

## General Education Requirement for International Students

For international students beginning their study in 2024, six required modules must be completed in the general education (GE) section, i.e., Chinese Language and Culture Module, Arts and Physical Education Module, Competence Development Module, Humanities and Social Sciences Module, Mathematics and Natural Sciences Module, and GE to Majors Bridging Module.

### General Education Curriculum

Requirements: Total  $\geq 79$  credits

Module	Category	Credits
Chinese Language and Culture Module 16 Credits	Chinese Language and Culture	16
Arts and Physical Education Module 6 Credits	Physical Education	4
	Arts	2
Competence Development Module 19 Credits	Computer Programming	3
	Writing	2
	Foreign Languages	14
Humanities and Social Sciences Module 8 Credits	Humanities	6
	Social Sciences	
	Chinese Studies	2
Mathematics and Natural Sciences Module $\geq 28$ Credits	Mathematics	12-14
	Physics	10-12
	Chemistry	3-4
	Geoscience + Life Science	3
GE to Majors Bridging Module 2 Credits	Introduction to Majors	2
Note: A total of 10 credits in Arts, Chinese Studies, Humanities, and Social Sciences is sufficient.		

## 1. Chinese Language and Culture Module

Requirements: Students must complete a total of 16 credits. All courses are compulsory.

Category	Course Code	Course Name	Requirement	Credits	Terms	Prerequisite	Dept.
Chinese Language and Culture	CLE008	Elementary Chinese I	Required	2	1/Fall	None	CLE
	CLE009	Elementary Chinese II	Required	2	1/Spr.	Elementary Chinese I	
	CLE027	Intermediate Chinese I	Required	2	2/Fall	Elementary Chinese II	
	CLE028	Intermediate Chinese II	Required	2	2/Spr.	Intermediate Chinese I	
	CLE031	Advanced Chinese I	Required	2	3/Fall	Intermediate Chinese II	
	CLE032	Advanced Chinese II	Required	2	3/Spr.	Advanced Chinese I	
	CLE033	Chinese Culture	Required	2	1-4 Fall	NA	
	CLE034	Chinese History	Required	2	1-4 Spr.	NA	

## 2. Arts and Physical Education Module

Requirements: Students must complete a total of 6 credits, with 4 credits in Physical Education and 2 credits in Arts.

Category	Course Code	Course Name	Requirement	Credits	Terms	Prerequisite	Dept.
Physical Education	GE131	Physical Education I	Required	1	1/Fall	NA	PE Center
	GE132	Physical Education II	Required	1	1/Spr.	NA	
	GE231	Physical Education III	Required	1	2/Fall	NA	
	GE232	Physical Education IV	Required	1	2/Spr.	NA	
	GE331	Physical Education V	Required	0	3/Fall	NA	
	GE332	Physical Education VI	Required	0	3/Spr.	NA	
Arts	GEM051	Appreciation of the Chinese Vocal Music Works	Optional	2	1-4 Spr. & Fall	NA	AC
	GEM066	Appreciation of Chinese Instrumental Music Works	Optional	2	1-4 Spr. & Fall	NA	AC
	GEM062	Brief History and Appreciation of Chinese Operas	Optional	2	1-4 Spr. & Fall	NA	AC
	GEM022	Art of Elocution	Optional	2	1-4 Spr. & Fall	NA	AC
	GEM056	Introduction to Art	Optional	2	1-4 Spr. & Fall	NA	AC
	GEM044	History of Chinese Art	Optional	2	1-4 Spr. & Fall	NA	AC
		Other courses (subject to change)	Optional	2	1-4 Spr. & Fall	NA	AC

### 3. Competence Development Module

Requirements: Students must complete a total of 19 credits, including 3 credits in Computer Programming, 2 credits in Writing (mandatory for international students), and 14 credits in Foreign Languages. In the Foreign Languages module, students are assigned to A/B/C 3 levels: Level-A students are exempt from *SUSTech English I* and *SUSTech English II*; Level-B students are exempt from *SUSTech English I*. Students of both Level-A and Level-B are required to take at least one 2-credit CLE elective course after completing the compulsory English courses.

Level A: Starts with *SUSTech English III*

Level B: Starts with *SUSTech English II*

Level C: Starts with *SUSTech English I*

Category	Course Code	Course Name	Requirement	Credits	Terms	Prerequisite	Dept.
Computer Programming <sup>1</sup>	CS109	Introduction to Computer Programming	Restricted	3	1-2 Spr. & Fall	NA	CSE
	CS110	Introduction to Java Programming	Restricted	3	1-2 Spr. & Fall	NA	
	CS111	Introduction to C Programming	Restricted	3	1-2 Spr. & Fall	NA	
	CS112	Introduction to Python Programming	Restricted	3	1-2 Spr. & Fall	NA	
	CS113	Introduction to Matlab Programming	Restricted	3	1-2 Spr. & Fall	NA	
Writing	CLE026	Scientific Writing	Required	2	1-4 Spr. /Fall	EAP	CLE
Foreign Languages	CLE021	SUSTech English I	Required	4	1 Fall	NA	CLE
	CLE022	SUSTech English II	Required	4	1 Spr. /Fall	NA	CLE
	CLE023	SUSTech English III	Required	4	1-2 Spr. /Fall	NA	CLE
	CLE030	English for Academic Purposes	Required	2	1-2 Spr. /Fall	SUSTech English III	CLE
	GE2229	Public Speaking	Elective	2	1-4 Spr. /Fall	EAP	CLE
	GEL006	Communication Skills	Elective	2	1-4 Spr. /Fall	EAP	CLE
	CLE010	English for Engineering	Elective	2	1-4 Spr. /Fall	EAP	CLE
	CLE012	Scientific and Technical	Elective	2	1-4 Spr.	EAP	CLE

<sup>1</sup> Computer programming courses in the Competence Development Module are GE Required Courses for Science and Engineering.

	Translation			/Fall		
CLE013	English Pronunciation	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE019	Critical Thinking / English Debate	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE039	English for Career Development	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE041	English for International Academic Conference	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE043	Cambridge Business English (Vantage)	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE044	English for Innovators	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE045	Cambridge Business English (Higher)	Elective	2	1-4 Spr. / Fall	NA	CLE
CLE046	Advanced Grammar in Use / Writing	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE048	Elementary Spanish	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE049	Elementary German	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE050	Elementary Japanese	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE051	Elementary French	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE052	Podcasting: English Listening and Speaking Through Culture	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE053	English for Professional Engineering Skills: Language in Project Design, Management and Communication	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE054	Upper Elementary French	Elective	2	1-4 Spr. /Fall	Elementary French	CLE
CLE055	Upper Elementary Spanish	Elective	2	1-4 Spr. /Fall	Elementary Spanish	CLE
CLE056	Upper Elementary Japanese	Elective	2	1-4 Spr. /Fall	Elementary Japanese	CLE
CLE057	Upper Elementary German	Elective	2	1-4 Spr. /Fall	Elementary German	CLE
CLE060	English for Fluency	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE061	Study Abroad Language and Culture Development	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE062	Global English / Communication Skills	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE063	Writing for Publication	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE064	Academic English for Research Methodologies and Referencing	Elective	2	1-4 Spr. /Fall	EAP	CLE
CLE065	Reading / Writing for Understanding Science	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE066	English for Design	Elective	2	1-4 Spr. /Fall	NA	CLE
CLE067	European Languages and	Elective	2	1-4 Spr.	NA	CLE

		Cultures			/Fall		
	CLE068	American Culture and Language Acquisition	Elective	2	1-4 Spr. /Fall	NA	CLE
(The course list is subject to change; Please follow the placement results and take the required English courses in the designated semesters.)							

#### 4. Humanities and Social Sciences Module

Requirements: Students must complete a total of 8 credits/4 courses.

Category	Course Code	Course Name	Requirement	Credits	Terms	Prerequisite	Dept.
Humanities	HUM012	Languages & Linguistics	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM014	Science Fiction: Fiction and Film	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM018	Science Fiction Writing	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM029	An Introduction on History of Science and Civilization	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM037	Appreciation of Science Fiction Literature	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM052	An Introduction to Western Philosophy	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM056	Films from the Perspective of Ecological Thoughts	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM069	An Introduction on Philosophy of Physics	Optional	2	1-4 Spr. /Fall	General Physics I or College Physics I	HUM
	Other relevant courses (subject to change)		Optional		1-4 Spr. /Fall	NA	
Social Sciences	SS016	Memory Study of Sino-Foreign Culture	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS022	Introduction to Culture Heritage	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS024	Basic Skills of Video Shooting and Editing	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS058	Hebrew Literature and Culture	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS082	The City and Technology	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS092	Foundation of Sustainable Development	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS133	Chinese Physics and Physicists in the 20th Century	Optional	2	1-4 Spr. /Fall	NA	SSC
	Other relevant courses (subject to change)		Optional		1-4 Spr. /Fall	NA	
Chinese Studies	HUM017	Poetry Metrical and Ancient Poetry Writing	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM053	An Introduction to Chinese Philosophy	Optional	2	1-4 Spr. /Fall	NA	HUM
	HUM075	An Introduction to the Classics of Chinese Literature	Optional	2	1-4 Spr. /Fall	NA	HUM

	SS033	A Chinese History in Archaeological Records	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS074	The History of China in Ancient Artifacts	Optional	2	1-4 Spr. /Fall	NA	SSC
	SS143	The Preservation and Utilization of Intangible Cultural Heritage	Optional	2	1-4 Spr. /Fall	NA	SSC
	Other relevant courses (subject to change)		Optional		1-4 Spr. /Fall	NA	

## 5. Mathematics and Natural Sciences Module<sup>2</sup>

Requirements: Students must complete a minimum of 28 credits. For Mathematics, students must select one of the A, B, or C course categories (at least 8 credits) and complete either the *Advanced Linear Algebra I* or *Linear Algebra* for 4 credits. For Physics, students are required to choose either course category A or B (at least 8 credits) and complete the course *Experiments of Fundamental Physics* for 2 credits. For Chemistry, students must complete at least one of the listed courses to receive a minimum of 3 credits. For Biology and Life Sciences, students must select one of the listed courses to receive 3 credits.

Category	Course Code	Course Name	Requirement	Credits	Terms	Prerequisite	Dept.	
Mathematics	MA101a	Mathematical Analysis I	Category A	Restricted	5	1 Fall	NA	MATH
	MA102a	Mathematical Analysis II		Restricted	5	1 Spr.	Mathematical Analysis I	
	MA117	Calculus I	Category B	Restricted	4	1 Fall	NA	
	MA127	Calculus II		Restricted	4	1 Spr.	Calculus I	
	MA118	Single-variable Calculus	Category C	Restricted	4	1 Fall	NA	
	MA128	Multivariable Calculus		Restricted	4	1 Spr.	Single-variable Calculus	
	MA107	Advanced Linear Algebra I	Restricted	4	1 Fall	NA		
	MA113	Linear Algebra	Restricted	4	1 Spr. & Fall	NA		
Physics	PHY101	General Physics I	Category A	Restricted	5	1 Fall	NA	PHY
	PHY102	General Physics II		Restricted	5	1 Spr.	General Physics I	
	PHY105	College Physics I	Category B	Restricted	4	1 Fall	NA	
	PHY106	College Physics II		Restricted	4	1 Spr.	College Physics I	
	PHY104B	Experiments of Fundamental Physics	Required	2	1-2 Spr. & Fall	NA		
Chemistry	CH103	General Chemistry	Restricted	4	1-2 Spr. & Fall	NA	CHEM	
	CH105	Chemistry: The Central Science	Restricted	3	1-2 Spr. & Fall	NA		
Geoscience + Life Science	BIO103	Principles of Biology	Restricted	3	1-2 Spr. & Fall	NA	BIO	
	BIO102B	Introduction to Life Science	Restricted	3	1-2 Spr. & Fall	NA		
	EOE100	Introduction to Earth Sciences	Restricted	3	1-2 Spr. & Fall	NA	ESS, OCE, ESE	

<sup>2</sup> Mathematics, Physics, Chemistry, and Geoscience + Life Science courses in the Mathematics and Natural Sciences Module are GE Required Courses for Science and Engineering.

## 6. GE to Majors Bridging Module

Requirements: Students must complete a total of 2 credits.

Category	Course Code	Course Name	Requirement	Credits	Terms	Prerequisite	Dept.
Introduction to Majors	COE100	Introduction to Engineering	Optional	2	1-2 Spr./Fall	NA	COE
	COE101	AI and Applications	Optional	4	1 Spr.	Mathematical Analysis I or Calculus I	COE
	OCE107	Introduction to Ocean Engineering	Optional	3	1-2 Spr.	NA	OCE
	MSE460	Orientation Program of Dept. of Materials Science and Engineering	Optional	1	1-2 Spr.	NA	MSE
	MSE102	Frontier Seminars in Materials Science and Engineering	Optional	1	1-2 Fall	NA	MSE
	MSE104	Introduction to AI for Materials Science	Optional	1	1-2 Spr.	NA	MSE
	EE101	Electronic and Information Technology for Metaverse	Optional	1	1-2 Spr. & Fall	NA	EE
	SME101	Introduction to Integrated Circuit	Optional	1	1-2 Spr. & Fall	NA	SME
	SME102	Fundamentals of Microelectronics and Integrated Circuit	Optional	2	1-2 Spr. & Fall	NA	SME
	FIN102	Finance	Optional	3	1-2 Spr./Fall	NA	FIN
	FIN103	Principles of Economics	Optional	3	1-2 Spr./Fall	NA	FIN
	FET205	Introduction to Accounting	Optional	3	1-2 Spr./Fall	NA	FIN
	STA101	Fascinating Statistics	Optional	3	1 Spr.	NA	STA
	ME232	Prolegomenon to Robotics	Optional	3	1-2 Spr./Fall	NA	MEE
	ME113	Introduction to Modern Mechanical Engineering	Optional	2	1-2 Spr./Fall	NA	MEE
	ME171	Introduction to Carbon Neutrality and Renewable Energy	Optional	2	1-2 Spr./Fall	NA	MEE
	BMEB131	Introduction to Biomedical Engineering	Optional	2	1-2 Spr./Fall	NA	BME
	MAE101	Experimental DIY: Discover the beauty of mechanics	Optional	2	1-2 Spr.	NA	MAE
	MAE102	Flight Simulating Experiment	Optional	1	1-2 Spr. & Fall	NA	MAE
	MAE205	Introduction to Aeronautics and Mechanics	Optional	2	1-2 Fall	NA	MAE
	MED108	Introduction to Global Health	Optional	2	1-2 Spr./Fall	NA	MED
	MED104	Fundamentals in Biomedical Sciences	Optional	3	1-2 Spr./Fall	NA	MED
	MED106	Immunity and Health	Optional	2	1-2 Spr.	NA	MED
MED303	Introduction to Anatomy	Optional	3	1-2 Spr./Fall	NA	MED	



MED110	Social Medicine	Optional	2	1-2 Spr. /Fall	NA	MED
MED115	Introduction to Drug Development	Optional	3	1-2 Spr.	NA	MED
MED117	Global Health in Big Data	Optional	2	1-2 Spr. &Fall	NA	MED
MED118	Introduction to Structural Biology	Optional	2	1 Spr.	NA	MED
SDM104	Intelligent Hardware	Optional	1	1-2 Fall	NA	SDIM
SDM114	Product Design Visualization	Optional	3	1-2 Spr.	NA	SDIM
SDM476	Foundation of AI-NOT	Optional	3	1-2 Fall	NA	SDIM
EBA106	Management	Optional	3	1-2 Spr. &Fall	NA	ISME
MIS110	Introduction to Machine Learning and Big Data Analytics	Optional	3	1-2 Spr.	NA	ISME
EBA108	Introduction to Business Intelligence and Analysis	Optional	3	1-2 Spr. /Fall	NA	ISME
CS103	Introduction to Artificial Intelligence	Optional	2	1-2 Fall	NA	CSE
HUM040	Introduction to Chinese Information Processing	Optional	2	1-2 Spr. /Fall	NA	HUM
CH104	Chemistry and Discovery	Optional	1	1-2 Spr. &Fall	NA	CHEM
CH330	Practice for Cosmetic Science	Optional	1	1-2 Spr.	General Chemistry/ Chemistry: The Central Science	CHEM
ESS208	Introduction to Natural Disaster Science	Optional	2	1-2 Spr. /Fall	NA	ESS
ESS101	Space Exploration	Optional	2	1-2 Spr. /Fall	NA	ESS
DS103	Designing for Beginners	Optional	3	1-2 Spr. &Fall	NA	DS
ESE223	City and Environment	Optional	3	1-2 Spr.	NA	ESE
BIOS201	Genome, why we are different?	Optional	2	1 Summer	NA	BIO
(The course list is subject to change)						

**7. Course Introduction to the Mathematics and Natural Sciences Module and Computer Programming Courses in the Competence Development Module (Course requirements for the following categories are detailed in the major curriculum of each program.)**

**Mathematics**

Course Code	Course Name	Credits	Course Objectives
MA101a	Mathematical Analysis I	5	This course aims at providing math majored students with solid foundation in the theory of analysis, cultivating their ability of rigorous logical reasoning and mathematical thinking.
MA102a	Mathematical Analysis II	5	
MA117	Calculus I	4	This course emphasizes the basic concepts and properties of single-variable and multivariable Calculus theories, as well as the basic techniques of calculating differentiation and integration. It develops students' ability to use the ideas of Calculus to solve problems in other scientific disciplines.
MA127	Calculus II	4	
MA118	Single-variable Calculus	4	This course emphasizes the basic concepts and properties of single-variable and multivariable Calculus theories, as well as the basic techniques of calculating differentiation and integration, providing students with the necessary mathematical foundation for further study in the subsequent major courses
MA128	Multivariable Calculus	4	
MA107	Advance Linear Algebra I	4	It aims at leading students into systematic and thorough studies of the fundamentals of modern algebra and providing a solid foundation for subsequent, more advanced courses in math major. The contents of the course and the standards of assessment will normally surpass the other courses in the same series, with the purpose to foster students with the strongest algebra knowledge and foundation.
MA113	Linear Algebra	4	The course introduces the basic concepts and theories in linear algebra, including systems of linear equations, matrix algebra, determinants, vector spaces, linear transformations, eigenvalues and eigenvectors, singular value decomposition and quadratic forms and other related theories, laying a solid foundation for further study in the advanced Linear Algebra courses.

## Physics

Course Code	Course Name	Credits	Course Objectives
PHY101	General Physics I	5	The course is mainly for physics majors, focusing on the introduction to the origin and development of physics principles, as well as the connotations and interrelationships of different physical laws. It also emphasizes the use of mathematical tools to conduct qualitative and quantitative analyses of physical phenomena in order to help students build a solid foundation in mathematical physics for further research in physics.
PHY102	General Physics II	5	
PHY105	College Physics I	4	The course is intended for general science and technology and other related majors. It mainly introduces the basic principles and laws of physics and cultivates students' basic ability to flexibly apply their physics knowledge to research and analyze various physical phenomena. It allows students to form a good knowledge framework and foundation for further study in related major courses.
PHY106	College Physics II	4	

## Chemistry

Course Code	Course Name	Credits	Course Objectives
CH103	General Chemistry	4	The course provides students with an understanding of the most fundamental principles of chemistry (including microscopic theory, statistical theory and macroscopic theory) and their applications in chemistry and chemical engineering, incorporating contents from inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry and polymer. Introduction to cutting-edge developments in chemistry is also included.
CH105	Chemistry: the Central Science	3	The course provides students with an understanding of the most fundamental principles of chemistry (including microscopic theory, statistical theory and macroscopic theory) and their applications in chemistry and chemical engineering, which incorporates contents from inorganic chemistry, organic chemistry, analytical chemistry, physical chemistry and polymer. The course also introduces contents related to chemistry and life, chemistry and materials, chemistry and the environment, and chemistry and energy.

## Geoscience + Life Science

Course Code	Course Name	Credits	Course Objectives
BIO103	Principles of Biology	3	<i>Principles of Biology</i> allows the most diversified exposure to biology at the introductory level. It is designed to provide a knowledge base in life sciences that students can use as a foundation for life-long learning in sciences (including the most basic molecules of life, organelles, cells, genes, heredity, plants, and other related fields). At the same time, the content presented in Principles of Biology also provides excellent preparation for a wide range of advanced life science courses (including biochemistry, cell biology, molecular biology, physiology, etc.).
BIO102B	Introduction to Life Science	3	<i>Introduction to Life Sciences</i> is a discovery course mainly for SUSTech freshmen, with or without prior knowledge in biology. Each module of the course begins with an exposition of some interesting biological issues that are relevant to our health, daily life and spiritual pursuit, and provides the insight into the history of modern life science, its knowledge base, great achievements, exacting research results and challenges, as well as a summary of the common ground shared by experimental sciences (curiosity, dialectic, chance, inevitability, etc.). Thanks to the extensive and profound multidisciplinary interaction and collaboration, the life science has expanded far beyond its classical scope, leading to quite a few subversion of traditional and contemporary biological perceptions in past 60 years. This course would break away from the stereotypic teaching style(s) of biology, guide students through a novel learning journey, and educate them to respect, appreciate and value the lives.
EOE100	Introduction to Earth Sciences	3	The earth is the homeland of human beings and the only planet on which human beings live. Global major issues relevant to human survival and sustainable development, such as the mitigation of global climate change (International carbon neutrality declaration), defence against natural disasters, exploration and development of deep-earth, deep ocean, and deep-space resources, environmental pollution control and etc., are all the research topics of Earth science. Understanding and protecting our blue habitable planet is every nation's and every citizen's responsibility. This course mainly introduces the origin and evolution of our universe, our galaxy and our planetary systems, the origin and evolution of life on the Earth, the interaction between the solid Earth, surface environment, atmosphere, and oceans, the origin and current status of global climate change, and the impact of human social development on the Earth system. After taking this course, students will have a basic understanding of frontier topics in earth science and the problems faced by the sustainable development of human society.

## Computer Programming

Course Code	Course Name	Credits	Course Objectives
CS109	Introduction to Computer Programming	3	The course aims to cultivate students who have programming experience before their university study. In this course, we will introduce the fundamentals of object-oriented programming language and techniques. The students will be familiar with the mainstream programming language Java and be able to use the language to construct programs and solve practical problems.
CS110	Introduction to Java Programming	3	The course is designed for students who have no programming experience and aims to cultivate them on basic knowledge and techniques of programming. Students will learn basic elements and structures of programming through JAVA and use Java to solve simple programming problems.
CS111	Introduction to C Programming	3	The course introduces C language and programming design methods, aiming at helping students understand the basic structure of program design and the general workflow and logic of using programming to solve real-world problems. The students will master the basic ideas, methods and skills of C programming. They should be able to write qualified programs independently and complete simple group research and development projects. Most importantly, students will be trained for a programming mindset and have the initial ability to use programming language and development environment to solve practical problems in the field, laying a solid foundation on programming theories and practice for subsequent major studies and research.
CS112	Introduction to Python Programming	3	The basic goal of this course is to introduce the data type and related programming skills in the Python language. The course covers the Python programming environment setup, main components of Python (variables, operators, data type, etc.), flow control, functions, lists, dictionaries, tuples and sets, input and output, plotting, Numpy, SciPy, Pandas, and objected-oriented programming. At the end of the course, students are expected to master the Python language and to be able to solve relevant scientific computing problems proficiently and effectively
CS113	Introduction to Matlab Programming	3	MATLAB is a U.S. commercial mathematical software from MathWorks, Inc. targeting the high-tech computing environment of scientific computing, visualization, and interactive programming. It integrates many powerful features such as numerical analysis, matrix computation, visualization of scientific data, and modeling and simulation of nonlinear dynamic systems in an easy-to-use windowed environment, providing a comprehensive solution for scientific research, engineering design, and many scientific fields where efficient numerical computation is necessary. This course will introduce the basic concepts, methods, techniques, and common misconceptions of MATLAB and provide students with a foundation for using MATLAB in the areas of scientific computing, data analysis, simulation modeling, etc.

### SUSTech Undergraduate Programs

Dept.	Majors	Degree	Major by Discipline	Contact
Department of Mathematics	Financial Mathematics	BEc	Finance	0755-88018719
	Mathematics and Applied Mathematics	BSc	Mathematics	
Department of Physics	Physics	BSc	Physics	0755-88018251
	Applied Physics (Suspension of Admissions)	BSc	Physics	
Department of Chemistry	Chemistry	BSc	Chemistry	0755-88018350
Department of Earth and Space Sciences	Geophysics	BSc	Geophysics	0755-88018804
Department of Statistics and Data Science	Statistics	BSc	Statistics	0755-88015675
	Data Science and Big Data Technology	BSc	Computer Science	
Department of Mechanics and Aerospace Engineering	Theoretical and Applied Mechanics	BSc	Mechanics	0755-88018176
	Aerospace Engineering	BEng	Aerospace	
Department of Mechanical and Energy Engineering	Mechanical Engineering	BEng	Mechanical Engineering	0755-88018173
	Robotics Engineering	BEng	Automation	
	Science and Engineering for Renewables	BEng	Energy and Power	
Department of Materials Science and Engineering	Materials Science and Engineering	BEng	Materials	0755-88015994
	Electronic and Photonic Materials and Devices	BEng	Materials	
Department of Electrical and Electronic Engineering	Communication Engineering	BEng	Electronic Information	0755-88018569
	Optoelectronic Information Science and Engineering	BEng	Electronic Information	
	Information Engineering	BEng	Electronic Information	
Department of Computer Science and Engineering	Computer Science and Technology	BEng	Computer Science	0755-88018553
	Intelligence Science and Technology	BEng	Computer Science	
Department of Ocean Science and	Oceanography	BSc	Marine Science	0755-88018759
	Offshore Engineering and	BEng	Offshore	

Engineering	Technology		Engineering	
Department of Biomedical Engineering	Biomedical Engineering	BEng	Biomedical Engineering	0755-88015001
	Intelligent Medical Engineering	BEng	Medical Technology	
School of Environmental Science and Engineering	Environmental Science and Engineering	BEng	Environmental Science and Engineering	0755-88018064
	Hydrology and Water Resources Engineering	BEng	Water Conservancy	
School of Microelectronics	Microelectronics Science and Engineering	BEng	Electronic Information	0755-88010151
School of System Design and Intelligent Manufacturing	Industrial Design	BEng	Mechanical Engineering	0755-88015339
	Automation	BEng	Automation	
School of Life Sciences	Biological Sciences	BSc	Biological Sciences	0755-88018404
	Biotechnology (Suspension of Admissions)	BSc	Biological Sciences	
	Bioinformatics	BSc	Biological Sciences	
School of Medicine	Biomedical Science	BSc	Basic Medicine	0755-88018033
	Clinical Medicine	BM	Clinical Medicine	
College of Business	Finance	BEc	Finance	0755-88018609
	Financial Engineering	BEc	Finance	
	Big Data Management and Application	BBA	Management Science and Engineering	0755-88012803
	Industrial Engineering	BBA	Industrial Engineering	0755-88012803
	Accounting	BBA	Business Administration	0755-88018616
School of Design	Industrial Design	BEng	Mechanical Engineering	0755-88012833
Southern University of Science and Technology-Kings College London School of Medicine	Biomedical Science	BSc	Basic Medicine	0755-88012970
	Biomedical Engineering	BEng	Biomedical Engineering	0755-88011291