

# 土木工程本科专业培养方案

## 一、培养目标

- 1
- 2
- 3
- 4
- 5

## 二、毕业要求

### 1.

#### 1.1

#### 1.2

#### 1.3

#### 1.4

### 2.

2.1

2.2

2.3

2.4

**3.** /

3.1

3.2

3.3

3.4

**4.**

4.1

4.2

4.3

4.4

**5.**

**6.**

6.1

6.2

**7.**

7.1

7.2

**8.**

8.1

8.2

**9.**

9.1

9.2

9.3

**10.**

10.1

10.2

10.3

**11.**

11.1

11.2

12.

12.1

12.2

### 三、主干学科

### 四、专业核心课程

### 五、主要实践环节

### 六、学制、学位及毕业学分要求

4 3 6  
183 ( 5 )

### 七、毕业要求对培养目标的支撑矩阵

( 1)

### 八、毕业要求达成矩阵

( 2)

### 九、专业课程设置与教学进程计划表

( 3)

### 十、课程学分、学时分布情况表

( ) ( 4)

### 十一、辅修课程设置一览表

## 十二、课程地图

( 1)

1

**1**

	1	2	3	4
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

			1				2				3				4			5			6		7		8		9			10			11		12			
			1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	7.1	7.2	8.1	8.2	9.1	9.2	9.3	10.1	10.2	10.3	11.1	11.2	12.1	12.2		
1		A1 A2	H																																			
2		A	H																																			
3		A		H																																		
4			H	H																																		
5		D	H																																			
6			H																																			
7					H																																	
8																																						
9															H		H																					
10																																						
11		VB																																				
12			H		H																																	
13				H		H																																
14		1		H			H																															
15		2			H		H																															
16					H																																	
17					H	H																																
18								H	H																													
19				H																																		











**3.1**

学时分配	各学期周学时数							
	1	2	3	4	5	6	7	8

				37	592	568	24	14	15	6	0	2	0	0	0	
5-2	10	1. B E G	2	4.	2.	2.	F	2	3.	1						
				10	160	160	0	0	2	2	2	2	2	0	0	

课程类别	课程编号	课程名称	学分	课内学时	学时分配		各学期周学时数								备注		
					讲课	实践	1	2	3	4	5	6	7	8			
							16	16	16	16	16	16					
	03110490	Civil Engineering Drawing	2.5	40	40		2.5										
	03110010	Introduction of Civil Engineering	1	16	16		1										
	03110510	Theoretical Mechanics	4	64	64			4									
	03110540	Civil Engineering Materials	2	32	32			2									
	03110520	Material Mechanics	4	64	56	8			4								
	03110590	★ Engineering Geology	2	32	32				2								
	03110550	1 Structural Mechanics 1	3	48	48					3							
	03110470	Fluid Mechanics	2	32	28	4				2							
	03110082	Soil Mechanics	2	40	32	8				2							
	03110800	Engineering Surveying	2.5	48	32	16				3							
	03110560	2 Structural Mechanics 2	2	32	32						2						
			27	448	412	36	3.5	6	6	10	2	0	0	0			
	03120310	Construction Engineering Cost	2	32	32						2						
	03170020		1.5	32	24	8					2						
	03170110	Elastic Mechanics and Finite Element Method	2	32	32						2						4
	03170061	Rock mechanics	2	32	32						2						
	31210030	Foundation of Computer Culture	1	16	16						1						
			4	64	56	8					4						
	03110580	Design principle of engineering load and reliability	1.5	24	24					1.5							

课程类别	课程编号	课程名称	学分	课内学时	学时分配		各学期周学时数								备注		
					讲课	实践	1	2	3	4	5	6	7	8			
							16	16	16	16	16	16					
	03110062	Principles of Concrete Structures	4	64	60	4						4					
	03110600	Principles of Steel Structures	3	48	48							3					
	03110125	Foundation Engineering	2	32	32							2					
	03110121	Construction Technology	3	48	48								3				
	03110610	Engineering Project Management	2	32	32								2				
			15.5	248	244	4	0	0	0	1.5	9	5	0	0			
	03110620	Building Construction	2.5	40	40						2.5						
	03110500	Design of Concrete Structure	4	64	64							4					
	03110630	Earthquake resistance of engineering structure	1.5	24	24							1.5					
	03110640	High-rise structure design	1.5	24	24							1.5					
	03110650	Design of Steel Structure	2	32	32							2					
	03110671	Construction Engineering Cost	1.5	24	24							1.5					
	03110680	Road Survey and Design	2.5	40	40						2.5						
	03170200	Tunnel Engineering	2	32	32							2					
	03110141	1 Bridge Engineering 1	4	64	64							4					
	03110690	Subgrade and Pavement Engineering	3	48	40	8						3					
	03110551	Road and Bridge Engineering Cost	1.5	24	24							1.5					
	03110700	2 Bridge Steel Structure Design 2	2	32	32								4				8

课程类别	课程编号	课程名称	学分	课内学时	学时分配		各学期周学时数								备注	
					讲课	实践	1	2	3	4	5	6	7	8		
							16	16	16	16	16	16				
	03170010	Building and Construction Equipment	2	32	32						2					5
	03180260	Hydrology for bridge and culvert	1	16	16						1					
	03180191	Deep Foundation Pit Engineering	1.5	24	24								4			6
	03110670	Construction Organization	1.5	24	24							1.5				
	03180131	Road and Bridge Construction Organization	1.5	24	24							1.5				
	03180210	Road and Bridge Engineering Testing	1.5	24	24									4		6
	03180270	BIM Principle and application of BIM	1.5	32	16	16								4		6
	03180310	Analysis and Treatment of Engineering Accident	1.5	24										4		6
	03180311	Professional English	1.5	24										4		6
	03180091	Retaining Structure	2	32	32							2				
	03180341	Technology on Structural Reinforcement	1.5	24										4		6
	03180351	Construction Laws and Regulation	2	24										4		6
	03180361	Engineering Construction Supervision	1.5	24										4		6
	03180271	Earthquake Resistance and Wind Resistance on Bridge	1.5	24										4		6
	03180371	Prefabricated Construction Technology	1.5	24										4		6

课程类别	课程编号	课程名称	学分	课内学时	学时分配		各学期周学时数								备注	
					讲课	实践	1	2	3	4	5	6	7	8		
							16	16	16	16	16	16				
	03180391	Literature Retrieval and Scientific Paper Writing	1.5	24	16	8								4		6
			18	288	288	0		0	0	0	4.5	12	16	0		
			135.5	2264	2040	224	23	26.5	22.5	20	23	20.5	18	0		

1. 4 2.  
3. ★ 4.\*

### 3.2

课程编号	实践教学项目	学分	学时	周数	学期	起止周	场所	备注
03150540	52110040 Military Training	2	/	2	1	--		
	32110080 Practical Course for Ideological and Political Theory Course	2	/	2		--		
	10130041 Experiments of Chemistry	0.5	16	/	1			1×16
	03180020 Understanding Practice	1	/	1	2	19		
	10130031 College Physics Experiment C	1	32	/	2			2×16
	03150031 Civil Engineering Materials Experiment	0.5	16	/	2			2×8
	03170511 Civil Engineering graphics Identification	1.5	32	/	2			2×16
	58100020 Training of Engineering B (Labour Education)	1	/	1	3	--		
	03150070 Geological Practice	1	/	1	3	19		
	03150020 Surveying Practice	2	/	2	4	18-19		
03150540	Course Design of House Architecture							

03150120	Course Design of Roadbed and Pavement Engineering	1	/	1	5	19	
03150160	Course Design of Bridge Engineering	2	/	2	6	18-19	
03150080	Course Design of Foundation Engineering	1		1	7	9	
03150520	Course Design of Tunnel Engineering	1		1	7	10	
03150430	Course Design of Road and bridge engineering budget	1		1	7	11	
03150420	Course Design of Bridge Organization	1		1	7	12	
03150369	Civil engineering process training	1		1	7	13	
03180181	Structure Design Software Applications	1.5	32	/	7		
03180171	Computation for Bridge Engineering	1.5	32	/	7		
03150271	Structural Test	1.5	32	/	7		
03150480	Production Practice	3	/	6	7	14-19	
03180170	Graduation Practice	1	/	2	8	1-2	
03150190	( ) Graduation Design(Thesis)	14	/	14	8	3-16	
03150400	The Second Class	5	/	/	0.5		
		42.5 +5	160	40	--	--	--

4

#### 4.1

序号	专业认证课程类别	标准要求	土木工程	
			学分合计	比例
1		15%	27.5	15.4%
2		30%	16.5	37.9%
			17.5	
			33.5	
			67.5	
3		20%	37	20.8%
4		15%	46	25.8%
5			5	
			<b>178+5</b>	<b>100%</b>

#### 4.2

序号	课程名称	学分
1	A1	6

2	A2	4
3	A	3
4	A	3
5		2
6	D	4
7	C	1
8		2
9		2
10		0.5
		<b>27.5</b>
		<b>15.4%</b>

### 4.3

类别	序号	课程名称	学分
	1	Python	3
	2		1
	3		2.5
	4		4
	5		4
	6		2
	7		5
	1		2.5
	2		2
	3		2
	4		2
	5		1.5
	1		4.0
	1		3
	2		4
	3		3
	4		2
	5	( )	2
	1		13
	2		13

	1	2 BIM	5.0
			<b>67.5</b>
			<b>37.9%</b>

#### 4.4

序号	课程名称	学分
1	B	1
2		0.5
3		1
4		1
5		2
6		1.5
7		
8		
9		
10		
11		9.5
12		
13		
14		
7		
8		
9		
10		
11		9.5
12		
13		
14		
15		1
16		1.5
17		3
18		1
19	)	14
		37
		20.8%

	1		3
	2		3
	3		3
	4		2
	5		2
	6		2
	7		2
	8		1
	9		2
	10		8
	11	A1	1
	12	A2	1
	13	A3	1
	14	A4	1
			32
			2
			2
			4
			2
	1		2
	2		2
			4
	1		0.5
	2		0.5
	3		0.5
	4		3.5
			5
			<b>46</b>
			<b>25.8%</b>

#### 4.6

学年	学期	课堂 教学	考试	实践	入学、始 业教育、 军事课	思想政 治理论 备
----	----	----------	----	----	---------------------	-----------------

课程类别	学分	学时	占课内学分比例(%)	占总学分比例(%)	说明
	61	1056	45.02	33.33	
	10	160	7.38	5.46	1. 38.25%
	27	448	19.93	14.75	2.
	4	64	2.95	2.19	16.94%
	15.5	248	11.44	8.47	3. 18.31%
	18	288	13.28	9.84	4.
( )	42.5+5	160+40	/	25.96	5. 25.96%
		2424			6. 15.4%
	178+5	+40	100	100	23.61%

03110125	Foundation Engineering	2	2	32	5	
03110620	Building Construction	2.5	2.5	40	5	
03110500	Design of Concrete Structure	4	4	64	6	
		40.5		664		

