

# BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION: CONCENTRATION IN DECISION SCIENCES ROADMAP

120 Total Units Required  
 Minimum Number of Units in the Major: 69

This roadmap is a suggested plan of study and does not replace meeting with an advisor. Please note that students may need to adjust the actual sequence of courses based on course availability. Please consult an advisor in your major program for further guidance.

Course	Title	Units
<b>First Semester</b>		
ECON 101	Introduction to Microeconomic Analysis (Major Prerequisite, D1)	3
ENG 114	Writing the First Year: Finding Your Voice (A2) <sup>1</sup>	3
Select One (Major Prerequisite, B4): <sup>2</sup>		3
DS 110	Calculus with Business Applications	
MATH 110	Business Calculus	
GE Area A <sup>3</sup>		3
GE Area C		3
		<b>Units 15</b>
<b>Second Semester</b>		
ECON 102	Introduction to Macroeconomic Analysis (Major Core, D1)	3
ISYS 263	Introduction to Information Systems (Major Prerequisite, D1, GP)	3
GE Area A		3
GE Area B: Life Science (B2) and Laboratory Science (B3) <sup>4</sup>		3-4
GE Area E		3
		<b>Units 15-16</b>
<b>Third Semester</b>		
ACCT 100	Introduction to Financial Accounting (Major Core)	3
Select One (Major Core):		3
DS 212	Business Statistics	
MATH 124	Elementary Statistics (B4)	
GE Area B: Physical Science (B1) and Laboratory Science (B3) <sup>4</sup>		3-4
GE Area D: U.S. History (D2)		3

SF State Studies or University Elective		3
		<b>Units 15-16</b>
<b>Fourth Semester</b>		
ACCT 101	Introduction to Managerial Accounting (Major Core)	3
GE Area C - Take Two		6
GE Area F <sup>±</sup>		3
U.S. and California Government ( <a href="http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg">http://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg</a> )		3
		<b>Units 15</b>
<b>Fifth Semester</b>		
DS 412	Operations Management (Major Core)	3
IBUS 330	International Business and Multicultural Relations (Major Core, UD-D, GP)	3
ISYS 363	Information Systems for Management (Major Core)	3
Major Concentration (12 Units Total) - Take One <sup>5</sup>		3
Major Approved Elective (9 Units Total) - Take One <sup>6</sup>		3
		<b>Units 15</b>
<b>Sixth Semester</b>		
Select One (Major Core):		3
BUS 300GW	Business Communication for Professionals - GVAR	
DS 660GW	Communications for Business Analytics - GVAR (Major Concentration) <sup>5</sup>	
Major Concentration (12 Units Total) - Take One <sup>5</sup>		3
Major Approved Elective (9 Units Total) - Take One <sup>6</sup>		3
GE Area UD-C: Upper-Division Arts and/or Humanities		3
SF State Studies or University Elective		3
		<b>Units 15</b>
<b>Seventh Semester</b>		
FIN 350	Business Finance (Major Core)	3
MGMT 405	Introduction to Management and Organizational Behavior (Major Core)	3
MKTG 431	Principles of Marketing (Major Core)	3
Major Concentration (12 Units Total) - Take One <sup>5</sup>		3
GE Area UD-B: Upper-Division Physical and/or Life Sciences		3
		<b>Units 15</b>

**Eighth Semester**

BUS 682	Seminar on Business and Society (Major Core)	3
BUS 690	Seminar in Business Policy and Strategic Management (Major Core)	3
Major Approved Elective (9 Units Total) - Take One <sup>6</sup>		3
SF State Studies or University Elective (Take Two)		6
<b>Units</b>		<b>15</b>
<b>Total Units</b>		<b>120-122</b>

- ENG 620 Introduction to Computational Linguistics (3 units)
- ENG 680 Applied Computational Linguistics (3 units)
- IBUS 430 Import-Export Management and Small Business Operations (3 units)
- IBUS 590 International Environmental Analysis (3 units)
- IBUS 690 Global Strategic Management (3 units)
- MKTG 436 Retail Management (3 units)
- MKTG 441 Business-to-Business Marketing (3 units)
- MKTG 469 Digital Marketing (3 units)
- MKTG 632 Marketing Research (3 units)
- MKTG 660 Marketing Analytics (3 units)

± Given catalog rights, fall 2023 transfer students do not need to complete an Area F course.

<sup>1</sup> ENG 114 can only be taken if you complete Directed Self-Placement (DSP) and select ENG 114; if you choose ENG 104/ENG 105 through DSP you will satisfy A2 upon successful completion of ENG 105 in the second semester; multilingual students may be advised into alternative English courses.

<sup>2</sup> To determine the best B4 course option, students should complete the online advising activity at mathadvising.sfsu.edu (<https://mathadvising.sfsu.edu/>). Questions? Contact Gator Smart Start. (<https://gatorsmartstart.sfsu.edu/>)

<sup>3</sup> To avoid taking additional units, it is recommended that you meet the **SF State Studies** (AERM, GP, ES, SJ) requirements within your GE or major.

<sup>4</sup> Consider taking a class combined with a laboratory or a separate lab to fulfill B3 if not already satisfied.

**<sup>5</sup> Concentration Courses (12 units)**

Select 12 credit hours from the following:

- DS 310 Critical Data Analysis for Business (3 units)
- DS 311 Technologies in Data Analytics (3 units)
- DS 312 Data Analysis with Computer Applications (3 units)
- DS 408 Computer Simulation (3 units)
- DS 601 Applied Management Science (3 units)
- DS 604 Applied Business Forecasting (3 units)
- DS 612 Data Mining with Business Applications (3 units)
- DS 624 Quality Management (3 units)
- DS 655 Sustainable Supply Chain Optimization (3 units)
- DS 660GW Communications for Business Analytics - GVAR (3 units)

**Note:** DS 660GW can satisfy both the core course requirement and one of the four required concentration courses.

**<sup>6</sup> Approved Electives (9 units)**

Please select three courses from the list below. Students may also use additional courses from the Concentration Courses list above. If you're interested in a course that is not in either of these lists, ask your Decision Sciences faculty adviser about it and they will consider it, provided the course is analytical in nature. Decision Sciences majors should take at least two of their electives from the same department. Be sure to check course prerequisites and be aware that some departments may limit their courses to majors.

Any DS concentration option above not already used to satisfy a requirement

- Any upper-division ACCT course
- Any 200-level or higher CSC course
- Any upper-division ECON course except ECON 690GW
- Any upper-division FIN course except FIN 350
- Any upper-division ISYS course except ISYS 363
- Any upper-division MATH course
- BUS 354 Starting a Small Business (3 units)
- BUS 450 Greening of Business (3 units)