Curriculum List of CE

(1)Sorted by Semester

Semester	Course	Contact Hour	Self-study Hour	Total Hour	ECTS
1	Advanced Mathematics	160	35	195	6.5
	College English (1)	64	26	90	3
	Mechanical Drawing	64	71	135	4.5
	Engineering Mechanics	32	58	90	3
	Medical Ethics*	32	28	60	2
	Outline of Modern Chinese History	48	12	60	2
	Situation and Policy	32	13	45	1.5
	Physical Education	144	6	150	5
	Public electives-1	16	14	30	1
		Total-1		**855**	**28.5**
2	College Physics	32	43	75	2.5
	College Physics Experiment	16	14	30	1
	College English (2)	64	26	90	3
	C Program Design	48	72	120	4
	Circuit Theory	48	27	75	2.5
	Clinical Engineering Introduction	32	58	90	3
	Ethics and Rule of Law	48	12	60	2
	Military Theory	36	9	45	1.5
	Military Skill	64	11	75	2.5
	Mental Health Education for University Students	32	13	45	1.5
	Comprehensive Practice of Mechanical Drawing	32	43	75	2.5
	Public electives-2	16	14	30	1
		Total-2		**790**	**27**
3	Probability Theory and Mathematical Statistics	32	58	90	3
	Normal Anatomy and Physiology	64	71	135	4.5
	College English (3)	64	26	90	3
	Foundation of Mechanical Designing	48	72	120	4
	Analog Electronic Technology	64	56	120	4
	Introduction to Big Data*	32	28	60	2
	Basic Principles of Marxism	48	12	60	2
	Career Planning and Employment Guidance	16	14	30	1
	Public electives-3	16	14	30	1
		Total-3		**735**	**24.5**

Semester	Course	Contact Hour	Self-study Hour	Total Hour	ECTS
4	Linear Algebra	48	72	120	4
	Foundation of Disease	32	58	90	3
	College English (4)	64	26	90	3
	Literature Retrieval Course	32	43	75	2.5
	Digital Electronic Technology	48	72	120	4
	Medical Electrical Safety Engineering	48	87	135	4.5
	Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	48	12	60	2
	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	32	13	45	1.5
	Comprehensive Experiment of Analog Electronic Technology	32	43	75	2.5
	Comprehensive Experiment of Digital Electronic Technology	32	43	75	2.5
	Medical Electrical Safety Training	32	43	75	2.5
	Clinical Engineering Creativity	32	43	75	2.5
	Public electives-4	16	14	30	1
		Total-4		**1065**	**35.5**
5	Principles and Applications of Medical Statistics	48	72	120	4
	Microcontroller Principles and Applications	48	72	120	4
	Biomedical Materials	32	58	90	3
	Biomedical Detection Technology	48	87	135	4.5
	Hydraulic and Pneumatic Technology	32	58	90	3
	Introduction to Medical Device Regulation Science	32	58	90	3
	Medical Imaging Equipment	32	58	90	3
	Advanced Clinical Engineering	32	58	90	3
	Medicine and Humanity	32	13	45	1.5
	Public electives-5	16	14	30	1
		Total-5		**900**	**30**
6	Therapeutic Equipment Technology	48	87	135	4.5
	Principle and Applications of Life Support Equipment	48	87	135	4.5
	Biomedical Optics*	32	28	60	2
	Principles of Medical Imaging*	32	28	60	2

Semester	Course	Contact Hour	Self-study Hour	Total Hour	ECTS
	Mathematical Modeling*	32	28	60	2
	Clinical Skills	48	72	120	4
	Medical Internship	64	26	90	3
	Public electives-6	16	14	30	1
		Total-6		**690**	**23**
7	Fundamentals and Applications of MATLAB*	32	28	60	2
	Technical English for Clinical Engineering*	32	28	60	2
	Intelligent Medical Robot*	32	28	60	2
	Internet and Information Security*	32	28	60	2
	Social practice	128	22	150	5
	Labor education	32	13	45	1.5
	Innovation and entrepreneurship	64	56	120	4
		Total-7		**555**	**18.5**
8	Bachelor Thesis	0	480	480	16
		Total-8		**480**	**16**
		TOTAL		**6090 (5970**)**	**203 (199**)**

Directions：

* Professional electives. Each student should achieve 14 ECTS in total before graduation.

** The actual study hour for each student is 6000 (ECTS = 200).

(2) Sorted by Type

Type of Curriculum	Name	Study Hour (Contact+ Self-study)	ECTS	Semester							
				S1	S2	S3	S4	S5	S6	S7	S8
Mathematics and natural sciences 28.5ECTS	Advanced Mathematics	160+35	6.5	3.5	3						
	Probability Theory and Mathematical Statistics	32+58	3			3					
	Linear Algebra	48+72	4				4				
	College Physics	32+43	2.5		2.5						
	College Physics Experiment	16+14	1		1						
	Normal Anatomy and Physiology	64+71	4.5			4.5					
	Foundation of Disease	32+58	3				3				
	Principles and Applications of Medical Statistics	48+72	4					4			
Foreign Languages 12ECTS	College English (1)	64+26	3	3							
	College English (2)	64+26	3		3						
	College English (3)	64+26	3			3					
	College English (4)	64+26	3				3				
Informatics 6.5ECTS	C Program Design	48+72	4		4						
	Literature Retrieval Course	32+43	2.5				2.5				
Engineering Fundamentals 29ECTS	Circuit Theory	48+27	2.5		2.5						
	Mechanical Drawing	64+71	4.5	4.5							
	Engineering Mechanics	32+58	3	3							
	Foundation of Mechanical Designing	48+72	4			4					
	Analog Electronic Technology	64+56	4			4					
	Digital Electronic Technology	48+72	4				4				
	Microcontroller Principles and Applications	48+72	4					4			
	Clinical Engineering Introduction	32+58	3		3						
Engineering Applications 33ECTS	Medical Electrical Safety Engineering	48+87	4.5				4.5				
	Biomedical Materials	32+58	3					3			
	Therapeutic Equipment Technology	48+87	4.5						4.5		
	Principle and Applications of Life Support Equipment	48+87	4.5						4.5		
	Biomedical Detection	48+87	4.5					4.5			

Type of Curriculum	Name	Study Hour (Contact+ Self-study)	ECTS	Semester							
				S1	S2	S3	S4	S5	S6	S7	S8
	Technology										
	Hydraulic and Pneumatic Technology	32+58	3					3			
	Introduction to Medical Device Regulation Science	32+58	3					3			
	Medical Imaging Equipment	32+58	3					3			
	Advanced Clinical Engineering	32+58	3					3			
Electives 14ECTS	Biomedical Optics	32+28	2						2		
	Principles of Medical Imaging	32+28	2						2		
	Mathematical Modeling	32+28	2						2		
	Fundamentals and Applications of MATLAB	32+28	2							2	
	Technical English for Clinical Engineering	32+28	2							2	
	Medical Ethics	32+28	2	2							
	Introduction to Big Data	32+28	2			2					
	Intelligent Medical Robot	32+28	2							2	
	Internet and Information Security	32+28	2							2	
General Courses 40.5ECTS	Ethics and Rule of Law	48+12	2		2						
	Outline of Modern Chinese History	48+12	2	2							
	Basic Principles of Marxism	48+12	2			2					
	Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	48+12	2				2				
	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	32+13	1.5				1.5				
	Situation and Policy	32+13	1.5	0.5	0.5	0.5					
	Military Theory	36+9	1.5		1.5						
	Military Skill	64+11	2.5		2.5						
	Physical Education	144+6	5	1	1	1	1	0.5		0.5	
	Mental Health Education for University	32+13	1.5		1.5						

Type of Curriculum	Name	Study Hour (Contact+ Self-study)	ECTS	Semester							
				S1	S2	S3	S4	S5	S6	S7	S8
	Students										
	Career Planning and Employment Guidance	16+14	1			0.25	0.25	0.25	0.25		
	Medicine and Humanity	32+13	1.5					1.5			
	Public Elective Courses	(16+14)×6	6	1	1	1	1	1	1		
	Social Practice	128+22	5								
	Labor Education	32+13	1.5								
	Innovation and Entrepreneurship	64+56	4								
Experiments and Practice 19.5ECTS	Comprehensive Practice of Mechanical Drawing	32+43	2.5		2.5						
	Comprehensive Experiment of Analog Electronic Technology	32+43	2.5				2.5				
	Comprehensive Experiment of Digital Electronic Technology	32+43	2.5				2.5				
	Medical Electrical Safety Training	32+43	2.5				2.5				
	Clinical Engineering Creativity	32+43	2.5				2.5				
	Clinical Skills	48+72	4						4		
	Medical Internship	64+26	3						3		
Experiments and Practice 16ECTS	Bachelor Thesis	0+480	16								16
	Total	**5970**	**199**								