

PLANS OF STUDY AND PREREQUISITE COURSEWORK FOR ADMISSION TO PARTICIPATING GRADUATE PROGRAMS AT THE UNIVERSITY OF COLORADO DENVER

I. BUSINESS ANALYTICS

Master of Science (MS) in Business Analytics (BANA) Degree Requirements

The Master of Science in Business Analytics requires a minimum of 30 credits of graduate-level courses. A 3.0 cumulative GPA must be achieved to graduate.

Business Analytics Core (21 credits)

- BANA 6610 Statistics for Business Analytics
- BANA 6620 Computing for Business Analytics
- BANA 6640 Decision Analysis
- BANA 6660 Predictive Analytics and Machine Learning
- BANA 6670 Prescriptive Analytics with Optimization
- BANA 6710 Causal Analytics
- BANA 6770 Evaluative Analysis

Business Analytics Electives (9 credits): Select any three courses from the list below.

- BANA 6600 Transformative Technologies Impacting Globalization
- BANA 6630 Time-Series Forecasting
- BANA 6650 Project Management
- BANA 6730 Supply Chain Analytics
- BANA 6760 Data Visualization
- BANA 6780 AI for Business
- BANA 6800 Special Topics
 - Sustainable Supply Chains and Circularity
 - Global Supply Chain Management
- ISMG 6080 Database Management Systems
- ISMG 6470 Text Data Analytics
- ECON 5030 Data Analysis with SAS

II. INFORMATION SYSTEMS

Core Courses

Required Courses (9 credits):

- ISMG 6080 Database Management Systems
- ISMG 6180 Information Systems Strategy
- ISMG 6430 Information Systems Security and Privacy

Select two of the following (6 credits):

- ISMG 6060 Analysis, Modeling and Design

- ISMG 6220 Business Intelligence Systems and Analytics
- ISMG 6450 IT Project Management
or BANA 6650 Project Management
- ISMG 6830 IT Governance and Service Management
- ISMG 6020 Programming Fundamentals with Python
- ISMG 6120 Network Design and Analysis

Elective or Specialization Courses (15 credits): Complete any 5 ISMG courses numbered 6000 or higher. Students may choose to use electives toward an optional specialization in **Cybersecurity and Information Assurance** or **Business Intelligence**.

Cybersecurity and Information Assurance Specialization (CIA) - Students must complete all courses.

Requires students to complete the following core courses:

- ISMG 6020 Programming Fundamentals with Python
- ISMG 6120 Network Design and Analysis

Complete all the following courses:

- ISMG 6340 Cloud Computing Concepts, Tools, and Security
- ISMG 6860 Ethical Hacking Concepts and Methodologies
- ISMG 6865 Digital Forensic Analysis
- ISMG 6890 IT Risk Management
- ISMG 6910 Design Science Practicum or approved Internship with required paper and presentation to be completed during the final 9 credit hours of the program

Business Intelligence Specialization (BIT)

Requires students to complete the following core course:

- ISMG 6220 Business Intelligence Systems and Analytics

Choose 4 of the following:

- BUSN 6530 Data Analytics for Managers
- ISMG 6470 Text Data Analytics
- ISMG 6480 Data Warehouse and Administration
- ISMG 6810 Business Intelligence in Healthcare
- ISMG 6820 Business Intelligence and Financial Modeling

**Fifth elective can be any ISMG course numbered 6000 or higher OR any approved elective course listed below.*

Approved Electives to Fulfill Up To 6 Elective Credits – No Specialization

- ACCT 6020 Auditing Theory

- ACCT 6031 Intermediate Financial Accounting I
- ACCT 6054 Accounting Information Systems
- Any BANA course that is numbered 6000 or higher

**Note: Some BANA courses have BANA 6610 as prerequisite, in which enrollment permission is granted by the BANA program director based upon evidence of quantitative ability.*

- ENTP 6022 Launching Innovative Digital Businesses
- ENTP 6620 New Venture Operations and Project Management (cannot receive credit for both ENTP 6620 and ISMG 6450)
- ENTP 6822 Legal and Ethical Issues of Entrepreneurship
- ENTP 6824 Entrepreneurial Financial Management
- ENTP 6826 International Entrepreneurship
- ENTP 6848 Leadership in New and Innovative Ventures
- HLTH 6071 Introduction to Health Information Technology
- RISK 6129 Practical Enterprise Risk Management
- RISK 6209 Cyber Risk Management
- RISK 6309 Strategic Risk Management
- RISK 6509 Global Risk Management (Travel Study)

Additional Non-Business Approved Electives:

- CSCI 5211 Mobile Computing and Programming
- CSCI 5455 Data Mining
- CSCI 5580 Data Science
- CSCI 5582 Artificial Intelligence
- CVEN 5381 Introduction to Geographic Information Systems
- CVEN 5382 Geospatial Data Development
- CVEN 5383 GIS Analysis – Theory and Practice
- CVEN 5384 GIS Project Management
- CVEN 5385 GIS Relational Database Systems
- CVEN 5386 GIS Laboratory
- CVEN 5387 Advanced Remote Sensing
- CVEN 5390 Interactive Web Mapping GIS
- CVEN 5391 Introduction to Geomatics
- CVEN 5392 Unmanned Aerial Systems
- CVEN 5395 GPS/GNSS

III. INTERNATIONAL BUSINESS

Master of Science (MS) in International Business (IB) Degree Requirements

The Master of Science in International Business requires a minimum of 30 credits of graduate-level courses. A 3.0 cumulative GPA must be achieved to graduate.

Business Prerequisites

Advisors will evaluate transcripts for possible prerequisite waivers.

Students who choose to take courses for the degree that require prerequisites not previously met, may be required to take additional courses. Completion of prerequisite courses is in addition to the 30-hour MS in International Business degree. Meeting prerequisites is the responsibility of the student.

International Business Core (15 credits):

- ENTP 6826 International Entrepreneurship
- INTB 6000 Introduction to International Business
- INTB 6024 Trade Finance and Payments in International Business
- INTB 6600 Transformative Technologies Impacting Globalization
- INTB 6800 Special Topics in International Business
 - Global Supply Chain Management

International Business Electives (9 credits): Complete three of the following courses.

- ENTP 6110 Innovation in Fintech
- INTB 6022 International Business Negotiations and Transactions
- INTB 6026 Marketing Challenges at the Global Frontier
- INTB 6370 International Accounting
- INTB 6372 International Financial Management
- INTB 6500 International Business Consulting
- INTB 6730 Supply Chain Analytics
- INTB 6870 Global Climate Change

Global Action-Learning and Immersion Courses (6 credits): Complete two of the following courses.

- INTB 5939 Internship
- INTB 6028 Global Study Topics
- INTB 6500 International Business Consulting
- INTB 6800 Special Topics in International Business
- INTB 6840 Independent Study

