

Computer Information Systems — Planning Guide

2017-2018 Catalog

SUGGESTED SEMESTER-BY-SEMESTER PLANNING GUIDE

(For listing of courses, see reverse of this sheet)

1 st Semester - First Year		2 nd Semester - First Year	
ENG 1010 MTH 1310 HIS ____ ____	Composing Arguments Finite Math for Mgmt & Soc Science History Natural and Physical Science Elective	ENG 1020 MTH 1320 BUS 1850 ____	Freshman Comp: Analysis, Research & Doc. Calculus for Mgmt & Soc Sciences Introduction to Business Natural and Physical Science Elective
PSY 1001 <i>or</i> SOC 1010	Introduction to Psychology <i>or</i> Introduction to Sociology	CAS 1010 <i>or</i> CAS 1710	Public Speaking <i>or</i> Interpersonal Communication
1 st Semester - Second Year		2 nd Semester - Second Year	
ECO 2010 ACC 2010 CIS 2010 MGT 2210 ____	Principles of Economics - Macro Principles of Accounting I Foundations of Information Systems Legal Environment of Business I Elective	ECO 2020 ACC 2020 MKT 2040 CIS 2110 ____	Principles of Economics - Micro Principles of Accounting II Business Communication Structured Problem Solving in Information Systems Arts and Humanities
It is required that students meet with an advisor in their major to plan their remaining 60 credit hours. It is recommended that students begin with the business core course related to their major and adjust other business core courses accordingly. Department offices' will have suggested planning guides for their majors.			
1 st Semester - Third Year		2 nd Semester - Third Year	
CIS 3300 CIS 3050 CIS 3230 FIN 3300	Business Analytics I (Descriptive and Predictive) Fundamentals of Systems Analysis and Design Telecommunication Systems and Networking Managerial Finance	CIS 3320 MGT 3000 MKT 3000 CIS 3060 CIS 3500	Business Analytics II (Prescriptive) Organizational Management Principles of Marketing Database Management Systems Information Systems Security
PHI 3360 <i>or</i> PHI 1030	Business Ethics (preferred) <i>or</i> Ethics		
1 st Semester - Fourth Year		2 nd Semester - Fourth Year	
CIS 3145 CIS ____ CIS ____ ____ ____	Business Application Development CIS Elective CIS Elective Elective Elective	MGT 4950 CIS 4050 CIS ____ ____ ____	Strategic Management Systems Analysis and Design CIS Capstone Course Elective Elective

General Studies:

All Business majors at Metropolitan State University of Denver (Metro) must complete the University's minimum requirement of 33 hours of general studies courses. The College of Business requires 6 additional specific hours of general education for a total of 40 (PSY 1001 or SOC 1010, and MTH 1320 should be used to meet the College of Business requirements). Students desiring a Bachelor of Science degree from the College of Business should complete these courses as part of their first 60 credit hours. **The General Studies Written Communication, Oral Communication, and Quantitative Literacy courses (see other side) must be completed before enrolling in Business Core courses.**

Multicultural Course:

The University's multicultural requirement may be satisfied by taking an approved multicultural course in general studies or electives portion of the degree requirement.

GLOBAL DIVERSITY REQUIREMENT: The University's global diversity requirement may be satisfied by taking an approved global diversity course listed in the University Catalog: *General Studies Requirements*.

CIS 2010:

The prerequisite is CIS/CSS 1010 with a grade of C- or better, or appropriate score on the Computer Information Systems computer literacy screening test.

Business Core Courses:

A grade of C- or better must be earned in each business core course to have that course count toward the Bachelor of Science degree.

BUS 1850:

Transfer students that transfer in 6 or more credits of business courses will not need to take BUS 1850 but may take any other College of Business 3-credit hour course that does not appear in their Major or Business Core requirements.

Upper Division Courses:

A student must complete at least 40 credit hours of upper-division courses (3000 or 4000 level) at Metro of which at least 8 hours must be in Computer Information Systems.

College of Business Residency requirements:

To earn a Bachelor's degree in computer information systems, a student must successfully complete 30 or more credit hours of business course work at Metro. This 30-hour residency requirement can be met by completing any business courses with the prefix ACC, CIS, FIN, MGT and MKT except ACC 1010, CIS 1010, and FIN 2250.

College of Business Advising: Administration Building, AD-540, 303-352-7270
<http://www.msudenver.edu/business/advising/index.shtml>

CIS Department: Administration Building, AD-590, 303-556-3122

Chairman: Dr. Abel Moreno, morenoa@msudenver.edu

Advisor: Lauren Shaffer, lfox16@msudenver.edu

CIS Department Website: <http://cis.msudenver.edu>

Computer Information Systems Checklist of Required Studies

2017-2018

GENERAL STUDIES and REQUIRED NON-BUSINESS COURSES (minimum)

General Studies	Credits
Written Communication	
ENG 1010 Composing Arguments	3 _____
ENG 1020 Freshman Composition: Analysis, Research, & Documentation	3 _____
Quantitative Literacy	
MTH 1310 Finite Mathematics for the Management & Social Sciences <i>(prerequisite: one and one-half years of high school algebra or equivalent and an appropriate score on the mathematics preassessment placement test)</i>	4 _____
Oral Communication	
CAS 1010 Public Speaking	3 _____
<i>or</i> CAS 1710 Interpersonal Communication	
Historical	
HIS _____ <i>Read the list of approved "Historical" courses in the General Studies courses list of your official catalog term)^{1 or 2}</i>	3 _____
Arts and Humanities	
PHI 3360 Business Ethics (preferred course)	3 _____
<i>or</i> PHI 1030 Ethics	
_____ <i>(Check catalog for Arts and Humanities elective)^{1 or 2}</i>	3 _____
Social & Behavioral Sciences I	
ECO 2010 Principles of Economics–Macro <i>(prerequisite: ENG 1010 or ENG 1020; and any 1000-level MTH course)</i>	3 _____
Social & Behavioral Sciences II	
ECO 2020 Principles of Economics–Micro <i>(prerequisite: ENG 1010 or ENG 1020; and any 1000-level MTH course)</i>	3 _____
Natural and Physical Sciences	
_____ <i>(Check catalog for Natural and Physical Sciences elective)²</i>	3 _____
_____ <i>(Check catalog for Natural and Physical Sciences elective)²</i>	3 _____
Total credit hours for General Studies (minimum)	34

Additional College of Business Requirements	
PSY 1001 Introductory Psychology	3 _____
<i>or</i> SOC 1010 Introduction to Sociology	
MTH 1320 Calculus for the Management & Social Sciences <i>(prerequisite: MTH 1310 w/C or better)</i>	3 _____
Total credit hours College of Business Requirements	6
Total Non-business General Studies required credits (minimum)	40

Business Core	
BUS 1850 Introduction to Business	3 _____

A grade of 'C' or better must be earned in each of the business core course to have that course count toward the Bachelors of Science degree in Computer Information Systems. (prerequisite: Completion of all the "General Studies Written Communication, Oral Communication, and Quantitative Literacy courses")

ACC 2010 Principles of Accounting I	3 _____
ACC 2020 Principles of Accounting II <i>(prerequisite: ACC 2010 with a grade of C- or better)</i>	3 _____
CIS 2010 Foundations of Information Systems <i>(prerequisite: CIS/CSS 1010 with a grade of C- or better or appropriate score on Computer Information Systems Literacy screening test)</i>	3 _____
CIS 3300 Business Analytics I (Descriptive and Predictive) <i>(prerequisite: MTH 1320 or MTH 1410 with a grade of C- or better; CIS 2010 or CIS 2300; and at least junior standing)</i>	3 _____
MGT 2210 Legal Environment of Business I	3 _____
MKT 2040 Business Communication	3 _____
CIS 3320 Business Analytics II (Prescriptive) <i>(prerequisite: MTH 1320 or MTH 1410 with a grade of C- or better; CIS 3300; and at least junior standing)</i>	3 _____
FIN 3300 Managerial Finance <i>(prerequisite: ACC 2010, ECO 2010, ECO 2020, MTH1320 or MTH 1410 with a grade of C- or better, and at least junior standing)</i>	3 _____
MGT 3000 Organizational Management <i>(prerequisite: at least junior standing)</i>	3 _____
MKT 3000 Principles of Marketing <i>(prerequisite: at least junior standing)</i>	3 _____
MGT 4950 Strategic Management <i>(prerequisite: completion of all other business core courses and senior standing.)</i>	3 _____
Total credit hours for Business Core (minimum)	36

Course work in CIS Major	
CIS 2110 Structured Problem Solving in Information Systems <i>(prerequisite: CIS 2010)</i>	3 _____
CIS 3050 Fundamentals of Systems Analysis and Design <i>(prerequisite: CIS 2110)</i>	3 _____
CIS 3060 Database Management Systems <i>(prerequisite: CIS 2110)</i>	3 _____
CIS 3145 Business Application Development <i>(prerequisite: CIS 2110)</i>	3 _____
CIS 3230 Telecommunication Systems and Networking <i>(prerequisite: CIS 2110)</i>	3 _____
CIS 3500 Information Systems Security <i>(prerequisite: CIS 3230)</i>	3 _____
CIS 4050 Systems Analysis & Design <i>(prerequisite: CIS 3050, CIS 3060, CIS 3145, CIS 3230, CIS 3500, and senior standing)</i>	3 _____

CIS Approved Electives (Must be 3000 – 4000 level CIS Course) – Select TWO of the Following: ***

CIS 3030 Business Web Page Development <i>(prerequisite: CIS 2110)</i>	
CIS 3220 Analysis of Hardware, Software, and User Interfaces for Microcomputer Platforms <i>(prerequisite: CIS 2110)</i>	
CIS 3270 Advanced Computer Applications for Business <i>(prerequisite: CIS 2010)</i>	
CIS 3280 LAN and WAN Systems for Business <i>(prerequisite: CIS 3230)</i>	
CIS 3290 Operating Systems for End Users <i>(prerequisite: CIS 2010 and CIS 2110)</i>	
CIS 3310 Business Forecasting Methods <i>(prerequisite: CIS 3300 and junior standing)</i>	
CIS 3350 Knowledge Discovery and Data Mining <i>(prerequisite: CIS 3300 and at least junior standing)</i>	
CIS 3460 Data Warehousing and Mining <i>(prerequisite: CIS 3060 or ACC 3300, and CIS 3300)</i>	
CIS 3490 Managing Business Information with Enterprise Systems <i>(prerequisite: CIS 2010)</i>	
CIS 3980 Internship in Computer Information Systems	3 _____
CIS 4xxx Courses listed in the CIS Capstone Group.	3 _____

CIS Capstone Group – Select ONE of the Following: ***

CIS 4030 Web Site Administration <i>(prerequisite: CIS 3030)</i>	
CIS 4060 Advanced Database Management Systems <i>(prerequisite: CIS 3060 and CIS 3145)</i>	
CIS 4160 Advanced Programming Seminar <i>(prerequisite: CIS 3060 and CIS 3145)</i>	
CIS 4260 Database Administration <i>(prerequisite: CIS 3060)</i>	
CIS 4280 Network Installation and Administration <i>(prerequisite: CIS 3230)</i>	
CIS 4281 Network Installation and Administration With UNIX/Linux <i>(prerequisite: CIS 3230)</i>	
CIS 4370 Data Science and Big Data Analytics <i>(prerequisite: CIS 3300, CIS 3460, and at least junior standing)</i>	
CIS 4410 Management Information Systems <i>(prerequisite: CIS 2110 and MGT 3000)</i>	
CIS 4500 Information Systems Security Tools and Techniques <i>(prerequisite: CIS 3500 and junior or senior standing)</i>	
CIS 4550 Information Systems Security Management and Information Assurance <i>(prerequisite: CIS 3500)</i>	3 _____
Total credit hours for CIS major (minimum)	30

***** Can be used for the CIS Concentration. See the "Two Options for completing a CIS Degree" advising sheet for the available concentrations and the associated elective courses.**

Electives	
_____	_____
_____	_____
Total Electives	14
Total (minimum) credit hours for Bachelor of Science for CIS majors	120

¹ A Multicultural Course must be taken as an Elective or General Studies course.

² A Global Diversity course must be taken as a General Studies course.