

# College of Business Minor Options

Fall 2021

These programs are open to all students (with some exceptions noted). A 2.5 combined grade point average, 60 credits earned and all course prerequisites are required for enrollment in the 300/400 courses unless otherwise noted. There is a limit of 21 credits in the 300/400 business courses without being admitted to the College of Business or a declared COLS Economics major. A 2.0 minimum grade point average is required for all minor programs.

## Analytics Minor 21 credits

Recommended for students who want exposure to various data analytics courses with a focus on statistical modeling, domain-specific analytics, data engineering, data management, and machine learning techniques.

### Required Courses:

INFO SYS 201	Intro to Business App Development	(3)___
<i>(MATH 104, 106, 171, 204 or 206)</i>		
INFO SYS 315	Database Systems in Business	(3)___
<i>(INFO SYS 311) or (MHR 381) or (CS 271 w/C)</i>		
MARKET 418	Marketing Analytics	(3)___
<i>(ECON 210 w/C or MATH 301 w/C)<sup>^</sup></i>		

### Plus six credits from:

ECON 472**	Time Series Analysis	<i>(ECON 210 or MATH 301 w/C)<sup>^</sup></i>	(3)___
ECON 473**	Econometric Methods	<i>(ECON 210 w/C or MATH 301 w/C)<sup>^</sup></i>	(3)___
ECON 475**	Predictive Analytics	<i>(ECON 210 w/C or MATH 301 w/C)<sup>^</sup></i>	(3)___

### Plus six credits from:

ECON 472**	Time Series Analysis	<i>(ECON 210 or MATH 301 w/C)<sup>^</sup></i>	(3)___
ECON 473**	Econometric Methods	<i>(ECON 210 w/C or MATH 301 w/C)<sup>^</sup></i>	(3)___
ECON 475**	Predictive Analytics	<i>(ECON 210 w/C or MATH 301 w/C)<sup>^</sup></i>	(3)___
MHR 381**	Quantitative Business Analysis	<i>(ECON 210 w/C or MATH 301 w/C)<sup>^</sup> (NOT for BBA majors)</i>	(3)___
MARKET 374	Market Research	<i>(MARKET 371 and MHR 381 w/C)</i>	(3)___
MARKET 428	Digital Marketing Analytics	<i>(ECON 210 w/C or MATH 301 w/C or MATH 201 w/B or PSYCH 203 w/B)<sup>^</sup></i>	(3)___
SCM 342	Supply Chain Modeling & Analysis	<i>(c/SCM 341)</i>	(3)___
SCM 445	Supply Chain Strategy & Analytics	<i>(SCM 341)</i>	(3)___

**\*\*These courses can be taken with 44 credits earned**

**<sup>^</sup>Analytics minors may substitute PSYCH 203 w/B or SOC 281 w/B for ECON 210. (ALL BBA students must take a competency exam for substitution to be approved.)**

**#Students may not double-count a completed Econ course as both a required and elective course in the minor.**

## Business Minor 27 credits

Recommended for student who wish to combine a basic business curriculum with an academic major in another college. Not available to BBA students.

### Three credits from:

ECON 101	General Economics (XS)	(3)___
ECON 201	Principles of Macroeconomics (XS)	(3)___
<i>(c/MATH 104, 106, 108 or 204 or qualified to enroll in MATH 106 or 171)</i>		
ECON 202	Principles of Microeconomics (XS)	(3)___
<i>(c/MATH 104, 106, 108 or 204 or qualified to enroll in MATH 106 or 171)</i>		

### Three credits from:

MHR 351**	Essentials of Organizational Behavior	(3)___
MHR 361**	Essentials of Human Resource Management	(3)___

### Required Courses:

ACCT 206	Essentials of Financial Accounting	(3)___	
<i>(24cr, MATH 103 or PBIS 187, 188, 189 or higher math placement and 2.0 GPA)</i>			
ACCT 207	Essentials of Managerial Accounting	(3)___	
<i>(ACCT 206 w/C)</i>			
ECON 210 <sup>^</sup>	Economic and Business Statistics (XM)	(3)___	
<i>(MATH 104, 106, 108, 204, 206, or 171 w/C or qualified to take MATH 106 or 171)</i>			
FINANCE 331**	Essentials of Finance	<i>(ACCT 206 &amp; ACCT 207)</i>	(3)___
INFO SYS 311*	Essentials of Information Systems	(3)___	
MARKET 371**	Essentials of Marketing	(3)___	
SCM 341**	Essentials of Operations Management	(3)___	

**\*This course can be taken with 30 credits earned**

**\*\*These courses can be taken with 44 credits earned**

**<sup>^</sup>Other options: PSYCH 203 w/B or SOC 281 w/B or MATH 301 w/C.**

## Business Economics Minor 21 credits

Recommended for students who wish to have a better understanding of how their line of study is affected by economics. Not available to College of Business students or Economics majors.

### Required Courses:

ECON 201	Principles of Macroeconomics (XS)	(3)___
<i>(c/MATH 104, 106, 108 or 204 or qualified to enroll in MATH 106 or 171)</i>		
ECON 202	Principles of Microeconomics (XS)	(3)___
<i>(c/MATH 104, 106, 108 or 204 or qualified to enroll in MATH 106 or 171)</i>		
ECON 210 <sup>^</sup>	Economic and Business Statistics (XM)	(3)___
<i>(MATH 104, 106, 108, 204, 206, or 171 w/C or qualified to take MATH 106 or 171)</i>		

### Plus six credits from:

Any 400 level Economics course	(3)___
Any 400 level Economics course	(3)___

### Electives - Plus six credits from:

The student must complete an additional six credits in any College of Business Department at the 300/400 level.

**<sup>^</sup>Other options: PSYCH 203 w/B or SOC 281 w/B or MATH 301 w/C.**

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## Cybersecurity Minor 21 credits

*Not available to Information Systems majors.*

### Required Courses:

INFO SYS 201	Intro to Business App Development	(3)___
<i>(MATH 104, 106, 171, 204 or 206)</i>		
INFO SYS 311*	Essentials of Information Systems	(3)___
INFO SYS 315	Database Systems in Business	(3)___
<i>(INFO SYS 311) or (MHR 381) or (CS 271 w/C)</i>		
INFO SYS 316	Network and Data Communications	(3)___
<i>(INFO SYS 311 w/C or CS 271 w/C)</i>		
INFO SYS 411	Enterprise Security Management	(3)___
<i>(INFO SYS 311)</i>		
INFO SYS 412	Barbarians at the Gates: Securing the Network	
<i>(INFO SYS 311 and INFO SYS 316)</i>		
INFO SYS 413	Information Security Risk Management	(3)___
<i>(INFO SYS 311 w/C)</i>		

## Global Business Minor 23 credits

*This minor is only available to students with a major in the College of Business. Not available to students with an International Management emphasis.*

### Global Business Requirement:

**6 credits**

*Complete six credits from:*

FINANCE 335	International Finance	(3)___
<i>(FINANCE 331 w/C- and c/MHR 381)</i>		
MARKET 375	Global Marketing	(3)___
<i>(MARKET 371)</i>		
MHR 375	Global Management	(3)___

### Foreign Language Requirement:

**8 credits**

*Complete 8 credits in one foreign language*

### Cultural Diversity Requirement:

**6 credits**

ANTHRO	318, 322, 326, 328, 330, 348, 360, 376
ART	311, 312, 313, 314, 315, 317, 320, 321
ECON	319, 336, 410, 420
ENGLISH	358, 365
FRENCH	306, 308, 309, 315, 318, 321, 330, 331
GEOGRAPHY	311, 319, 321, 331, 353, 354
HISTORY	304, 305, 306, 308, 310, 312, 313, 316, 318, 319, 322, 323, 329, 330, 331, 332, 333, 334, 346, 347, 348, 349, 350, 351, 359, 360, 370, 371, 374, 375, 376, 377, 378, 381, 382, 383, 384
INTRNTL	302, 308, 309, 312, 341, 402, 403
JAPANESE	315, 360, 446, 464
POLI SCI	301, 308, 309, 311, 326, 336, 376, 379, 383, 388
SPANISH	314, 315, 318, 320, 325, 327, 332, 334, 335, 351, 352, 362, 363, 364, 365, 375, 376, 401, 404, 412, 420

### Study Tour Requirement:

**3 credits**

BUS 494	International Study Tour
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*The Study Tour Requirement must be completed with pre-approved study tour or semester abroad academic study experience.*

## Information Systems Minor 21 credits

*Not available to Information Systems majors.*

### Required Courses:

INFO SYS 201	Intro to Business App Development	(3)___
<i>(MATH 104, 106, 171, 204 or 206)</i>		
INFO SYS 311*	Essentials of Information Systems	(3)___
INFO SYS 314	System Analysis and Design	(3)___
<i>(c/INFO SYS 311 or CS 271)</i>		
INFO SYS 315	Database Systems in Business	(3)___
<i>(INFO SYS 311) or (MHR 381) or (CS 271 w/C)</i>		

### Plus six credits from:

(6)\_\_\_

INFO SYS 300/400 course not previously taken

INFO SYS 300/400 course not previously taken

### Electives - Plus three credits from:

INFO SYS 300/400 course not previously taken

### OR

*one of the following:*

ACCT 305	Accounting Information Systems	(3)___
<i>(ACCT 301 and INFO SYS 311)</i>		
ART 386	Responsive Images II	(3)___
<i>(ART 286)</i>		
COMP SCI 247	Introduction to Usability	(3)___
<i>(CS 142 w/C or CS 221 w/C or INFO SYS 318 w/C)</i>		
GEOG 340	Mapping & Visualization in GIS	(3)___
<i>(GEOG 240 or GEOG 241)</i>		
ECON 475**	Predictive Analytics	(3)___
<i>(ECON 210 w/C or MATH 301 w/C)</i>		
JOURNAL 340	New and Emerging Media	(3)___
<i>(JOURNAL 221 &amp; 60 crs)</i>		
MARKET 363**	Digital Marketing	(3)___
MARKET 418	Marketing Analytics	(3)___
<i>(ECON 210 or MATH 301 w/C) or (MATH 201 or PSYCH 203 or SOC 281 w/B)</i>		
MHR/EGRT 360**	Engineering Project Management <sup>^</sup>	(3)___
MHR 388**	Human Resource Information and Metrics	(1.5)___
<i>(MHR 351 and MHR 361)<sup>^^</sup> and (ECON 210 w/C or MATH 301 w/C)<sup>^^^</sup></i>		
NURSING 450	Computers in Nursing Practice	(3)___
NURSING 451	Healthcare Informatics	(3)___
NURSING 452	Healthcare Information Systems	(3)___
RTF 364	Digital Communication and Design	(3)___
<i>(RTF 120, RTF 250 and 2.5 GPA)</i>		

*\*This course can be taken with 30 credits earned*

*\*\*These courses can be taken with 44 credits earned*

*<sup>^</sup>Cannot receive credit for both INFO SYS 481 & MHR 360*

*<sup>^^</sup>Non-BBA majors may substitute PSYCH 101 or SOC 101 for MHR 351*

*<sup>^^^</sup>Non-BBA majors may substitute PSYCH 203 or SOC 281 w/B or better for ECON 210*

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## Insurance & Risk Management Minor 21 credits

College of Business students cannot complete both Insurance & Risk Management minor and the Insurance emphasis.

### Required Courses:

FINANCE 340 Risk Management & Insurance (3)\_\_\_  
(FINANCE 331 w/C- or ECON 210 w/C- or MATH 171 w/C- or MATH 201 w/C-)

FINANCE 351 Financial Planning & Risk Management (3)\_\_\_  
(FINANCE 331 w/C-)

FINANCE 445<sup>^</sup> Insurance Company Operations (FINANCE 340) (3)\_\_\_

### Electives - Plus nine credits from:

ACCT 403 Federal Income Taxation (ACCT 301 w/C) (3)\_\_\_

ACCT 404 Advanced Federal Income Taxation (3)\_\_\_  
(ACCT 403 w/C)

ECON 368\*\* Healthcare Economics (3)\_\_\_  
(ECON 201 w/C and ECON 202 w/C)

ECON 405\*\* Money and Banking (3)\_\_\_  
(ECON 201 w/C and ECON 202 w/C)

ECON 433\*\* Managerial Economics (3)\_\_\_  
(ECON 201 w/C and ECON 202 w/C) and (ECON 210 w/C or MATH 301 w/C)

ECON 472\*\* Time Series Analysis (3)\_\_\_  
(ECON 210 w/C or MATH 301 w/C)

ECON 473\*\* Econometric Methods (3)\_\_\_  
(ECON 210 w/C or MATH 301 w/C)

FINANCE 333 Financial Markets (3)\_\_\_  
(FINANCE 331 w/C- and c/MHR 381)

FINANCE 334 Investment Management (3)\_\_\_  
(FINANCE 331 w/C- and c/MHR 381)

FINANCE 431 Financial Statements Analysis (3)\_\_\_  
(FINANCE 331 w/C- and c/MHR 381)

FINANCE 438# Student Managed Endowment Fund (3)\_\_\_

FINANCE 440<sup>^</sup> Business Risk Mgmt & Insurance (FINANCE 340) (3)\_\_\_

FINANCE 441<sup>^</sup> Advanced Risk Management (FINANCE 340) (3)\_\_\_

INFO SYS 315 Database Systems in Business (3)\_\_\_  
(INFO SYS 311) or (MHR 381) or (CS 271 w/C)

INFO SYS 316 Network and Data Communications (3)\_\_\_  
(INFO SYS 311 w/C or CS 271 w/C)

INFO SYS 481 Project Management (Complete 4 Bus Core Courses) (3)\_\_\_

MARKET 331, 335 & 338 Sales Emphasis (9)\_\_\_

MARKET 363\*\* Digital Marketing (3)\_\_\_

MARKET 418 Marketing Analytics (3)\_\_\_  
(ECON 210 or MATH 301 w/C) or (MATH 201 or PSYCH 203 or SOC 281 w/B)

MARKET 473 Marketing Strategy (3)\_\_\_  
(MARKET 371 & 6 credits of 300/400 level Marketing courses)

MHR 385\*\* Occupational Safety & Health (1.5)\_\_\_  
(MHR 351 and MHR 361)<sup>^^</sup>

MHR 386\*\* Compensation Management (3)\_\_\_  
(MHR 351 and MHR 361)<sup>^^</sup> and (ECON 210 w/C or MATH 301 w/C)<sup>^^^</sup>

MHR 387\*\* Benefits Administration (MHR 351 and MHR 361)<sup>^^</sup> (1.5)\_\_\_

SCM 445 Supply Chain Strategy & Analytics (SCM 341) (3)\_\_\_

SCM 460 Quality Management & Six Sigma (SCM 341) (3)\_\_\_

Plus three credits from: (3)\_\_\_

The student must complete an additional three credits in any College of Business Department at the 300/400 level.

\*\*These courses can be taken with 44 credits earned

<sup>^</sup>FINANCE 440, 441 and 445 cannot count for both Finance major and Insurance minor.

<sup>#</sup>Must apply for admission to course, repeatable for credit

<sup>^^</sup>Non-BBA majors can substitute PSYCH 101 or SOC 101 for MHR 351.

<sup>^^^</sup>Non-BBA majors may substitute PSYCH 203 or SOC 281 w/B or better for ECON 210

## Risk Management and Actuarial Science Minor 21 Credits

Recommended for students who wish to help create economic value and minimize economic loss.

### Required Courses:

FINANCE 340 Risk Management & Insurance (3)\_\_\_  
(FINANCE 331 w/C- or ECON 210 w/C- or MATH 171 w/C- or MATH 201 w/C-)

### Plus three credits from:

ECON 473\*\* Econometric Methods (3)\_\_\_  
(ECON 210 w/C or MATH 301 w/C) (VEE)

MATH 385 Applied Regression Analysis (3)\_\_\_  
(MATH 201 and 256 or MATH 301 w/C) (VEE)

### Plus three credits from:

FINANCE 441 Advanced Risk Management (FIN 340) (3)\_\_\_

FINANCE 445 Insurance Company Operations (FIN 340) (3)\_\_\_

### Electives - Plus 12 credits from:

ECON 471\*\* Introduction to Mathematical Economics (3)\_\_\_  
(ECON 201/204 w/B and ECON 202/206 w/B and ECON 329 w/B and ECON 331 w/B)

ECON 472\*\* Time Series Analysis and Forecasting (3)\_\_\_  
(ECON 210 w/C or MATH 301 w/C) (VEE)

ECON 473\*\*<sup>^</sup> Econometric Methods (3)\_\_\_  
(ECON 210 w/C or MATH 301 w/C) (VEE)

FINANCE 441 Advanced Risk Management (FINANCE 340) (3)\_\_\_

FINANCE 442 Financial Mathematics (3)\_\_\_  
(ECON 210) or (MATH 201 w/B) or (MATH 301)

FINANCE 445 Insurance Company Operations (FINANCE 340) (3)\_\_\_

MARKET 418 Marketing Analytics (3)\_\_\_  
(ECON 210 or MATH 301 w/C) or (MATH 201 or PSYCH 203 or SOC 281 w/B)

MATH 302 Intermediate Statistical Methods (3)\_\_\_  
(MATH 201 w/C or MATH 301 w/C)

MATH 304 Introduction to Nonparametric Methods (3)\_\_\_  
(MATH 201 w/C or MATH 301 w/C)

MATH 371 Differential Equations (MATH 172) (3)\_\_\_

MATH 376 Partial Differential Equations (MATH 371 w/C) (3)\_\_\_

MATH 385<sup>^</sup> Applied Regression Analysis (3)\_\_\_  
(MATH 201 w/C and MATH 256 w/C) or (MATH 301 w/C)

MATH 386 Linear Statistical Models (3)\_\_\_  
(MATH 201 w/C and MATH 256 w/C) or (MATH 301 w/C)

MATH 401 Mathematical Statistics I (3)\_\_\_  
(MATH 273 w/C and MATH 301 w/C)

(VEE) Validation by Education Experience: Courses are required to take actuarial exam

\*\*These courses can be taken with 44 credits earned

<sup>^</sup>Can only count once towards fulfilling required course or elective.

## Operations Research Minor 26 credits

Recommended for students who wish to combine a Computer Science or Mathematics major with a quantitative business minor or business majors who want an applications-orientated Mathematics minor.

### Required Courses:

SCM 341\*\* Essentials of Operations & Supply Chain Mgmt (3)\_\_\_

MATH 171 Calculus I (XM) (3)\_\_\_  
(MATH 108, or 104 & 106 or 106 w/placement out of 104 w/ grade(s) of C)

MATH 172 Calculus II (XM) (MATH 171 w/C) (4)\_\_\_

MATH 222 Intro to Abstract Mathematics (MATH 172 w/C) (3)\_\_\_

MATH 256 Intro to Linear Mathematics (MATH 172 w/C) (3)\_\_\_

MATH 301 Intro to Probability & Statistics (MATH 172 w/C) (3)\_\_\_

SCM 342 Supply Chain Modeling & Analysis (c/SCM 341) (3)\_\_\_

SCM 460 Quality Management & Six Sigma (SCM 341) (3)\_\_\_

\*\*These courses can be taken with 44 credits earned