Guiding Teaching Program (1)

Type	Course No.	Course Title		Credit	Class hours			Computerised hours	Extracurricular hours	Weekly hours allocation								Assessment method	Course requirements
					Teaching hours	Experiment hours	Seminar hours			1st year		2nd year		3rd year		4th year			
										1	2	1	2	1	2	1	2		
Elementary courses of liberal education	13011070	Outline of Modern Chinese History		2	32				16		2							-	
	13013010	Basic Principles of Marxism		3	48							3						-	
	13011030	Mao Zedong Thought and Introduction to Theoretical System of Socialism with Chinese Characteristics		3	48				22				3					-	
	88011020	Cultivation of Ethic Thought and Fundamentals of Law		3	48					3								+	
	88011030	Situation and Policy		0.5	8		8							1				-	
	88011010	Introduction to Employment		0.5	8		8								1			-	
	17001052	College English II		2	32		32			4								+	
	17001053	College English III		2	32		32				4							+	
	17001054	College English IV		2	32		32					4						+	
	18000601	Physical Education Ⅰ		0.5	32					2								-	
	18000602	Physical Education Ⅱ		0.5	32						2							-	
	18000603	Physical Education Ⅲ		0.5	32							2						-	
	18000604	Physical Education Ⅳ		0.5	32								2					-	
	18000605	Physical Education Ⅴ		0.5										√	√			-	
	18000606	Physical Education Ⅵ		0.5												√		-	
	99000002	Fundamentals of College Computer (For science, engineering, medical and management)						20	4	√								+	
	9900007121	Programming and Algorithmic Language I (For electronics)		2	40			32	4	3								+	
	9900007122	Programming and Algorithmic Language II (For electronics)		1.5	36			32	4		2							+	
	07011191	Mathematical Analysis for Engineering Ⅰ		5	64		32	4		6								+	
	07011192	Mathematical Analysis for Engineering Ⅱ		5	64		32	4			6							+	
	07011280	Geometry and Algebra (B)		3	48	6	10	4		4								+	
	07011310	Probability Theory & Mathematical Statistics (A)		2.5	48	4							3					+	
	07011360	Method of Mathematical Physics	Choose 1	3	48								3					+	
	07031030	Mathematical Modeling and Mathematical Experiments		2.5	32	16		16					3					+	
	10021221	College Physics (A) Ⅰ	Choose 1	4	64						4							+	
	10021231	College Physics (B1) Ⅰ		3	40		24				4							+	
	10021291	College Physics (Bilingual) Ⅰ		3.5	48		8				4							+	
	10021222	College Physics (A) Ⅱ	Choose 1	4	64							4						+	
	10021232	College Physics (B1) Ⅱ		3	40		24					4						+	
	10021292	College Physics (Bilingual) Ⅱ		3.5	48		8					4						+	
	10021311	Physical Experiment Ⅰ		1		32					2							-	
	10021312	Physical Experiment Ⅱ		1		32						2						-	

	19011200	General Chemistry（Including experiment）	3.5	48	16						4						+	
	86001010	Military Theory	1	16													-	
	99910000	Liberal Education in Humanities & Social Sciences (Optional)	6	96													-	
	99920000	Liberal Education in Economics and Management (Optional)	2	32													-	
	99930000	Liberal Education in Natural Science (Optional)	2	32													-	
Total			65	1052	90	186	96	50	21	18	15	8	1	1				

Guiding Teaching Program(2)

Type	Course No.	Course Title		Credit	Class hours			Computerised hours	Extracurricular hours	Weekly hours allocation								Assessment method	Course requirements
					Teaching hours	Experiment hours	Seminar hours			1st year		2nd year		3rd year		4th year			
										1	2	1	2	1	2	1	2		
Elementary courses of general disciplines	11000089	Introduction to Biomedical Engineering		1	32					2								+	Obligatory
	11000098	Modern Biology (Bilingual, seminar)	Choose 1	3	32		32				3							+	
	11000114	Modern Biology (Seminar)		3	32		32				3							+	
	11000193	Health Informatics and Technology (Seminar)	Choose 1	1	8		16				2							-	
	11000091	Interaction of Engineering Cognition and Clinical Medical Problems: The Role of Medical Engineer (Seminar)		1	8		16				2							-	
	11000096	Gene and Diseases and Research Methods (Seminar)		1	8		16				2							-	
	11000097	Development and Future of Biology Information Technology (Seminar)		1	8		16				2							-	
	11000105	Preliminary Analysis on Fundamental Principles of Medical Image (Seminar)		1	8		16				2							-	
	22222010	Fundamentals of Electric Circuits		3	64							4						+	
	11400022	Fundamentals of Electronic Circuits		4	64								4					+	
	11014081	Biophysics		3	48								3					+	
	11012061	Signals and SystemsA	Choose 1	4	64								4					+	
	11012062	Signals and SystemsB		4	64								4					+	
	11013220	Human Anatomy and Physiology		3	48									3				+	
	11014050	Biomedical Sensor and Measurement		3	48									3				+	
Total				25	528		48			2	5	3	11	6					
Major courses	11013010	Recent Development of Biomedical Engineering (Lecture)		1	32										2			+	
	11013100	Engineering Electrophysiology		3	48										3			+	

	11012270	Microcomputer Principles and Interface Techniques (Seminar)	Medical Electronics direction	3	40		16						3					+	16 credits limited
	11000100	Computer Architecture and Logic Design (Bilingual)		3	48							3						+	
	11013020	Wave Theory (Bilingual, seminar)		4	56		16							4				+	
	1101318	Digital Signal Processing (Bilingual) (Seminar)		3	32		12	20						3				+	
	11003140	SCM System Design and Application (Seminar)		3	36		24							3				+	
	19011110	Organic Chemistry (Including experiment)	Bioelectronics direction	3	48	32							3					+	16 credits limited
	11013101	Cell and Molecular Biology (Seminar)		3	32		32							3				+	
	11013120	Biochemistry (Seminar)		3	32		32							3				+	
	11013110	Biomedical Materials (Seminar)		3	32		32							3				+	
	11500032	Bioanalytical Techniques		2	32									2				+	
	11083191	Bioelectronics (Bilingual)		2	32									2				+	
	05530050	Material Mechanics B	Medical Physics direction	4	56		16						4					+	16 credits limited
	10000140	Theoretical Mechanics		3	48								3					+	
	11500034	Biological Fluid Mechanics		3	48									3				+	
	1101318	Digital Signal Processing (Bilingual) (Seminar)		3	32		12	20						3				+	
	11013101	Cell and Molecular Biology (Seminar)		3	32		32							3				+	
Total				20	292		68	20					6	10	5				

Guiding Teaching Program(3)

Type	Course No.	Course Title		Credit	Class hours			Computerisedhours	Extracurricular hours	Weekly hours allocation								Assessment method	Course requirements
					Teaching hours	Experiment hours	Seminar hours			1st year		2nd year		3rd year		4th year			
										1	2	1	2	1	2	1	2		
Discipline and cross-discipline optional course	11013090	Medical Image Processing (Bilingual)	Medical Electronics direction	3	24			48							3			+	6 credits limited
	11013150	Medical Imaging Theory (English)		2	32										2			+	
	11000102	Medical Instrument Design (Seminar)		2	16		32								2			+	
	11013070	Computer Graphics (Bilingual)		2	24			16								2		+	
	11014090	Biomedical Signal Analysis (Seminar, English)		2	24		16									2		+	

	11000101	Genome Sciences and Technologies (Bilingual)	Bioelectronics direction	4	64									4				+	6 credits limited
	11013292	Biomedical Nanotechnology (Seminar)		2	16		32								2			+	
	11014180	Biopharmaceutical Engineering		2	32											2		-	
	11700045	Tumor Diagnosis and Targeted Therapy		2	32											2		-	
	11700044	Biophotonics		2	32											2		+	
	11014150	Biomechanics (English)	Medical Physics direction	2	32											2		+	6 credits limited
	07011350	Computational Method		2	32			16								2		+	
	02054010	Finite Element Analysis		2	26			12								2		-	
	11013291	Medical Image Processing (Bilingual, seminar)		3	20		8	48							2			+	
	11013251	Medical Imaging Theory (English, seminar)		2	24		16								2			+	
	11000102	Medical Instrument Design (Seminar)	Choose 6 credits in cross-discipline optional course	2	16		32								2			+	
	11014090	Biomedical Signal Analysis (Seminar, English)		2	24		16									2		+	
	11083192	Software Engineering (Bilingual)		2	32											2		-	
	11014150	Biomechanics (English)		2	32											2		+	
	11700042	Principles and Application of Embedded Systems (Seminar)		2	24		16									2		-	
	11700043	Medical Imaging Informatics (Seminar)		2	24		16									2		-	
	11014180	Biopharmaceutical Engineering		2	32											2		-	
	43344016	Medical Microbiology and Immunology		5	64	32										5		+	
	11700045	Tumor Diagnosis and Targeted Therapy		2	32											2		-	
	11700044	Biophotonics		2	32											2		-	
	43144010	Rehabilitation Medicine		2	32	8										2		+	
	43344012	Medical Imaging		2.5		16										4		-	
	41024010	Neurobiology		2	32											2		+	
	43344014	Histology and Embryology		2.5	32	16										3		+	
	41032010	Physiology		2	32										2			+	
	43344017	Introduction to Clinical Medicine		3	48										3			+	
	02031090	Engineering Drawing		2	32										2			-	
	04000074	Principle of Communication (Course of other department)		2	32										2			+	
	09004020	Software Engineering (Other department)		2	32			8								2		-	
	08000083	Principle of Automatic Control		2	32										2			-	
	09002041	Data Structure (Other Department)		2	32										2			-	
	07011350	Computational Method		2	32			16								2		-	
	02054010	Finite Element Analysis		2	26			12								2		-	
Total				12	216		48	64						4	28	54			

Guiding Teaching Program(4)

Type	Course No.	Course Title		Credit	Class hours			Computerised hours	Extracurricular hours	Weekly hours allocation								Assessment method	Course requirements
					Teaching hours	Experiment hours	Seminar hours			1st year		2nd year		3rd year		4th year			
										1	2	1	2	1	2	1	2		
Practice (including extracurricular practice)	11014930	Graduation Thesis		8													8	-	Obligatory
	81012060	Introduction to Industrial System 1		0.5	16					1								-	
	84101950	Experiments in Circuit		0.5		16							1					-	
	84101931	Experiment in Analog Electronic Circuit		1		16							2					-	
	84101923	Experiment in Digital Logical Circuit	Medical Electronics	1	32							2						-	Limited
	11011080	Microcomputer Experiment		1		32							2					-	
	11014200	Curriculum Design of Medical Electronics I		2		64									4			-	
	11013282	Comprehensive Experiment in Biotechnology and Materials(2)	Other direction	2		64								4				-	Limited
	11013283	Comprehensive Experiment in Biotechnology and Materials(3)		2		64									4			-	
	11000001	Extracurricular Practice		4															Obligatory
Total				18	16	128				1		1	6	4	8		8		

Guiding Teaching Program (Short Term)

Course No.	Course Title		Credit	Class hours			Computerisedhours	Extracurricular hours	Weekly hours allocation				Assessment method	Course requirements
				Teaching hours	Experiment hours	Seminar hours			S1	S2	S3	S4		
86001100	Military Training (including theory course)		2	16					(3)				-	Obligatory
84101910	Preliminary Electrical & Electronic Practice		1	32						(1)			-	
11000113	Integrated Computer Curriculum Design		1							(2)			-	
11013910	Cognition Practice		0.5	8	16						(1)		-	
11014950	Scientific Research and Engineering Practice		0.5									(1)	-	
11013050	Virtual Instrument	Medical Electronics	1	6	20						(1)		-	Limited
11000103	Biomedical Sensor Design Experiment		2		64						(2)		-	
11013210	Curriculum Design of Medical Electronics II		2		64							(2)	-	
11013281	Comprehensive Experiment in Biotechnology and Materials (1)	Other direction	3		96						(3)		-	Limited
11083196	Experiments in Biology Information Technology (Seminar)		2		64							(2)	-	
Total			15	56	164									

Guiding Teaching Program

(Extracurricular Practice Credits Allocation)

Course No.	Course Title	Credit	Description
11000010	Social Practice	1	Organized and assessed by Youth League Committee.
99700000	Cultural Quality Education Practice	1	Organized by Cultural Quality Education Center.
99800000	Extracurricular Studies of College Students	2	The student at school may get 2 credits through scientific research practice, discipline competition, innovative practice and other activities. (Please refer to *Credit Authentication Methods for Extracurricular Studies of Southeast University*.)
Total		4	