

专业介绍、专业、专业、专业。专业专业。专业专业、业、专业介绍、专业、。

专业介绍

世中与，、世。，与会，为他、。也一，人中。今代，世上主一。

下三个专业：与、与。中与、与两个专业一专业。与专业专业、东专业专业。“”。一，且一东，东中。

与、与、与、与4个，专任90人，人、人、人、人20人；与、与专业，“”，与、与专业一专业；、东中；与、企业了个。———人。与、、。

丰书，中105书，书6667、中书1838，了习。

专业

、“习、”、“三”（、业）人。

了 、 专业 ， 、 、 与 、 与 、 与 、 、 一 了 。 、 、 ； 、 以 、 、 。

专业

主 专业 ， 专业 。 三个专业 ， 主 专业 ： 与 ， 与 ， 专 “ ” 。

一、专业

		20.5	384	
		10	160	
专业		24	384	
中		4	4	
		58.5		

二、专业

	代			习						
	031101761	习 代中 会主义		48	36			12	3.0	1
	031101661	与		40	36			4	2.5	2
	044101383	(一)		32	32				2.0	1
	044102452	(二)		32	32				2.0	2
	084101181	人 ()		36	24	12			2.0	1
	052100332	(一)		36				36	1.0	1
	052100012	(二)		36				36	1.0	2
	006100112	事		36	18			18	2.0	2
	045102811	Python		40	32			8	2.0	2
	041100582	I (一)		48	48				3.0	2
		人 、 会		128	128				8.0	
				32	32				2.0	
				544	418	12		114	30.5	
专业	040101591			48	48				3.0	1
	040100111	代 (上)		80	80				5.0	1
	040100282	(一)		80	80				5.0	1
	040100931	代 (下)		80	80				5.0	2
	040100352	(二)		96	96				6.0	2
				384	384				24	
中	006100151	事		2					2.0	1
	040102661	专业		2					2.0	2
				4					4.0	

三、

专业 。

与

专业代 ：

：

“ 优 、 、 、 、专业 ”人 ，
会主义 价 ， ， ， 会 ，
与 专业 ， 、 、人
交 ，“三 ”（ 习 、 、 ） ，“三 ”（ 、 、 业）
与 人 。

专业 业以 五 以下 ：

（1） ， 会 ， 优 个人 与 业 ，
。

（2） ， 与 、 与 以
。

（3） 众 专 ， 不 中 于 与
， 。

（4） 任 一 专业 ， ，
与 ， 。

业 ：

1.专业 与 。 专业 ， 。

2. 。 ， 与
。

3. / 。 ， 严
、 。

4. 。 于 ，
、 。

5. 代 。 ， 、 与 、 、
代 ， 与 ， 。

6. 与 会。 于 专业 ， 价
会、 、 、 以 ， 任。
7. 与 。 ， ，
。
8. 业 。 人 会 会 任 ， 价、 业 。
- 9.个人与 。 中 个 任 人 ， 与 。
10. 。 与 众 交 ， 交 。
11. 习。 主 习 ， 。

与 业 :

业				
专业 与		•	•	•
		•	•	•
/		•	•	•
		•	•	•
代			•	•
与 会	•		•	
与	•			•
业	•	•		
个人与	•		•	
	•	•	•	•
习	•	•	•	•

专业 介:

与 为 与 ， 会价 : ， 为人
、 优 与 ； ，
与 优 ， ； 会 ， 传 传 、
交 ， 与 ， 为
； 以 为 ， 、 会 ， 为
与 、 。

于 1958 ， 2013 ， 以人 与 为 ，
， 中 B+ （
19 ）， 五 优 。 2019 ， ， 与

专业 一 专业 ， 专业、 东 专业与 专业
。
， 92 专任 中， 、 “万人 ” 、 优 、
世 人 人 20 人，中 为中 ， 伍 。
与 、 、 丁 、
， 。

专业 ：

1. 人 ， ， 、 ， 。
- 2.交 ： “ +” ， 与 、 ， ， 。
3. 优 ， 与 ， 人 。

予 ：

专业

一、

			37	752				
			10	160				
专业			65	1040				
			20	320				
			132	2272				
中			22	29				
			6	6				
业	132+28=160 (: + 中 = 业)							
	1	2	3	4	5	6	7	8
	24	25	25	25	23	22	8	8

：业专业，二7个人4个“三”。

	中		中			中		中			中
								中			业
2272	1792	480	1822	450	160	124	36	28	118	14	13

二、

	代									
							习			
	031101761	习代中会主义		48	36			12	3.0	1
	031101661	与		40	36			4	2.5	2
	031101371	中代		40	36			4	2.5	3
	031101424	东中会主义		40	36			4	2.5	4
	031101522	主义		40	36			4	2.5	4
	031101331	与		64	64				2.0	1-8
	044101383	(一)		32	32				2.0	1
	044102452	(二)		32	32				2.0	2
	084101181	人()		36	24			12	2.0	1
	045102811	Python		40	32			8	2.0	2
	052100332	(一)		36				36	1.0	1
	052100012	(二)		36				36	1.0	2
	052100842	(三)		36				36	1.0	3
	052100062	()		36				36	1.0	4
	006100112	事		36	18			18	2.0	2
	041100582	I (一)		48	48				3.0	2
	041101391	I (二)		48	48				3.0	3
	041100671	(一)		32		32			1.0	3
	041101051	(二)		32		32			1.0	4
		人、会		128	128				8.0	
				32	32				2.0	
				912	638	64		210	47	

二、

()

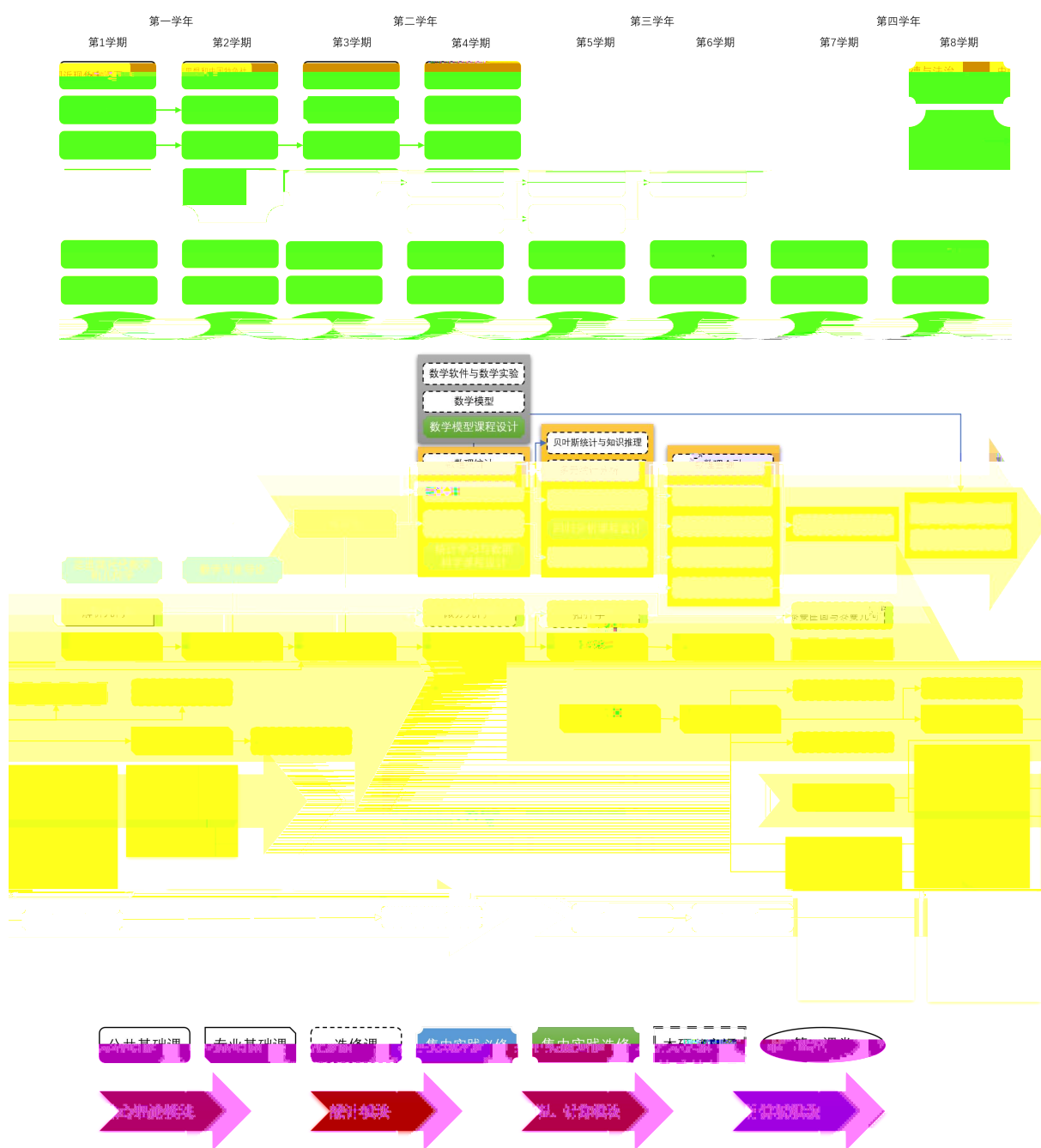
专业

	代									
							习			
	040100801			64	64				4.0	4
	040102722	Statistical Learning and Data Science		64	64				4.0	4
	040102721	习与		64	64				4.0	4
	040102831	Statistics and regression with R		48	48				3.0	4
	040101131			64	64				4.0	4
	040102561	与		48	48				3.0	5
	040102271			32	32				2.0	5
	040100671			64	64				4.0	5
	040102481			48	48				3.0	5
	040101071			64	64				4.0	6
	040102091			32	32				2.0	6
	040102461			48	48				3.0	6
	040100442			48	48				3.0	6
	040102021			48	48				3.0	6
	040102501			48	48				3.0	7
	040102141	与		32	32				2.0	8
：个										
	()	不 4 (≤ 4)							≤ 4	
	040102451	与		64	64				4.0	5
	040102282	The Qualitative Methods and Numerical Simulation for Differential Equations		64	64				4.0	5
	040101511			64	64				4.0	7
	040102571			64	64				4.0	8
	020100051			32				32	2.0	7
	020100041	I		32				32	2.0	7
	020100031	II		32				32	2.0	7
	020100061	业		32				32	2.0	7
				20.0						

：、 、 、 、 专业 主 业 业 为一个 专业
 (、 、 I、 II、 业 业)。 一个
 为专业 不 、 4 个 。 为 、 不 二
 。

三、 中

代						
006100151	事		2		2.0	1
031101551	主义 与		2		2.0	3
040102661	专业		2		2.0	2
040100841			2		2.0	4
040102581			2		2.0	5
040101462			3		3.0	4
040101521			2		2.0	3
040102352			2		2.0	4
040100361			2		2.0	6
040102711	习与		3		3.0	4
040102511			2		2.0	5
040100292			2		2.0	5
040100973	业 习		4		4.0	7-8
040100264	业 ()		15		8.0	8
			29		22.0	
			6.0			



、与业

		专业业										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
1	习代中会主义						•	•	•	•		
2	与						•	•	•	•		•
3	中代						•	•	•	•	•	
4	东中会主义						•	•	•	•		•
5	主义						•	•	•	•		•
6	与						•	•	•	•	•	•
7	(一)								•		•	•
8	(二)								•		•	•
9	人			•	•	•						•
10	(一)						•			•		•
11	(二)						•			•		•
12	(三)						•			•		•
13	()						•			•		•
14	事						•		•	•	•	
15	Python		•			•			•			•
16	I (一)		•	•			•	•				
17	I (二)		•	•			•	•				
18	(一)		•	•	•		•	•				
19	(二)		•	•	•		•	•				
20		•	•									
21	代 (上)	•	•									
22	(一)	•	•	•								
23	代 (下)	•	•									
24	(二)	•	•	•								
25	(三)	•	•	•								
26		•	•									
27		•	•									
28		•	•									
29		•	•									
30		•	•									
31	代	•	•									
32		•	•									
33		•	•									
34		•	•									
35		•	•									
36	与代	•	•	•								
37		•	•		•							
38	代	•	•				•					
39		•		•								

		专 业										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
40	与	•										
41		•	•		•							
42		•	•	•								
43		•	•	•	•	•						
44	与 习	•	•	•	•							
45		•	•	•	•	•						•
46		•		•	•	•					•	
47	件与	•	•	•	•							
48	与	•		•	•	•			•			
49		•	•									
50		•		•								
51	优			•	•				•		•	•
52	与	•		•	•				•			•
53		•	•	•	•	•			•			•
54		•	•	•						•		
55		•	•									
56		•		•								
57	Statistical Learning and Data Science	•				•				•		
58	习与	•				•				•		
59	Statistic and regression with R	•				•					•	
60				•		•			•			
61	与	•	•									•
62	习		•	•	•	•	•	•				•
63		•	•			•						
64		•	•			•						
65		•	•									•
66		•	•									•
67		•	•									•
68			•				•		•			
69		•	•			•						
70			•				•		•			
71	与	•	•		•	•						•
72	与	•	•				•					
73		•		•					•			
74	The Qualitative Methods and Numerical Simulation for Differential Equations			•	•				•			
75		•	•		•	•						•
76		•	•			•		•	•			
77	I	•	•			•		•	•			
78	II	•	•			•		•	•			
79	业	•	•			•		•	•			

		专 业										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
80	事							•	•	•	•	•
81	主义 与							•	•	•	•	•
82	代代	•			•							
83	专业	•	•				•					
84			•	•		•				•		•
85		•	•	•	•	•						
86		•	•	•								
87		•	•	•						•		•
88		•	•	•						•		•
89		•	•	•	•	•					•	
90	习与			•		•				•		•
91			•	•		•				•		•
92	业 习		•	•		•	•		•		•	•
93	业 （ ）		•	•		•	•	•	•		•	•

五、 二

二 人 “三 ” 两 。

人

专业 ， 人

， 不 于7个 。 中， 2 、 1

、 业 2 ， 人 。

“三 ”

专业 ， 业 、 东

业 、SRP（ ）、 一

（ 、 ）， 不 于4个 。

与

专业代 ：

：

“ 优 、 、 、 、专业 ”人 ，
会主义 价 ， ， ， 会 ，
与 专业 ， 、 、
、人 交 ， 任 、 、 与优 、
专业 ，“三 ”（ 习 、 、 ） ，“三 ”（ 、 、
业） ， 业 会 。

专业 业以 五 以下 ：

- （1） ， 会 ， 优 个人 与 业 ，
。
- （2） ， 与 、 与 以
交 。
- （3） 众 与 专 ， 不 中 于 与
， 。
- （4） 任 一 专业 ， ，
与 交 ， 。

业 ：

业 与 。专业 与 。 专业 ，
。
。 。 交 ， 与
。
。 交 ，
、 ， 从 、 、
。

。 于 、 交
， 、 与 ， 。
代 。 交 ， 、 与 、
J 、 代 ， 与 ， 。
与，会会 于、 专业 m

专业 介:

与 专业为 专业,以 为 , 业为 , 中 , 、人 、与 “ ” ,为 产 、 , 、 、 。 与 , 专业人 产业 与 , 、 。 、 ,专业以交 优 于 , 。 专业 , 、 与 , 与 中 , 、 、 产业、 从事 、 、 、 、 人 。2022 , 专业 为 一 专业。

与 专业 于2002 , , 专任 18人, 中 4人、 10人、 4人, 人 、 优 、 东 、 人 5人 , 了一 以中 为 , 、 伍。 专业 优 , 东 中 , , 三 2 、 18 , 一 2 、二 4 ; , 伍, 三 一 1 、 3 、一 1 。 业 100%, 。专业 中 , 东 中 。 5个、 交 6个。 书 6667 、 书 1838 ; 88 , 44 。 ,丰 书 了 与 专业 习 。 ,与 、 、 丁 、 , 。

专业 :

1. : 人 , 与 , 人 与 , 人 。
- 2.交 : “ +人 ” , 。
3. : 优 , 与 , 人 。

予：

专业：

、代、、、、、
、与习、与

:

: 专业

专:

: Introduction to Statistical Learning and Data Science

:

: 与习、与

享: 与, 与, 与,

: (“三个一”)

业: (“三个一”)

: 、与代

:

一、

			37		752			
			10		160			
专业			60		960			
			25		400			
			132		2272			
中			23		30			
			5		5			
业	132+28=160							
	1	2	3	4	5	6	7	8
	24	25	25	25	23	22	8	8

: 业 专业, 二 7 个人 4 个“三”。

	中		中			中		中			中
								中			业
2272	1712	560	1822	450	160	120	40	28	118	14	4

二、

	代										
							习				
	031101761	习	代中	会主义	48	36			12	3.0	1
	031101661		与		40	36			4	2.5	2
	031101371	中	代		40	36			4	2.5	3
	031101424		东	中	会主义	40	36		4	2.5	4
	031101522		主义		40	36			4	2.5	4
	031101331		与		64	64				2.0	1-8
	044101383		(一)		32	32				2.0	1
	044102452		(二)		32	32				2.0	2
	084101181	人	()		36	24			12	2.0	1
	045102811	Python			40	32			8	2.0	2
	052100332		(一)		36				36	1.0	1
	052100012		(二)		36				36	1.0	2
	052100842		(三)		36				36	1.0	3
	052100062		()		36				36	1.0	4
	006100112	事			36	18			18	2.0	2
	041100582		I (一)		48	48				3.0	2
	041101391		I (二)		48	48				3.0	3
	041100671		(一)		32		32			1.0	3
	041101051		(二)		32		32			1.0	4
		人	、	会	128	128				8.0	
					32	32				2.0	
					912	638	64		210	47	

二、 ()

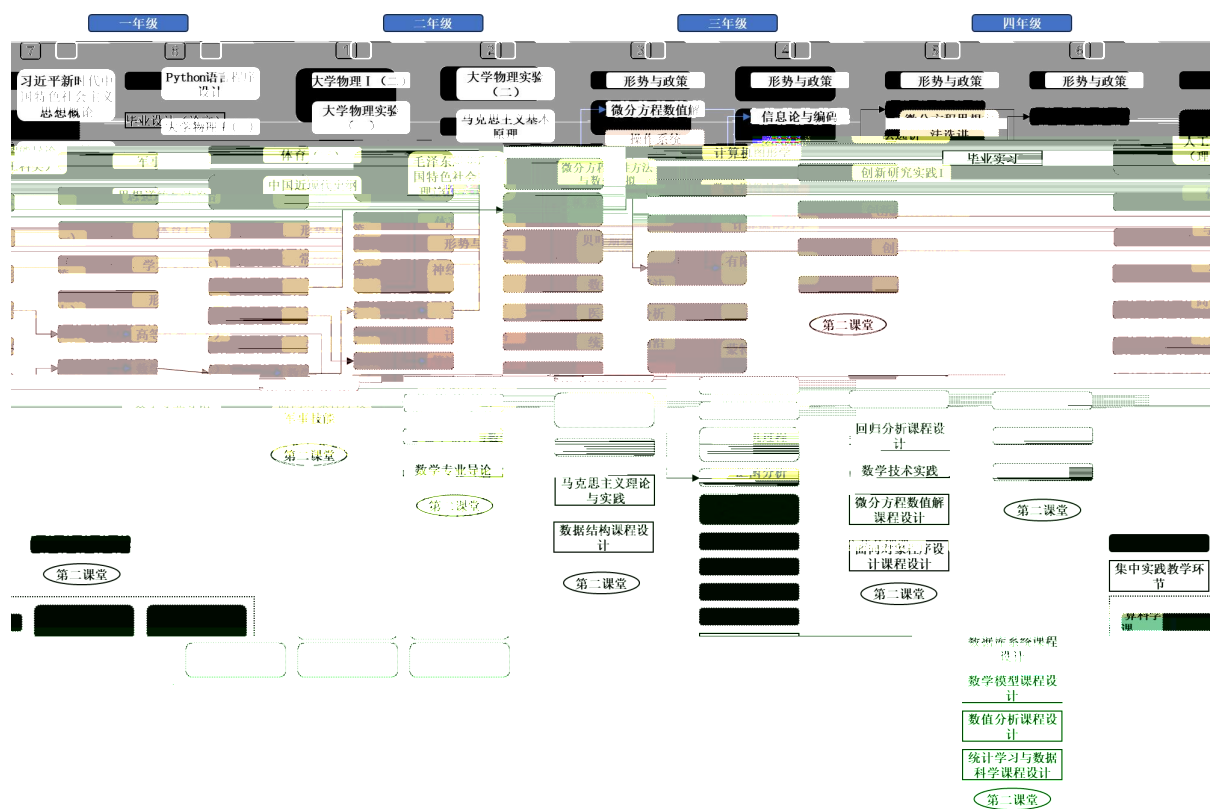
	代									
							习			
专业	040101591			48	48				3.0	1
	040100282	(一)		80	80				5.0	1
	040100111	代 (上)		80	80				5.0	1
	040100931	代 (下)		80	80				5.0	2
	040100352	(二)		96	96				6.0	2
	040101311	(三)		96	96				6.0	3
	040100131			64	64				4.0	3
	040100492			64	64				4.0	3
	040100482			48	48				3.0	3
	040100081			64	64				4.0	3
	040101011			64	64				4.0	4
	040102821	与 习		64	64				4.0	4
	040100181			48	48				3.0	5
	040101401	与		64	64				4.0	6
				960	960				60.0	
	:									
	040102361			64	64				4.0	4
	040101581			48	48				3.0	4
	040101061	与		64	64				4.0	4
	040101261			64	64				4.0	5
	040102671			56	40	16			3.0	6
	040102301			32	32				2.0	6
	040101331			48	48				3.0	6
	:									
	040102241			48	48				3.0	4
	040100871	件与		48	16			32	2.0	4
	040100162			48	48				3.0	4
	040102282	与		64	64				4.0	5
	040102811	习		32	32				2.0	5
	040102751	与		48	48				3.0	6
	040102731			48	48				3.0	6
	: 优									
	040102851	AI 与		32	32				2.0	2
	040102801			48	48				3.0	5
	040102841	习		64	64				4.0	5
	040101131			64	64				4.0	4
	040100801			64	64				4.0	4
	040102722	Statistical Learning and Data Science		64	64				4.0	4
	040102721	习与		64	64				4.0	4
	040102322	优		64	64				4.0	5
	040102561	与		48	48				3.0	5
	040101071			64	64				4.0	6
	040102571			64	64				4.0	6

	代									
							习			
	040102461			48	48				3.0	6
	040102021			48	48				3.0	6
	：代									
	040102691	与代		32	32				2.0	3
	040100121			64	64				4.0	4
	040100061			64	64				4.0	4
	040102702	代		64	64				4.0	5
	040101052			64	64				4.0	5
	040101181			64	64				4.0	6
	040102471			48	48				3.0	7
	：个									
	020100051			32				32	2.0	7
	020100041	I		32				32	2.0	7
	020100031	II		32				32	2.0	7
	020100061	业		32				32	2.0	7
	25.0									

：、
（、I、II、专业主、业、为一个专业
为专业、4个。为、不
。二

三、中

代						
006100151	事		2		2.0	1
040102661	专业		2		2.0	2
031101551	主义与		2		2.0	3
040101521			2		2.0	3
040100361			2		2.0	6
040101462			3		3.0	4
040102711	习与		3		3.0	4
040100841			2		2.0	4
040102352			2		2.0	4
040102581			2		2.0	5
040102511			2		2.0	5
040100292			2		2.0	5
040100973	业习		4		4.0	7-8
040100264	业（）		15		8.0	8
			30		23.0	
			5.0			



、 与 业

		与 专业 业										
		1	2	3	4	5	6	7	8	9	10	11
1	与						•	•	•	•		
2	习 代中 会主义						•	•	•	•		•
3	中 代						•	•	•	•	•	
4	东 中 会主义						•	•	•	•		•
5	主义						•	•	•	•		•
6	与						•	•	•	•	•	•
7	(一)								•		•	•
8	(二)								•		•	•
9	人 ()		•			•			•			•
10	(一)						•			•		•
11	(二)						•			•		•
12	(三)						•			•		•
13	()						•			•		•
14	事						•		•	•	•	
15	Python		•			•			•			•
16	I (一)		•	•			•	•				
17	I (二)		•	•			•	•				

[illegible]

		与专业业										
		1	2	3	4	5	6	7	8	9	10	11
56	与	•	•	•	•		•					•
57	习		•	•	•	•	•	•				•
58			•	•	•		•					•
59				•		•			•		•	•
60	与	•		•	•				•			•
61		•		•		•			•			•
62		•		•		•			•			•
63		•		•		•			•			
64		•	•		•	•						•
65	AI与					•	•				•	
66		•			•		•				•	
67	习				•	•	•					
68		•	•			•		•	•			
69	I	•	•			•		•	•			
70	II	•	•			•		•	•			
71	业	•	•			•		•	•			

五、二

二人“三”两。

人

专业，人，不于7个。中，2、1、业2，人。

“三”

专业，业、东业、SRP（）、一（、），不于4个。

专业代 ：

：

“ 优 、 、 、 、专业 ”人 ，
会主义 价 ， ， ， 会 ，
专业 ， 、 、人 交 ，
任 、 、 与优 、 专业 ，“三 ”
(习 、 、) ，“三 ”(、 、 业) 优 人
， 业 会 。

专业 业五 以下 ：

- (1) ， 会 ， 优 个人 与 业 ，
。
- (2) ， 、 与 ，以 与
交 。
- (3) 众 专 ， 交 习 ， 不 中 于
， 。
- (4) 任 一 专业 ，
交 ， 。

业 ：

.专业 与 。 专业 ，
。
。 ， ， 交 中
，以 。

. 。 交 ， ， 、
， 、 与 。

. 。 于 ， 与 ，

、
 。
 。 代 。 ， 、 与 、
 、 代 ， 与 ，
 。
 。 与 会。 于 专业 ， 价
 会、 、 、 以 ， 任。
 。 与 。 价
 、 会 。
 。 业 。 人 会 、 会 任 ， 价 ， 中
 ， 任。
 。 个人与 。 、 下 中 个 、 以 人 。
 。 与 会 众 交 ，
 、 、 令； 下 交 ， 、
 。
 。 习。 主 习 习 ， 不 习
 。

与 业：

业				
专业 与		•	•	•
		•	•	•
/		•	•	•
		•	•	•
代			•	•
与 会	•		•	
与	•		•	
业	•	•		
个人与	•		•	
	•	•	•	•
习	•	•	•	•

专业 介：

专业、，优与，、与人。专业业于个：，与、；，、优；业，产优企业争。以，、交，为与、。

专业件优，。专业专任18人，中7人、9人，“东”万、东“优”、人、以上人5人。105书，书6667，中书1838，丰习。专业举会，2人、14人专400人交。专业，争。

专业：

- 1.：会任人，，与。
- 2.交：“+”，与人，与、、、人、人会交与。
- 3.：，与人，会。

予：

：、代、、、、、、、、、习与。

：：专业

专：： Statistics and regression with R、 The Qualitative Methods and Numerical Simulation for Differential Equations

：

： 习与

享： 、 、 与

： （“三个一” ）

业： （“三个一” ）

： 、 与代

：

一、

			37		752			
			10		160			
专业			63		1008			
			20		320			
			130		2240			
中			27		34			
			3		3			
业			130 + 30 = 160					
	1	2	3	4	5	6	7	8
	23	25.5	23.5	21	20	19	16	12

： 业 专业 ， 二 7 个人 4 个“三”。

	中		中			中		中			中
								中			业
2240	1760	480	1790	450	160	127	33	30	116	14	13

二、

代				习				
031101761	习	代中	会主义	48	36	12	3.0	1
031101661		与		40	36	4	2.5	2
031101371	中	代		40	36	4	2.5	3
031101424	东	中	会主义	40	36	4	2.5	4
031101522		主义		40	36	4	2.5	4
031101331		与		64	64		2.0	1-8
044101383		(一)		32	32		2.0	1
044102452		(二)		32	32		2.0	2
084101181	人	()		36	24	12	2.0	1
045102811	Python			40	32	8	2.0	2
052100332		(一)		36		36	1.0	1
052100012		(二)		36		36	1.0	2
052100842		(三)		36		36	1.0	3
052100062		()		36		36	1.0	4
03010115								
006100112	事			36	18	18	2.0	2
041100582		I (一)						

二、 ()

	代									
							习			
专业	040100282	(一)		80	80				5.0	1
	040100111	代 (上)		80	80				5.0	1
	040101591			48	48				3.0	1
	040100352	(二)		96	96				6.0	2
	040100931	代 (下)		80	80				5.0	2
	040101311	(三)		96	96				6.0	3
	040100492			64	64				4.0	3
	040100162			48	48				3.0	4
	040100801			64	64				4.0	4
	040102721	习与		64	64				4.0	4
	040101052			64	64				4.0	5
	040102481			48	48				3.0	5
	040100671			64	64				4.0	5
	040102021			48	48				3.0	6
	040101071			64	64				4.0	6
				1008	1008				63	
	：专业 ()									
	040102851	AI 与		32	32				2.0	2
	040100131			64	64				4.0	3
	040100482			48	48				3.0	3
	040102831	Statistics and regression with R		48	48				3.0	4
	040100061			64	64				4.0	4
	040101131			64	64				4.0	4
	040100871	件与		48	16			32	2.0	4
	040101061	与		64	64				4.0	4
	040101011			64	64				4.0	4
	040102821	与 习		64	64				4.0	4
	040102241			48	48				3.0	4
	040102361			64	64				4.0	4
	040102841	习		64	64				4.0	5
	040102561	与		48	48				3.0	5
	040102322	优		64	64				4.0	5
	040102811	习与		32	32				2.0	5
	040102761	与		48	48				3.0	5
	040101642			64	64				4.0	5
	040102682			64	64				4.0	5
	040102801			48	48				3.0	5
	040102671			56	40			16	3.0	6

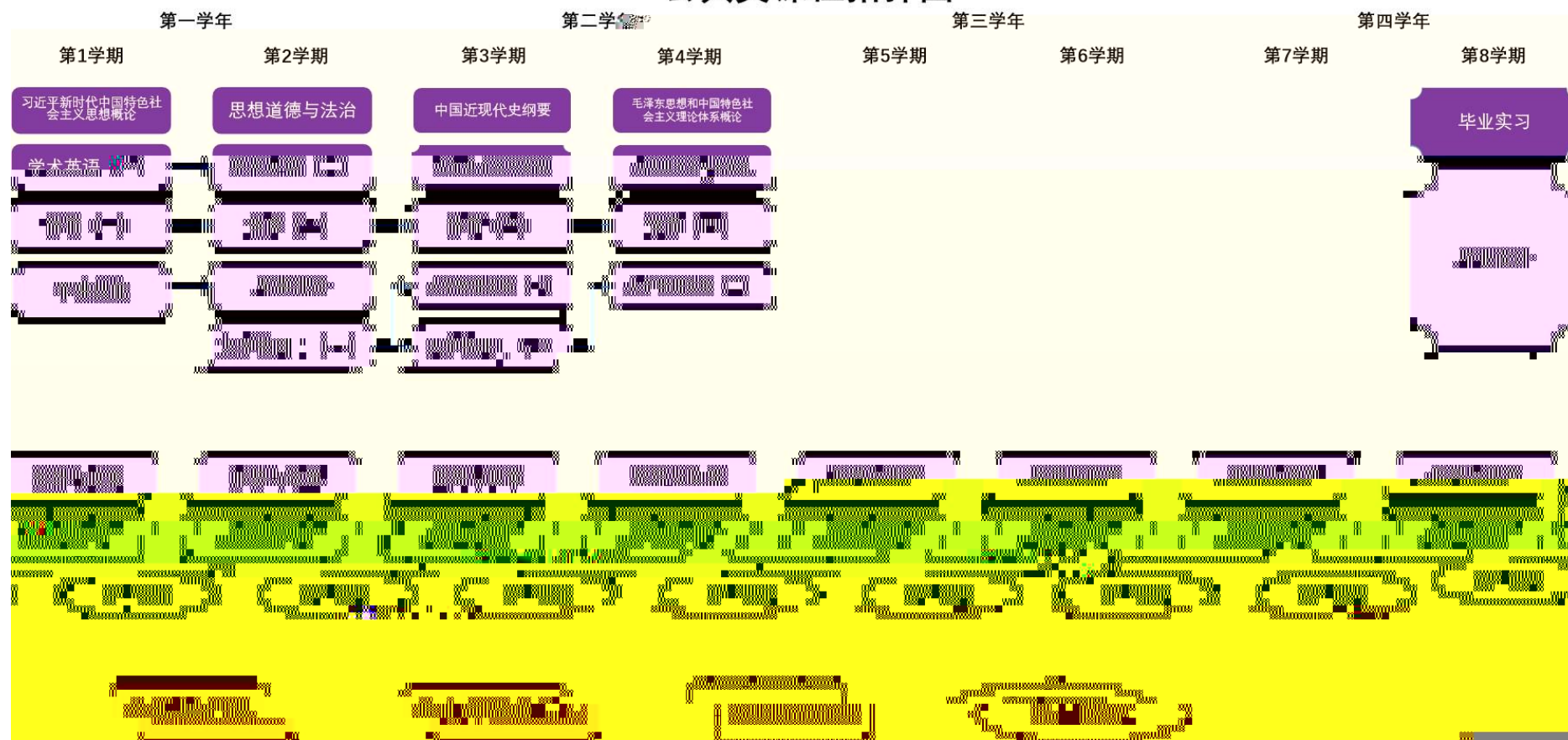
	代									
							习			
	040102091			32	32				2.0	6
	040101181			64	64				4.0	6
	040100442			48	48				3.0	6
	040102461			48	48				3.0	6
	040101032			32	32				2.0	6
	040100301			64	64				4.0	6
	040102501			48	48				3.0	7
	040102471			48	48				3.0	7
	040102741	与		64	64				4.0	7
	040101511			64	64				4.0	7
	040101581			48	48				3.0	8
	040102571			64	64				4.0	8
	040102141	与		32	32				2.0	8
	：个（）									
	040102691	与代		32	32				2.0	3
	040101721			64	64				4.0	3
	040100121			64	64				4.0	4
	040102702	代		64	64				4.0	5
	040102451	与		64	64				4.0	5
	040100181			48	48				3.0	5
	040102282	The Qualitative Methods and Numerical Simulation for Differential Equations		64	64				4.0	5
	040102751	与		48	48				3.0	6
	040101331			48	48				3.0	6
	040101531	代		64	64				4.0	6
	040102731			48	48				3.0	6
	020100051			32				32	2.0	7
	020100041	I		32				32	2.0	7
	020100031	II		32				32	2.0	7
	020100061	业		32				32	2.0	7
	20（专业个）									

：（、I、II、专业主业业）。个为一专业

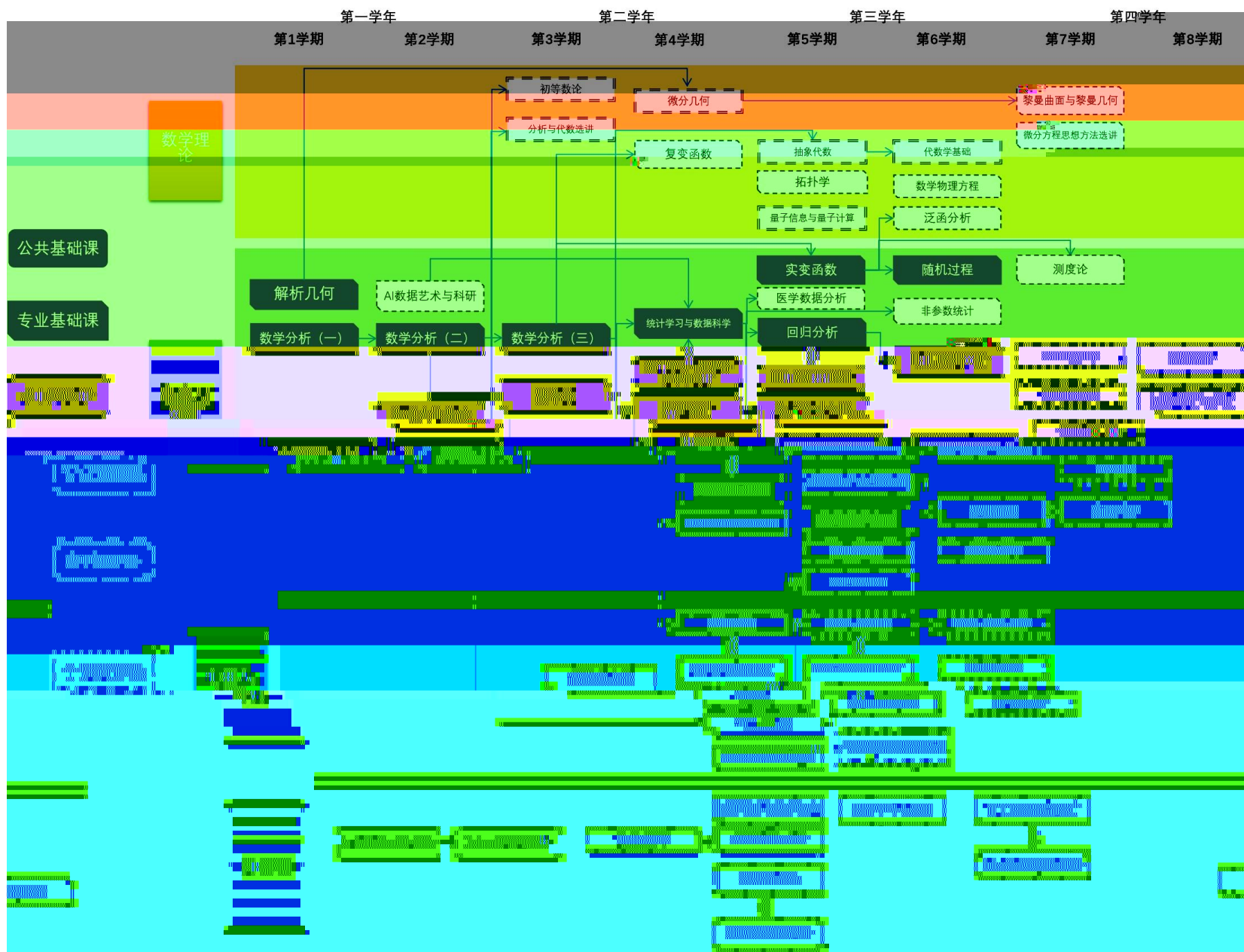
三、 中

代						
006100151	事		2		2.0	1
040102661	专业		2		2.0	2
031101551	主义 与		2		2.0	3
040100841			2		2.0	4
040102711	习与		3		3.0	4
040102581			2		2.0	5
040102511			2		2.0	5
040102352			2		2.0	4
040101462			3		3.0	4
040100292			2		2.0	5
040100361			2		2.0	6
040100973	业 习		4		4.0	7-8
040100264	业 ()		15		8.0	8
			34		27	
			中 3			

公共类课程拓扑图



专业类课程拓扑图



、与业

		专业业										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
1	与						•	•	•	•		
2	习代中会主义						•	•	•	•		•
3	中代						•	•	•	•	•	
4	东中会主义						•	•	•	•		•
5	主义						•	•	•	•		•
6	与						•	•	•	•	•	•
7	(一)								•		•	•
8	(二)								•		•	•
11	人()			•	•	•						•
12	(一)						•			•		•
13	(二)						•			•		•
14	(三)						•			•		•
15	()						•			•		•
16	事						•		•	•	•	
17	Python		•			•			•			•
18	I (一)		•	•			•	•				
19	I (二)		•	•			•	•				
20	(一)		•	•	•		•	•				
21	(二)		•	•	•		•	•				
22	(一)	•	•		•							•
23	(二)	•	•		•							•
24	(三)	•	•		•							•
25		•	•		•							
26	代 (上)	•	•		•							•
27	专业	•							•		•	
28	代 (下)	•	•		•							•
29		•	•		•							•
30		•	•									•
31		•	•									•
32		•	•		•	•						•
33		•	•		•							•
34		•	•		•							•
35	代	•	•		•							•
36		•	•		•							•
37		•	•		•							•
38		•	•		•							•
39		•	•		•							•

		专 业										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
40		•	•			•						
41	习与	•				•				•		
42		•	•			•						
43		•	•			•						
44		•	•			•						
45		•	•									•
46			•				•		•			
47		•				•			•			
48		•	•						•			
49				•	•				•			
50		•	•	•	•				•		•	•
51	与代			•		•			•			
52		•	•						•			
53	件与	•			•				•		•	•
54	与		•		•				•			•
55				•		•			•			
56	Statistics and regression with R	•				•					•	
57		•			•	•				•		
58				•		•			•			
59	与			•		•			•			
60		•		•	•		•					
61	The Qualitative Methods and Numerical Simulation for Differential Equations			•	•				•			
62	优			•	•				•		•	•
63		•		•		•			•			
64	与	•	•									•
65	习与		•	•	•	•	•	•				•
66	代			•	•				•			
67		•	•									•
68		•	•									•
69				•		•			•		•	•
70	与 习	•	•	•	•				•			•
71	与	•		•	•				•			•
72		•		•		•			•			•
73		•		•		•			•			•
74	与			•		•			•			•
75			•				•		•			
76		•		•					•			

		专业 业										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
77		•		•		•			•			
78		•	•		•	•						•
79	与	•	•		•	•						•
80	与			•			•		•			
81	AI 与					•	•				•	
82	习	•									•	•
83		•	•			•		•	•			
84	I	•	•			•		•	•			
85	II	•	•			•		•	•			
86	业	•	•			•		•	•			

五、 二

二 人 “三 ” 两 。

人

专业 ， 人
， 不 于7个 。 中， 2 、 1
、 业 2 ， 人 。

“三 ”

专业 ， 业 、 东
业 、SRP（ ）、 一
（ 、 ）， 不 于4个 。

The mathematics program consists of an overview of the discipline, distinctive features of the program, educational objectives, and the curriculum. Course arrangements after specialization major are detailed in the respective major-specific training plans. The major training program includes the following components: major name, duration of study, educational goals, graduation requirements, major introduction, major characteristics, core courses, characteristic courses, and the teaching schedule.

Mathematics is the science that studies quantitative relationships and spatial forms in the objective world, exploring the world through logical reasoning, symbolic computation, and scientific calculation. It serves as the language of nature and the foundation of both natural and social sciences, providing other disciplines with ideas, perspectives, and research methodologies. Mathematics is also a cultural cornerstone, playing a vital role in the progress of human civilization. In today's era of rapid technological advancement, maintaining leadership in mathematics is a national strategic goal for major developed countries.

The Mathematics program offers three majors: Mathematics and Applied Mathematics, Information and Computational Science, and Information Management and Information Systems. Among them, Mathematics and Applied Mathematics and Information and Computational Science are recognized as National First-Class Undergraduate Programs. The Mathematics and Applied Mathematics major is also designated as a National Distinguished Specialty, a Guangdong Provincial Renowned Major, and a Key Discipline. The Information Management and Information Systems major is a Guangdong Provincial Renowned Major. Additionally, the school offers a "Strong Foundation Plan" class in mathematics. The discipline boasts a first-tier doctoral program in mathematics and a postdoctoral research station, with mathematics being a Guangdong Provincial Key Discipline. It also hosts the National Engineering Mathematics Basic Course Teaching Base and the Guangdong Provincial Mathematics Technology Experimental Teaching Demonstration Center.

The Mathematics program has a strong faculty, with 92 full-time teachers, including dual-appointed academicians, recipients of the National Science Fund for

Distinguished Young Scholars (NSFC "Jie Qing"), National Excellent Young Scientists (NSFC "You Qing"), National "Ten Thousand Talents Plan" Teaching Masters, Ministry of Education New Century Excellent Talents, Provincial Teaching Masters, Provincial "Qian Bai Shi" Talent Program scholars, Young Pearl River Scholars, Pearl River Science and Technology New Stars, and Guangdong Special Support Program for Young Top Talents, totaling nearly 20 high-level experts.

For years, the Mathematics program has conducted multilevel joint training programs with top-tier universities in the United States, Canada, the United Kingdom, France, and other countries. It provides abundant library and online resources, including a 105-square-meter reading room housing 6,667 books, of which 1,838 are English-language volumes (yellow-cover series), greatly supporting the academic and research needs of faculty and students.

The mathematics program cultivates "three-abilities" (innovation, creation, and entrepreneurship) talents who possess both patriotism and a global perspective, excel in learning capacity, critical thinking, and execution, and develop comprehensively in moral, intellectual, physical, aesthetic, and labor education.

The mathematics discipline is characterized by its strong foundational nature and broad applicability. Undergraduate students in this program not only acquire systematic and solid fundamental theories, core skills, and specialized knowledge but also gain a certain level of understanding of physics, mechanics, computer science and technology, information and communication engineering, control science and engineering, statistics, and systems science.

The program aims to develop students with:

- Strong mathematical thinking skills, dialectical awareness, innovative mindset, and practical abilities;

- The preliminary ability to identify problems, formulate questions, and analyze and solve problems using mathematical techniques, computational methods, information technology, and statistical tools.

Upon confirming their major, students proceed to the specialized training phase. The Mathematics program offers three academic tracks, primarily in: Mathematics and Applied Mathematics, Information and Computational Science, and Statistics. Additionally, the school has established a dedicated "Strong Foundation Plan" (Elite Mathematics) Class.

Course Category	Requirement	Credits	Academic Hours	Remarks
General Basic Courses	Compulsory	20.5	384	
	General Education	10	160	
Specialty Basic Courses	Compulsory	24	384	
Practice Training	Compulsory	4	4Weeks	
Total				

Course Category	Course No.	Course Title	C/E	Total Curriculum Hours					Credits	Semester
				Class Hours	Theoretical class hours	Lab Hours	Practice Hours	Other Hours		
	031101661	Ethics and Rule of Law	C	40	36			4	2.5	1
	031101761	The Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	C	48	36			12	3.0	2
	044101383	English for Academic Purposes (1)	C	32	32				2.0	1
	044102452	English for Academic Purposes (2)	C	32	32				2.0	2
	084101181	Introduction to Artificial Intelligence	C	36	24	12			2.0	1
	052100332	Physical Education (1)	C	36				36	1.0	1
	052100012	Physical Education (2)	C	36				36	1.0	2
	006100112	Military Principle	C	36	18			18	2.0	2
	045102811	Programming in Python language		40	32			8	2.0	2
	041100582	University Physics I (一)	C	48	48				3.0	2
		Humanities, Social Science	E	128	128				8.0	
		Science and Technology		32	32				2.0	
			C	544	400	12		114	30.5	
	040101591	Analytic Geometry		48	48				3.0	1
	040100111	Advanced Algebra (Part I)		80	80				5.0	1
	040100282	Mathematical Analysis (Part I)		80	80				5.0	1
	040100931	Advanced Algebra (Part II)		80	80				5.0	2
	040100352	Mathematical Analysis (Part II)		96	96				6.0	2
			C	384	384				24	

	006100151	Military Training	C	2 weeks					2.0	1
	040102661	Introduction to Mathematics Programs	C	2 weeks					2.0	2
			C							
			E	Minimum elective course credits required:						

Full details are given in educational plans for each specialty.

:

Adhere to the general goal of the school to cultivate talents with "excellent morality, broad foundation, innovative thinking, excellent ability and profound professional skills", and cultivate top-notch talents in the field of mathematics and Applied Mathematics with socialist core values, comprehensive development of morality, intelligence, physique, art and labor, facing the major strategic needs of the country, adapting to social development and scientific and technological progress, mastering solid basic theories and broad professional knowledge in the field of mathematics and applied mathematics, having interdisciplinary abilities such as mathematical modeling, quantitative analysis and artificial intelligence, outstanding "Three Abilities" (learning, thinking and action), and outstanding "Three Abilities" (innovation, creation and Entrepreneurship).

(1) Actively respond to major national strategic needs, adapt to social development and scientific and technological progress, have excellent personal cultivation and professional ethics, and have international vision and leadership ability.

(2) Have a solid mathematical foundation and broad mathematical theoretical knowledge, and master the basic ideas and methods of mathematics and applied mathematics.

(3) Get strict mathematical thinking training, have solid specialized field knowledge, be able to carry out basic and applied research based on mathematical and applied mathematical methods in different fields, and show high-level scientific research ability.

(4) Be able to have a strong potential ability to use mathematical theory knowledge to solve theoretical and practical problems.

№.1. professional knowledge and literacy. Master solid mathematical foundation and professional knowledge, and have good mathematical thinking and mathematical literacy.

№.2. problem analysis. Be able to identify and standardize the expression of complex problems in mathematics and related fields, and draw scientific conclusions combined with literature research and subject analysis.

№.3. design/develop solutions. Be able to design and develop solutions to complex problems in mathematics and related fields, considering theoretical rigor, computational efficiency and feasibility.

№4. research ability. Be able to study complex problems in mathematics and related fields based on Mathematics and engineering principles and scientific methods, design experiments, analyze data and draw reasonable conclusions.

№5. use modern tools. Be able to develop, select and use appropriate technologies, resources, modern engineering and information technology tools for complex problems in mathematics and related fields, predict and simulate complex problems, and understand their limitations.

№6. science and society. Be able to conduct reasonable analysis based on relevant background knowledge of mathematics major, evaluate the impact of solutions to complex scientific and engineering problems on society, health, safety, law and culture, and understand the responsibilities to be undertaken.

№7. subject cognition and development. Understand the discipline development law, evaluate its role in promoting mathematics and related fields, and grasp the frontier direction.

№8. professional norms. Have humanistic and social science literacy and sense of social responsibility, and abide by academic ethics, laws and professional norms.

№9. individuals and teams. Be able to undertake individual tasks or the role of principal in a multidisciplinary team to achieve collaboration and coordination.

№10. communication skills. Be able to effectively communicate with peers and the public, and have cross-cultural communication ability.

№11. lifelong learning. Have the ability of autonomous learning, adapt to the development of disciplines and continuously update the knowledge system.

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№1. professional knowledge and literacy		•	•	•
№2. problem analysis		•	•	•
№3. design/develop solutions		•	•	•
№4. research ability		•	•	•
№5. use modern tools			•	•
№6. science and society	•		•	
№7. subject cognition and development	•			•
№8. professional norms	•	•		
№9. individuals and teams	•		•	

№10. communication skills	•	•	•	•
№11. lifelong learning	•	•	•	•

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As a bridge between basic and applied disciplines, Mathematics and Applied Mathematics radiates extensive social value: In scientific and technological innovation, it provides algorithm optimization and mathematical modeling support for frontiers like artificial intelligence and aerospace. In economics and finance, it constructs risk assessment models and supply chain optimization solutions, promoting fintech development and assisting policy-making. In social governance, it enhances public health prevention efficiency and urban management effectiveness through tools like infectious disease transmission models and intelligent transportation network algorithms, providing quantitative scientific basis for ecological protection. With interdisciplinary thinking, it drives innovative breakthroughs in biomedical sciences, computational social sciences, etc., serving as the core force connecting theoretical research and practical application to solve complex system problems.

The mathematics discipline of South China University of Technology was founded in 1958. After the independent school establishment in 2013, driven by talent cultivation and introduction, its comprehensive teaching and research strength has continuously upgraded, with prominent influence in domestic and international academic circles. It was rated B+ (tied 19th nationally) in the fourth round of discipline evaluation by the Ministry of Education, maintaining excellent performance in the fifth round. In 2019, the school was selected into the Ministry of Education's Strong Foundation Program, and the Mathematics and Applied Mathematics major was approved as a National First-Class Undergraduate Major Construction Site, holding qualifications of National Characteristic Major, Guangdong Famous Major, and Key Major. With a strong faculty, among 92 full-time teachers, there are nearly 20 high-level talents including National Distinguished Young Scholars, "Ten Thousand Talents Program" Teaching Masters, Outstanding Young Scholars, and Ministry of Education New Century Talents, with young and middle-aged teachers as the backbone, forming a scientifically rational team structure. Its international education has achieved remarkable results, carrying out undergraduate-postgraduate joint training programs with overseas universities such as the University of Western Ontario (Canada), the University of Birmingham (UK), the University of Edinburgh (UK), and the University of Nantes (France), helping students expand international horizons.

1. : Focus on cultivating innovative high-level talents, base on disciplinary frontiers, emphasize solid foundations and innovation, and promote the integration of science and education.
2. : Explore the "Mathematics+" model, highlight integration with computer, statistics, and other technologies to empower new engineering and interdisciplinary applications.
3. : Rely on the advantages of the Guangdong-Hong Kong-Macao Greater Bay Area, serve local economy and national strategies, and deliver high-quality talents to boost innovative development.

Bachelor of Science

Mathematical Analysis, Advanced Algebra, Analytic Geometry, Ordinary Differential Equations, Real Variable Functions, Complex Variable Functions, Abstract Algebra, Equations of Mathematical Physics, Probability Theory, Functional Analysis, Mathematical Models, Neural Networks and Deep Learning

Freshmen Seminars: Introduction to Mathematics, Exploring Modern Algebra and Geometry

Special Topics: Mathematical Models

Courses Taught in English: Statistics and Regression with R, Statistical Learning and Data Science, The Qualitative Methods and Numerical Simulation for Differential Equations

Subject Frontiers Courses: Selected Lectures on Ideas and Methods of Differential Equations

Baccalaureate-Master's Sharing Courses: Measure Theory, Advanced Statistics, Quantum Information and Quantum Computation

Innovation Practice: Mathematical Models (Course Design)

Entrepreneurship Courses: Mathematical Models (Course Design)

Competitive Teaching Combination Course: Mathematical Models、 Select topics on analysis and algebra

Education on The Hard-Working Spirit: Mathematical Technology Practice

Course Category	Requirement			Credits		Academic Hours		Remarks
General Basic Courses	Compulsory			37		752		
	General Education			10		160		
Specialty Basic Courses	Compulsory			65		1040		
Elective Courses	Elective			20		320		
Total				132		2272		
Practice Training	Compulsory			22		22weeks		
	Elective			6		6 weeks		
Credits Required for Graduation	132+28=160							
Suggested Credits for Each Semester	1	2	3	4	5	6	7	8
	24	25	25	25	23	22	8	8

Academic Hours					Credits						
Total	Include		Include		Total	Include		Include			Include
	Compulsory	Elective	Theory Course	Lab		Compulsory	Elective	Practice-concentrated Training	Theory Course Credits	Lab	Innovation and Entrepreneurship Education
2272	1792	480	1822	450	160	124	36	28	118	14	13

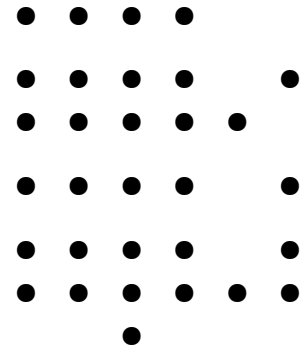
Course Category	Course No.	Course Title	C/E	Total Curriculum Hours					Credits	Semester
				Class Hours	Theoretic al class hours	Lab Hours	Practice Hours	Other Hours		
	031101761	The Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	C	48	36			12	3.0	1
	031101661	Ethics and Rule of Law		40	36			4	2.5	2
	031101371	Skeleton of Chinese Modern History		40	36			4	2.5	3
	031101424	Thought of Mao ZeDong and Theory of Socialism with Chinese Characteristics		40	36			4	2.5	4
	031101522	Fundamentals of Marxism Principle		40	36			4	2.5	4
	031101331	Analysis of the Situation & Policy		64	64				2.0	1-8
	044101383	English for Academic Purposes (1)		32	32			2.0	1	1
	044102452	English for Academic Purposes (2)		32	32			2.0	2	2
	084101181	Introduction to Artificial Intelligence		36	24	12			2.0	1
	045102811	Python		40	32			8	2.0	2
	052100332	Physical Education (1)		36			36		1.0	1
	052100012	Physical Education (2)		36			36		1.0	2
	052100842	Physical Education (3)		36			36		1.0	3
	052100062	Physical Education (4)		36			36		1.0	4
	006100112	Military Principle		36			18		2.0	2
	041100582	General Physics (1)		48	48				3.0	2
	041101391	General Physics (2)		48	48				3.0	3
	041100671	Physics Experiment (1)		32		32			1.0	3
	041101051	Physics Experiment (2)		32		32			1.0	4
		Humanities, Social Science	E	128	128				8.0	
		Science and Technology		32	32				2.0	
				912	638	64		210	47	

Course Category	Course No.	Course Title	C/E	Total Curriculum Hours					Credits	Semester
				Class Hours	Theoretical class hours	Lab Hours	Practice Hours	Other Hours		
	040101591	Analytic Geometry	C	48	48				3.0	1
	040100111	Advanced Algebra (I)	C	80	80				5.0	1
	040100282	Mathematical Analysis (1)	C	80	80				5.0	1
	040100931	Advanced Algebra (II)	C	80	80				5.0	2
	040100352	Mathematical Analysis (2)	C	96	96				6.0	2
	040101311	Mathematical Analysis (3)	C	96	96				6.0	3
	040100131	Ordinary Differential Equations	C	64	64				4.0	3
	040100492	Probability Theory	C	64	64				4.0	3
	040100162	Mathematical Models	C	48	48				3.0	4
	040102821	Neural Networks and Deep Learning	C	64	64				4.0	4
	040100061	Functions of a Complex Variable	C	64	64				4.0	4
	040102702	Abstract Algebra	C	64	64				4.0	4
	040101052	Real Variable Function	C	64	64				4.0	5
	040100301	Equations of Mathematical Physics	C	64	64				4.0	6
	040101181	Functional Analysis	C	64	64				4.0	6
			C	1040	1040				65.0	
	040102691	Select topics on analysis and algebra	E	32	32				2.0	3
	040101721	Elementary Number theory	E	64	64				4.0	3
	040100121	Differential Geometry	E	64	64				4.0	4
	040102682	Topology	E	64	64				4.0	5
	040101531	Foundations of Algebra	E	64	64				4.0	6
	040102471	Thoughts and Methods in Differential Equations	E	48	48				3.0	7
	040102741	Riemann Surface and Riemann Geometry	E	64	64				4.0	7
	040100482	Discrete Mathematics	E	48	48				3.0	3
	040102671	Object-oriented Programming	E	56	40			16	3.0	6
	040100081	Data Structures	E	64	64				4.0	3
	040101011	Numerical Analysis	E	64	64				4.0	4
	040102241	Matrix calculations	E	48	48				3.0	4
	040100871	Mathematics Software and Mathematics Experiments	E	48	16			32	2.0	4
	040101061	Design and Analysis of Algorithms	E	64	64				4.0	4
	040102361	Database Systems	E	64	64				4.0	4
	040100181	Numerical Methods of Differential Equation	E	48	48				3.0	5
	040102322	Numerical Optimization Algorithms	E	64	64				4.0	5

040102751	Finite element method and computation	E	48	48				3.0	6
040101331	Computer Graphics	E	48	48				3.0	6
040102731	Computational Fluid Dynamics	E	48	48				3.0	6
040101581	Computer network	E	48	48				3.0	8
040100801	Mathematical Statistics	E	64	64				4.0	4
040102722	Statistical Learning and Data Science	E	64	64				4.0	4
040102831	Statistic and regression with R	E	48	48				3.0	4
040101131	Operations Research	E	64	64				4.0	4
040102561	Bayesian Statistics and Knowledge Reasoning	E	48	48				3.0	5
040102271	Big Data Application	E	32	32				2.0	5
040100671	Multivariate Statistical Analysis	E	64	64				4.0	5
040102481	Regression Analysis	E	48	48				3.0	5
040101071	Stochastic Process	E	64	64				4.0	6
040102091	Nonparametric Statistics	E	32	32				2.0	6
040102461	Monte Carlo Methods with some Applications	E	48	48				3.0	6
040100442	Mathematical Finance	E	48	48				3.0	6
040102021	Time Series and Analysis	E	48	48				3.0	6
040102501	Life Insurances Actuarial Science	E	48	48				3.0	7
040102141	Experimental Design and Analysis	E	32	32				2.0	8
	Intercollegiate courses (not from School of Mathematics) less than 4 credits	E						≤ 4	
040102451	Quantum Information and Quantum Computation	E	64	64				4.0	5
040101511	Measure Theory	E	64	64				4.0	7
040102282	The Qualitative Methods and Numerical Simulation for Differential Equations	E	64	64				4.0	5
040102571	Advanced Statistics	E	64	64				4.0	8
020100051	Innovation Research Training	E	32				32	2.0	7
020100041	Innovation Research Practice I	E	32				32	2.0	7
020100031	Innovation Research Practice II	E	32				32	2.0	7
020100061	Entrepreneurial Practice	E	32				32	2.0	7
		E	Minimum elective course credits required: 20.0						

Course No	Course Title	C/E	Total Curriculum Hours		Credits	Semester
			Practice weeks	Lecture Hours		
006100151	Military Training	C	2 weeks		2.0	1
031101551	Marxism Theory and Practice	C	2 weeks		2.0	3
040102661	Introduction to Mathematics Specialty	C	2 weeks		2.0	2
040100841	Mathematical Models (Course Design)	C	2 weeks		2.0	4
040102581	Mathematical Technology Practice	C	2 weeks		2.0	5
040100361	Object-oriented Programming (Course Design)	E	2 weeks		2.0	6
040101521	Data Structures (Course Design)	E	2 weeks		2.0	3
040102352	Database Systems (Course Design)	E	2 weeks		2.0	4
040101462	Numerical Analysis (Course Design)	E	3 weeks		3.0	4
040102711	Statistical Learning and Data Science (Course Design)	E	2 weeks		3.0	4
040102511	Regression Analysis (Course Design)	E	2 weeks		2.0	5
040100292	Numerical Methods of Differential Equation (Course Project)	E	2 weeks		2.0	5
040100973	Graduation Practice	C	4 weeks		4.0	7-8
040100264	Graduation Project	C	15 weeks		8.0	8
		C	29 weeks		22.0	
		E	Minimum elective course credits required: 6.0			

- 1 The Xi Jinping Thought on Socialism with
Chinese Characteristics for a New Era
- 2 Ethics and Rule of Law
- 3 Skeleton of Chinese Modern History
- 4 Thought of Mao ZeDong and Theory of
Socialism with Chinese Characteristics
- 5 Fundamentals of Marxism Principle
- 6 Analysis of the Situation & Policy
- 7 English for Academic Purposes (1)



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Principles

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74	Advanced Statistics	●	●		●	●						●
75	Innovation Research Training	●	●			●		●	●			
76	Innovation Research Practice I	●	●			●		●	●			
77	Innovation Research Practice II	●	●			●		●	●			
78	Entrepreneurial Practice	●	●			●		●	●			
79	Military Training							●	●	●	●	●
80	Marxism Theory and Practice							●	●	●	●	●
81	Enter Modern Algebra and Geometry	●			●							
82	Introduction to Mathematics Speciality	●	●				●					
83	Mathematical Models (Course Design)		●	●		●				●		●
84	Mathematical Technology Practice	●	●	●	●	●						
85	Object-oriented Programming (Course Design)	●	●	●								
86	Data Structures (Course Design)	●	●	●						●		●
87	Database Systems (Course Design)	●	●	●						●		●
88	Numerical Analysis (Course Design)	●	●	●	●	●					●	
89	Statistical Learning and Data Science (Course Design)			●		●				●		●
90	Regression Analysis (Course Design)		●	●		●				●		●
91	Numerical Methods of Differential Equation (Course Project)	●		●	●		●					
92	Graduation Practice		●	●		●	●		●		●	●
93	Graduation Project		●	●		●	●	●	●		●	●

“Second Classroom” Activities are comprised of two parts, Humanities Quality Education and Innovative Ability Cultivation.

(1) Basic Requirements of Humanities Quality Education

While obtaining the credits required by the professional teaching plan, students should also participate in extracurricular humanities education activities based on their own interests, and the total credits of participating in the activities should be no less than 7 credits

express and analyze complex problems in mathematics and related disciplines through literature research, taking into account the requirements of sustainable development to obtain effective conclusions.

. Be able to design and develop solutions for complex problems in mathematics and related disciplines, design mathematical models, algorithms or methods that meet specific needs, and consider the rationality of the solutions from the perspectives of computing efficiency, resource consumption, and practical application feasibility.

. Ability to conduct research on complex problems in mathematics and related disciplines based on mathematical, scientific and engineering principles and using scientific methods, including designing numerical experiments, analyzing and interpreting data, and obtaining reasonable and effective conclusions through information synthesis.

. Be able to develop, select and use appropriate techniques, resources, modern engineering and information technology tools to predict and simulate complex problems in mathematics and related disciplines, and understand their limitations.

. Be able to conduct reasonable analysis based on relevant background knowledge in mathematics, evaluate the impact of solutions to complex scientific and engineering problems on society, health, safety, law, and culture, and understand the responsibilities that should be assumed.

. Be able to understand and evaluate the impact of practical activities on complex problems in mathematics and related disciplines on the environment, economy and social sustainable development.

. Have humanities and social science literacy, a sense of social responsibility, be able to understand and practice academic ethics, abide by academic ethics and relevant laws in practical work, and fulfill responsibilities.

. Ability to function as an individual, team member, and leader in a diverse, multidisciplinary team.

. Ability to communicate effectively with peers and the public on complex mathematical and scientific issues, including writing reports and design documents, making presentations, expressing oneself clearly or responding to instructions; ability to communicate in a cross-cultural context, and to understand and respect language and cultural differences.

. Have the awareness of independent and lifelong learning, and the ability to continuously learn and adapt to the development of mathematics and related fields.

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1. Professional knowledge and literacy		•	•	•

2. Problem Analysis		•	•	•
3. Design / develop solutions		•	•	•
4. Research capabilities		•	•	•
5. Use modern tools			•	•
6. Science and Society	•		•	
7. Environment and sustainable development	•		•	
8. Professional Standards	•	•		
9. Individuals and Teams	•		•	
10. Communication skills	•	•	•	•
11. Lifelong learning	•	•	•	•

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The major of Information and Computing Science is a science major. It is based on computational mathematics and has the information industry as its background. It plays a core role in scientific and technological breakthroughs. By breaking through "bottleneck" technologies such as high-performance computing, artificial intelligence algorithms, cryptography and data processing, it provides key support for cutting-edge scientific and technological fields such as domestic chip research and development and quantum computing, while ensuring information security in finance, medical care, national defense, etc. At the economic and governance level, talents in this major promote industrial digitalization and scientific decision-making, and enable the development of financial technology, intelligent governance and other fields. In the face of global challenges such as aging and climate change, the major uses its cross-innovation advantages to apply to precision medicine and smart cities, providing key solutions. This major cultivates high-quality, high-level, and high-level innovative talents with a broad mathematical foundation and mathematical thinking ability, who master the basic theories, methods and skills of information science and computing technology, can solve key problems in information science and engineering computing, and can engage in research, teaching, application development and management in science and technology, education, information industry, economics and finance and other departments. In 2022, this major will become a national first-class undergraduate major.

The major of Information and Computing Science was established in 2002. It has a strong faculty. There are 19 full-time teachers, including 4 professors, 9 associate professors, and 6 lecturers. There are 5 high-level talents, including the selected candidates of the National Major Talent Project Youth Project, the selected candidates of the National Major Talent Plan Youth Project, the Guangdong Outstanding Youth

Fund winners, and the Pearl River Science and Technology Star. A teaching team with middle-aged and young teachers as the backbone and a reasonable knowledge structure, age structure and professional title structure has been formed. The teachers of this major have excellent teaching ability. Relying on the Guangdong Provincial Mathematical Experimental Technology Demonstration Center, a mathematical modeling coaching team has been formed. In the past three years, the teachers have guided students to win 2 special prizes and 18 special nomination prizes in the American Mathematical Modeling Competition, 2 first prizes and 4 second prizes in the National Mathematical Modeling Competition; focus on improving students' innovative ability, form a team of dual innovation mentors, and guide students to win 1 first prize in the Challenge Cup National Competition, 3 special prizes in the Provincial Competition, and 1 first prize in the past three years. The student employment rate is 100%, and the results of the college students' mathematical modeling competition are among the best. The major has established a big data research center and a Guangdong Province Mathematical Technology Experimental Teaching Demonstration Center. It has 5 student computer rooms, 6 multimedia academic exchange rooms and lecture halls. The reference room currently has 6,667 books, 1,838 English yellow books, and 88 journals, including 44 pure mathematics journals. The strong faculty, rich collection of books and network resources greatly meet the learning and work needs of teachers and students in the information and computing science major. The internationalization of education has achieved remarkable results, and has carried out undergraduate and master joint training programs with overseas universities such as the University of Western Ontario in Canada, the University of Birmingham in the UK, the University of Edinburgh, and the University of Nantes in France to help students expand their international horizons.

Focus on cultivating innovative high-level talents, based on computational mathematics and information science, strengthen artificial intelligence technology and scientific research innovation capabilities, and deepen the mechanism of collaborative education between science and education.

Explore the integration model of " mathematics + artificial intelligence" to drive cutting-edge applications in new engineering disciplines.

Relying on the advantages of the Guangdong-Hong Kong-Macao Greater Bay Area, serving the local economy and national strategies, and delivering high-quality talents to promote innovative development.

Bachelor of Natural Sciences

Mathematical analysis, advanced algebra, matrix calculation, ordinary differential equations, numerical analysis, numerical solution of differential equations, discrete mathematics, data structure, probability theory, Neural Networks and Deep Learning , information theory and coding.

Freshmen Seminars: Introduction to Mathematics

Special Topics: Mathematical model

Courses Taught in English: Introduction to Statistical Learning and Data Science

Subject Frontiers Courses: Selected Lectures on Ideas and Methods of Differential Equations

Baccalaureate-Master's Integrated Courses: Neural Networks and Deep Learning, Information Theory and Coding

Baccalaureate-Master's Sharing Courses: Qualitative methods and numerical simulation of differential equations, algorithm design and analysis, finite element method and calculation, computational fluid dynamics

Innovation Practice: Numerical Analysis Course Design

Entrepreneurship Courses: Numerical Analysis Course Design

Competition and teaching combined courses: Mathematical model, Analysis and Algebra

Practical Training: Mathematical Technology Practice

Course Category	Requirement			Credits		Academic Hours		Remarks
General Basic Courses	Compulsory			37		752		
	General Education			10		160		
Specialty Basic Courses	Compulsory			60		960		
Elective Courses	Elective			25		400		
Total				132		2432		
Practice Training	Compulsory			23		30 weeks		
	Elective			5		5 weeks		
Credits Required for Graduation	132 + 28 = 160							
Suggested Credits for Each Semester	1	2	3	4	5	6	7	8
	24	25	25	25	23	22	8	8

Note: Students must complete the required credits of the professional teaching plan upon graduation, and obtain 7 credits of humanities education and 4 credits of innovation ability training in the second classroom.

Academic Hours	Credits
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Total	Include		Include		Total	Include		Include			Include
	Compulsory	Elective	Theory Course	Lab		Compulsory	Elective	Practice-concentrated Training	Theory Course Credits	Lab	Innovation and Entrepreneurship Education
2272	1712	560	1822	450	160	120	40	28	118	14	4

Note:

1. General education courses are counted as one of the electives;
2. The “experimental teaching hours” in this table include the experiments, internships and others in the “professional teaching plan”;
3. Innovation and entrepreneurship education credits: Courses in the training plan are approved by the teaching guidance committee of each department, including credits for competition-teaching combined courses, innovation practice courses, and entrepreneurship education courses;
4. Compulsory teaching hours + elective teaching hours = total teaching hours; theoretical teaching hours + experimental teaching hours = total teaching hours; compulsory credits + elective credits = total credits; credits for concentrated practical teaching + theoretical teaching credits + experimental teaching credits = total credits.

Course Category	Course No.	Course Title	C/E	Class Hours	Total Curriculum Hours				Credits	Semester
					Theoretical class hours	Lab Hours	Practice Hours	Other Hours		
	031101761	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era								
	031101661	Ideological Morality and Law								
	031101371	An Outline of Modern Chinese History								
	031101424	An Introduction to Xi Jinping Thought and the Theoretical System of Socialism with Chinese Characteristics								
	031101522	Basic Principles of Marxism-Leninism								
	031101331	Situation and policy of the world								
	0441013-	4								

Note: The rest of the study hours can be computer and practical study hours.

Course Category	Course No.	Course Title	C/E	Total Curriculum Hours					Credits	Semester
				Class Hours	Theoretical class hours	Lab Hours	Practice Hours	Other Hours		
	040101591	Analytic Geometry	C	48	48				3.0	
	040100282	Mathematical Analysis (I)	C	80	80				5.0	
	040100111	Advanced Algebra (Part 1)	C	80	80				5.0	
	040100931	Advanced Algebra (Part 2)	C	80	80				5.0	
	040100352	Mathematical Analysis (II)	C	96	96				6.0	
	040101311	Mathematical Analysis (III)	C	96	96				6.0	
	040100131	Ordinary differential equations	C	64	64				4.0	
	040100492	Probability Theory	C	64	64				4.0	
	040100482	Discrete Mathematics	C	48	48				3.0	
	040100081	Data Structure	C	64	64				4.0	
	040101011	Numerical analysis	C	64	64				4.0	
	040102821	Neural Networks and Deep Learning	C	64	64				4.0	
	040100181	Numerical solution of differential equations	C	48	48				3.0	
	040101401	Information Theory and Coding	C	64	64				4.0	
			C	960	960				60.0	
	040102361	Database Systems	E	64	64				4.0	4
	040101581	Computer Network	E	48	48				3.0	4
	040101061	Algorithm Design and Analysis	E	64	64				4.0	4
	040101261	operating system	E	64	64				4.0	5
	040102671	Object-Oriented Programming	E	56	40	16			3.0	6
	040102301	Digital Image Processing	E	32	32				2.0	6
	040101331	Computer Graphics	E	48	48				3.0	6
	040102241	Matrix calculations	E	48	48				3.0	4
	040100871	Mathematical software and mathematical experiments	E	48	16			32	2.0	4
	040100162	Mathematical model	E	48	48				3.0	4
	040102282	The Qualitative Methods and Numerical Simulation for Differential Equations	E	64	64				4.0	5
	040102811	Machine Learning & Applications	E	32	32				2.0	5
	040102751	Finite Element Method and Calculation	E	48	48				3.0	6
	040102731	Computational Fluid Dynamics	E	48	48				3.0	6
	040102851	AI Data Art and Scientific Research	E	32	32				2.0	2
	040102801	Medical Data Analysis	E	48	48				3.0	5
	040102841	Frontiers of Statistical Learning	E	64	64				4.0	5

040101131	Operations Research	E	64	64				4.0	4
040100801	Mathematical Statistics	E	64	64				4.0	4
040102722	Statistical Learning and Data Science	E	64	64				4.0	4
040102322	Numerical Optimization Algorithms	E	64	64				4.0	5
040102561	Bayesian Statistics and Knowledge Reasoning	E	48	48				3.0	5
040101071	Random Process	E	64	64				4.0	6
040102571	Advanced Statistics	E	64	64				4.0	6
040102461	Monte Carlo method and its application	E	48	48				3.0	6
040102021	Time Series Analysis	E	48	48				3.0	6
040102691	Selected Lectures on Analysis and Algebra	E	32	32				2.0	3
040100121	Differential geometry	E	64	64				4.0	4
040100061	Complex function	E	64	64				4.0	4
040102702	Abstract Algebra	E	64	64				4.0	5
040101052	Real variable function	E	64	64				4.0	5
040101181	Functional analysis	E	64	64				4.0	6
040102471	Selected Lectures on the Ideas and Methods of Differential Equations	E	48	48				3.0	7
020100051	Innovative research training	E	32				32	2.0	7
020100041	Innovative Research Practice I	E	32				32	2.0	7
020100031	Innovative Research Practice II	E	32				32	2.0	7
020100061	Entrepreneurial Practice	E	32				32	2.0	7
		E	Minimum elective course credits required: 25.0 credits						

Note: The rest of the study hours can be computer and practical study hours.

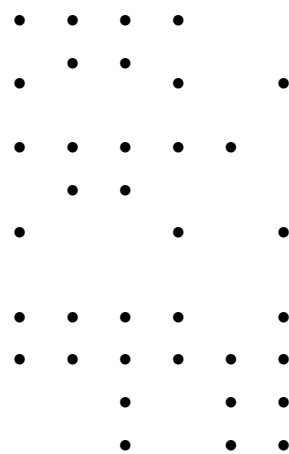
Students can apply for certain professional elective credits (Innovation Research Training, Innovation Research Practice I , Innovation Research Practice II , Entrepreneurship Practice and other innovation and entrepreneurship practice courses) based on their own scientific research training projects, subject competitions, paper publications, patents and self-employment . The total credits applied for by each student as professional elective courses shall not exceed 4 credits. Projects and competitions approved by the school as elective credits will no longer receive innovation credits for the corresponding second classroom.

Course No	Course Title	Credits	Total Curriculum Hours		Credits	Semester
			Practice weeks	Lecture Hours		
006100151	Military skills	C	2 weeks		2.0	1
040102661	Introduction to Mathematics	C	2 weeks		2.0	2
031101551	Marxist theory and practice	C	2 weeks		2.0	3
040101521	Data Structure Course Design	E	2 weeks			

040100841	Mathematical Model Course Design	E	2 weeks		2.0	4
040102352	Database System Course Design	E	2 weeks		2.0	4
040102581	Mathematical Technology Practice	E	2 weeks		2.0	5
040100292	Course Design on Numerical Solutions of Differential Equations	E	2 weeks		2.0	5
040100973	Graduation Internship	C	4 weeks		4.0	7-8
040100264	Graduation Project (Thesis)	C	15 weeks		8.0	8
		C	30 weeks		23.0	
		E	Minimum elective course credits required: 5.0 credits			



- 1 Ideological Morality and the Rule of Law
- 2 Xi Jinping Thought on Socialism with Chinese
Characteristics for a New Era
- 3 An Outline of Modern Chinese History
- 4 An Introduction to Mao Zedong Thought and
the Theoretical System of Socialism with
Chinese Characteristics
- 5 Basic Principles of Marxism
- 6 Situation and policy
- 7 Academic English (I)
- 8 Academic English (II)
- 9 Introduction to Artificial Intelligence (Science
and Engineering)



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36	Object-Oriented Programming			•	•				•		
37	operating system		•			•			•		•
38	Numerical Optimization Algorithms	•	•		•	•					•
39	Digital Image Processing	•	•		•	•					•
40	Complex function	•	•		•						•
41	Real variable function	•	•		•						•
42	Abstract Algebra	•	•		•						•
43	Functional analysis	•	•		•						•
44	Differential geometry	•	•		•						•
45	Mathematical model	•	•		•	•					•
46	Statistical Learning and Data Science	•	•		•	•			•		
47	Time Series Analysis	•	•		•						•
48	Random Process	•	•		•						•
49	Matrix calculations	•	•	•	•				•		•
50	Selected Lectures on Analysis and Algebra			•		•			•		
51	Mathematical software and mathematical experiments	•			•				•		•
52	Algorithm Analysis and Design		•		•				•		•
53	Database Systems			•		•			•		
54	Operations Research			•		•			•		
55	The Qualitative Methods and Numerical Simulation for Differential Equations			•	•				•		
56	Bayesian Statistics and Knowledge Reasoning	•	•	•	•		•				•
57	Machine Learning & Applications		•	•	•	•	•				•
58	Monte Carlo method and its application		•	•	•		•				•
59	Computer Network			•		•			•		•
60	Finite Element Method and Calculation	•		•	•				•		•
61	Computer Graphics	•		•		•			•		•
62	Computational Fluid Dynamics	•		•		•			•		•
63	Selected Lectures on the Ideas and Methods of Differential Equations	•		•		•			•		
64	Advanced Statistics	•	•		•	•					•
65	AI Data Art and Scientific Research					•	•				•
66	Medical Data Analysis	•			•		•				•
67	Frontiers of Statistical Learning				•	•	•				
68	Innovative research training	•	•			•		•	•		
69	Innovative Research Practice I	•	•			•		•	•		
70	Innovative Research Practice II	•	•			•		•	•		
71	Entrepreneurial Practice	•	•			•		•	•		

The second classroom consists of two parts: humanities education and innovation ability cultivation.

While obtaining the credits required by the professional teaching plan, students should also participate in extracurricular humanities education activities based on their own interests, and the total credits of participating in the activities should be no less than 7 credits. Among them, 2 credits of college students' mental health education, 1 credit of national security education, and 2 credits of college students' career planning are offered online and included in the second classroom humanities education credits.

In addition to obtaining the credits required by the teaching plan of this major, students must also participate in the National Innovation and Entrepreneurship Training Program, the Guangdong Innovation and Entrepreneurship Training Program, the SRP (Student Research Program), the Hundred-Step Ladder Climbing Program, or various extracurricular innovation ability training activities for a certain period of time (such as subject competitions, academic lectures, etc.), and the cumulative credits for participating in the activities must be no less than 4 credits.

This program adheres to the university's overall goal of cultivating talents with "exemplary character, broad foundational knowledge, innovative thinking, outstanding capabilities, and deep professional expertise." It aims to develop high-caliber professionals in statistics who embrace

conclusions.

. Design and develop effective solutions for complex interdisciplinary problems by constructing statistical models, algorithms, or integrated methodologies, while evaluating computational efficiency, resource consumption, and practical feasibility.

. Employ scientific methods based on statistical and related disciplinary principles to investigate theoretical and applied problems. This includes designing experiments, analyzing data, and synthesizing information to draw well-reasoned and effective conclusions.

. Ability to develop, select and use appropriate techniques, resources, modern engineering and information technology tools to predict and model complex problems in statistics and related disciplines, and to understand their limitations.

. Ability to conduct rational analyses based on background knowledge of statistics, evaluate the social, health, safety, legal, and cultural impacts of solutions to complex scientific and engineering problems, and understand the responsibilities that should be assumed.

. Ability to understand and evaluate the impact of practical activities on complex issues in statistics and related disciplines on environmental, economic and social sustainability.

. Have a sense of social responsibility in humanities and social sciences, be able to understand and practice academic ethics, abide by academic ethics and relevant laws in practical work, and fulfill responsibilities.

. . Ability to take on the roles of individual, team member and leader in a diverse, multidisciplinary team.

. Ability to communicate effectively with peers and the public on complex statistical and scientific issues, including writing reports and design manuscripts, making presentations, and articulating or responding to instructions; Ability to communicate and communicate in cross-cultural contexts, understanding and respecting language and cultural differences.

. Have the awareness of self-directed learning and lifelong learning, and have the ability to continuously learn and adapt to the development of statistics and related fields.

1. Professional knowledge and accomplishment		•	•	•
2. Problem analysis		•	•	•
3. Design/develop solutions		•	•	•
4. Research ability		•	•	•
5. Use modern tools			•	•
6. Science and Society	•		•	
7. Environment and sustainable development	•		•	
8. Professional Norms	•	•		
9. Individuals vs. Teams	•		•	
10. Communication skills	•	•	•	•
11. Lifelong learning	•	•	•	•

The statistics major cultivates senior talents with solid basic mathematical theories, basic statistical knowledge and practical methods, excellent mathematical and statistical thinking, and comprehensive use of mathematical models, statistical analysis and computer technology to solve practical problems. Graduates of this program are employed in a wide range of fields: in the medical field, using biostatistical methods and data analysis techniques to support drug discovery, disease diagnosis and public health decision-making; In the field of economics and finance, we promote fintech innovation and economic policy formulation through risk management models, portfolio optimization and market forecasting analysis; In the field of industrial manufacturing, relying on quality control models and data-driven production management optimization solutions to improve business efficiency and competitiveness. With interdisciplinary thinking as a bridge, it stimulates innovative breakthroughs in interdisciplinary fields such as biomedicine and materials science, and becomes the core driving force for connecting theoretical research and applied practice and solving complex system problems.

The statistics major has excellent educational conditions and strong faculty. At present, there are 18 full-time teachers in this major, including 7 professors and 9 associate professors, including 5 talents at or above the provincial and ministerial level, such as the "Guangdong Special Support Program" for young top-notch talents, the "Outstanding Teachers of Southern Guangdong" in Guangdong Province, and the national overseas high-level young talents. The college has a library of 105 square meters, with a total

collection of 6,667 books, including 1,838 English yellow books, rich literature and network resources to effectively meet the learning and research needs of teachers and students. In recent years, the program has held many high-level international and domestic academic conferences, and has invited more than 400 domestic and foreign experts and scholars, including 2 Fields Medal winners and 14 academicians, to give lectures and exchanges. In addition, the program focuses on international cooperation to help students expand their global horizons and enhance their international competitiveness.

1. Goal-oriented: Cultivate high-quality statistical talents with a strong sense of social responsibility and mission, strengthen the theoretical foundation, strengthen the ability of innovation and practice, and promote the integration of statistics education and innovation.

2. Cross-integration: Emphasize the "Statistics+" model, strengthen the integration of statistics and artificial intelligence technology, and promote the interdisciplinary and innovative application of statistics and science, engineering, agriculture, medicine, economic management, humanities and social sciences and other fields.

3. Regional empowerment: Based on the national strategy and the development needs of the Guangdong-Hong Kong-Macao Greater Bay Area, cultivate interdisciplinary talents who can solve practical problems with the help of statistical methods and computer tools, and serve the implementation of national strategies and local economic and social development.

Bachelor of Science

Mathematical Analysis, Advanced Algebra, Analytic Geometry, Real Functions, Mathematical Models, Probability Theory, Mathematical Statistics, Regression Analysis, Multivariate Statistical Analysis, Time Series Analysis, Stochastic Processes, Statistical Learning and Data Science.

Freshman Seminar: Introduction to Mathematics Major

Workshop: Mathematical Models

Bilingual courses: Stochastic Processes, Abstract Algebra, Riemannian Surfaces, and Riemannian Geometry

English courses: Statistics and regression with R, The Qualitative Methods and Numerical Simulation for

Differential Equations

Frontier Courses: Selected Lectures on Differential Equations and Ideas and Methods

Interdisciplinary Course: Statistical Learning and Data Science

Shared courses: Measurement Theory, Advanced Statistics, Quantum Information and Quantum Computing

Innovative Practice Course: Mathematical Model Course Design ("Three Ones" Course).

Entrepreneurship Education Course: Mathematical Model Courses Design ("Three Ones" Course).

Competitive Teaching Combination Courses: Mathematical Modeling, Analysis and Algebra Selection

Labor Education Class: Mathematics and Technology Practice

Course Category	Requirement			Credits		Academic Hours		Remarks
General Basic Courses	Compulsory			37		752		
	General Education			10		160		
Specialty Basic Courses	Compulsory			63		1008		
Elective Courses	Elective			20		320		
Total				130		2240		
Practice Training	Compulsory			27		34 weeks		
	Elective			3		3 weeks		
Credits Required for Graduation	130 + 30 = 160							
Suggested Credits for Each Semester	1	2	3	4	5	6	7	8
	23	25.5	23.5	21	20	19	16	12

Note: Students are required to complete the required credits of the professional teaching plan upon graduation and obtain 5 credits of humanities quality education and 4 credits of innovation ability training in the second classroom.

Academic Hours					Credits						
Total	Include		Include		Total	Include		Include			Include
	Compulsory	Elective	Theory Teaching	Lab Teaching		Compulsory	Elective	Practice-concentrated Training	Theory Teaching	Lab Teaching	and Entrepreneurship
2240	1760	480	1790	450	160	127	33	30	116	14	13

- (1) General education courses are included as an elective.
- (2) Lab teaching includes experiments, internships, and others.
- (3) Innovation and entrepreneurship education credits: courses in the training plan are recognized by the teaching guidance committee of each department, including credit courses such as competition-oriented courses, innovative practice courses, and entrepreneurship education courses.
- (4) Compulsory hours + elective hours = total hours; theoretical teaching hours + lab teaching hours = total hours; Compulsory credits + elective credits = total credits; Practice-concentrated training credits + theoretical teaching credits + lab teaching credits = total credits.

Course Category	Course No.	Course Title	Compulsory/ Elective	Total Curriculum Hours					Credits	Semester
				Class Hours	Theoretical class hours	Lab Hours	Practice Hours	Other Hours		
	031101761	The Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	C	48	36			12	3.0	1
	031101661	Ethics and Rule of Law		40	36			4	2.5	2
	031101371	Skeleton of Chinese Modern History		40	36			4	2.5	3
	031101424	Thought of Mao ZeDong and Theory of Socialism with Chinese Characteristics		40	36			4	2.5	4
	031101522	Fundamentals of Marxism Principle		40	36			4	2.5	4
	031101331	Analysis of the Situation & Policy		64	64				2.0	1-8
	044101383	English for Academic Purposes I		32	32				2.0	1
	044102452	English for Academic Purposes II		32	32				2.0	2
	084101181	Introduction to Artificial Intelligence (Science & Engineering)		36	24			12	2.0	1
	045102811	Programming in Python language		40	32			8	2.0	2
	052100332	Physical Education I		36				36	1.0	1
	052100012	Physical Education II		36				36	1.0	2
	052100842	Physical Education III		36				36	1.0	3
	052100062	Physical Education IV		36				36	1.0	4
	006100112	Military Principle		36	18			18	2.0	2
	041100582	General Physics I		48	48				3.0	2
	041101391	General Physics II		48	48				3.0	3
	041100671	Physics Experiment I		32		32			1.0	3
	041101051	Physics Experiment II		32		32			1.0	4
		Humanities, social sciences	E	128	128				8.0	
		Science and technology field		32	32				2.0	
					912	638	64		210	47

Other class hours may include computer lab sessions and practical training.

Course Category

Course No.

Course Title

Compulsory/
Elective

	040102801	Medical Data Analysis		48	48				3.0	5
	040102671	Object-oriented Program Design		56	40			16	3.0	6
	040102091	Nonparametric Statistics		32	32				2.0	6
	040101181	Functional Analysis		64	64				4.0	6
	040100442	Mathematical Finance		48	48				3.0	6
	040102461	Monte Carlo Methods with some Applications		48	48				3.0	6
	040101032	Macroeconomics		32	32				2.0	6
	040100301	Equation of Mathematical Physics		64	64				4.0	6
	040102501	Life Insurances Actuarial Science		48	48				3.0	7
	040102471	Thoughts and Methods in Differential Equations		48	48				3.0	7
	040102741	Riemann Surface and Riemann Geometry		64	64				4.0	7
	040101511	Measure Theory		64	64				4.0	7
	040101581	Computer Network		48	48				3.0	8
	040102571	Advanced Mathematical Statistics		64	64				4.0	8
	040102141	Experimental Design and Analysis		32	32				2.0	8
	040102691	Selected topics on analysis and algebra		32	32				2.0	3
	040101721	Number Theory		64	64				4.0	3
	040100121	Differential Geometry		64	64				4.0	4
	040102702	Abstract Algebra		64	64				4.0	5
	040102451	Quantum Information and Quantum Computation		64	64				4.0	5
	040100181	The Numerical Method Of Differential Equation		48	48				3.0	5
	040102282	The Qualitative Methods and Numerical Simulation for Differential Equations		64	64				4.0	5
	040102751	Finite element method and computation		48	48				3.0	6
	040101331	Computer Graphics		48	48				3.0	6
	040101531	Basis of Algebra		64	64				4.0	6
	040102731	Computational Fluid Dynamics		48	48				3.0	6
	020100051	Innovation Research Training		32				32	2.0	7
	020100041	Innovation Research Practice I		32				32	2.0	7
	020100031	Innovation Research Practice II		32				32	2.0	7
	020100061	Entrepreneurial Practice		32				32	2.0	7

Other class hours may include computer lab sessions and practical training. Students may apply to convert their participation in scientific research training projects, academic competitions, published papers, patents obtained, or independent entrepreneurial activities into a certain number of credits for professional elective courses (such as *Innovative Research Training*, *Innovative Research Practice I*, *Innovative Research Practice II*, and *Entrepreneurial Practice*). Each student may accumulate a maximum of 4 credits from such conversions toward professional elective courses. Projects, competitions, etc., that have been approved by the university and recognized as elective course credits for corresponding innovation credits in the second classroom program.

Course No	Course Title	C/E	Total Curriculum Hours		Credits	Semester
			Practice weeks	Lecture Hours		
006100151	Military					

Serial Number	Course name	Student Outcomes										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
1	Ethics and Rule of Law						•	•	•	•		
2	The Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era						•	•	•	•		•
3	Skeleton of Chinese Modern History						•	•	•	•	•	
4	Thought of Mao ZeDong and Theory of Socialism with Chinese Characteristics						•	•	•	•		•
5	Fundamentals of Marxism Principle						•	•	•	•		•
6	Analysis of the Situation & Policy						•	•	•	•	•	•
7	English for Academic Purposes I								•		•	•
8	English for Academic Purposes II								•		•	•
11	Introduction to Artificial Intelligence			•	•	•						•
12	Physical Education I						•			•		•
13	Physical Education II						•			•		•
14	Physical Education III						•			•		•
15	Physical Education IV						•			•		•
16	Military Principle						•		•	•	•	
17	Programming in Python language		•			•			•			•
18	General Physics I		•	•			•	•				
19	General Physics I		•	•			•	•				
20	Physics Experiment I		•	•	•		•	•				
21	Physics Experiment II		•	•	•		•	•				
22	Mathematics Analysis I	•	•		•							•
23	Mathematics Analysis II	•	•		•							•
24	Mathematics Analysis III	•	•		•							•
25	Analytic Geometry	•	•		•							
26	Advanced Algebra I	•	•		•							•
27	Introduction to Mathematics Speciality	•							•		•	
28	Advanced Algebra II	•	•		•							•
29	Ordinary Differential Equation	•	•		•							•
30	Probability	•	•									•
31	Mathematical Statistics	•	•									•
32	Numerical Analysis	•	•		•	•						•
33	Functions of a Complex Variable	•	•		•							•
34	Real Variable Function	•	•		•							•
35	Abstract Algebra	•	•		•							•
36	Equation of Mathematical Physics	•	•		•							•
37	Functional Analysis	•	•		•							•
38	Topology	•	•		•							•
39	Differential Geometry	•	•		•							•

Serial Number	Course name	Student Outcomes										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
40	Mathematical Models	•	•			•						
41	Statistical Learning and Data Science	•			•	•				•		
42	Multivariate Statistical Analysis	•	•			•						
43	Regression Analysis	•	•			•						
44	Time Series and Analysis	•	•			•						
45	Stochastic Process	•	•									•
46	Mathematical Finance		•				•		•			
47	Discrete Mathematics	•				•			•			
48	Micro Economics	•	•						•			
49	Object-oriented Program Design			•	•				•			
50	Matrix Computations	•	•	•	•				•		•	•
51	Selected topics on analysis and algebra			•		•			•			
52	Macroeconomics	•	•						•			
53	Mathematics Software and Experiments in Mathematics	•			•				•		•	•
54	Design and Analysis											

•



Serial Number	Course name	Student Outcomes										
		1.	2.	3.	4.	5.	6.	7.	8.	9	10	11
77	Selected Thoughts and Methods in Partial Differential Equations	•		•		•			•			
78	Higher Statistics	•	•		•	•						•
79	Experimental Design and Analysis	•	•		•	•						•
80	AI Data Arts for Science					•	•				•	
81	Frontiers in Statistical Learning	•									•	•
82	Portfolio and Risk Analysis			•			•		•			
83	Innovation Research Training	•	•			•		•	•			
84	Innovation Research Practice I	•	•			•		•	•			
85	Innovation Research Practice II	•	•			•		•	•			
86	Entrepreneurial Practice	•	•			•		•	•			

The second classroom consists of two parts: humanistic quality education and innovation ability training.

While obtaining the credits specified in the professional teaching plan, students should also appropriately participate in extracurricular humanistic quality education activities based on their own interests, and the cumulative credits of participating activities should not be less than 7 credits. Among them, 2 credits of mental health education for college students, 1 credit of national security education, and 2 credits of career planning for college students are offered online and included in the second classroom humanistic quality education credits.

In addition to obtaining the credits specified in the teaching plan of the major, students must also participate in the National Innovation and Entrepreneurship Training Program, the Guangdong Innovation and Entrepreneurship Training Program, the SRP (Student Research Program), the Hundred Step Ladder Climbing Program or various extracurricular innovation ability training activities (such as discipline competitions, academic lectures, etc.) for a certain period of time, and the cumulative credits of the activities shall not be less than 4 credits.