

ECONOMICS

ECON 2301 Principles of Microeconomics

3 Credit Hours

An introduction to the basic descriptive, analytical, and policy problems at the microeconomic level. Emphasis will be placed on the roles of supply, demand, and price in the allocation of scarce resources.

Prerequisites: None

Offered: Fall/Yearly

ECON 2302 Principles of Macroeconomics

3 Credit Hours

An introduction to the basic descriptive, analytical, and policy problems at the macroeconomic level. Emphasis will be placed on the roles of money and banking, aggregate supply and demand, and national income accounting.

Prerequisite: ECON 2301 is recommended but not required

Offered: Spring/Yearly

ECON 4361 International Economics

3 Credit Hours

A study of the principles and methods of the exchange of goods and services and of financial arrangements between nations.

Prerequisite: ECON 2301, ECON 2302

Offered: As Needed

DEPARTMENT OF COMPUTER SCIENCE

Mission

The computer science program prepares students with knowledge and skills needed to apply computing technology to solve problems in the rapidly changing world of information technologies.

The program prepares students for graduate and/or professional studies at institutions and organizations where they must keep pace with current knowledge to be successful. The program curriculum will enable students to acquire specific technical skills in such areas as:

- Computer programming languages including C++, Java, and Visual Basic
- Computer network administration
- The use of Windows and UNIX operating systems
- Internetworking and data communications
- Web site design and maintenance, including the use of HTML and JAVA script
- Systems analysis and design
- Current hardware and software technologies

DEGREES OFFERED

The Department of Computer Science offers students the option of majoring in two areas: **Computer Science** or **Computer Information Systems**. The Bachelors of Science degree is conferred in each of those majors. A minor is available in computer science.

Computer Science: Computer science focuses on the discovery and development of algorithms, or methods of solving problems that can be automated. If you can conceptualize the solution of a problem as an algorithm, that problem can be solved with a computer. Algorithmic thinking in computer science is a systematic and general-purpose approach to problem solving that cuts across all of the disciplines in science, engineering, and the arts.

Computer Information Systems: Computer Information Systems concentrates on the design, development, use, and management of systems in the business environment to supply managers with accurate and timely information for use in making business decisions. It also includes the use of computer based system tools. Graduates of the CIS program are prepared for careers with any type of company that uses computers and software applications as a critical part of its operation.

Degree Requirements for Computer Science

The total number of semester credit hours required for the Bachelors of Science degree in Computer Science is 121. The 121 credit hours are as follows:

A. University Core Curriculum Requirements	51 credit hours
B. Diversity Courses	6 credit hours
C. Major Course Requirements	44 credit hours

Computer Science Major Course Requirements

Course #	Course Title	Hours
COSC 1312	Programming Foundations I and II	3
COSC 1323	Programming Foundations I and II	3
COSC 2311	Java I	3
COSC 2322	Java II	3
COSC 2326	Introduction to Enterprise Computing	3
COSC 2313	Data Structures	3
COSC 3321	Computer Organization	3
COSC 3312	Database and Information Retrieval	3
COSC 3315	Operating Systems I: Theoretical Foundations	3
COSC 3326	Operating Systems II: Unix and Windows	3
COSC 3427	Computer Networks and Distributed Systems	4
COSC 4311	Software Engineering I	3
COSC 4322	Software Engineering II	3
BUSI 3113	Professional Development Seminar	1
COSC 4367	Special Topics	3

D. Mathematics Requirements	20 credit hours
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Course #	Course Title	Hours
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MATH 2305	Discrete Mathematics	3
MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
MATH 1342	Statistics	3
MATH 2318	Linear Algebra	3
MATH 3336	Numerical Techniques for CSC Majors	3

Minor Requirements for Computer Science

Minor Course Requirements

21 credit hours

Course #	Course Title	Hours
COSC 1312	Programming Foundations I	3
COSC 1323	Programming Foundations II	3
COSC 3312	Database and Information Retrieval	3
COSC 3315	Operating Systems and Theoretical Foundations	3
COSC 3326	Operating Systems and Theoretical Foundations	3
Additional COSC credit hours		6

**SUGGESTED CLASS SEQUENCE FOR COMPUTER SCIENCE
TOTAL SEMESTER HOURS REQUIRED TO GRADUATE = 123**

YEAR 1							
Fall				Spring			
UNIV	1201 or	Freshman Seminar	2	ENGL	1302	College Rhetoric and	3
RAMS	1201					Composition	
ENGL	1301	Introduction to College	3	MATH	1342	Statistics	3
		Composition		COSC	1323	Programming Foundations II	
MATH	1314	Algebra	3	COMM	1315	Public Speaking	3
COSC	1312	Programming Foundations I	3	PSCI	1301	US or Texas Government	3
KINE	1304	Health and Wellness	3		or 1302		3
COSC	1300	Introduction to Computers	3	KINE	1100	Personal Fitness	1
Total			17	Total			16
YEAR 2							
Fall				Spring			
PHYS	2425	Physics I	4	PHYS	2426	Physics II	4
COSC	2311	Java I	3	COSC	2322	Java II	3
COSC	2313	Data Structures	3	COSC	2326	Enterprise Computing	3
MATH	2413	Calculus I	4	MATH	2414	Calculus II	4
Social Behavior		Introduction to Sociology; Introduction to Psychology; Social Problems	3	MATH	2305	Discrete Math	3
Total			17	Total			17
YEAR 3							
Fall				Spring			
COSC	3315	Operating Systems I	3	COSC	3326	Operating Systems II	3
COSC	3312	Database & Info Retrieval	3	COSC	3213	Computer Organization	3
Language I			3	COSC	3427	Computer Networks and Distributed Systems	4
PHIL	2301 or	Religion or Philosophy	3	Language II		(Study Abroad Option)	3
RELI	2302			ENGL	2331	World Literature	3
Fine Arts		Musicianship; Introduction to Arts, etc. (Study Abroad Option)	3				
BUSI	3113	Professional Develop	1				
Total			16	Total			16
YEAR 4							
Fall				Spring			
COSC	4311	Software Engineering I	3	COSC	4223	Software Engineering II	3
COSC	4367	Special Topics	3	MATH	3336	Numerical Techniques	3
MATH	2318	Linear Algebra	3	Elective		Diversity (Study Abroad Option)	3
HIST	1301 or 1302	US History I or II	3				
Diversity		African American History	3				
Total			15	Total			9

Degree Requirements for Computer Information Systems

The total number of semester credit hours required for the Bachelors of Science degree in Computer Information Systems is 121. The 121 credit hours are as follows:

A. University Core Curriculum Requirements 51 credit hours

NOTE: Calculus I (4 credit hours) instead of College Algebra