

College of Business

Program of Accounting for International Students(2024)

(Accounting Analytics Concentration Track)

I. Program Introduction

The Accounting major (Accounting Analytics Concentration track) integrates the needs of modern enterprises and social development and conducts intelligent processing and analysis of financial data through technological approaches such as artificial intelligence, big data analytics, and machine learning. This program aims to cultivate high-quality professionals in intelligent accounting and finance to support China's high-quality economic development and the economic development of Shenzhen and the Guangdong–Hong Kong–Macao Greater Bay Area. Relying on its geographical advantages and the strong foundation in science and engineering at Southern University of Science and Technology, the program emphasizes interdisciplinary integration between intelligent accounting and STEM disciplines and comprehensively builds an integrated knowledge structure. The program aims to cultivate students' ability to rely on big data and to comprehensively apply fundamental knowledge of economics, management, and accounting to analyze and solve practical problems.

Discipline Category: Business Administration (1202); Major Code: 120203K.

II. Program Objectives and Training Requirements

Objectives

The Accounting discipline of the School of Business at Southern University of Science and Technology adheres to the university's educational philosophy of "Creating Knowledge, Innovation, and Entrepreneurship," and upholds the university motto of "Virtue, Truth, Renewal, and Self-Reliance". The program is committed to cultivating high-quality business leaders and future leaders with well-rounded development in moral, intellectual, physical, aesthetic, and labor education, as well as a global perspective, innovative spirit, and entrepreneurial capability. The program not only enables students to systematically master core knowledge in accounting and economics, but also integrates fundamental theories from science and engineering, project-based learning, real enterprise data cases, and industry-collaborative courses, thereby enabling students to develop into genuine "Finance + Technology" professionals, establishing a solid foundation to identify, lead, and realize value creation brought about by the integration of finance and technology.

Requirements

1. Master fundamental knowledge of accounting, including basic concepts and principles of financial accounting, management accounting, and cost accounting, so as to lay a solid foundation for subsequent studies in intelligent accounting and finance.

2. Become familiar with artificial intelligence, big data analytics, and machine learning technologies; learn relevant technical principles, algorithms, and applications; and understand how to apply these technologies to financial data processing and analysis.

3. Through the study of data processing and data analysis tools, master commonly used tools such as Python, SQL, Stata, and SAS, and be able to use these tools to conduct intelligent data processing and analysis. Through participation in practical projects or internships, accumulate practical experience in relevant fields and enhance ability and skills to solve real-world problems.

III. Duration of Study, Degree Awarded, and Graduation Credit Requirements

Duration of Study: Four years

Degree Awarded: Bachelor of Management

The minimum credit requirement for graduation is 144 credits. The detailed requirements are as follows:

Course Module		Course Category	Minimum Credits
General Education Courses	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	4
		Social Sciences	4
	Mathematics and Natural Sciences Module ≥28 Credits	Mathematics	12
		Physics	10
		Chemistry	3
		Geoscience + Life Sciences	3
GE to Majors Bridging Module 2 Credits	Introduction to Majors	2	
Major Courses	Major Compulsory Courses	Major Foundation Courses	12
		Major Core Courses	21
		Practice-based Learning (Undergraduate Thesis, Internship, Research and Innovation Projects, etc.)	17
	Major Elective Courses	Major Elective Courses	15
Total			144

Note: please see the General Education Requirement for more details on Chinese Language and Culture Module, Arts and Physical Education Module, Competence Development Module (Foreign Languages & Writing, Humanities and Social Sciences Module, and GE to Majors Bridging Module.

IV. Requirements for Natural Science Foundation Module and Computer Science Courses in the Fundamental Skills Development Module

Course Category	Course Code	Course Title	Credits	Recommended Semester	Prerequisite	Offering Unit
Mathematics	MA117	Calculus I	4	Year 1, Fall		Department of Mathematics
	MA127	Calculus II	4	Year 1, Spring	Calculus I	
	MA113	Linear Algebra	4	Year 1, Spring / Fall		
Physics	PHY105	College Physics I	4	Year 1, Fall		Department of Physics
	PHY106	College Physics II	4	Year 1, Spring	College Physics I	
	PHY104B	Experiments of Fundamental Physics	2	Years 1–2, Spring / Fall		
Chemistry	CH105	Chemistry: The Central Science	3	Years 1–2, Spring / Fall		Department of Chemistry
Geography and Biology	BIO102B	Introduction to Life Sciences	3	Years 1–2, Spring / Fall		Department of Chemistry
Computer Science	CS109/CS110 /CS111 /CS112	Introduction to Computer Programming / Introduction to Java Programming / Introduction to C Programming / Introduction to Python Programming	3	Years 1–2, Spring / Fall		Department of Computer Science

Note:

1. Mathematics: MA117 Calculus I and MA127 Calculus II can be substituted by MA101a Mathematical Analysis I and MA102a Mathematical Analysis II.
2. Mathematics: MA113 Linear Algebra can be substituted by MA107 Advanced Linear Algebra I.
3. Physics: PHY101 General Physics I and PHY102 General Physics II can replace PHY105 College Physics I and PHY106 College Physics II.
4. Chemistry: CH103 General Chemistry can replace CH105 Chemistry: The Central Science.
5. Geoscience + Life science: BIO103 Principles of Biology / EOE 100 Introduction to Earth Sciences can replace BIO102B Introduction to Life Science..
6. Computer Programming: Students are required to complete any one of the four Computer Science courses listed above

V. Course Requirements to Be Completed Prior to Entry into the Major

Major Declaration Time	Course Code	Course Title	Prerequisite
Declare major at the end of the first academic year	MA117/ MA101a	Calculus I / Mathematical Analysis I	
	MA127/ MA102a	Calculus II / Mathematical Analysis II	Calculus I / Mathematical Analysis I
	MA113/ MA107	Linear Algebra / Advanced Linear Algebra I	
	Note: Students who have completed two prerequisite courses may complete the remaining required courses		

	after declaring the major.		
Declare major at the end of the second academic year	MA117/ MA101a	Calculus I / Mathematical Analysis I	
	MA127/ MA102a	Calculus II / Mathematical Analysis II	Calculus I / Mathematical Analysis I
	MA113/ MA107	Linear Algebra / Advanced Linear Algebra I	
Note: 1. If the number of students entering a major at the end of the first academic year in the department is greater than or equal to the total number of the teaching-research faculty (PI)*2*60%, all majors in the department may implement the prerequisites for major declaration at the end of the second academic year. 2. If the number of students entering a major at the end of the first academic year in the department is less than the total number of the teaching-research faculty (PI)*2*60%, all majors in the department do not implement the prerequisites for major declaration at the end of the second academic year. 3. Suppose the number of students applying for a major at the end of the first academic year exceeds four times the total number of the teaching-research faculty (PI), then the department may select students according to predetermined rules. In principle, the rules set by the department shall examine the students' suitability for the major and not based on weighted GPA (Specific rules shall be set by the department and announced in advance). 4. For departments that do not implement prerequisites for major declaration at end of the second academic year, if the cumulative number of students applying for a major at the end of the second academic year and the number of students who have entered a major at the end of the first academic year exceeds four times the total number of the teaching-research faculty (PI), the department may select students according to predetermined rules. In principle, the rules set by the department shall examine the students' suitability for the major and not based on weighted GPA (Specific rules shall be set by the department and announced in advance).			

VI. Major Courses Arrangement

**Table 1. Major Compulsory Courses
Program of Accounting**

Course Category	Course Code	Course Title	Credits	Lab / Practice Credits	Recommended Semester	Prerequisite	Dept.
Major Foundation Courses	FIN201	Microeconomics	3		Years 1–2, Spring / Fall		Department of Finance
	FIN204	Macroeconomics	3		Years 1–2, Spring / Fall		
	ACC201	Principles of Accounting*	3		Year 2, Fall		College of Business
	ACC202	Corporate Finance (Financial Management)*	3		Year 2, Fall		
	Subtotal		12				
Major Core Courses	FIN218	Managerial Accounting*	3		Year 2, Spring		College of Business
	ACC203	Accounting Theory	3		Year 2, Spring		
	ACC204	Intermediate Financial Accounting I*	3	1	Year 2, Spring		
	ACC301	Auditing *	3	1	Year 3, Fall		
	ACC303	Intermediate Financial Accounting II*	3		Year 3, Fall		
	ACC306	Data Mining and Application of Financial Analysis	3		Year 3, Spring		
	ACC308	Empirical Accounting Research	3		Year 3, Spring		

	Subtotal		21	2			
Concentrated Practical Training	ACC370	Professional Internship	3	3	Year 2 or Year 3, Summer		College of Business
	ACC470	Intelligent Accounting Innovation Practice Project	2	2	Any semester after Year 1		
	ACC480	Thesis	12	12	Year 4, Spring		
	Subtotal		17	17			
Total			50	19			
Note: 1. Courses marked with “*” are core courses required by the National Teaching Quality Standards for Business Administration (Accounting Major). 2. ACC201 Principles of Accounting includes instruction on professional ethics in accounting. 3. FIN206 Corporate Finance can substitute for ACC202 Corporate Finance (Financial Management). 4. EBA301 Data Analysis and Data Mining may substitute for ACC306 Data Mining and Applications of Financial Analysis.							

**Table 2. Major Elective Courses
Program of Accounting**

Course Category	Course Code	Course Title	Credits	Lab / Practice Credits	Recommended Semester	Prerequisite	Dept.
Accounting Major Electives	ACC305	Introduction to Intelligent Finance	3		Year 3, Fall		College of Business
	ACC302	Accounting Information Systems*	3	1	Year 3, Spring		
	ACC304	Advanced Financial Accounting *	3	1	Year 3, Spring		
	ACC311	Comparative International Financial Reporting Standards	3		Year 3, Fall		
	ACC312	Topics in Chinese Accounting and Finance	3		Year 3, Spring		
	ACC313	Tax Law	3		Year 3, Fall		
	ACC315	Case Studies in Financial Auditing	3		Year 3, Fall		
	ACC314	Internal Control and Internal Auditing	3	1	Year 3, Spring		
	ACC318	Valuation and Financial Statement Analysis	3		Year 3, Spring		
	ACC401	ESG and Sustainable Development	3		Year 4, Fall		

	ACC402	Auditing Theory and AI Auditing	3		Year 3–4, Spring		
	ACC430	Python Applications in Finance	3		Semesters 3–4, Spring/Fall		
	ACC431	Intelligent Auditing	3		Semesters 3–4, Spring/Fall		
	ACC432	Intelligent Finance and Data Visualization	3		Semesters 3–4, Spring/Fall		
	ACC433	Data Structures and Financial Applications	3		Semesters 3–4, Spring/Fall		
	ACC434	Process Design and Financial Robotics	3		Semesters 3–4, Spring/Fall		
Other Major-Related Electives	FET102	Principles of Fintech	3		Year 1, Spring		Department of Finance
	FIN209	Entrepreneurial Finance and Innovation I	3		Year 2, Fall		
	FIN205	Special Topics in Finance and Entrepreneurship I	1.5		Year 2, Fall		
	FIN202	Special Topics in Finance and Entrepreneurship II	1.5		Year 2, Spring		
	FIN310	China Economics and Finance	3		Year 2, Spring	Microeconomics; Macroeconomics; Financial Investments	
	FIN409	Financial Modeling and Analysis	3		Year 3, Fall	Probability and Statistics	Department of MIS
	FIN303	Econometrics	3		Year 3, Fall	Microeconomics; Macroeconomics; Probability and Statistics	
	FIN302	Empirical Methods in Finance	3		Year 3, Spring	Financial Investments; Econometrics	
	FIN313	Strategic Behavior	3		Year 3, Spring		
	FIN413	Quantitative Investment Analysis	3		Year 3, Spring	Financial Investments; Econometrics	
	FET303	Financial Risk Management	3		Year 3, Spring	Corporate Finance; Probability and Statistics	

	MIS202	Marketing	3		Year 2, Spring		
	MIS208	Behavioral and Experimental Economics	3	1	Year 2, Spring		
	MIS205	Data Management and Databases	3	1	Year 3, Fall	Introduction to Computer Programming / Introduction to Java Programming / Introduction to C Programming / Introduction to Python Programming	
	MIS312	Entrepreneurial Thinking and Management	3		Year 3, Fall		
	MIS404	Operations Management	3		Year 3, Fall	Prescriptive Decision Analytics	
	MIS332	Blockchain Essentials and Practices	3	1	Year 3, Fall		
	MIS400	Data Analytics and Business Insights	3	1	Year 4, Fall	Business Data Structures and Algorithms	
	MIS405	Advanced E-Commerce and Management	3		Year 4, Spring		
	MA208	Applied Stochastic Processes	3		Year 2, Spring	Probability and Statistics	Department of Statistics and Data Science
	MA216	Computational Finance	3		Year 3, Fall	Probability and Statistics	
	MA304	Multivariate Statistical Analysis	3		Year 3, Spring	Probability and Statistics	
	CS203B	Data Structures and Algorithm Analysis B	3		Year 2, Fall	C / C++ Programming	Department of Computer Science and Engineering
	CS103	Introduction to Artificial Intelligence	2		Year 1, Fall		
	CS328	Distributed and Cloud Computing	3	1	Year 3, Spring	Introduction to Computer Programming / Introduction to Java Programming / Introduction to C Programming / Introduction to Python Programming	
	Total		122	9			
	Note: 1. Students are required to complete 15 credits of major elective courses. 2. At least two accounting major elective courses (6 credits) must be selected. 3. Other major-related elective courses are not limited to those listed in this table. Students may select at least three courses (9 credits) from the college’s course offerings. 4. FIN212 Financial Statement Analysis may replace ACC318 Valuation and Financial Statement Analysis						

**Table 3. Practical Teaching Components
Accounting Major**

Course Code	Course Title	Credits	Lab / Practice Credits	Recommended Semester	Prerequisite	Dept.
CS111	Introduction to C Programming	3	1	Years 1–2, Spring / Fall		Department of Computer Science and Engineering
CS112	Introduction to Python Programming	3	1	Years 1–2, Spring / Fall		
CS113	Introduction to Matlab Programming	3	1	Years 1–2, Spring / Fall		
PHY104B	Experiments of Fundamental Physics	2	2	Years 1–2, Spring / Fall		Department of Physics
ACC204	Intermediate Financial Accounting I	3	1	Year 2, Spring		College of Business
ACC304	Advanced Financial Accounting	3	1	Year 3, Spring		
ACC301	Auditing	3	1	Year 3, Fall		
ACC314	Internal Control and Internal Auditing	3	1	Year 3, Spring		
EBA301	Data Analysis and Data Mining	3	1	Year 3, Fall		
MIS208	Behavioral and Experimental Economics	3	1	Year 2, Spring		
MIS332	Blockchain Essentials and Practices	3	1	Year 3, Fall		
MIS400	Data Analysis and Business Insights	3	1	Year 4, Fall	Business Data Structures and Algorithms	
CS328	Distributed and Cloud Computing	3	1	Year 3, Spring	Introduction to Computer Programming / Introduction to Java Programming / Introduction to C Programming / Introduction to Python Programming	Department of Computer Science
ACC370	Professional Internship	3	3	Year 2 or 3, Summer		College of Business
ACC470	Intelligent Accounting Innovation Practice Project	2	2	Year 4, Fall		
ACC480	Bachelor’s Thesis	12	12	Year 4, Spring		
Total		55	31			

Program Structure Diagram
Accounting Major

Year 1		Year 2		Year 3		Year 4	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Calculus I	Calculus II	Principles of Accounting	Managerial Accounting	Auditing	Empirical Accounting Research	Intelligent Accounting Innovation Practice Project	Thesis
College Physics (I)	College Physics (II)	Corporate Finance (Financial Management)	Intermediate Financial Accounting I	Intermediate Financial Accounting II	Applications of Data Mining and Financial Analysis	Major Elective Courses	
Linear Algebra		Major Elective Courses	Accounting Theory				
Experiments of Fundamental Physics			Major Elective Courses	Major Elective Courses	Major Elective Courses		
Chemistry: The Central Science							
Introduction to Life Sciences		Internship					
Computer Courses							
Microeconomics	Macroeconomics						
Note: The semesters listed above are recommended study periods. Students may adjust their course plans according to their individual academic arrangements.							