 通识教育选修课程 General Education Elective Courses									
(四) 专业教育选修课程 Specialized Elective Courses									
人文社科类 Arts and Social Science Courses		要求至少取得9个学分, 且必须选修艺术体育类课程中的艺术类相关课程并取得至少2个学分, 在创新创业类课程中至少选修一门课程, 在人文社科类或经济管理类课程中至少选修一门。							
经济管理类 Economy and Management Courses									
科学技术类 Science and Technology Courses									
艺术体育类 Art and Physical Education Courses									



课程编号 Course Number	课程名称 Course Title	学分Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ration	实践 Prac- tice	课外 Extra- cur		
(三) 专业教育必修课程									
Basic Disciplinary Required Courses									
4060275130	专业导论 Introduction to Materials Physics	1	16					1	
4050229110	线性代数 Linear Algebra	2.5	40					1	
4050063110	高等数学A上 Advanced Mathematics	5	80					1	
4050064110	高等数学A下 Advanced Mathematics	5	80					2	高等数学上
4050463130	大学物理B Physics	5	80					2	
4050224110	物理实验B Physics Lab.	1	32	32				3	大学物理
4060465170	安全学原理 Safety Principle	2	32					3	
4050058110	概率论与数理统计B Probability and Mathematical Statistics	3	48					3	
4200256120	物理化学C Physical Chemistry	4	64					3	
4200382170	物理化学实验C Physical Chemistry Experiment	0.5	16	16				3	
4060388150	安全经济与管理学 Safety Economics and Management	2	32					3	
4100012110	电工与电子技术基础C Fundamentals of Electrical Engineering & Electric Technology	4	64	10				4	
4050071110	工程力学A Engineering Mechanics	4	64	4				4	
4060505170	安全检测与监测A Safety Detection and Monitoring	3	48			16		4	
4060467170	安全系统工程B Safety System Engineering	2.5	40			8		4	
4060506170	安全人机工程A Safety Man-Machine Engineering	2.5	40	8				5	
4080061110	机械设计基础 Foundation of Machine Design	3.5	56	6				5	
4050136110	流体力学D Mathematical Physics Equation	2	32	6				5	
4090014110	工程热力学与传热学C Engineering Thermodynamics and Heat Transfer	3	48	8				5	
4060466170	创新创业之安全科技前沿 Safety Engineering Frontier	1	16					5	
4050679170	建设工程力学基础 Fundamental Mechanics of Construction Engineering	3	48				4	5	
4060400130	燃烧与爆炸学 Combustion and Explosion	2.5	40	8				6	
4060470170	风险分析与安全评价 Risk Analysis and Safety Assessment	2	32	8				6	

课程编号 Course Number	课程名称 Course Title	学分Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Operation	实践 Practice	课外 Extra-cur		
4060435150	职业安全卫生 Occupational Safety and Health	2	32	8				6	
小 计 Subtotal		66	1080	114	0	24	4		
(四) 专业教育选修课程 Specialized Elective Courses									
4060128110	资源工程CAD(B) Resource Engineering CAD	2	32	24				2	
4060445170	虚拟现实与仿真 Virtual Reality and Simulation	2	32	16				3	
4060507170	灾害防治理论与技术A Calamity Prevention Theory and Technology	3	48					3	
4060324130	安全心理学 Safety Psychology	2	32			8		3	
4060508170	安全与环境工程概论 Introduction of Safety and Environmental Engineering	2	32					4	
4060008110	安全法规 Safety Law	2	32					4	
4060471170	安全信息系统B Safety Information System	2	32	16				5	
4060472170	安全工程专业英语 Specialized English of Safety Engineering	2	32					5	
4060411140	爆破工程D Blasting Engineering	2.5	40	8				5	
4060433150	防火防爆工程 Fire Prevention and Protection	2.5	40	8				6	燃烧与爆炸学
4060473170	工矿通风与除尘 Mine and Industry Ventilation & Dedusting	2	32			8		6	
4060474170	机电安全工程 electromechanical Safety Engineering	2	32					6	
4060509170	矿山安全工程 Mine Safety Engineering	3	48					6	
4060475170	特种设备安全 Speical Equipment Safety	1	16					6	
4060062110	交通运输安全技术 Transportation Safety	2	32					6	
4060510170	建筑消防与性能化设计 Building Fire Protection and Performance Design	2	32					7	
4060511170	建筑工程安全 Construction Safety	2.5	40					7	
4200317130	化工安全 Chemical engineering safety	2	32					7	
4060512170	城市地下空间工程 City Underground Engineering	2	32					7	
小 计 Subtotal		40.5	648	72	0	16	0		
修读说明：要求至少选修19学分。 NOTE: Minimum subtotal credits:19.									
(五) 个性课程 Personalized Electice Courses									

课程编号 Course Number	课程名称 Course Title	学分Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Operation	实践 Practice	课外 Extra-cur		
4060477170	公共安全与应急管理技术 Public Safety and Emergency Management & Techniques	2	32					7	
4170057110	管理学原理 Management Principle	2	32					1	
4170485140	城市危机管理 Urban Crisis Management	2	32					7	
小 计 Subtotal		6	96	0	0	0	0		

修读说明：学生从以上个性课程和学校发布的其它个性课程目录中选课，要求至少选修6学分。  
NOTE: Students can select courses from above and the other personalized courses in catalog, and are required to obtain at least 6 credits.

## 五 集中性实践教学环节 V Practice Schedule

课程编号 Course Number	实践环节名称 Practice Courses Name	学分 Crs	周数 Weeks	建议修读学期 Suggested Term
1060002110	军事训练 Military Training	1.5	3	1
4060393140	认识实习 Practice of Engineering Cognition	1.5	1.5	4(暑期)
4060478170	创新实践之安全监测应用技能训练 Innovation Practice of Training on Safety Monitoring	2	2	4
4080151110	机械制造工程实训C Training on Mechanical Manufacturing Engineering	2	2	4
4080146110	机械设计基础课程设计 Course Design on Foundation of Machine Design	2	2	5
4060334130	生产实习 Practice of Specialty	2	2	6
4060513170	职业安全卫生实验 Experiments of Occupational Safety and Health	1	1	6
4060406130	能力拓展训练 Ability Development Training	1	1	6(暑期)
4060514170	工业安全实验 Experiments of Industrial Safety	1	1	7
4060515170	矿山安全实验 Experiments of Mining Safety	1	1	7
4060516170	建筑安全实验 Experiments of Construction Safety	1	1	7
4060391150	安全信息系统课程设计 Course Design on Safety Detection and Monitoring	1	1	7
4060414130	安全工程数字化训练 Digital Training of Safety Engineering	2	2	7
4060428130	毕业实习 Graduation Practice	2	2	8

课程编号 Course Number	课程名称 Course Title	学分Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ration	实践 Prac- tice	课外 Extra- cur		
4060427130	毕业设计（论文） Graduation Thesis	10				15		8	
小 计 Subtotal		31				37.5			

## 六、其它要求

### VI Recommendations on Course Studies

《形势与政策》和《心理健康教育》课程为课外必修课程，分别计 2个和1个课外学分。

Situation & Policy (2 credits) and Mental Health Education (1 credit) are the required extracurricular courses.

学院教学责任人：陈先锋

专业培养方案责任人：刘艳艳

# 公共事业管理专业 2018 版本本科培养方案

## Undergraduate Education Plan for Specialty in Public Utilities Management (2018)

专业名称	公共事业管理	主干学科	管理学
Major	Public Utilities Management	Major Disciplines	Management
计划学制	四年	授予学位	管理学学士
Duration	4 Years	Degree Granted	Bachelor of Management

### 最低毕业学分规定

#### Graduation Credit Criteria

课程性质 Course Nature	课程分类 Course Classification	通识教育课程 Public Basic Courses	专业教育课程 Specialized Courses	个性课程 Personalized Course	集中性实践教学环节 Practice Courses	课外学分 Study Credit after Class	总学分 Total Credits
必修课 Required Courses		29	65.5	\	22.5	\	170
选修课 Elective Courses		9	28	6	\	10	

### 一、培养目标与毕业要求

#### I Educational Objectives & Requirement

##### (一) 培养目标

- (1) 具有综合理论素养和现代公共精神，身心健康，具备良好的敬业精神、社会责任感和职业道德，关注当代全球和社会问题；
- (2) 掌握现代公共管理理论、技术与方法，具有公共安全与应急管理方面的专业特色知识与技能，具备开放性思维、决策分析和实践协调能力；
- (3) 具有广博的人文社会科学知识，语言表达与写作能力强，熟悉有关的法律法规、方针政策和制度，能在教育、科技、文化、体育、卫生等事业单位，以及社区及各类非政府组织中从事行政管理等工作；
- (4) 掌握必要的计算机应用技能，具有进行社会调查、数据收集和处理的能力，运用定量研究方法，进行统计分析的基本知识和能力；
- (5) 掌握文献检索、资料查询的基本方法，有良好的团队意识和合作精神，成为具有一定科研工作能力和终身学习能力的复合型高级专门人才；
- (6) 掌握公共安全与应急管理的理论与方法，以及相应的自然科学与工程技术知识，具备较强的突发事件决策分析与应急处置能力，能在城市公用部门及应急管理部门从事安全运营管理工作；

The students awarded their bachelor degree of management shall have the capacities and knowledge as follows:

- (1) Proficiency in grasping the integrated theoretical knowledge, trained to be the complex high-level experts in great physical and mental health, who pay close attentions on the global and social issues with the modern public spirit, social responsibility and professional ethics.
- (2) Capacity to apply the professional knowledge and skills in public security and emergency management with an open mind and capacity in decision analysis and practice coordination, on the basis of grasping the theory, skills and methods of modern public management.

- (3) Encyclopedic knowledge of humanities and social sciences, good language expression and writing ability, familiar with the relevant laws and regulations, policies and system. Being able to engage themselves into the works of administration management in the public institutions (e.g. education, science, culture, sports, and health department), communities and the non-profit organizations.
- (4) Necessary computer application skills, basic knowledge and skills to conduct the social investigation, data collection and processing, apply the quantitative research method in the statics analysis.
- (5) Basic methods of literature review and data query, good senses of team spirit and cooperation, to be the high-level inter-disciplinary professional experts with the abilities to conduct scientific research and long-life education.
- (6) Theories and methods of public safety and emergency management, and related technical knowledge of natural sciences and engineering. Being able to engage themselves into the works of operation safety management in the organizations and government departments, such as transportation, electricity, water, gas, et.al.

## (二) 毕业要求

- (1) 具有科学素养、社会责任感和职业道德。具有较强的适应未来风险、社会管理需求和从事企事业单位专业技术与管理工作的能力；
- (2) 掌握数理逻辑分析方法及自然科学知识。能够通过社会调查获取决策分析数据，运用定性与定量分析研究方法，进行风险评估与危机预警的能力；
- (3) 具有经济头脑、管理思维及公共行政能力。对现代公共事业发展趋势有深刻了解，能够胜任政府部门、事业单位、企业、社区及非营利组织机构的行政管理工作的能力；
- (4) 具有组织管理、人际交往能力。具备计划、组织、实施、协调和评价等方面的综合实践能力，具有较强的团队协作精神，掌握必要的管理沟通的能力；
- (5) 具有文献检索、信息获取与计算机运用能力。能熟练掌握办公自动化和电子政务软件，具有应用管理信息系统、地理信息系统和现代网络技术的计算机应用技能的能力；
- (6) 具有分析问题，解决公共管理实际问题能力。打下扎实的公共管理理论基础，熟悉公共安全与应急管理的现实需求与发展现状，能够从事突发事件应急预案编制、应急救援决策，以及城乡防灾减灾管理工作的能力；
- (7) 具有安全管理专业基础与职业发展能力。具有对危险源进行识别，风险评估与预警，以及对各类安全事故以及突发灾害进行应急处置的能力；
- (8) 具有国际交流、竞争与合作能力。具有国际化视野，能够与外国企业、国际组织进行交流的能力。

- (1) Being the experts with the scientific literacy, social responsibility and ethics, the students are required to have the strong abilities to meet the requirements of future social risk management, and engage in the professional technical and management works
- (2) Skilled in the methods of mathematical logic analysis and enriched in natural science knowledge, the students are able to use the qualitative and quantitative analysis methods to conduct the risk assessments and crisis early warning process by analyzing the data from social surveys and making the decisions.
- (3) Endowed with the economic mind, management thinking and public administration capacity, the students need to have a deep understanding of the development trends of modern public utilities, and be competent for the administrative work in the government departments, institutions, corporations, communities and non-profit organizations.
- (4) Skilled in social organization and interpersonal communication, the students need to develop their integrated practical abilities in planning, organizing, implementing, coordinating and assessing,

- develop the strong team spirits, and grasp some necessary administrative communication skills.
- (5) Skilled in literature searching, information acquiring and computer utilizing, the students are required to proficiently use the software of office automation and e-government, develop the computer application skills in the management information systems, geographic information systems and modern network systems.
  - (6) Owned the ability to analyze and solve the practical problems in public administration, the students are required to lay a solid theoretical foundation of public administration, familiarize the current demand and development status of the public safety and emergency management, be able to engage themselves in the preparations of emergency plans, decision-making of the emergency response and administration work of the disaster prevention and mitigation in urban or rural.
  - (7) Endowed with the professional basis on safety management and development capacity in career, the students need to develop the abilities on identifying the hazard sources, assessing and early warning the disasters, and emergency responding to various types of safety incidents as well as sudden disasters.
  - (8) Endowed with the ability on international communication, completion and cooperation, the students need to develop their skills to communicate with the foreign corporations and international organizations.

附：培养目标实现矩阵

	培养目标 1	培养目标 2	培养目标 3	培养目标 4	培养目标 5	培养目标 6
毕业要求 1	√					
毕业要求 2		√		√		
毕业要求 3			√		√	
毕业要求 4	√		√			
毕业要求 5			√	√	√	
毕业要求 6		√				√
毕业要求 7		√				√
毕业要求 8	√				√	

## 二、专业核心课程与专业特色课程

### II Core Courses and Characteristic Courses

#### (一) 专业核心课程：

管理学原理、微观经济学、公共经济学、公共管理学、公共安全管理导论、公共事业管理概论、公共组织行为学、公共部门人力资源开发与管理、应用统计学与 SPSS 软件应用、社会保障学、公共组织财务管理、公共政策分析、社会调查研究方法、电子政务、公共项目评估与管理、市政学、非营利组织管理、创新创业风险管理。

Principle of Management, Microeconomics, Public Safety Management Introduction, Public Economics, Public Management, Public Safety Management Introduction, Introduction to Public Utilities management, Organizational Behavior in Public Sectors, Human Resource Management and Development in Public Sectors, Applied Statistics and Application of SPSS, Social Security, Financial Management in Public Organizations, Public Policy Analysis, Social Research Methods, E-government System, Evaluation and Management of Public Projects, Urban Management, Non-profit Organizations Management. Risk Management for Innovation and Entrepreneurship

(二) 专业特色课程:

城市安全地理信息系统、灾害社会学、灾害学、应急管理理论与方法、安全生产管理原理、交通安全预警管理、企业危机管理、职业卫生评价与检测、安全生产法规与注册安全工程师、城市危机管理、社区安全与管理、公共安全与应急管理前沿专题。

Urban safety Geographic Information System, Disaster Sociology, Theory of Disaster, Theory and Technique of Emergency Management, Safety Production Management Theory, Traffic Safety early-warning management, Enterprise Crisis Management, Occupational Health Assessment and Testing, Safety Production and Certified Safety Engineer, Urban Crisis Management, Community safety and administration, Public Buildings on Fire Control Safety Assessment, Frontier topics on Public safety and Emergency Management

附: 毕业要求实现矩阵:

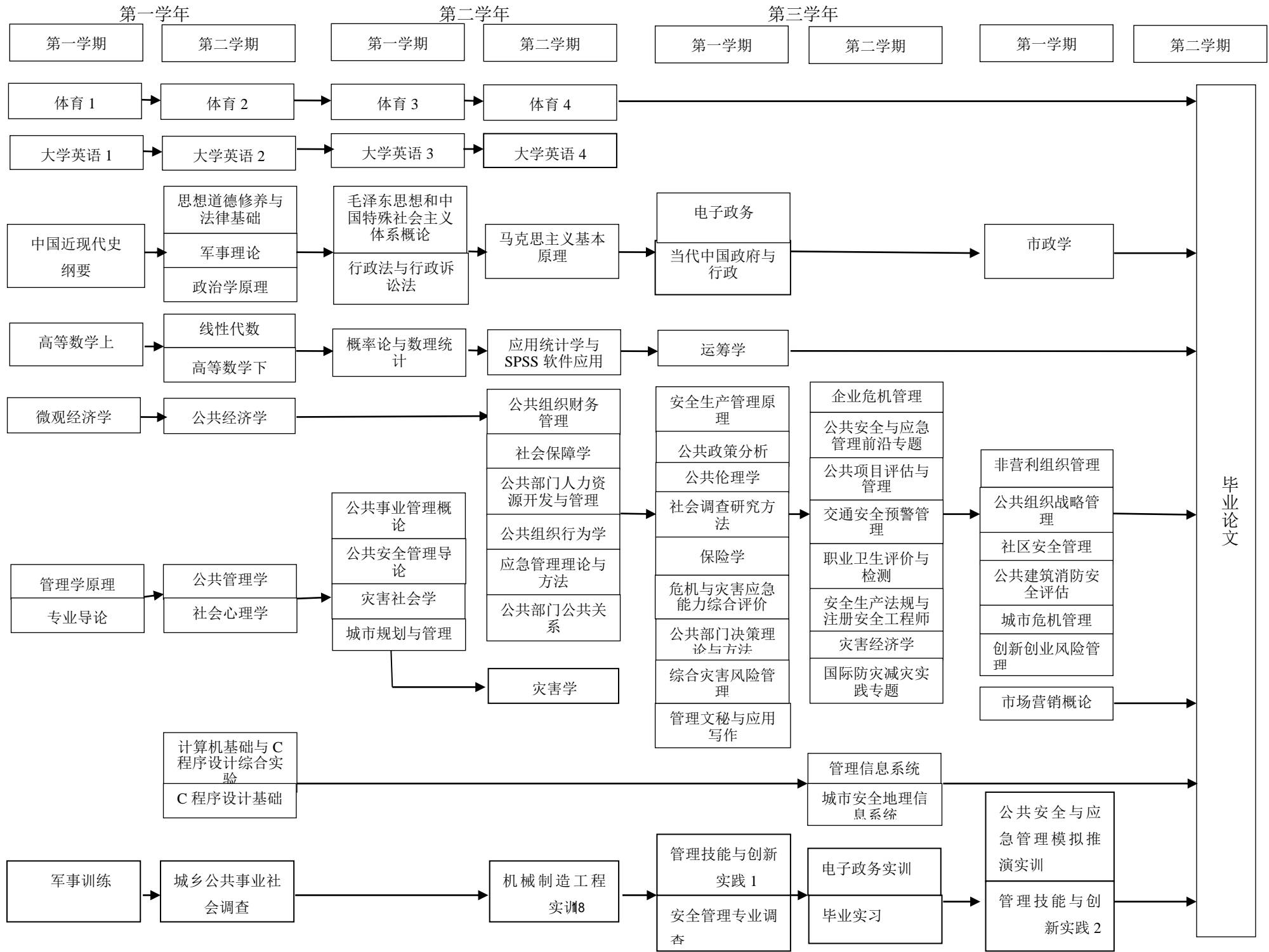
专业 核心 课程	专业 特色 课程	课程名称	公共事业管理专业毕业要求								
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
		思想道德修养与法律基础	√								
		中国近现代史纲要	√								
		毛泽东思想和中国特色社会主义理论体系概论	√								
		马克思主义基本原理	√								
		军事理论	√		√						
		体育	√								
		大学英语									√
		C 程序设计基础						√			
√		微观经济学			√						
√		高等数学上		√							
√		管理学原理			√	√					
√		公共安全管理导论			√						
√		线性代数		√							
√		高等数学下		√							
√		公共经济学			√	√					
√		公共管理学			√	√					
√		概率论与数理统计		√				√			
√		公共事业管理概论			√				√		
√		应用统计学与 SPSS 软件应用		√							
	√	应急管理理论与方法							√	√	
√		公共组织行为学				√					



专业 核心 课程	专业 特色 课程	课程名称	公共事业管理专业毕业要求							
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
√		公共部门人力资源开发与管理				√				
√		社会保障学				√				
√		公共组织财务管理			√					√
		当代中国政府与行政			√					
	√	安全生产管理原理			√			√	√	
√		公共政策分析			√					
√		社会调查研究方法		√						
√		电子政务			√		√			
√		市政学						√		
	√	公共安全与应急管理前沿专题					√	√		√
√		公共项目评估与管理			√					
√		企业危机管理			√		√			√
√		交通安全预警管理					√	√		
√		城市安全地理信息系统					√			
√		非营利组织管理			√					√
√		灾害社会学					√	√		
	√	灾害学					√	√		
	√	职业卫生评价与检测							√	
	√	安全生产法规与注册安全工程师							√	
		管理文秘与应用写作			√	√	√			
	√	城市危机管理						√	√	
	√	社区安全与管理						√		
	√	公共安全与应急管理前沿专题						√	√	√

### 三、课程教学进程图

#### III Teaching Process Map



# 公共事业管理专业2018版本本科培养方案

## 四、 理论教学建议进程表

### IV Theory Course Schedule

(一) 通识教育必修课程 General Education Required Courses									
课程编号 Course Number	课程名称 Course Title	学分 CrS	学时分配 Including				建议 修读学期 Suggested Term	先修课程 Prerequisite Course	
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ratio	实践 Prac- tice			课外 Extra- cur
4220001110	思想道德修养与法律基础 Morals, Ethics and Fundamentals of Law	3	48			8		2	
4220002110	中国近现代史纲要 Outline of Contemporary and Modern Chinese History	2	32					1	
4220003110	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 Socialism with Chinese Characteristics	4	96			32		3	
4220005110	马克思主义基本原理 Marxism Philosophy	3	48			8		4	
1060003130	军事理论 Military Theory	1	32				16	2	
4210001110	体育1 Physical Education I	1	32					1	
4210002110	体育2 Physical Education II	1	32					2	
4210003110	体育3 Physical Education III	1	32					3	
4210004110	体育4 Physical Education IV	1	32					4	
4030002110	大学英语1 College English 1	3	64				16	1	
4030003110	大学英语2 College English II	2	64				16	2	大学英语1
4030004110	大学英语3 College English III	2	64				16	3	大学英语2
4030004180	大学英语4 College English IV	2	44				12	4	大学英语3
4120335170	C程序设计基础 Fundamentals of Computer Program Design(C)	2	32					2	
4120336170	计算机基础与C程序设计综合实验 Fundamentals of Computer and Test of C Program	1	32		32			2	
小 计 Subtotal		29	684	0	32	48	76		
(二) 通识教育选修课程 General Education Elective Courses									
创新创业类 Innovation and Entrepreneurship Courses		要求至少取得9个学分，且必须选修艺术体育类课程中的艺术类相关课程并取得至少2个学分，在创新创业类和科学技术类课程中分别至少选修一门。							
人文社科类 Arts and Social Science Courses									
经济管理类 Economy and Management Courses									
科学技术类 Science and Technology Courses									

课程编号 Course Number	课程名称 Course Title	学分 Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ratio	实践 Prac- tice	课外 Extra- cur		
艺术体育类 Art and Physical Education Courses									
(三) 专业教育必修课程 Basic Disciplinary Required Courses									
4170320130	专业导论 Introduction to Specialty	1	16					1	
4170057110	管理学原理A Principle of Management	3	48					1	
4010548130	微观经济学C Microeconomics	2.5	40					1	
4050065110	高等数学B上 Advanced Mathematics I	5	80					1	
4050066110	高等数学B下 Advanced Mathematics II	5	80					2	高等数学上
4050229110	线性代数 Linear Algebra	2.5	40					2	
4170764130	公共经济学B Public Economics	2.5	40					2	
4170372130	公共管理学A Public Management	2.5	40					2	
4170612170	公共安全管理导论B Public Safety Management Introduction	2	32					3	
4050058110	概率论与数理统计B Probability and Mathematics Statistics	3	48					3	线性代数
4170613170	公共事业管理概论B Introduction to Public Utilities Management	2	32					3	公共管理学
4170428130	灾害社会学 Disaster Sociology	2	32					3	
4170376130	公共组织行为学 Organizational Behavior in Public Sectors	2	32					4	
4170614170	公共部门人力资源开发与管理B Human Resource Management and Development in Public Sectors	2	32					4	
4170615170	应用统计学与SPSS软件应用B Applied Statistics and Application of SPSS	2.5	40			8		4	
4170127110	社会保障学B Social Security	2	32					4	
4170375130	公共组织财务管理C Financial Management in Public Organizations	2.5	40					4	
4170616170	安全生产管理原理B Safety Production Management Theory	2	32					5	
4170042110	公共政策分析B Public Policy Analysis	2	32					5	
4170128110	社会调查研究方法B Social Research Methods	2	32					5	
4170617170	电子政务D E-government System	2	32					5	
4170618170	城市安全地理信息系统A Urban Safety Geographic Information System	2.5	40			8		6	

课程编号 Course Number	课程名称 Course Title	学分 Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ratio	实践 Prac- tice	课外 Extra- cur		
4170366130	公共安全与应急管理前沿专题 Frontier topics on Public safety and Emergency Management	1	16					6	
4170619170	公共项目评估与管理B Evaluation and Management of Public Projects	2	32					6	
4170620170	企业危机管理B Enterprise Crisis Management	2	32					6	
4170481140	交通安全预警管理B Traffic Safety Early-warning Management	1	16					6	
4170621170	市政学B Urban Management	2	32					7	
4170364130	非营利组织管理 Non-profit Organizations Management	2	32					7	
4170622170	创新创业风险管理 Risk Management for Innovation and Entrepreneurship	1	16					7	
小 计 Subtotal		65.5	1048	0	16	0	0		
(四) 专业教育选修课程 Specialized Elective Courses									
4170765130	政治学原理 Principles of Political Science	2	32					2	
4170766130	社会心理学B Social Psychology	2	32					2	
4170623170	城市规划与管理 Urban Plan and Management	2	32			8		3	
4170417130	行政法与行政诉讼法 Administrative Law and Administrative	2	32					3	
4170482140	灾害学A Theory of Disaster	2	32					4	
4170535130	公共部门公共关系 Public Relations	2	32					4	
4170624170	应急管理理论与方法C Theory and Technique of Emergency Management	2	32					4	
4170479140	当代中国政府与行政A China Government and Administration	2	32					5	
4170552140	公共部门决策理论与方法 Theory and Methodology of Decision- making in the Public Sector	2	32					5	
4170379130	管理文秘与应用写作 Secretarial and Administration	2	32			8		5	
4170347130	保险学C Theory of Insurance	2	32					5	
4170371130	公共伦理学 Public Ethics	2	32					5	
4170427130	运筹学B Operational Research	2	32					5	
4170410130	危机与灾害应急能力综合评价 Comprehensive Evaluation of Emergency Response Capability in Crisis and Disaster	1	16					5	

课程编号 Course Number	课程名称 Course Title	学分 Crs	学时分配 Including					建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ratio	实践 Prac- tice	课外 Extra- cur		
4170483140	职业卫生评价与检测 Occupational Health Assessment and Testing	2	32					6	
4170344130	安全生产法规与注册安全工程师 Safety Production and Certified Safety Engineer	2	32					6	
4170484140	灾害经济学 Disaster Economics	2	32					6	
4170625170	管理信息系统D Information Management System	2	32		8			6	
4170485140	城市危机管理 Urban Crisis Management	2	32					7	
4170378130	公共组织战略管理 Strategic Management of Public Sectors	2	32					7	
4170407130	社区安全与管理 Community Safety and Administration	2	32					7	
4170486140	公共建筑消防安全评估 Public Buildings on Fire Control Safety Assessment	2	32					7	
小 计 Subtotal		43	688	0	8	16	0		
修读说明：要求至少选修28学分。 NOTE: Minimum subtotal credits:28.									
(五) 个性课程 Personalized Elective Courses									
4170626170	综合灾害风险管理 Integrated Disaster Risk Management	2	32					5	
4170627170	国际防灾减灾实践专题 Practice of International Disaster Prevention and Reduction	2	32					6	
4170628170	市场营销概论B Introduction to Marketing	2	32					7	
小 计 Subtotal		6	96	0	0	0	0		
修读说明：学生从以上个性课程和学校发布的其它个性课程目录中选课，要求至少选修6学分。 NOTE: Students can select courses from above and the other personalized courses in catalog, and are required to obtain at least 6 credits.									

## 五、集中性实践教学环节 V Practice Schedule

课程编号 Course Number	实践环节名称 Practice Courses Name	学分 Crs	周数 Weeks	建议修读学期 Suggested Term
1060002110	军事训练 Military Training	1.5	3	1
4170487140	城乡公共事业社会调查 Social Survey	1	1	2 (暑期)
4080152110	机械制造工程实训D Metal Techniques Practice	1	1	4
4170629170	管理技能与创新实践1 Practice of Engineering Cognition I	1	1	5
4170631170	安全管理专业调查B Enterprise Safety Management Training	1	1	5
4170362130	电子政务实训	1	1	6

课程编号 Course Number	课程名称 Course Title	学分 Crs	学时分配 Including				建议 修读学期 Suggested Term	先修课程 Prerequisite Course
			总学时 Tot hrs.	实验 Exp.	上机 Ope- ratio	实践 Prac- tice		
	E-government System Training							
4170632170	毕业实习 Practice for Graduation			3		3		6
4170633170	公共安全与应急管理模拟推演实训B Simulation Training on Public Security and Emergency Management			1		1		7
4170630170	管理技能与创新实践2 Practice of Engineering Cognition II			1		1		7
4170634170	毕业论文 Graduation Thesis			11		17		8
小 计 Subtotal				22.5		30		

## 六、其它要求

### VI Recommendations on Course Studies

《形势与政策》和《心理健康教育》课程为课外必修课程，分别计 2个和1个课外学分。

Situation & Policy (2 credits) and Mental Health Education (1 credit) are the required extracurricular courses.

学院教学责任人：陈先锋

专业培养方案责任人：庄越