

工 程 管 理

一、培养目标

工程管理本科专业培养适应社会主义现代化建设需要，德、智、体、美全面发展，具备由土木工程技术知识及与工程管理相关的管理、经济和法律等基础知识和专业知识组成的系统的、开放性的知识结构，全面获得工程师基本训练，具备较强的专业综合素质、技能与能力，具备良好的实践能力与一定的创新能力，具备健康的个性和良好的社会适应能力，基本符合土木工程领域工程管理类专业人员国家执业资格要求，能够在国内外土木工程及其他工程领域从事全过程工程管理的高级专门人才。

二、基本规格要求

工程管理本科专业的毕业生能够在国内外土木工程及其他工程领域从事全过程工程管理、工程咨询服务、专业行政管理、学术研究、专业教育与培训等方面工作。

工程管理本科专业学制四年，授予工学学位。

工程管理专业的毕业生应达到下列要求：

1. 素质要求

具备良好的政治思想素质、科学的世界观和正确的人生观、高尚的道德品质，遵纪守法，诚实守信；具备科学精神、基本的科学素养与人文素养，具备求真务实的科学态度以及脚踏实地的实干精神，具备较强的创新精神、创新意识；具备良好的职业责任感、社会责任感、公共意识、环境保护意识；具备健康的个性、优良的团队意识；具备健康的体魄，达到大学生体育锻炼标准。

2. 知识结构

具备基本的人文社会科学知识，熟悉哲学、政治学、经济学、社会学、法学、历史学、心理学等方面的基本知识，了解文学、艺术等方面的基础知识；具有较为坚实的应用数学、信息技术应用基础，了解信息科学、环境科学的基本知识，了解当代科学技术发展的主要方面和应用前景，了解国内外工程管理领域的理论与实践的最新发展动态与趋势，了解相关学科的一般知识；掌握土木工程技术的基本知识；掌握与工程管理相关的管理理论和方法、相关的经济理论和方法与相关的法学理论和方法及相关的法律、法规，并对其中的若干方面有较深入的修习；熟练掌握一门外国语。

3. 能力结构

具备综合运用与工程管理相关的技术、管理、经济、法律方面的理论、知识、技术和方法进行土木工程及其他相关工程全过程管理的基本能力，具备发现、分析、研究、解决工程管理理论与实践问题的综合专业能力；具备对工程管理专业外语文献进行读、写、译的基本能力；具备运用计算机辅助解决工程管理专业及相关问题的基本能力；具备初步的科学研究能力，具备进行工程管理专业文献检索的基本能力，具有较强的语言与文字表达和人际交往与沟通能力；具备基本的创新能力和较强的自主学习能力；具备良好的职业适应能力和社会适应能力。

三、培养特色

本专业培养目的主要是为政府建设主管部门、建筑业企业、房地产开发企业、工程监理、招标代理、造价咨询等工程项目管理咨询公司、建设银行等金融机构及投资公司等单位输送工程经济与管理的专门人才，结合我校土木工程学院强大的工程技术优势和工程管理专业的特点，将土木工程

学科和管理科学与工程学科进行有机结合，培养综合素质高、技术知识扎实、经济与管理业务强的既懂土木工程技术又会管理的国家注册建造师、注册造价工程师、注册监理工程师和项目投融资策划与管理以及从事工程管理研究的专门人才。

四、学制、毕业基本要求及学位授予

1. 本科基本学制 4 年，弹性学习年限 3—6 年，按照学分制度管理。
2. 工程管理专业学生毕业最低学分数为 175 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	27	24	34	37	16	8	29	175

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。满足国家学位授予相关文件的，授予工学学士学位。

五、课程设置及学分分布

（一）通识教育课程〔必修 27+（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	

（二）学门核心（24 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	
GE03005（06）	普通物理 A	6	
GE03007（08）	普通物理实验 A	2	

(三) 学类核心 (34 学分)

编码	课程名称	学分	备注
GE02006	普通化学	2	
CE04034	工程图学	4	
CE04035	计算机图形学	1	
CE04003	理论力学 C	4	
CE04004	材料力学 D	4	
CE04005	结构力学 A	3	
CE04045	结构力学 B	2	
CE04036	土木工程概论	1	
CE04009	土木工程材料	3	
CE04037	土木工程测量	3	
CE04046	工程管理概论	1	
CE04038	工程地质	2	
CE04039	工程项目经济与管理	2	
GE02009	电工技术	2	

(四) 专业核心 (37 学分) 必修

编码	课程名称	学分	备注
CE05068	土力学	3	
CE05016	会计学原理	3	
CE05018	管理学原理	3	
CE05075	建筑学原理	3	
CE05034	混凝土结构设计原理	3	
CE05036	基础工程	3	
CE05076	工程施工技术	4	
CE05010	运筹学	3	
CE05078	施工组织学	3	
CE05079	工程项目管理	3	
CE05012	工程造价	3	
CE05077	投融资经济	3	

(五) 专业选修课 (16 学分)

编码	课程名称	学分	备注
CE06152	工程财务管理	3	必选
CE06153	管理信息化及 BIM 技术	3	必选
CE06154	建设法规	2	必选
CE06155	工程管理学科前沿讲座	1	
CE06156	经济法	2	可在通识课中选, 并作为通识课学分

续表			
编码	课程名称	学分	备注
CE06157	统计学	2	可在通识课中选，并作为通识课学分
CE06158	管理应用文写作	2	
CE06159	建筑设备	2	
CE06160	房地产开发与经营	3	房地产管理
CE06161	物业管理	2	房地产管理
CE06162	招标投标与合同管理	2	房地产管理，项目管理
CE06019	工程环境与安全	2	项目管理
CE06027	国际工程承包管理（双语）	2	项目管理
CE06020	工程事故原因与对策	2	施工管理
CE06163	土木工程试验与检测	3	施工管理

注：在读期间参加学科竞赛、SIT、公开发表学术论文、获专利或软件著作权以及其他经学院教学指导委员会认定的科技实践活动或成果，可替代专业选修课，但最高不超过 3 个学分。

（六）集中实践（29 学分）

编码	课程名称	学分	备注
GE01040	军训、军事与国防、入学教育		
GE09030	中文写作实训	1	
CE10035	工程测量实习	2	
CE10052	工程地质实习	1	
CE10075	建筑学原理课程设计	1	
CE10029	混凝土结构设计原理课程设计	1	
CE10024	基础工程课程设计	1	
CE10088	投融资经济课程设计	1	
CE10089	施工组织学课程设计	1	
CE10090	工程造价课程设计	2	
CE10091	项目管理课程设计	1	
CE10008	认识实习	1	
CE10061	生产实习	2	
CE10072	毕业实习	1	
CE10092	毕业设计（论文）	13	

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）
1	邓铁军	教授	博士	建筑施工与经济管理，工程项目管理	工程项目管理，施工组织学
2	卜良桃	教授	博士	工程结构加固技术，建筑施工	土木工程施工技术，施工组织学

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)
3	陈大川	教授	博士	结构加固改造理论与技术， 工程项目管理	建设法规，工程项目管理
4	邹小伟	教授	博士	风险管理	工程项目管理，国际工程承包管理
5	仇一颗	副教授	博士	工程管理，工程经济	投融资经济，工程信息管理及常用软件
6	曾令宏	副教授	博士	工程加固，工程项目管理， 工程造价	工程事故原因与对策，工程造价
7	吴红华	副教授	硕士	工程项目管理，工程造价	招标投标与合同管理，投融资经济
8	姜早龙	副教授	博士	工程管理与房地产经营管理	工程财务管理，房地产经营管理
9	曾裕林	讲师	博士	工程加固，工程项目管理	工程造价，工程事故原因与对策
10	王 家	讲师	博士	工程全寿命管理	运筹学，国际工程承包管理
11	杨亚频	工程师	博士	工程项目管理	运筹学，工程环境与安全

七、专业责任教授

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)
1	邓铁军	教授	博士	建筑施工与经济管理，工程 项目管理	工程项目管理，投融资经济，工程造价，工 程财务管理

Construction Management

I . Objective

To educate students to become executive project managers, the students have to meet the basic requirements of national chartered project manager and are qualified for the life cycle management of domestic and overseas projects in civil engineering and related fields. The students also should meet the needs posed by social modernization drive. The students are expected to have a systematic and open knowledge background in civil engineering technology, management, economics and laws related with project management, and have comprehensive and basic training for engineer. Besides, the students are expected to build themselves with pleasant personality and good social adaptability, favorable ability in practice and innovation.

II . Basic requirements

The graduates of the program are expected to be capable of the job positions including life cycle management, engineering consultancy services, administrative management, academic research, specialized education and training in civil engineering and related fields, domestically and overseas.

Normal period for the program is 4 years, and the qualified graduates are conferred with the degree of Bachelor in Engineering.

The graduates of the program are expected to meet the following requirements:

1. Quality requirements

The students are expected to build themselves with good political and ideological qualities, scientific world view and positive outlook on life, noble moral characters, honesty and the practice of observing laws and regulations; with firm faith in science, basic literacy in science and humanities, scientific attitude towards truth and work style in a spirit of steady hard work, and strong innovation awareness; with enormous sense of professional responsibility and social responsibility, and strong awareness of participation in public affairs and environmental protection; with pleasant personality and great sense of team spirit; with good physical health which meets the national standards for undergraduates.

2. Knowledge framework

The graduates are expected to acquaint themselves with fundamental knowledge in the social sciences and the humanities, particularly in philosophy, politics, economics, sociology, laws, history, psychology, literature and arts; to have a solid background in applied mathematics and information technologies, and to get familiarity with fundamentals of information science and environmental science, and the trends and proceedings of theories and practice of project management; to have good grasp of civil engineering related technologies, theories and methods of management related with project management, relevant economic theories and methods, and theories, contents, and methods about relevant laws and regulation rules; and to gain proficiency in one foreign language.

3. Capabilities

The graduates are expected to be capable of accomplishing life cycle management in civil engi-

neering and other relevant projects, by using the knowledge in project management related technology, management, economics and law, and to be capable of discovering, analyzing, researching, and solving the problems in the theories and practice of project management; to be capable of reading, writing and translating the documents in English about project management; to be capable of doing scientific research and searching for necessary document; to be able to communicate (literally and orally) well with other people; to have good sense of innovation and self independent study; to have good professional adaptability and social adaptability.

III. Program features

The graduates of the program are usually employed by the construction related departments of the government, construction companies, real estate development companies, engineering project consultancy companies in charge of project supervision, bidding agency, and cost management, and financial institutions and investment companies such as the bank of construction. By taking the advantage of the pioneering position of college of civil engineering of our university and the characteristics of the major of construction management, the program is good combination of the disciplines of civil engineering and management science. The program is aimed to educate students to be qualified for chartered constructor, chartered cost engineer, chartered supervising engineer, and construction management researchers, who have good grasp of both civil engineering technology and management, and have good capabilities in all-round aspects.

IV. Program period, Basic requirements for graduation, Degree Conferment

1. Normal period of the program is 4 years, and it is flexible with minimum period of 3 years and maximum period of 6 years, and it is managed by the credit system.
2. For graduation, students in Construction Management have to obtain at least 175 credits, which should meet all the following requirements:

Category	Credits required
General Education Courses (Compulsory)	27
General Fundamental Courses	24
Major Fundamental Courses	34
Major Courses (Core)	37
Major Courses (Selective)	16
General Education Courses (Selective)	8
Project and Practice	29
Total	175

3. For graduation, students have to obtain the credits which meet the above requirements, and finish all the other required no-credit courses, and are eligible in morality, intelligence and physical health. To be conferred with Bachelor degree in Engineering, students have to meet the requirement posed by all the relevant regulation documents.

V. Courses and Credits

1. General Education Courses [required 27 + (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	

2. General Fundamental Courses (24 credits)

Code	Courses	Credit(s)	Remarks
GE03025(26)	Advanced Mathematics A(I)	5	
GE03025(26)	Advanced Mathematics A(II)	5	
GE03003	Linear Algebra A	3	
GE03004	Probability and Mathematical Statistics A	3	
GE03005(06)	General Physics A(I)	3	
GE03005(06)	General Physics A(II)	3	
GE03007(08)	General Physics Test A	2	

3. Major Fundamental Courses (34 credits)

Code	Courses	Credit(s)	Remarks
GE02006	General Chemistry	2	
CE04034	Engineering Drawing	4	
CE04035	Computer Graphics	1	
CE04003	Theoretical Mechanics C	4	
CE04004	Mechanics of Materials D	4	
CE04005	Structural Mechanics A	3	
CE04045	Structural Mechanics B	2	
CE04036	Introduction to Civil Engineering	1	
CE04009	Materials in Civil Engineering	3	
CE04037	Surveying in Civil Engineering	3	
CE04046	Introduction to Project Management	1	
CE04038	Engineering Geology	2	
CE04039	Economics and Management in Engineering Projects	2	
GE02009	Electrical Techniques	2	

4. Major Core Courses (Compulsory) (37 credits)

Code	Course	credit(s)	Remarks
CE05068	Soil Mechanics	3	
CE05016	Principles of Accounting	3	
CE05018	Principles of Management	3	
CE05075	Principles of Architecture	3	
CE05034	Principles of Design of Concrete Structures	3	
CE05036	Foundation Engineering	3	
CE05076	Engineering Construction Technology	4	
CE05010	Operations Research	3	
CE05078	Construction Management Planning	3	
CE05079	Engineering Project Management	3	
CE05012	Cost Management of Engineering Projects	3	
CE05077	Economics in Investment and Financing	3	

5. Selective Courses (16 credits)

Code	Course	Credit(s)	Remarks
CE06152	Financial Management in Engineering	3	Compulsory
CE06153	Management Information Technology and BIM	3	Compulsory
CE06154	Construction Laws and Regulations	2	Compulsory
CE06155	Frontier Lectures on Construction Management	1	
CE06156	Economic Laws	2	Also can be selected as selective general education course
CE06157	Statistics	2	Also can be selected as selective general education course
CE06158	Practical Writing in Construction Management	2	
CE06159	Construction Facilities	2	
CE06160	Development and Management of Real Estate	3	Real Estate Management
CE06161	Estate Management	2	Real Estate Management
CE06162	Bidding and Contract Management	2	Real Estate Management, Project Management
CE06019	Environment and Safety Management of Projects	2	Project Management
CE06027	Contract Management of International Projects (Bilingual Course)	2	Project Management
CE06020	Cause and Treatment of Accidents in Civil Engineering	2	Construction Management
CE06163	Experiments and Testing in Civil Engineering	3	Construction Management

Note: Through participating scientific activities or by demonstrating scientific achievements, students can obtain maximum 3 scientific practice credits upon the scientific activities and achievements are recognized by the college curriculum committee. The scientific activities and achievements could be scientific competitions, SIT, research papers, patents, copyrighted software, equipment/devises, etc. The scientific practice credits can substitute for selective credits.

6. Project and Practice (29 credits)

Code	Course name	Credit(s)	Remarks
GE01040	Military-discipline Training and Education in National Defense		
GE09030	Chinese Writing	1	
CE10035	Practice in Engineering Surveying	2	
CE10052	Practice in Engineering Geology	1	
CE10075	Project Design (Principles of Architecture)	1	
CE10029	Project Design (Principles of design of concrete structures)	1	
CE10024	Project Design (Foundation Engineering)	1	
CE10088	Project Design (Economics in Investment and Financing)	1	
CE10089	Project Design (Construction Management Planning)	1	
CE10090	Project Design (Cost Management of Engineering Projects)	2	
CE10091	Project Design (Engineering Project Management)	1	
CE10008	Cognition Practice	1	
CE10061	On-site Practice	2	
CE10072	Final Year Practice	1	
CE10092	Final Year Project (Thesis)	13	

Ⅵ. Course Instructors

No.	Name	Title	Degree	Major	Courses
1	Deng Tiejun	Professor	Ph. D	Building construction and Economic Management, Project Management	Engineering Project Management, Construction Management Planning
2	Bu Liangtao	Professor	Ph. D	Building Construction, Strengthening Technology of Engineering Structures	Engineering Construction Technology, Construction Management Planning,
3	Chen Dachuan	Professor	Ph. D	Theory and Technology of Structure's Strengthening, Project Management	Engineering Project Management, Construction Laws and Regulations
4	Zou Xiaowei	Professor	Ph. D	Risk Management	Engineering Project Management, Contract Management of International Projects
5	Qiu Yike	Associate Professor	Ph. D	Project Management, Engineering Economics	Economics in Investment and Financing, Information Management of Projects and Related Software
6	Zeng Linghong	Associate Professor	Ph. D	Strengthening of Structures, Project Management, Cost Management of Projects	Cause and Treatment of Accidents in Civil Engineering, Cost Management of Engineering Projects
7	Wu Honghua	Associate Professor	Ph. D	Project Management, Cost Management of Projects	Bidding and Contract Management, Economics in Investment and Financing

Cont

No.	Name	Title	Degree	Major	Courses
8	Jiang Zaolong	Associate Professor	Ph. D	Project Management, Operation and Management of Real Estate	Development and Management of Real Estate, Cost Management of Engineering Projects
9	Zeng Yulin	Lecturer	Ph. D	Strengthening of Structures, Project Management	Cost Management of Engineering Projects, Cause and Treatment of Accidents in Civil Engineering
10	Wang Jia	Lecturer	Ph. D	Life Cycle Management of Projects	Operations Research, Contract Management of International Projects
11	Yang Yapin	Engineer	Ph. D	Project Management	Operations Research, Environment and Safety Management of Projects

VII. Responsible Professors

No.	Name	Title	Degree	Major	Courses
1	Deng Tiejun	Professor	Ph. D	Building Construction and Economic Management, Project Management	Engineering Project Management, Construction Management Planning

(翻译人:王家)