

Undergraduate Talent Training Program for Civil Engineering Major (Version: 2023)

I. Basic Professional Information

School: College of Architecture and Engineering	Specialty Category: Civil Engineering
Discipline Category: Engineering	Professional Code: 081001
Professional Name: Civil Engineering	Degree Awarded: Bachelor of Engineering
Duration: 4 Years	Contact Hours: 3344 hours
Chinese Credit System Credits: 168	Total Workload: 5612 hours
ECTS (European Credit Transfer and Accumulation System) Credits: 200	

Educational History and Program Scale

This program boasts a profound educational heritage and distinctive characteristics in serving the region. Its predecessor was the architectural engineering technology junior college program established by the former Kunming University in 1984. After the university was upgraded to a full-time undergraduate institution in 2004, the program officially began enrolling civil engineering undergraduates in 2007. Through years of intensive construction, the program was successfully selected as a Yunnan Provincial First-Class Undergraduate Program Construction Site under the Ministry of Education's "Double Ten Thousand Plan" in 2019, and ranked third in the province (Grade C) in the 2022 Yunnan Provincial Comprehensive Professional Evaluation. In 2024, the program was further approved for a Master's degree authorization point in "Civil and Hydraulic Engineering" and officially began enrolling master's students, thus building a comprehensive and high-quality bachelor-master integrated engineering talent training system.

Faculty Team and Teaching Resources

The program has a well-structured, high-level faculty team with rich engineering practice experience and sufficient teaching hardware resources. Currently, there are 75 full-time teachers majoring in Civil Engineering, including 14 professors and senior engineers, as well as 23 associate professors, senior engineers and senior experimentalists. Among them, 33 teachers hold doctoral degrees and 36 hold master's degrees. The proportion of dual-qualified teachers exceeds

60%, providing strong intellectual support for cultivating high-quality applied talents. In terms of hardware support, the Civil Engineering Experimental Teaching Center covers a total area of over 10,000 square meters, with a total equipment value of about 30 million RMB. It consists of multiple physical laboratories such as engineering mechanics, civil engineering materials, soil mechanics, engineering surveying, and structural engineering, fully meeting all inspection standards from basic undergraduate teaching to comprehensive and innovative engineering experiments.

Integration of Industry and Education, and Stakeholder Collaboration

The program attaches great importance to the deep integration of industry, academia, and research, as well as engineering ethics education, actively building a collaborative education mechanism with industry stakeholders. Through deep strategic cooperation with large local backbone enterprises such as Yunnan Construction and Investment Holding Group and Kunming Architectural Design Institute, the program has jointly built a batch of high-quality off-campus practical teaching bases and regularly introduced senior corporate engineers to serve as "dual mentors". Thanks to this model, students have repeatedly achieved excellent results in core competitions such as the National University Student Structural Design Competition and the BIM Technology Application Competition; a large number of graduates are employed in core state-owned enterprises and local construction departments in the province, such as Yunnan Construction and Investment and Yunnan Communications Investment. The employment rate continues to remain high, and their engineering practice capabilities have received high praise from employers.

Program Positioning and Training Directions

The program fully aligns with regional economic development needs, closely following the main battlefields of national new urbanization construction and rural revitalization, and implements a student-outcome-based credit training model. The program is divided into two core directions: The **Building Engineering Direction** mainly focuses on housing buildings and ancillary structures, with core courses covering Principles of Concrete and Steel Structure Design, Civil Engineering Construction, and High-rise Building Structure Design; The **Road & Bridge Engineering Direction** mainly focuses on the construction of transportation infrastructure networks, with core courses including Road Survey and Design, Roadbed and Pavement Engineering, Tunnel and Bridge Engineering. Both directions are committed to cultivating versatile engineering and technical talents with solid professional theories, outstanding practical abilities, and broad international perspectives.

II. Training Objectives

Based on the needs of regional economic and social development, and facing the main battlefield of new urbanization and rural revitalization, this program trains versatile applied talents who adapt to the strategic needs of national infrastructure development. Graduates will systematically master the professional knowledge of civil engineering, possess solid engineering practice abilities, and be competent in design, construction, management, and research related to building engineering, roads, and bridges. They will also possess lifelong learning abilities, innovation awareness, organizational management capabilities, and international perspectives. Five years after graduation, students of this program are expected to achieve the following talent training objectives:

Training Objectives	Objective Connotation
Objective 1	Possess good ideological and moral cultivation and scientific and cultural literacy; able to abide by engineering ethics, professional ethics, and behavioral norms in engineering practice, and assume and fulfill social responsibilities.
Objective 2	Competent in technical, management, and research work in engineering design, construction, and operation in civil engineering and related fields; able to solve complex engineering problems in building engineering, road and bridge engineering, and possess the basic knowledge and basic qualities of registered engineers.
Objective 3	Possess good teamwork awareness, communication skills, written expression skills, and a certain international perspective; able to play a backbone role in a team.
Objective 4	Possess lifelong learning ability and a spirit of hard work; able to continuously improve professional and comprehensive qualities to adapt to the business requirements of the civil engineering industry, and possess engineering innovation awareness and competitive ability.

III. Graduation Requirements

Graduation Requirements	Sub-indicators
1. Engineering Knowledge: Ability to apply mathematics, natural sciences, engineering fundamentals, and professional knowledge to solve complex engineering problems in building engineering, roads and bridges, etc.	1.1 Possess and apply mathematical knowledge required for engineering work. 1.2 Possess and apply natural science knowledge required to solve engineering problems.

	1.3 Ability to use engineering fundamentals to provide support for solving complex engineering problems. 1.4 Ability to use civil engineering professional knowledge to solve complex engineering problems in building, road, and bridge engineering.
2. Problem Analysis: Capability to identify, express, and solve complex engineering problems in civil engineering using basic principles of mathematics, natural sciences, and engineering sciences to obtain effective conclusions.	2.1 Ability to identify and express civil engineering technical problems using basic theories of mathematics, chemistry, physics, and surveying. 2.2 Ability to identify and express complex civil engineering problems using basic concepts and theories of engineering sciences. 2.3 Ability to analyze complex civil engineering problems through literature research, and use mathematics, natural sciences, and engineering sciences for reasoning and verification to obtain effective conclusions.
3. Design/Develop Solutions: Ability to propose engineering design and construction solutions for complex civil engineering problems, design structural systems and construction methods meeting specific needs, reflecting innovation awareness and considering social, economic, legal, normative, and environmental factors.	3.1 Master basic methods of civil engineering design and construction; able to obtain effective information, analyze, and propose systematic solutions for complex problems. 3.2 Ability to determine design schemes and construction management models for specific needs; use drawings and calculation books to express design outcomes; demonstrate design rationality and innovation. 3.3 Ability to comprehensively consider social, economic, legal, normative, and environmental safety factors in the design process.
4. Research: Ability to conduct research on complex civil engineering problems based on scientific principles and methods, propose reasonable research plans, analyze and interpret data, and derive valid conclusions through information synthesis.	4.1 Master basic scientific research methods and basic experimental skills, and perform reasonable data analysis and processing. 4.2 Design scientific experimental plans using reasonable principles and skills

	based on professional knowledge; analyze data and interpret results. 4.3 Understand key scientific issues; explain experimental phenomena and derive effective conclusions based on civil engineering principles.
5. Use of Modern Tools: Ability to develop, select, and use appropriate technologies, resources, modern engineering tools, and IT tools for complex engineering problems, including prediction and simulation, understanding their limitations.	5.1 Ability to select and use appropriate technologies, resources, modern tools, IT, and professional software for complex problems. 5.2 Ability to use modern tools to analyze, calculate, and design; simulate and predict technical indicators affecting performance, understanding model limitations.
6. Engineering and Society: Capability to conduct reasonable analysis based on engineering background knowledge, evaluate the impact of professional practices and complex problem solutions on society, health, safety, law, and culture, understanding assumed responsibilities.	6.1 Understand technical standards, codes, intellectual property rights, industrial policies, and laws/regulations related to civil engineering. 6.2 Possess professional capability to analyze and evaluate the impact of project implementation on society, health, safety, law, and culture, understanding civil engineers' responsibilities.
7. Environment and Sustainable Development: Ability to understand and evaluate the impact of engineering practices addressing complex civil engineering problems on society, environment, economy, and sustainable development.	7.1 Recognize and understand the impact of civil engineering project implementation on the environment and social sustainable development. 7.2 Ability to analyze and evaluate the impact of engineering practices on the natural environment and sustainable development.
8. Professional Norms: Love the motherland, possess physical and mental health, humanities and social science literacy, and social responsibility; understand and abide by engineering ethics and norms, demonstrating responsibility, hard work, contributing to the country, and serving society.	8.1 Possess a scientific worldview, outlook on life, and values; possess good ideological and moral qualities. 8.2 Possess good physical and mental health, humanities and social science literacy, and a sound personality. 8.3 Understand engineers' social responsibilities; abide by professional

	ethics and norms, and fulfill responsibilities in practice.
9. Individual and Team: Possess a good team spirit; ability to take on roles as individuals, team members, and leaders in multidisciplinary teams when addressing complex civil engineering problems.	9.1 Accurately grasp one's role in a multidisciplinary team, fulfill duties, and proactively cooperate with other members. 9.2 Ability to organize and coordinate team members and coordinate relationships with personnel from other disciplines to jointly solve problems.
10. Communication: Ability to effectively communicate and exchange views with industry peers and the public on complex problems, including writing reports, making presentations, and possessing an international perspective for cross-cultural communication.	10.1 Ability to effectively communicate with peers and the public, including writing project reports and design documents clearly. 10.2 Possess good civil engineering professional foreign language skills, understand international status, and communicate effectively cross-culturally.
11. Project Management: Understand engineering project management principles and basic economic decision-making methods, applying them to multidisciplinary civil engineering practices.	11.1 Understand the importance of project management; apply economic analysis and decision-making methods to practice. 11.2 Ability to carry out preliminary engineering design using engineering knowledge from multidisciplinary perspectives (engineering, management, economics).
12. Lifelong Learning: Possess self-directed and lifelong learning awareness, with the ability to continuously learn and adapt to the development of the civil engineering industry and society.	12.1 Recognize the necessity of continuous self-learning and lifelong learning awareness. 12.2 Achieve certain results through self-learning; possess the ability to adapt to industry and social development.

IV. Correlation Matrix of Training Objectives and Graduation Requirements

Graduation Requirements	Objective	Objective	Objective	Objective
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	1	2	3	4
1: Engineering Knowledge		▲		
2: Problem Analysis		▲		
3: Design/Develop Solutions	▲	▲		▲
4: Research		▲		
5: Use of Modern Tools		▲		▲
6: Engineering and Society	▲	▲		
7: Environment and Sustainable Development	▲			
8: Professional Norms	▲			
9: Individual and Team			▲	
10: Communication			▲	
11: Project Management		▲		
12: Lifelong Learning				▲

Note: Insert '▲' in the intersecting cells of the corresponding graduation requirements and training objectives.

V. Matrix of Correlation between Graduation Requirements and Courses

No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
1	Ideological, Moral and Rule of Law																				L					H		M			
2	An Overview of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era																				H	M							L		
3	Outline of Modern Chinese History																				H	M								L	
4	Basic Principles of Marxism																				H	M								L	
5	Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics																				H	M								L	
6	Current Affairs and Policies																M					H							L		
7	Introduction to the Community of the Chinese Nation																				H	M								L	
8	National Security Education																M					H							L		
9	College English																								M		H			M	
10	Fundamentals of Information Science and Artificial Intelligence			H			M										L														
11	College Sports																					H			M	M					
12	Mental Health Education for College Students																					H			M						
13	Innovation and Entrepreneurship Education, Career Planning, and Employment Guidance																	M							H					L	

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No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
14	Military Theory and Military Training																				L	H		M							
15	College Chinese																				M	H							L		
16	Advanced Mathematics B (1)	H				M						L																	H		
17	Introduction to Civil Engineering														H				M							M					
18	Inorganic and Analytical Chemistry		H				L																								
19	Advanced Mathematics B (2)	H				M						L																	H		
20	College Physics (Mechanics + Thermodynamics)		H				M							L																	
21	Linear Algebra B	H				M						L																	H		
22	Descriptive Geometry									H					M											M					
23	Theoretical Mechanics			H			L			M																					
24	Probability Theory and Mathematical Statistics C	H				M						L																			
25	Civil Engineering Drawing									H						M							L								
26	Engineering Materials			H								M							L												
27	Mechanics of Materials				H			L			M																				
28	Engineering Surveying			M									H			M															
29	Soil Mechanics			M			M	H													L										

No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
30	Structural Mechanics A				H					H													M								
31	Building Architecture								M	H								L													
32	Fluid Mechanics			H				M			L						M														
33	★ Principles of Concrete Structure Design			M					M				H																		
34	★ Principles of Steel Structure Design			M				M	H																						
35	★ Concrete Structure Design			M					M				H																		
36	★ Steel Structure Design						H	M		M																					
37	★ Seismic Design of Building Structures and Smart Disaster Prevention (EEE)		H	M						M								L													
38	★ High-rise Building Structure Design			H					M							L						M									
39	★ Civil Engineering Construction Technology and Organization				M				H								M														
40	★ Road Survey and Design				H			L	M								M														
41	★ Roadbed and Pavement Engineering				H				H											M											
42	★ Tunnel Engineering				H			L	M								M														
43	★ Bridge Engineering				M			M		H													L								

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No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-
44	Computer Programming		H												M													M			
45	Engineering Geology and Hydrogeology		H				M												L												
46	Engineering Ethics										H						M				M										
47	Engineering Environmental Science											L							M	H											
48	Engineering Economics									M																		H	M		
49	Foundation Engineering				M		M	H													L										
50	Structural Mechanics B				H					H												M									
51	Engineering Load and Structural Design Methods			H				M								L															
52	Foundation Pit Support				H			L	M																						
53	Building Engineering Measurement and Valuation				H						M																	M			
54	Prefabricated Building Construction Technology						M		H						M																
55	Engineering Structure Testing											H	M												L						
56	Smart Construction (EEE)								H							M	M														
57	Advanced Comprehensive Knowledge of Civil and Hydraulic Engineering	H				M								M																	
58	Smart Detection of Engineering Structures				H				H				M																		

No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
59	Engineering Project Management										M							H									M				
60	Engineering Supervision Theory						M			H							L														
61	Construction Regulations										M						H	M					L								
62	Green Building and Sustainable Development																	H						M			L				
63	Professional English for Civil Engineering							M															M			H					
64	Hydrology of Bridge and Culvert				H			M									L														
65	Highway Engineering Measurement and Valuation				H						M																	M			
66	Seismic and Wind Resistance of Bridges			H			M										L														
67	Smart Bridges								H							M	L														
68	New Concepts in Highway Survey and Design				H												M												L		
69	Labor																				M		H	M							
70	Thematic Practice of Core Socialist Values																				H			M		M					
71	Inorganic and Analytical Chemistry Laboratory											H	M										L								
72	Structural Model Making		H											M					L						L						
73	Engineering Structure Testing Practical Training											H	M												L						
74	College Physics Laboratory											H	M										L								

Undergraduate Talent Training Program

No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
75	Engineering Geology and Hydrogeology Practical Training		H				M												L												
76	Engineering Materials Laboratory			L								M	H																		
77	Engineering Surveying Practical Training			M									H			M								L							
78	Mechanics of Materials Laboratory											H	M			L															
79	Soil Mechanics Laboratory											H		M										L							
80	Fluid Mechanics Laboratory		M					L						H									L								
81	Building Architecture Course Design			H					M				M																		
82	Foundation Engineering Course Design						M			H							L														
83	Civil Engineering Construction Technology and Organization Course Design				M					H							M														
84	Building Engineering Measurement and Valuation Course Design				L						M																	H			
85	Highway Engineering Measurement and Valuation Course Design				L						M																	H			
86	Construction Drawing Interpretation															H						M	L								
87	Steel Structure Course Design						H			M						M															
88	Concrete Structure Design Course Design			M					M				H																		

No.	Course Name	Req 1				Req 2			Req 3			Req 4			Req 5		Req 6		Req 7		Req 8			Req 9		Req 10		Req 11		Req 12	
		1-1	1-2	1-3	1-4	2-1	2-2	2-3	3-1	3-2	3-3	4-1	4-2	4-3	5-1	5-2	6-1	6-2	7-1	7-2	8-1	8-2	8-3	9-1	9-2	10-1	10-2	11-1	11-2	12-1	12-2
89	BIM Software Learning				H										M													M			
90	Application of Architectural Structure Design Software		L							M					H						M										
91	Engineering Drawing									M					L								L								
92	Familiarization Internship		H												M							M					L				
93	Production Internship																H					M		M	M					L	
94	Graduation Internship																H					M		M	M					L	
95	Graduation Project (Thesis)								H						M			M									M				L
96	Road Survey Course Design									H					M					L						M					
97	Roadbed and Pavement Engineering Course Design									H					M							L									
98	Bridge Engineering Course Design						H			H													L								
99	Application of Road and Bridge Software									H					M											M					
Indicator Coverage (Course Count)		5	10	17	19	9	14	11	18	21	8	13	13	3	9	11	20	10	3	6	10	13	15	11	8	11	3	6	2	9	11
		51				34			47			29			20		30		9		38			19		14		8		20	

Note: 1. ★ denotes professional core courses.

2. H (High), M (Medium), and L (Low) indicate the degree of correlation between the course and the graduation requirement sub-indicators.

VI. Capability Modules and Supporting Courses

(I) Capability Module Names

1. General Skills and Humanities & Social Sciences Module;
2. Mathematics and Natural Sciences Module;
3. Engineering Graphics and BIM Module;
4. Engineering Mechanics and Calculation Module;
5. Geotechnical and Foundation Engineering Module;
6. Engineering Materials and Structural Design Module;
7. Smart Construction and Engineering Management Module.

(II) Supporting Courses

1. Capability Modules and Supporting Courses for Civil Engineering of Kunming University (Building Engineering Direction)

Capability Module Name	Compulsory Courses (incl. Theory, Lab, Concentrated Practice)	Elective Courses (Extension Elective / General Elective)
1. General Skills and Humanities & Social Sciences Module	Ideological, Moral and Rule of Law, An Overview of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, Outline of Modern Chinese History, Basic Principles of Marxism, Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics, Current Affairs and Policies, Introduction to the Community of the Chinese Nation, National Security Education, College English, College Sports, Mental Health Education for College Students, Innovation and Entrepreneurship Education, Career Planning and Employment Guidance, Military Theory and Military Training, Labor, Thematic Practice of Core Socialist Values	College Chinese, General Classes, Innovation & Entrepreneurship Classes, Public Art Classes, Sports & Health Classes, Second Classroom, Innovation & Entrepreneurship Practical Credits, Engineering Ethics, Green Building and Sustainable Development, Engineering Environmental Science, Professional English for Civil Engineering
2. Mathematics and Natural Sciences Module	Advanced Mathematics B (1), Advanced Mathematics B (2), Linear Algebra B, Probability Theory and Mathematical Statistics C, College Physics (Mechanics + Thermodynamics), College Physics Laboratory, Inorganic and Analytical Chemistry, Inorganic and Analytical Chemistry Laboratory, Fundamentals of Information Science and Artificial Intelligence	
3. Engineering Graphics and BIM Module	Descriptive Geometry, Civil Engineering Drawing, Construction Drawing Interpretation, BIM Software Learning, Engineering Drawing, Application of Architectural Structure Design Software	Computer Programming
4. Engineering Mechanics and Calculation Module	Theoretical Mechanics, Mechanics of Materials, Mechanics of Materials Laboratory, Structural Mechanics A, Fluid Mechanics, Fluid Mechanics Laboratory	Structural Mechanics B

Capability Module Name	Compulsory Courses (incl. Theory, Lab, Concentrated Practice)	Elective Courses (Extension Elective / General Elective)
5. Geotechnical and Foundation Engineering Module	Soil Mechanics, Soil Mechanics Laboratory, Engineering Geology and Hydrogeology Practical Training, Foundation Engineering Course Design	Engineering Geology and Hydrogeology, Foundation Engineering, Foundation Pit Support
6. Engineering Materials and Structural Design Module	Building Architecture, Building Architecture Course Design, ★ Concrete Structure Design, Concrete Structure Design Course Design, ★ Steel Structure Design, Steel Structure Course Design, ★ Seismic Design of Building Structures and Smart Disaster Prevention (EEE), ★ High-rise Building Structure Design	Engineering Load and Structural Design Methods, Engineering Structure Testing, Advanced Comprehensive Knowledge of Civil and Hydraulic Engineering, Smart Detection of Engineering Structures
7. Smart Construction and Engineering Management Module	Engineering Surveying, Engineering Surveying Practical Training, Building Engineering Measurement and Valuation Course Design, ★ Civil Engineering Construction Technology and Organization, Civil Engineering Construction Technology and Organization Course Design, Familiarization Internship, Production Internship, Graduation Internship, Graduation Project (Thesis)	Engineering Economics, Engineering Project Management, Engineering Supervision Theory, Construction Regulations, Building Engineering Measurement and Valuation, Prefabricated Building Construction Technology, Smart Construction (EEE)
Credits	China: 152	16
	Europe (ECTS): 184	16
Hours	5192	420
Total Hours:5612 hours, Total Credits: China 168 credits, Europe200 credits		

2. Capability Modules and Supporting Courses for Civil Engineering of Kunming University (Road & Bridge Engineering Direction)

Capability Module Name	Compulsory Courses (incl. Theory, Lab, Concentrated Practice)	Elective Courses (Extension Elective / General Elective)
1. General Skills and Humanities & Social Sciences Module	Ideological, Moral and Rule of Law, An Overview of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, Outline of Modern Chinese History, Basic Principles of Marxism, Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics, Current Affairs and Policies, Introduction to the Community of the Chinese Nation, National Security Education, College English, College Sports, Mental Health Education for College Students, Innovation and Entrepreneurship Education, Career Development and Employment & Entrepreneurship Guidance, Military Theory and Military Training, Labor, Thematic Practice of Core Socialist Values	College Chinese, General Classes, Innovation & Entrepreneurship Classes, Public Art Classes, Sports & Health Classes, Second Classroom, Innovation & Entrepreneurship Practical Credits, Engineering Ethics, Engineering Environmental Science, Professional English for Civil Engineering
2. Mathematics and Natural Sciences Module	Advanced Mathematics B (1), Advanced Mathematics B (2), Linear Algebra B, Probability Theory and Mathematical Statistics C, College Physics (Mechanics + Thermodynamics), College Physics Laboratory, Inorganic and Analytical Chemistry, Inorganic and Analytical Chemistry Laboratory, Fundamentals of Information Science and Artificial Intelligence	
3. Engineering Graphics and BIM Module	Descriptive Geometry, Civil Engineering Drawing, Construction Drawing Interpretation, BIM Software Learning, Engineering Drawing, Application of Road and Bridge Software	Computer Programming
4. Engineering Mechanics and Calculation	Theoretical Mechanics, Mechanics of Materials, Mechanics of Materials Laboratory, Structural	Structural Mechanics B

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Capability Module Name	Compulsory Courses (incl. Theory, Lab, Concentrated Practice)	Elective Courses (Extension Elective / General Elective)
Module	Mechanics A, Fluid Mechanics, Fluid Mechanics Laboratory	
5. Geotechnical and Foundation Engineering Module	Soil Mechanics, Soil Mechanics Laboratory, Engineering Geology and Hydrogeology Practical Training, Foundation Engineering Course Design	Engineering Geology and Hydrogeology, Foundation Engineering, Hydrology of Bridge and Culvert
6. Engineering Materials and Structural Design Module	Introduction to Civil Engineering, Engineering Materials, Engineering Materials Laboratory, Structural Model Making, Engineering Structure Testing Practical Training, ★ Principles of Concrete Structure Design, ★ Principles of Steel Structure Design, ★ Road Survey and Design, Road Survey Course Design, ★ Roadbed and Pavement Engineering, Roadbed and Pavement Engineering Course Design, ★ Tunnel Engineering, ★ Bridge Engineering, Bridge Engineering Course Design	Engineering Load and Structural Design Methods, Engineering Structure Testing, Advanced Comprehensive Knowledge of Civil and Hydraulic Engineering, Smart Detection of Engineering Structures, Seismic and Wind Resistance of Bridges, Smart Bridges (EEE), New Concepts in Highway Survey and Design
7. Smart Construction and Engineering Management Module	Engineering Surveying, Engineering Surveying Practical Training, Highway Engineering Measurement and Valuation Course Design, ★ Civil Engineering Construction Technology and Organization, Civil Engineering Construction Technology and Organization Course Design, Familiarization Internship, Production Internship, Graduation Internship, Graduation Project (Thesis)	Engineering Economics, Engineering Project Management, Engineering Supervision Theory, Construction Regulations, Highway Engineering Measurement and Valuation
Credits	China: 153	15
	Europe (ECTS): 185	15
Hours	5222	390
Total Hours: 5612 hours, Total Credits: China 168 credits, Europe 200 credits		

VII. Core Disciplines and Professional Core Courses

(I) Core Disciplines

Mechanics, Civil Engineering

(II) Professional Core Courses

Building Engineering Direction: Principles of Concrete Structure Design, Principles of Steel Structure Design, Concrete Structure Design, Steel Structure Design, Civil Engineering Construction, Seismic Design of Building Structures and Smart Disaster Prevention, High-rise Building Structure Design.

Road & Bridge Engineering Direction: Road Survey and Design, Principles of Concrete Structure Design, Principles of Steel Structure Design, Civil Engineering Construction, Roadbed and Pavement Engineering, Tunnel Engineering, Bridge Engineering.

VIII. Duration of Study and Graduation

(I) Duration of Study

The standard duration of study is 4 years, with an allowable study period ranging from 3 to 8 years.

(II) Graduation Credit Requirements

1. Graduation Credit Requirements for Civil Engineering Major of Kunming University (Building Engineering Direction)

Category		General Education Compulsory Courses	General Education Elective Courses	Discipline-based Foundation Courses	Professional Compulsory Courses	Extension Elective Courses	Practical Education	Total
China	Credits	46.5	12	50	21	4	34.5	168
	Credit Ratio	27.7%	7.1%	29.8%	12.5%	2.4%	20.5%	100.0%
Europe (ECTS)	Credits	53.5	12	50	21	4	59.5	200
	Credit Ratio	26.8%	6.0%	25.0%	10.5%	2.0%	29.8%	100.0%
Hours		1396	300	1500	630	120	1666	5612
Hour Ratio		24.9%	5.3%	26.7%	11.2%	2.1%	29.7%	100.0%

2. Graduation Credit Requirements for Civil Engineering Major of Kunming University (Road & Bridge Engineering Direction)

Category		General Education Compulsory Courses	General Education Elective Courses	Discipline-based Foundation Courses	Professional Compulsory Courses	Extension Elective Courses	Practical Education	Total
China	Credits	46.5	12	50	22	3	34.5	168
	Credit Ratio	27.7%	7.1%	29.8%	13.1%	1.8%	20.5%	100.0%
Europe (ECTS)	Credits	53.5	12	50	22	3	59.5	200
	Credit Ratio	26.8%	6.0%	25.0%	11.0%	1.5%	29.8%	100.0%
Hours		1396	300	1500	660	90	1666	5612
Hour Ratio		24.9%	5.3%	26.7%	11.8%	1.6%	29.7%	100.0%

(III) Degree Awarded

Graduates who meet the requirements specified in the *"Regulations on the Management of Undergraduate Student Learning of Kunming University"* are awarded a Bachelor of Engineering degree.

IX. Proportion of Hours and Credits

1. Proportion of Hours and Credits for Civil Engineering Major of Kunming University (Building Engineering Direction)

Course Category			Theory			Practice			Subtotal			Total					
			Credits		Hours	Credits		Hours	Credits		Hours	China		Europe		Overall	
			China	Europe		China	Europe		China	Europe		Credits	Ratio	Credits	Ratio	Hours	Ratio
General Education Platform	General Education Courses	Compulsory Courses	41.5	44.5	1068	5	9	328	46.5	53.5	1396	60.5	36.0%	67.5	33.8%	1752	31.2%
		Elective Courses	10	10	250	2	2	50	12	12	300						
	Practical Courses		0	0	0	2	2	56	2	2	56						
Professional Education Platform	Discipline-based Foundation Courses	Compulsory Courses	50	50	1500	0	0	0	50	50	1500	50	29.8%	50	25.0%	1500	26.7%
	Professional Education Courses	Compulsory Courses	21	21	630	0	0	0	21	21	630	57.5	34.2%	82.5	42.2%	2360	42.1%
		Elective Courses	4	4	120	0	0	0	4	4	120						
		Practical Courses	0	0	0	32.5	57.5	1610	32.5	57.5	1610						
Total			126.5	129.5	3568	41.5	70.5	2044	168	200	5612						
Proportion of Total Hours/Credits			75.3%	64.8%	63.6%	24.7%	35.3%	36.4%	100%	100%	100%						

Total Hours: 5612 hours, Total Credits: China 168 credits, Europe 200 credits

2. Proportion of Hours and Credits for Civil Engineering Major of Kunming University (Road & Bridge Engineering Direction)

Course Category			Theory			Practice			Subtotal			Total					
			Credits		Hours	Credits		Hours	Credits		Hours	China		Europe		Overall	
			China	Europe		China	Europe		China	Europe		Credits	Ratio	Credits	Ratio	Hours	Ratio

Undergraduate Talent Training Program

Course Category			Theory			Practice			Subtotal			Total					
			Credits		Hours	Credits		Hours	Credits		Hours	China		Europe		Overall	
			China	Europe		China	Europe		China	Europe		Credits	Ratio	Credits	Ratio	Hours	Ratio
General Education Platform	General Education Courses	Compulsory Courses	41.5	44.5	1068	5	9	328	46.5	53.5	1396	60.5	36.0%	67.5	33.8%	1752	31.2%
		Elective Courses	10	10	250	2	2	50	12	12	300						
	Practical Courses		0	0	0	2	2	56	2	2	56						
Professional Education Platform	Discipline-based Foundation Courses	Compulsory Courses	50	50	1500	0	0	0	50	50	1500	50	29.8%	50	25.0%	1500	26.7%
	Professional Education Courses	Compulsory Courses	22	22	660	0	0	0	22	22	660	57.5	34.2%	82.5	42.2%	2360	42.1%
		Elective Courses	3	3	90	0	0	0	3	3	90						
		Practical Courses	0	0	0	32.5	57.5	1610	32.5	57.5	1610						
Total			126.5	129.5	3568	41.5	70.5	2044	168	200	5612						
Proportion of Total Hours/Credits			75.3%	64.8%	63.6%	24.7%	35.3%	36.4%	100%	100%	100%						

Total Hours: 5612 hours, Total Credits: China 168 credits, Europe 200 credits

X. Teaching Schedule

(I) General Education Course Module

Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
	China	Europe	China		Europe			Lecture	Lab	Self-study				
			Lecture	Lab	Lecture	Lab								
General Education Compulsory Courses														

Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
	China	Europe	China		Europe			Lecture	Lab	Self-study				
			Lecture	Lab	Lecture	Lab								
Ideological, Moral and Rule of Law	3	3	2.5	0.5	2.5	0.5	75	40	8	27	4.7	1-16	1	Exam
An Overview of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era	3	3	2.5	0.5	2.5	0.5	75	40	8	27	2.3	1-16	1-2	Exam
Introduction to the Community of the Chinese Nation	2	2	2	0	2	0	50	32	0	18	1.6	1-16	1-2	Exam
National Security Education	1	1	1	0	1	0	25	16	0	9	1.6	1-8	1-2	Assess
Fundamentals of Information Science and Artificial Intelligence	2	3	1	1	2	1	78	16	32	30	2.4	1-16	1-2	Assess
Outline of Modern Chinese History	3	3	3	0	3	0	75	48	0	27	4.7	1-16	2	Exam
Basic Principles of Marxism	3	3	2.5	0.5	2.5	0.5	75	40	8	27	4.7	1-16	3	Exam
Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	3	3	2.5	0.5	2.5	0.5	75	40	8	27	4.7	1-16	4	Exam
Current Affairs and Policies	2	4	2	0	4	0	100	64	0	36	0.8	1-16	1-8	Exam
College English	12	12	12	0	12	0	300	192	0	108	3.1	1-16	1-6	Exam
College Sports	4	4	4	0	4	0	128	128	0	0	1.3	1-16	1-6	Assess
Mental Health Education for College Students	2	2	2	0	2	0	50	32	0	18	0.5	1-16	1-6	Assess
Career Development and Employment & Entrepreneurship Guidance	2.5	2.5	2.5	0	2.5	0	70	32	0	38	0.7	1-16	2-7	Assess
Military Theory	2	2	2	0	2	0	52	36	0	16	3.3	1-18	1	Assess
Military Skills (Training)	2	6	0	2	0	6	168	0	168	0			1	Assess
Subtotal	46.5	53.5	41.5	5	44.5	9	1396	756	232	408				

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Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
	China	Europe	China		Europe			Lecture	Lab	Self-study				
			Lecture	Lab	Lecture	Lab								
General Education Elective Courses														
General Classes	2	2	2	0	2	0	50	32	0	18	0.5	1-16	1-6	Assess
Innovation & Entrepreneurship Classes	2	2	2	0	2	0	50	32	0	18	0.5	1-16	1-6	Assess
Public Art Classes	2	2	2	0	2	0	50	32	0	18	0.5	1-16	1-6	Assess
Sports & Health Classes	2	2	2	0	2	0	50	32	0	18	0.5	1-16	1-6	Assess
College Chinese (Compulsory)	2	2	2	0	2	0	50	32	0	18	0.5	1-16	1-6	Assess
Second Classroom	2	2	0	2	0	2	50	0	32	18				
Subtotal	12	12	10	2	10	2	300	160	32	108				

Innovation & Entrepreneurship Practical Credits (2 credits): Students earn corresponding innovation and entrepreneurship practical credits by participating in various levels and types of innovation and entrepreneurship education and teaching activities. During their studies, students must obtain no less than 2 credits of innovation and entrepreneurship practice, which can be used to convert general education elective credits and be included in the overall student transcript according to the "Kunming University Innovation and Entrepreneurship Credit Recognition Standards".

Second Classroom Credits (2 credits): Credit recognition is conducted according to the "Kunming University 'Second Classroom Transcript' Credit Recognition and Implementation Measures" and included in the overall student transcript.

(II) Discipline-based Foundation Course Module

Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
	China	Europe	China		Europe			Lecture	Lab	Self-study				
			Lecture	Lab	Lecture	Lab								
Advanced Mathematics B (1)	6	6	6	0	6	0	180	96	0	84	11.3	1-16	1	Exam
Introduction to Civil Engineering	1	1	1	0	1	0	30	16	0	14	1.9	1-8	1	Assess

Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
	China	Europe	China		Europe									
			Lecture	Lab	Lecture	Lab								
Inorganic and Analytical Chemistry	3	3	3	0	3	0	90	48	0	42	5.6	1-16	2	Exam
Advanced Mathematics B (2)	4	4	4	0	4	0	120	64	0	56	7.5	1-16	2	Exam
College Physics (Mechanics + Thermodynamics)	4	4	4	0	4	0	120	64	0	56	7.5	1-16	2	Exam
Linear Algebra B	2	2	2	0	2	0	60	32	0	28	3.8	1-16	2	Exam
Descriptive Geometry	2	2	2	0	2	0	60	32	0	28	3.8	1-16	2	Exam
Theoretical Mechanics	4	4	4	0	4	0	120	64	0	56	7.5	1-16	2	Exam
Probability Theory and Mathematical Statistics C	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Exam
Civil Engineering Drawing	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Assess
Engineering Materials	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Exam
Mechanics of Materials	4	4	4	0	4	0	120	64	0	56	7.5	1-16	3	Exam
Engineering Surveying	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Exam
Soil Mechanics	2	2	2	0	2	0	60	32	0	28	3.8	1-16	4	Exam
Structural Mechanics A	4	4	4	0	4	0	120	64	0	56	7.5	1-16	4	Exam
Building Architecture	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Assess
Fluid Mechanics	2	2	2	0	2	0	60	32	0	28	3.8	1-16	4	Assess
Subtotal	50	50	50	0	50	0	1500	800	0	700				

(III) Professional Education

1. Professional Compulsory Course Module

Professional Direction	Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
		China	Europe	China		Europe			Lecture	Lab	Self-study				
				Lecture	Lab	Lecture	Lab								
Building Engineering	★ Principles of Concrete Structure Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Exam
	★ Principles of Steel Structure Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Exam
	★ Concrete Structure Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	5	Exam
	★ Steel Structure Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	5	Exam
	★ Seismic Design of Building Structures and Smart Disaster Prevention (EEE)	3	3	3	0	3	0	90	48	0	42	5.6	1-16	6	Exam
	★ High-rise Building Structure Design	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Exam
	★ Civil Engineering Construction Technology and Organization	4	4	4	0	4	0	120	64	0	56	7.5	1-16	6	Exam
	Subtotal	21	21	21	0	21	0	630	336	0	294				
Road & Bridge Engineering	★ Road Survey and Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Exam
	★ Principles of Concrete Structure Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Exam
	★ Principles of Steel Structure Design	3	3	3	0	3	0	90	48	0	42	5.6	1-16	4	Exam
	★ Roadbed and Pavement Engineering	3	3	3	0	3	0	90	48	0	42	5.6	1-16	5	Exam
	★ Tunnel Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Exam
	★ Bridge Engineering	4	4	4	0	4	0	120	64	0	56	7.5	1-16	6	Exam
	★ Civil Engineering Construction Technology and Organization	4	4	4	0	4	0	120	64	0	56	7.5	1-16	6	Exam
	Subtotal	22	22	22	0	22	0	660	352	0	308				

Note: 1. ★ denotes professional core courses. 2. A school-enterprise cooperation model is planned to be established for three courses in the Building Engineering Direction: Concrete Structure Design, Civil Engineering Construction Technology and Organization, and Seismic Design of Building Structures and Smart Disaster Prevention (EEE); similarly, a school-enterprise cooperation model is planned for three courses in the Road & Bridge Engineering Direction: Roadbed and Pavement Engineering, Tunnel Engineering, and Bridge Engineering.

2. Extension Elective Course Module

Professional Direction	Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
		China	Europe	China		Europe			Lecture	Lab	Self-study				
				Lecture	Lab	Lecture	Lab								
Building Engineering	Computer Programming	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Assess
	Engineering Geology and Hydrogeology	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Assess
	Engineering Ethics	1	1	1	0	1	0	30	16	0	14	1.9	1-8	3	Assess
	Engineering Environmental Science	1	1	1	0	1	0	30	16	0	14	1.9	1-8	4	Assess
	Engineering Economics	1	1	1	0	1	0	30	16	0	14	1.9	1-8	5	Assess
	Foundation Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Structural Mechanics B	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Engineering Load and Structural Design Methods	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Foundation Pit Support	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Building Engineering Measurement and Valuation	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Prefabricated Building Construction Technology	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Engineering Structure Testing	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Smart Construction (EEE)	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess

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Professional Direction	Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
		China	Europe	China		Europe			Lecture	Lab	Self-study				
				Lecture	Lab	Lecture	Lab								
	Advanced Comprehensive Knowledge of Civil and Hydraulic Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Smart Detection of Engineering Structures	1	1	1	0	1	0	30	16	0	14	1.9	1-8	7	Assess
	Engineering Project Management	2	2	2	0	2	0	60	32	0	28	3.8	1-8	7	Assess
	Engineering Supervision Theory	2	2	2	0	2	0	60	32	0	28	3.8	1-8	7	Assess
	Construction Regulations	2	2	2	0	2	0	60	32	0	28	3.8	1-16	7	Assess
	Green Building and Sustainable Development	1	1	1	0	1	0	30	16	0	14	1.9	1-8	7	Assess
	Professional English for Civil Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-8	7	Assess
	Subtotal	4	4	4	0	4	0	120	64	0	56				
Road & Bridge Engineering	Computer Programming	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Assess
	Engineering Geology and Hydrogeology	2	2	2	0	2	0	60	32	0	28	3.8	1-16	3	Assess
	Engineering Ethics	1	1	1	0	1	0	30	16	0	14	1.9	1-8	3	Assess
	Engineering Environmental Science	1	1	1	0	1	0	30	16	0	14	1.9	1-8	4	Assess
	Engineering Economics	1	1	1	0	1	0	30	16	0	14	1.9	1-8	5	Assess
	Foundation Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Hydrology of Bridge and Culvert	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Engineering Load and Structural Design Methods	2	2	2	0	2	0	60	32	0	28	3.8	1-16	5	Assess
	Highway Engineering Measurement and Valuation	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Seismic and Wind Resistance of Bridges	3	3	3	0	3	0	90	48	0	42	5.6	1-16	6	Assess

Professional Direction	Course Name	Credits		Credit Allocation				Total Hours	Hour Allocation			Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method
		China	Europe	China		Europe			Lecture	Lab	Self-study				
				Lecture	Lab	Lecture	Lab								
	Engineering Structure Testing	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Advanced Comprehensive Knowledge of Civil and Hydraulic Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-16	6	Assess
	Smart Detection of Engineering Structures	1	1	1	0	1	0	30	16	0	14	1.9	1-8	7	Assess
	Smart Bridges (EEE)	1	1	1	0	1	0	30	16	0	14	1.9	1-8	7	Assess
	New Concepts in Highway Survey and Design	1	1	1	0	1	0	30	16	0	14	1.9	1-8	7	Assess
	Engineering Project Management	2	2	2	0	2	0	60	32	0	28	3.8	1-8	7	Assess
	Engineering Supervision Theory	2	2	2	0	2	0	60	32	0	28	3.8	1-8	7	Assess
	Construction Regulations	2	2	2	0	2	0	60	32	0	28	3.8	1-16	7	Assess
	Professional English for Civil Engineering	2	2	2	0	2	0	60	32	0	28	3.8	1-8	7	Assess
	Subtotal	3	3	3	0	3	0	90	48	0	42				

(IV) . Practical Education Professional Direction

Professional Direction	Course Module	Course Name	Credits		Total Hours	Hour Allocation		Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method	Remarks
			China	Europe		Guided Learning / Contact	Self-study / Independent					
Building Engineering	General Education Practice	Labor	1	1	28	28	0	14	2	Determined	Assess	
		Thematic Practice of Core Socialist Values	1	1	28	16	12	14	2	1-6	Assess	
	Professional Education	Inorganic and Analytical Chemistry Laboratory	1.5	1.5	42	24	18	5.25	8	2	Assess	Dispersed scheduling

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Professional Direction	Course Module	Course Name	Credits		Total Hours	Hour Allocation		Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method	Remarks
			China	Europe		Guided Learning / Contact	Self-study / Independent					
	Practice	Structural Model Making	1	1	28	16	12	28	1	2	Assess	Competition-based Teaching
		Engineering Structure Testing Practical Training	1	2	56	32	24	28	2	6	Assess	
		College Physics Laboratory	1	1	28	16	12	28	1	2	Assess	
		Engineering Geology and Hydrogeology Practical Training	0.5	1	28	16	12	28	1	3	Assess	Dispersed scheduling
		Engineering Materials Laboratory	1	2	56	32	24	28	2	3	Assess	
		Engineering Surveying Practical Training	1	2	56	32	24	28	2	4	Assess	
		Mechanics of Materials Laboratory	1	1	28	16	12	28	1	4	Assess	
		Soil Mechanics Laboratory	1	1	28	16	12	28	1	4	Assess	Dispersed scheduling
		Fluid Mechanics Laboratory	1	1	28	16	12	28	1	4	Assess	Dispersed scheduling
		Building Architecture Course Design	1	2	56	32	24	28	2	4	Assess	
		Foundation Engineering Course Design	0.5	1	28	16	12	28	1	5	Assess	Dispersed scheduling
		Civil Engineering Construction Technology and Organization Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Building Engineering Measurement and Valuation Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Construction Drawing Interpretation	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Steel Structure Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Concrete Structure Design Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling

Professional Direction	Course Module	Course Name	Credits		Total Hours	Hour Allocation		Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method	Remarks
			China	Europe		Guided Learning / Contact	Self-study / Independent					
		BIM Software Learning	1	2	56	32	24	28	2	7	Assess	
		Application of Architectural Structure Design Software	2	4	112	64	48	28	4	7	Assess	
		Engineering Drawing	1	1	28	16	12	Semesters 3-7 Rolling Exam			Enterprise CAD Cert	School-Enterprise Course
		Familiarization Internship	1	2	56	32	24	28	2	2	Assess	
		Production Internship	2	4	112	64	48	28	4	7	Assess	
		Graduation Internship	2	4	112	64	48	28	4	8	Assess	
		Graduation Project (Thesis)	7	14	392	224	168	28	14	7-8	Assess	
		Subtotal	34.5	59.5	1666	964	702	25	67			
Road & Bridge Engineering	General Education Practice	Labor	1	1	28	28	0	14	2	Determined	Assess	
		Thematic Practice of Core Socialist Values	1	1	28	16	12	14	2	1-6	Assess	
	Professional Education Practice	Inorganic and Analytical Chemistry Laboratory	1.5	1.5	42	24	18	5.25	8	2	Assess	Dispersed scheduling
		Structural Model Making	1	1	28	16	12	28	1	2	Assess	Competition-based Teaching
		Engineering Structure Testing Practical Training	1	2	56	32	24	28	2	6	Assess	
		College Physics Laboratory	1	1	28	16	12	28	1	2	Assess	
		Engineering Geology and Hydrogeology Practical Training	0.5	1	28	16	12	28	1	3	Assess	Dispersed scheduling
		Engineering Materials Laboratory	1	2	56	32	24	28	2	3	Assess	

Undergraduate Talent Training Program

Professional Direction	Course Module	Course Name	Credits		Total Hours	Hour Allocation		Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method	Remarks
			China	Europe		Guided Learning / Contact	Self-study / Independent					
		Engineering Surveying Practical Training	1	2	56	32	24	28	2	4	Assess	
		Mechanics of Materials Laboratory	1	1	28	16	12	28	1	4	Assess	
		Soil Mechanics Laboratory	1	1	28	16	12	28	1	4	Assess	Dispersed scheduling
		Fluid Mechanics Laboratory	1	1	28	16	12	28	1	4	Assess	Dispersed scheduling
		Road Survey Course Design	1	2	56	32	24	28	2	4	Assess	
		Foundation Engineering Course Design	0.5	1	28	16	12	28	1	5	Assess	Dispersed scheduling
		Roadbed and Pavement Engineering Course Design	1	2	56	32	24	28	2	5	Assess	Dispersed scheduling
		Civil Engineering Construction Technology and Organization Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Highway Engineering Measurement and Valuation Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Construction Drawing Interpretation	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		Bridge Engineering Course Design	1	2	56	32	24	28	2	6	Assess	Dispersed scheduling
		BIM Software Learning	1	2	56	32	24	28	2	7	Assess	
		Application of Road and Bridge Software	2	4	112	64	48	28	4	7	Assess	
		Engineering Drawing	1	1	28	16	12	Semesters 3-7 Rolling Exam			Enterprise CAD Cert	School-Enterprise Course
		Familiarization Internship	1	2	56	32	24	28	2	2	Assess	
		Production Internship	2	4	112	64	48	28	4	7	Assess	

Professional Direction	Course Module	Course Name	Credits		Total Hours	Hour Allocation		Avg. Weekly Hours	Teaching Weeks	Suggested Semester	Assessment Method	Remarks
			China	Europe		Guided Learning / Contact	Self-study / Independent					
		Graduation Internship	2	4	112	64	48	28	4	8	Assess	
		Graduation Project (Thesis)	7	14	392	224	168	28	14	7-8	Assess	
		Subtotal	34.5	59.5	1666	964	702	25	67			

Program Directors: MAO Dejun, YU Wenzheng

Dean: ZHU Weiwei

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