



Appendix B-1: The Number of Hours and Credits for Each Module in Civil Engineering



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| Module | curriculum | credit | total class hours | Contact hours | Self-study hours | remarks |
|-------------------------|--|--------|-------------------|---------------|------------------|---------|
| Mathematical physics | Advanced Mathematics A (1) | 4.5 | 135 | 72 | 63 | |
| | Advanced Mathematics A (2) | 5 | 150 | 80 | 70 | |
| | Linear Algebra A | 2 | 60 | 32 | 28 | |
| | Probability Theory and mathematical Statistics A | 2.5 | 75 | 40 | 35 | |
| | University Physics (1) | 3 | 90 | 48 | 42 | |
| | University Physics (2) | 3 | 90 | 48 | 42 | |
| | General Chemistry A | 2.5 | 75 | 40 | 35 | |
| | Mathematical Modeling | 1.5 | 45 | 24 | 21 | |
| | University physics Experiment | 2 | 60 | 48 | 12 | |
| Information technology | College students Computer Foundation | 1.5 | 45 | 32 | 13 | |
| | Computer Language | 2.5 | 75 | 48 | 27 | |
| Engineering foundation | Descriptive geometry | 3 | 90 | 48 | 42 | |
| | Civil Engineering Drawing (including CAD) | 1.5 | 45 | 24 | 21 | |
| | Rational Mechanics | 4 | 120 | 64 | 56 | |
| | Mechanics of Materials | 3.5 | 105 | 56 | 49 | |
| | Structural Mechanics (1) | 3 | 90 | 48 | 42 | |
| | Structural Mechanics (2) | 2.5 | 75 | 40 | 35 | |
| | Soil Mechanics | 2.5 | 75 | 40 | 35 | |
| | Hydrodynamics | 2 | 60 | 32 | 28 | |
| | Civil Engineering Materials | 2.5 | 75 | 40 | 35 | |
| | Engineering Survey B | 3 | 90 | 56 | 34 | |
| | Engineering Geology | 2 | 60 | 32 | 28 | |
| | Electrical and Electronic Training A | 2 | 60 | 32 | 28 | |
| | Engineering Geology Internship | 2 | 60 | 32 | 28 | |
| | Measurement Internship | 3 | 90 | 64 | 26 | |
| Goldsmithing Practice A | 2 | 60 | 32 | 28 | | |
| Professional foundation | Foundation Work | 2 | 60 | 32 | 28 | |
| | Principles of Concrete Structure Design | 4 | 120 | 64 | 56 | |
| | Engineering Economy and Building Regulations | 2 | 60 | 32 | 28 | |
| | Introduction to Civil Engineering | 1.5 | 45 | 24 | 21 | |
| | Basic Principles of Steel Structure | 2.5 | 75 | 40 | 35 | |
| | Introduction to Seismic Engineering | 1 | 30 | 16 | 14 | |



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| | Intensive Study | 2.5 | 75 | 32 | 43 | |
|--|---|-----|-----|----|----|--------------|
| Professional applications | Project Management | 1 | 30 | 16 | 14 | |
| | Construction Principles and Methods | 3.5 | 105 | 56 | 49 | |
| | Engineering Structure Load and Reliability Theory | 1.5 | 45 | 24 | 21 | |
| | High-rise Building Structure | 2 | 60 | 32 | 28 | Construction |
| | Building Construction | 2.5 | 75 | 40 | 35 | |
| | Design of Steel Structure | 3 | 90 | 48 | 42 | |
| | Masonry Structure | 2 | 60 | 32 | 28 | |
| | Concrete Structure Design | 3.5 | 105 | 56 | 49 | |
| | Modular Construction | 1.5 | 45 | 24 | 21 | |
| | Construction Project Estimate and Budget | 1.5 | 45 | 24 | 21 | |
| | Construction of Building Works | 2 | 60 | 32 | 28 | |
| | Hydrology of Bridge and Culvert | 1.5 | 45 | 24 | 21 | Road bridge |
| | Road Survey and Design | 2.5 | 75 | 40 | 35 | |
| | Roadbed Pavement Works | 3 | 90 | 48 | 42 | |
| | Bridge Engineering (I) | 3.5 | 105 | 56 | 49 | |
| | Bridge Engineering (II) | 2.5 | 75 | 40 | 35 | |
| | Road and Bridge Construction Technology | 2 | 60 | 32 | 28 | |
| | Road Bridge Project Estimate and Budget | 1.5 | 45 | 24 | 21 | |
| | Traffic Engineering | 1.5 | 45 | 24 | 21 | |
| | Urban rail Transit Network Planning and Line Design | 3 | 90 | 48 | 42 | urban rail |
| | Orbital Engineering | 3 | 90 | 48 | 42 | |
| | Tunnels and Underground Works | 3 | 90 | 48 | 42 | |
| | Railroad Bridge | 2 | 60 | 32 | 28 | |
| Urban Rail Transit Station | 1.5 | 45 | 24 | 21 | | |
| Railroad Bed | 2 | 60 | 32 | 28 | | |
| Urban Rail Project Estimate and Budget | 1.5 | 45 | 24 | 21 | | |
| Road and Railway Engineering Construction Technology | 2 | 60 | 32 | 28 | | |
| Professional practice | Course Design of Architectural Engineering | 2 | 60 | 32 | 28 | Construction |
| | Ribbed Beam Floor Course Design (including masonry) | 2 | 60 | 32 | 28 | |
| | Single Layer Industrial Plant Course Design | 2 | 60 | 32 | 28 | |
| | Steel Structure Course Design | 2 | 60 | 32 | 28 | |



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|--|---|---|-----|-----|-----|--------------------|-------------------|
| | Road survey and Design Course Design | 2 | 60 | 32 | 28 | Road bridge | |
| | Roadbed Pavement Engineering Course Design | 2 | 60 | 32 | 28 | | |
| | Trench Wall Course Design | 2 | 60 | 32 | 28 | | |
| | Bridge Engineering Course Design | 2 | 60 | 32 | 28 | | |
| | | Urban rail Transit Line Course Design | 2 | 60 | 32 | 28 | urban rail |
| | | Orbital Engineering Course Design | 2 | 60 | 32 | 28 | |
| | | Railway Bridge Course Design | 2 | 60 | 32 | 28 | |
| | | Course Design of Tunnel and Underground Engineering | 2 | 60 | 32 | 28 | |
| | | Experiments of Mechanics of Material | 1 | 30 | 12 | 18 | |
| | | Building Materials test | 1 | 30 | 16 | 14 | |
| | | Soil mechanics Experiment | 1 | 30 | 12 | 18 | |
| | | Course Design of Concrete Structure Design Principle | 2 | 60 | 32 | 28 | |
| | | Basic Engineering Course Design | 2 | 60 | 32 | 28 | |
| | | Overview of Budgeting Course Design | 2 | 60 | 32 | 28 | |
| | | Construction Organization Curriculum Design | 2 | 60 | 32 | 28 | |
| | | Graduating Education | 2 | 60 | 32 | 28 | |
| Professional development category | Foundation of Innovation and Entrepreneurship | 1.5 | 45 | 32 | 13 | | |
| | Literature Search and Research Methods | 1 | 30 | 8 | 22 | | |
| | BIM Foundation | 1 | 30 | 24 | 6 | | |
| | New Technology in Civil Engineering | 1 | 30 | 16 | 14 | | |
| | Civil Engineering Structure Test Technology | 1.5 | 45 | 32 | 13 | | |
| | Civil engineering Structure Testing Technology | 1.5 | 45 | 32 | 13 | | |
| Comprehensive Application | Construction Internship | 10 | 300 | 120 | 180 | | |
| | graduation Field work | 4 | 120 | 50 | 70 | | |
| | Graduation comprehensive training | 28 | 840 | 420 | 420 | | |
| Foreign Languages | College English (1) | 3 | 90 | 48 | 42 | | |
| | College English (2) | 3 | 90 | 48 | 42 | | |
| | College English Extension Series (1) | 1.5 | 45 | 24 | 21 | | |
| | College English Extension Series (2) | 1.5 | 45 | 24 | 21 | | |
| | College English Practice (1) | 1.5 | 45 | 32 | 13 | | |



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|---------------------------------------|---|------------|------------|-----------|-----------|--|
| | College English Practice (2) | 1.5 | 45 | 32 | 13 | |
| | special English | 2 | 60 | 32 | 28 | |
| Humanities and social sciences | Ideological Morality and Rule of Law | 3 | 90 | 48 | 42 | |
| | Essentials of Chinese Modern History | 3 | 90 | 48 | 42 | |
| | Basic principles of Marxism | 3 | 90 | 48 | 42 | |
| | An overview of MAO Zedong Thought and the Theoretical System of Socialism With Chinese Characteristics | 5 | 150 | 80 | 70 | |
| | Situation and Policy | 2 | 60 | 32 | 28 | |
| | Mental Health Education for College Students | 1.5 | 45 | 32 | 13 | |
| | Career development and Employment Guidance for College Students (1) | 1 | 30 | 20 | 10 | |
| | Career development and Employment Guidance for College Students (2) | 1 | 30 | 18 | 12 | |
| | Military theory for college students | 2 | 60 | 36 | 24 | |
| | University Physical Education and Health (1) | 1.5 | 45 | 32 | 13 | |
| | University Physical Education and Health (2) | 1.5 | 45 | 32 | 13 | |
| | University Physical Education and Health (3) | 1 | 30 | 16 | 14 | |
| | University Physical Education and Health (4) | 1 | 30 | 16 | 14 | |
| | Introduction to Life Sciences | 1 | 30 | 16 | 14 | |
| | Introduction to Environmental Science | 1 | 30 | 16 | 14 | |
| | Enrollment education and Military Training | 4 | 120 | 96 | 24 | |
| | Social practice and Volunteer Service | 2 | 60 | 32 | 28 | |
| | An overview of Xi Jinpings Thought on Socialism with Chinese Characteristics for a New Era | 3 | 90 | 40 | 50 | |
| | Voluntary Work | 2 | 60 | 60 | 0 | |