

MAJOR: COMPUTER INFORMATION SYSTEMS, B.S.

DEPARTMENT OF COMPUTER SCIENCE

The B.S. in computer information systems includes formal courses in information technology (including system architecture, operating systems, interactive multimedia computing, and networking), management information systems, project organization and management, and business organizational functions. Graduates are prepared for positions in the design and development of information systems as project managers, information systems center specialists, network administrators, and database administrators.

TYPICAL PROGRAM OF STUDY			
FIRST YEAR			
FALL SEMESTER		SPRING SEMESTER	
WRIT 1120 College Writing	3 cr	ACCT 2005 Survey of Accounting ^{1A}	3 cr
CS 1511 Computer Science I		CS 1521 Computer Science II	5 cr
or CS 1581 Honors Computer Science I	5 cr	ECON 1003 Economics and Society ^{1B}	3 cr
FMIS 2201 Information Technology in Business	3 cr	COMM 1112 Public Speaking	<u>3 cr</u>
MATH 1296 Calculus I [^]			Total: 14 cr
or MATH 1596 Honors Calculus I	<u>5 cr</u>		
	Total: 16 cr		
SECOND YEAR			
CS 2511 Software Analysis and Design	4 cr	CS 4531 Software Engineering	4 cr
STAT 3611 Introduction to Probability & Statistics	4 cr	Business Administration minor elective ^{1C}	3 cr
Liberal education courses	<u>7 cr</u>	Liberal education courses	<u>7 cr</u>
	Total: 15 cr		Total: 14 cr
THIRD YEAR			
CS 3011 IT Hardware and Software	4 cr	CS 3221 Operating Systems Practicum	4 cr
CS 3121 Interactive Multimedia and Technology	4 cr	WRIT 3121 Advanced Writing: Business & Organizations ²	3 cr
Business Administration minor course ^{1C}	3 cr	Business Administration minor course ^{1C}	3 cr
Liberal education course	<u>3 cr</u>	Liberal education courses	<u>6 cr</u>
	Total: 14 cr		Total: 16 cr
FOURTH YEAR			
CS 3211 Database Systems Concepts	4 cr	CS 4411 Data Communications & Network Technology	4 cr
CS 3111 Computer Ethics	4 cr	Business Administration minor course ^{1C}	3 cr
Business Administration minor course ^{1C}	3 cr	Liberal education courses	<u>7 cr</u>
Liberal education courses	<u>6 cr</u>		Total: 14 cr
	Total: 17 cr		

[^]First math course is determined by math placement exam. This schedule presupposes placement into Math 1296.

¹ CIS majors are required to complete a minor in Business Administration (minor for non-LSBE students.) Go to the Labovitz School of Business and Economics (LSBE) to apply for this minor. The following are required as minor courses:

^A Choose one course: Acct 2001 Principles of Financial Accounting **or** Acct 2005 Survey of Accounting.

^B Choose one option: **1)** ECON 1003 Economics & Society or **2)** ECON 1022 Principles of Economics: Macro **and** ECON 1023 Principles of Economics: Micro (both courses required to replace ECON 1003.)

^C Five *Business Administration minor electives*: FMIS 3301 Production & Operations Mgt, FMIS 3601 Corporation Finance, MGTS 3401 Organizational Behavior and Mgt, MGTS 3701 Principles of Marketing, MGTS 3801 Human Resource Mgt.

² Or WRIT 3130 or WRIT 3150 or ENGR 4001.

FOR ADDITIONAL INFORMATION:

Department of Computer Science
Heller Hall 320
218-726-7607
cs@d.umn.edu
<http://www.d.umn.edu/cs>

COMPUTER INFORMATION SYSTEMS, B.S.

MAJOR COURSE REQUIREMENTS	CREDITS	PREREQUISITES	SEMESTER TO BE COMPLETED	GRADE
FIRST YEAR				
ACCT 2005 Survey of Accounting ^{1A}	3			
WRIT 1120 College Writing	3			
CS 1511 Computer Science I or CS 1581 Honors Computer Science I	5	3.5 years of high school math Placement and 3.5 years of high school math		
CS 1521 Computer Science II	5	CS 1511		
COMM 1112 Public Speaking	3			
ECON 1003 Economics and Society ^{1B}	3			
FMIS 2201 Information Technology in Business	3	15 college credits or collegiate unit approval		
MATH 1296 Calculus I [^] or MATH 1596 Honors Calculus I	5	Math placement or Math 1250 with 'C-' or better Placement		
SECOND YEAR				
CS 2511 Software Analysis and Design	4	CS 1521		
CS 4531 Software Engineering	4	CS 2511		
STAT 3611 Introduction to Probability & Statistics	4	MATH 1296 with 'C-' or better		
Business Administration minor elective ^{1C}	3			
THIRD YEAR				
WRIT 3121 Advanced Writing: Business & Orgs ²	3	WRIT 1120; 60 credits		
CS 3011 IT Hardware and Software	4	FMIS 2201, CS 2511		
CS 3121 Interactive Multimedia and Technology	4	FMIS 2201, CS 2511		
CS 3221 Operating Systems Practicum	4	CS 3011		
Business Administration minor course ^{1C}	3			
Business Administration minor course ^{1C}	3			
FOURTH YEAR				
CS 3111 Computer Ethics	4	WRIT 3121 ⁴ or ENGR 4001, 60 credits		
CS 3211 Database Systems Concepts	4	FMIS 2201, CS 2511		
CS 4411 Data Comm. & Network Technology	4	CS 3011, CIS majors only, 60 credits		
Business Administration minor course ^{1C}	3			
Business Administration minor course ^{1C}	3			

[^]First math course is determined by math placement exam. This schedule presupposes placement into Math 1296.

¹ CIS majors are required to complete a minor in Business Administration (minor for non-LSBE students.) Go to the Labovitz School of Business and Economics (LSBE) to apply for this minor. The following are required as minor courses:

^A Choose one course: Acct 2001 Principles of Financial Accounting *or* Acct 2005 Survey of Accounting.

^B Choose one option: **1)** ECON 1003 Economics & Society *or* **2)** ECON 1022 Principles of Economics: Macro *and* ECON 1023 Principles of Economics: Micro (both courses required to replace ECON 1003.)

^C Five *Business Administration minor electives*: FMIS 3301 Production & Operations Mgt, FMIS 3601 Corporation Finance, MGTS 3401 Organizational Behavior and Mgt, MGTS 3701 Principles of Marketing, MGTS 3801 Human Resource Mgt.

² Or WRIT 3130 or WRIT 3150 or ENGR 4001.

NOTE: In addition to the above requirements, students must complete the liberal education program and a minor in Business Administration to earn a B.S. degree.