

Study Plan of Curriculum for the Civil Engineering Programme

(Building Engineering Direction / Road & Bridge Engineering Direction)

College of Architecture and Engineering, Kunming University | English Version for ASIIN Accreditation

I. Notes on Preparation

This Study Plan of Curriculum is prepared with reference to the ASIIN curriculum study plan format and lists the courses semester by semester from Semester 1 to Semester 8. The Building Engineering Direction and the Road & Bridge Engineering Direction are presented in one document. Common courses are listed uniformly, while direction-specific courses are indicated separately. Cross-semester courses such as “1–6” and “1–8” have been split into the corresponding semester-based courses. Extension elective courses are included in the semester tables according to their offering semesters and are marked with yellow shading. Students select elective courses according to the requirements of the talent training programme; not all courses in the elective course pool are counted toward the graduation credits.

II. Basic Professional Information and Credit/Workload Requirements

Item	Content	Item	Content
Professional Name	Civil Engineering	School	College of Architecture and Engineering
Professional Directions	Building Engineering Direction; Road & Bridge Engineering Direction	Duration	4 Years
Degree Awarded	Bachelor of Engineering	Education Level	Undergraduate
Total Graduation Credits	168 Chinese National Credits	Total ECTS Credits	200 ECTS
Student Total Workload	5612 hours	Total Teaching Hours	3344 hours
Course Category	China Credits	ECTS Credits	Workload / Hours
General Education Compulsory Courses	46.5	53.5	1396
General Education Elective Courses	12	12	300
Discipline-based Foundation Courses	50	50	1500
Professional Compulsory Courses (Building Engineering Direction)	21	21	630
Extension Elective Courses (Building Engineering Direction)	4	4	120
Professional Compulsory Courses (Road & Bridge Engineering Direction)	22	22	660
Extension Elective Courses (Road & Bridge Engineering Direction)	3	3	90
Practical Education	34.5	59.5	1666
Total	168	200	5612

Course type notes: L = Lecture; P = Practice; L&P = Lecture and Practice.

III.1 Semester 1 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Mathematics and Natural Sciences	Advanced Mathematics B (1)	L	6	6	96	84
Information / Foundation	Fundamentals of Information Science and Artificial Intelligence	L&P	2	3	48	30
Engineering Foundations / Applications	Introduction to Civil Engineering	L	1	1	16	14
Practical Teaching	Military Skills (Training)	P	2	6	168	0
Practical Teaching	Military Theory	L	2	2	36	16
Practical Teaching	Labor	P	1	1	16	12
Practical Teaching	Thematic Practice of Core Socialist Values (1)	P	0.17	0.17	3	1.7
Foreign Language	College English (1)	L	2	2	32	18
General Education / Public Courses	Introduction to the Community of the Chinese Nation	L	2	2	32	18
General Education / Public Courses	An Overview of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era	L	3	3	48	27
General Education / Public Courses	National Security Education	L	1	1	16	9
General Education / Public Courses	Current Affairs and Policies (1)	L	0.25	0.5	8	4.5
General Education / Public Courses	Ideological, Moral and Rule of Law	L&P	3	3	48	27
Quality Development	College Sports (1)	L&P	0.67	0.67	16	5.3
Quality Development	Mental Health Education for College Students for College Students (1)	L&P	0.33	0.33	5.3	3
Quality Development	General Education Electives (Required Credits)	L	2	2	32	18
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			28.42	33.67	620.3	287.5
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			28.42	33.67	620.3	287.5

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.2 Semester 2 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Mathematics and Natural Sciences	College Physics (Mechanics + Thermodynamics)	L	4	4	64	56
Mathematics and Natural Sciences	Inorganic and Analytical Chemistry	L	3	3	48	42
Mathematics and Natural Sciences	Linear Algebra B	L	2	2	32	28
Mathematics and Natural Sciences	Advanced Mathematics B (2)	L	4	4	64	56
Engineering Foundations / Applications	Theoretical Mechanics	L	4	4	64	56
Engineering Foundations / Applications	Descriptive Geometry	L	2	2	32	28
Practical Teaching	College Physics Laboratory	L&P	1	1	16	12
Practical Teaching	Inorganic and Analytical Chemistry Laboratory	L&P	1.5	1.5	24	18
Practical Teaching	Thematic Practice of Core Socialist Values (2)	P	0.17	0.17	3	1.7
Practical Teaching	Structural Model Making	P	1	1	16	12
Practical Teaching	Familiarization Internship	P	1	2	32	24
Foreign Language	College English (2)	L	2	2	32	18
General Education / Public Courses	Outline of Modern Chinese History	L	3	3	48	27
General Education / Public Courses	Current Affairs and Policies (2)	L	0.25	0.5	8	4.5
Quality Development	College Sports (2)	L&P	0.67	0.67	16	5.3
Quality Development	Mental Health Education for College Students for College Students (2)	L&P	0.33	0.33	5.3	3
Quality Development	Career Development and Employment & Entrepreneurship Guidance (1)	L&P	0.42	0.42	8	3.7
Quality Development	General Education Electives (Required Credits)	L	2	2	32	18
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			32.34	33.59	544.3	413.2
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			32.34	33.59	544.3	413.2

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.3 Semester 3 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Mathematics and Natural Sciences	Probability Theory and Mathematical Statistics C	L	2	2	32	28
Engineering Foundations / Applications	Civil Engineering Drawing	L	2	2	32	28
Engineering Foundations / Applications	Engineering Materials	L	2	2	32	28
Engineering Foundations / Applications	Mechanics of Materials	L	4	4	64	56
Extension Electives	Engineering Ethics (Extension Elective)	L	1	1	16	14
Extension Electives	Engineering Geology and Hydrogeology (Extension Elective)	L	2	2	32	28
Extension Electives	Computer Programming (Extension Elective)	L&P	2	2	32	28
Practical Teaching	Engineering Drawing Practical Training	P	1	1	16	12
Practical Teaching	Engineering Geology and Hydrogeology Practical Training	P	0.5	1	16	12
Practical Teaching	Engineering Materials Laboratory	L&P	1	2	32	24
Practical Teaching	Thematic Practice of Core Socialist Values (3)	P	0.17	0.17	3	1.7
Foreign Language	College English (3)	L	2	2	32	18
General Education / Public Courses	Current Affairs and Policies (3)	L	0.25	0.5	8	4.5
General Education / Public Courses	Basic Principles of Marxism	L	3	3	48	27
Quality Development	College Sports (3)	L&P	0.67	0.67	16	5.3
Quality Development	Mental Health Education for College Students for College Students (3)	L&P	0.33	0.33	5.3	3
Quality Development	Career Development and Employment & Entrepreneurship Guidance (2)	L&P	0.42	0.42	8	3.7
Quality Development	General Education Electives (Required Credits)	L	2	2	32	18
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			21.34	23.09	376.3	269.2
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			21.34	23.09	376.3	269.2
Extension Elective Course Pool for This Semester (for selection; not all counted in the total)			5	5	80	70

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.4 Semester 4 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Engineering Foundations / Applications	Soil Mechanics	L	2	2	32	28
Engineering Foundations / Applications	Engineering Surveying	L&P	3	3	48	42
Engineering Foundations / Applications	Principles of Concrete Structure Design	L&P	3	3	48	42
Engineering Foundations / Applications	Structural Mechanics A	L	4	4	64	56
Engineering Foundations / Applications	Principles of Steel Structure Design	L	3	3	48	42
Building Engineering Direction	Building Architecture	L	3	3	48	42
Building Engineering Direction	Building Architecture Course Design	P	1	2	32	24
Road & Bridge Engineering Direction	Road Survey and Design	L	3	3	48	42
Road & Bridge Engineering Direction	Road Survey Course Design	P	1	2	32	24
Extension Electives	Engineering Environmental Science (Extension Elective)	L	1	1	16	14
Practical Teaching	Soil Mechanics Laboratory	L&P	1	1	16	12
Practical Teaching	Engineering Surveying Practical Training	P	1	2	32	24
Practical Teaching	Mechanics of Materials Laboratory	L&P	1	1	16	12
Practical Teaching	Fluid Mechanics Laboratory	L&P	1	1	16	12
Practical Teaching	Thematic Practice of Core Socialist Values (4)	P	0.17	0.17	3	1.7
Foreign Language	College English (4)	L	2	2	32	18
General Education / Public Courses	Current Affairs and Policies (4)	L	0.25	0.5	8	4.5
General Education / Public Courses	Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	L	3	3	48	27
Quality Development	College Sports (4)	L&P	0.67	0.67	16	5.3
Quality Development	Mental Health Education for College Students for College Students (4)	L&P	0.33	0.33	5.3	3
Quality Development	Career Development and Employment & Entrepreneurship Guidance (3)	L&P	0.42	0.42	8	3.7
Quality Development	General Education Electives (Required Credits)	L	2	2	32	18
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			31.84	34.09	552.3	417.2
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			31.84	34.09	552.3	417.2
Extension Elective Course Pool for This Semester (for selection; not all counted in the total)			1	1	16	14

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.5 Semester 5 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Engineering Foundations / Applications	Engineering Geology	L	2	2	32	28
Engineering Foundations / Applications	Structural Mechanics A (Continuation)	L	2	2	32	28
Building Engineering Direction	Concrete and Masonry Structure Design	L	3	3	48	42
Building Engineering Direction	Concrete and Masonry Structure Course Design	P	1	2	32	24
Building Engineering Direction	Steel Structure Design	L	2	2	32	28
Building Engineering Direction	Steel Structure Course Design	P	1	2	32	24
Road & Bridge Engineering Direction	Roadbed and Pavement Engineering	L	3	3	48	42
Road & Bridge Engineering Direction	Roadbed and Pavement Engineering Course Design	P	1	2	32	24
Extension Electives	Foundation Engineering (Extension Elective)	L	2	2	32	28
Extension Electives	Engineering Economics (Extension Elective)	L	1	1	16	14
Extension Electives	Engineering Load and Structural Design Methods (Extension Elective)	L	2	2	32	28
Extension Electives	Hydrology of Bridge and Culvert (Road & Bridge Engineering Direction Extension Elective)	L	2	2	32	28
Practical Teaching	Foundation Engineering Course Design	P	0.5	1	16	12
Practical Teaching	Thematic Practice of Core Socialist Values (5)	P	0.16	0.16	2	1.8
Foreign Language	College English (5)	L	2	2	32	18
General Education / Public Courses	Current Affairs and Policies (5)	L	0.25	0.5	8	4.5
Quality Development	College Sports (5)	L&P	0.66	0.66	16	5.4
Quality Development	Mental Health Education for College Students for College Students (5)	L&P	0.34	0.34	5.4	3
Quality Development	Career Development and Employment & Entrepreneurship Guidance (4)	L&P	0.42	0.42	8	3.7
Quality Development	General Education Electives (Required Credits)	L	2	2	32	18
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			17.33	20.08	327.4	240.4
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			14.33	16.08	263.4	188.4
Extension Elective Course Pool for This Semester (for selection; not all counted in the total)			7	7	112	98

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.6 Semester 6 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Engineering Foundations / Applications	Civil Engineering Construction Technology and Organization	L	4	4	64	56
Building Engineering Direction	Building Engineering Measurement and Valuation Course Design	P	1	2	32	24
Building Engineering Direction	Seismic Design of Building Structures	L	2	2	32	28
Building Engineering Direction	High-rise Building Structure Design	L	2	2	32	28
Road & Bridge Engineering Direction	Highway Engineering Measurement and Valuation Course Design	P	1	2	32	24
Road & Bridge Engineering Direction	Construction Drawing Interpretation	P	1	2	32	24
Road & Bridge Engineering Direction	Bridge Engineering	L	4	4	64	56
Road & Bridge Engineering Direction	Bridge Engineering Course Design	P	1	2	32	24
Road & Bridge Engineering Direction	Tunnel Engineering	L	2	2	32	28
Extension Electives	Highway Engineering Measurement and Valuation (Road & Bridge Engineering Direction Extension Elective)	L	2	2	32	28
Extension Electives	Advanced Comprehensive Knowledge of Civil and Hydraulic Engineering (Extension Elective)	L	2	2	32	28
Extension Electives	Engineering Structure Testing (Extension Elective)	L&P	2	2	32	28
Extension Electives	Seismic and Wind Resistance of Bridges (Road & Bridge Engineering Direction Extension Elective)	L	3	3	48	42
Practical Teaching	Civil Engineering Construction Technology and Organization Course Design	P	1	2	32	24
Practical Teaching	Engineering Structure Testing Practical Training	P	1	2	32	24
Practical Teaching	Thematic Practice of Core Socialist Values (6)	P	0.16	0.16	2	1.8
Foreign Language	College English (6)	L	2	2	32	18
General Education / Public Courses	Current Affairs and Policies (6)	L	0.25	0.5	8	4.5
Quality Development	College Sports (6)	L&P	0.66	0.66	16	5.4
Quality Development	Mental Health Education for College Students for College Students (6)	L&P	0.34	0.34	5.4	3
Quality Development	Career Development and Employment & Entrepreneurship Guidance (5)	L&P	0.41	0.41	8	3.6
Quality Development	General Education Electives (Required Credits)	L	2	2	32	18
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			16.82	20.07	327.4	238.3
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			20.82	26.07	423.4	314.3
Extension Elective Course Pool for This Semester (for selection; not all counted in the total)			9	9	144	126

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.7 Semester 7 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Road & Bridge Engineering Direction	Application of Road & Bridge Software	P	2	4	64	48
Extension Electives	New Concepts in Highway Survey and Design (Road & Bridge Engineering Direction Extension Elective)	L	1	1	16	14
Extension Electives	Professional English for Civil Engineering (Extension Elective)	L	2	2	32	28
Extension Electives	Engineering Supervision Theory (Extension Elective)	L	2	2	32	28
Extension Electives	Smart Detection of Engineering Structures (Extension Elective)	L&P	1	1	16	14
Extension Electives	Engineering Project Management (Extension Elective)	L	2	2	32	28
Extension Electives	Construction Regulations (Extension Elective)	L	2	2	32	28
Extension Electives	Smart Bridges (EEE, Road & Bridge Engineering Direction Extension Elective)	L	1	1	16	14
Practical Teaching	BIM Software Learning	P	1	2	32	24
Practical Teaching	Graduation Project (Thesis) (1)	L&P	7	14	224	168
Practical Teaching	Production Internship	P	2	4	64	48
General Education / Public Courses	Current Affairs and Policies (7)	L	0.25	0.5	8	4.5
Quality Development	Career Development and Employment & Entrepreneurship Guidance (6)	L&P	0.41	0.41	8	3.6
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			10.66	20.91	336	248.1
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			12.66	24.91	400	296.1
Extension Elective Course Pool for This Semester (for selection; not all counted in the total)			11	11	176	154

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

III.8 Semester 8 Course Study Plan

Course Group / Direction	Course Name	Type	China Credits	ECTS Credits	Contact Hours	Self-study Hours
Practical Teaching	Graduation Internship	P	2	4	64	48
Practical Teaching	Graduation Project (Thesis) (2)	L&P	7	14	224	168
General Education / Public Courses	Current Affairs and Policies (8)	L	0.25	0.5	8	4.5
Total (Building Engineering Direction; excluding all courses in the extension elective course pool)			9.25	18.5	296	220.5
Total (Road & Bridge Engineering Direction; excluding all courses in the extension elective course pool)			9.25	18.5	296	220.5

Note: Orange shading indicates Building Engineering Direction courses; purple shading indicates Road & Bridge Engineering Direction courses; yellow shading indicates the extension elective course pool.

IV. Notes on Direction-Specific Courses and Extension Electives

Building Engineering Direction: This direction is organized around course chains including Building Architecture, Concrete and Masonry Structure Design, Steel Structure Design, Seismic Design of Building Structures, High-rise Building Structure Design, BIM Software Learning, Production Internship, and Graduation Project (Thesis), thereby developing comprehensive abilities in building engineering design, construction, management, and integrated practice.

Road & Bridge Engineering Direction: This direction is organized around course chains including Road Survey and Design, Roadbed and Pavement Engineering, Bridge Engineering, Tunnel Engineering, Highway Engineering Measurement and Valuation, Application of Road & Bridge Software, Production Internship, and Graduation Project (Thesis), thereby developing comprehensive abilities in survey, design, construction, management, and integrated practice for transportation infrastructure engineering.

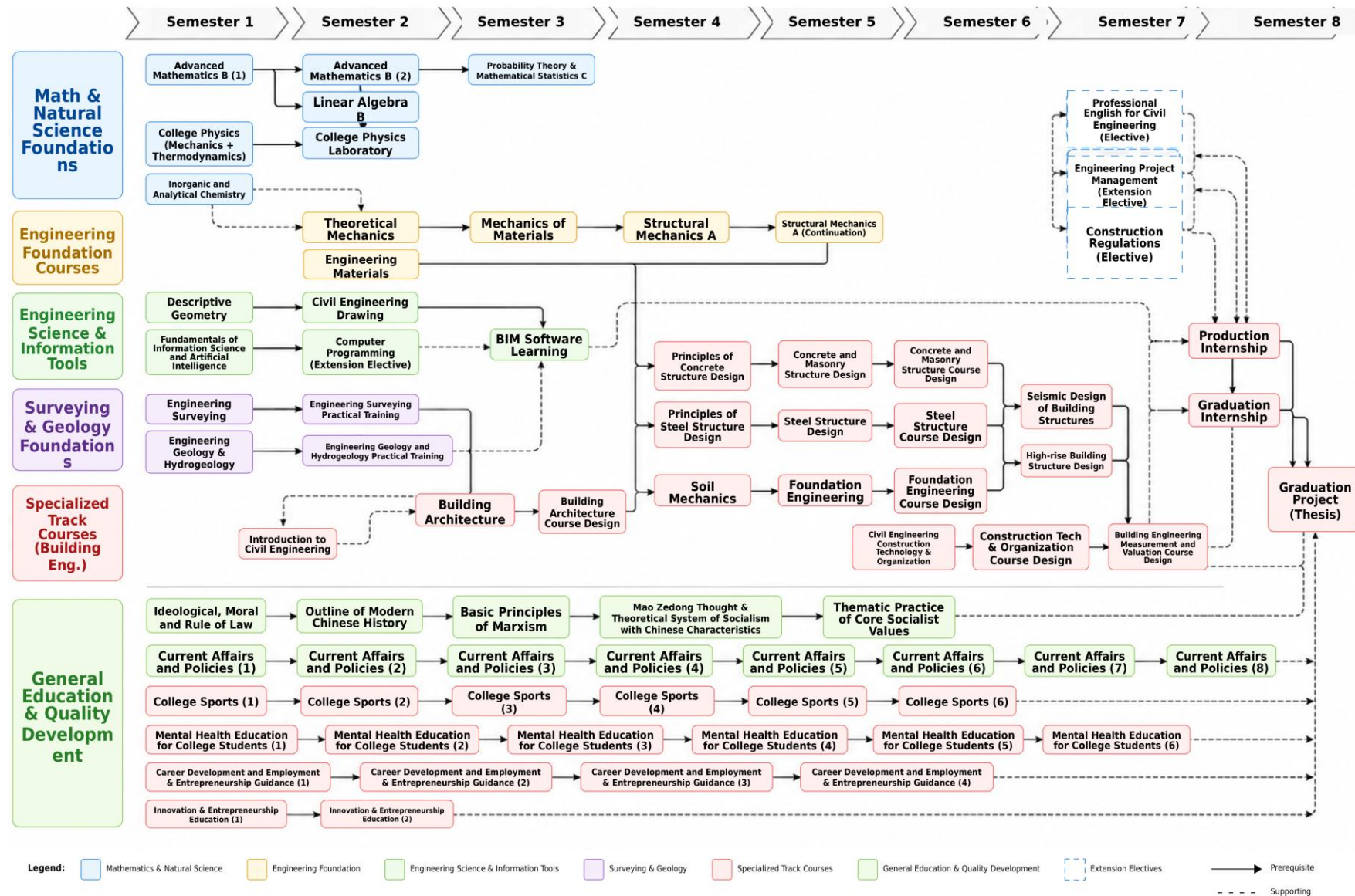
Extension electives: Extension elective courses have been incorporated into the semester course tables. Students complete the extension elective credits required by the talent training programme under the guidance of advisers, according to direction requirements and personal development needs.

V. Curriculum Logic Relationship Diagrams

The following curriculum logic relationship diagrams have been redrawn in the semester-by-semester progression format of the template, with emphasis on correcting missing subsequent arrows, ensuring that the main course chains converge to the Graduation Project (Thesis), and avoiding lines crossing course names.

(I) Curriculum Logic Relationship Diagram for the Building Engineering Direction

Curriculum Logic Relationship Diagram for Civil Engineering (Building Engineering Direction)



(II) Curriculum Logic Relationship Diagram for the Road & Bridge Engineering Direction

