Information Systems & Technology Major, B.S.

Department of Computer Science

This program is appropriate for students seeking a professional career in the information systems field. It is a multidisciplinary program that emphasizes the study of systems development methodology and technology for our rapidly changing information society. Graduates of this program are prepared for positions in the design and development of information systems as project managers, information systems center specialists, network administrators, and database managers. This major is also appropriate preparation for information systems graduate programs or MBA professional programs.

The design of the Information Systems and Technology major requires students to complete a minor in Business Administration.

Typical Program of Study:

JI 8			
Fall Semester		Spring Semester	
First Year			
CS 1511 Computer Science I	5 cr	CS 1521 Computer Science II	5 cr
Math 1296 Calculus I ^a	5 cr	Math 1297 Calculus II	5 cr
FMIS 1201 Intro to Business Info Systems	3 cr	Comp 1120 College Writing	3 cr
Econ 1003 Economics & Society ^b	<u>3 cr</u>	Liberal Education course	<u>3 cr</u>
	16 cr		16 cr
Second Year			
CS 2511 Software Analysis and Design	4 cr	FMIS 3201 Management Info Systems	3 cr
Stat 3611 Probability & Statistics	4 cr	Math 3355 Discrete Mathematics	4 cr
Acct 2001 Principles of Financial Acctg		Comm 1112 Public Speaking	3 cr
or Acct 2005 Survey of Accounting	3 cr	Business Administration minor elective ^c	<u>3 cr</u>
Liberal education course	<u>4 cr</u>		13 cr
	$\frac{1}{15}$ cr		10 01
Third Year	15 01		
	1	CS 2111 Computer Ethics	1
CS 3121 Interactive Multimedia Technology	4 cr	CS 3111 Computer Ethics	4 cr
CS 3211 Database System Concepts	4 cr	CS 4531 Software Engineering	4 cr
Comp 3150 Advanced Writing: Science	4 cr	Business Administration minor elective ^c	3 cr
Liberal education course	$\frac{3 \text{ cr}}{15}$	Liberal education course	$\frac{4 \text{ cr}}{15}$
-	15 cr		15 cr
Fourth Year			
CS 3011 Info Technology Hardware, Software	4 cr	CS 3221 Operating Systems Practicum	4 cr
CS 4993 Seminar	1 cr	CS 4411 Data Communications, Network Tech	4 cr
Business Administration minor elective ^c	3 cr	Business Administration minor elective ^c	3 cr
Liberal education courses	<u>7 cr</u>	Liberal education course	<u>4 cr</u>
	15 cr		15 cr

^aFirst math course is determined by math placement exam. This schedule presupposes placement into Math 1296. ^bRequired for Business Administration minor: ECON 1003 Economics & Society or ECON 1022 Principles of Economics: Macro *and* ECON 1023 Principles of Economics: Micro

^cIn addition to the Business Administration minor courses listed above, four of the following are required: FMIS 3301 Production & Operations Mgt (3), FMIS 3601 Corporation Finance (3), MGTS 3401 Organizational Behavior and Mgt (3), MGTS 3701 Principles of Marketing (3), MGTS 3801 Human Resource Mgt (3).

For further information:

Department of Computer Science 320 Heller Hall 1114 Kirby Drive Duluth, MN 55812-2496 218-726-7607 cs@d.umn.edu http://www.d.umn.edu/cs

INFORMATION SYSTEMS AND TECHNOLOGY MAJOR, B.S.

2003-2005 Catalog

Major Course Requirements	Credits	Prerequisites	Semester To Be Completed	Grade When Completed
Year 1				
CS 1511 Computer Science I	5	3.5 years high school math		
CS 1521 Computer Science II	5	CS 1511		
FMIS 1201 Intro to Business Info Systems	3			
Math 1296 Calculus I	5	Math placement test		
Math 1297 Calculus II	5	Math 1296		
Comp 1120 College Writing	3			
ECON 1003 Economics & Society or	3			
Econ 1023 Principles of Econ: Micro and	3			
Econ 1022 Principles of Econ: Macro	3			
Year 2				
CS 2511 Software Analysis and Design	4	CS 1521		
FMIS 3201 Management Info Systems	3	Admission to Bus Admin minor		
Math 3355 Discrete Mathematics	4	Math 1296; CS 1511; Math 1297 or CS 1521		
Stat 3611 Probability and Statistics	4	Math 1296		
Acct 2001 Principles of Financial Acctg	3	30 credits		
OR Acct 2005 Survey of Accounting	3			
Comm 1112 Public Speaking	3			
Business Administration minor elective*	3			

Year 3				
CS 3111 Computer Ethics	4			
CS 3121 Interactive Multimedia Technology	4	CS 2301 or FMIS 3201 or SBE 1101;		
CS 3211 Database Systems Concepts	4	CS 2301 or FMIS 3201 or SBE 1101;		
CS 4531 Software Engineering	4	CS 2511; Math 3355		
Comp 3150 Advanced Writing: Science	3	Comp 1120; 60 credits		
Business Administration minor elective*	3			

Year 4			
CS 3011 Info Tech Hardware, Software	4	CS 2301 or FMIS 3201 or SBE 1101;	
CS 3221 Operating Systems Practicum	4	CS 3011	
CS 4411 Data Comm & Network Tech	4	CS 3011	
CS 4993 Seminar	1	CS 2511; Comm 1112; Comp 3150	
Business Administration minor elective*	3		
Business Administration minor elective*	3		

*Four of the following are required: FMIS 3301 Production & Operations Mgt (3), FMIS 3601 Corporation Finance (3), FMIS 3601 Corporation Finance (3), MGTS 3401 Organizational Behavior & Mgt (3), MGTS 3701 Principles of Mktg (3), MGTS 3801 Human Resource Management (3).

NOTE: In addition to the above, students must complete the liberal education program to earn the B.S. degree.