

# DATA SCIENCE, B.S.

## Biology Track

Code	Title	Units
<b>Lower-Division Requirements</b>		
CSC 1043 and CSC 1043L	Introduction to Computer Programming and Introduction to Computer Programming Lab	3
CSC 1054 and CSC 1054L	Objects and Elementary Data Structures and Objects and Elementary Data Structures Lab	4
MTH 1064 and MTH 1064L	Calculus I (FE) and Calculus I Lab (FE)	4
MTH 1074 and MTH 1074L	Calculus II and Calculus II Lab	4
MTH 2033	Linear Algebra	3
MTH 2074	Calculus III	4
<b>Upper-Division Requirements</b>		
CSC 3003	Python and UNIX	3
CSC 3011 or CSC 3031	Machine Learning and Multivariate Modeling in R Data Visualization and Communication with R	1
ISS 4014	Data Base Systems and Web Integration	4
MTH 3012	Number Theory with Proofs	2
MTH 3033	Differential Equations	3
MTH 3043	Discrete Mathematics	3
MTH 3073	Mathematical Modeling	3
MTH 3083	Mathematical Probability and Statistics	3
MTH 4024 or MTH 4044	Real Analysis Abstract Algebra	4
MTH 4053	Advanced Applied Statistics	3
MTH 4081	Senior Seminar in Computer Science	1
Choose one (1) sequence from the following:		2-3
MTH 4072	Internship in Data Science	
MTH 4142 and MTH 4151	Data Science Project I and Data Science Project II	
<b>Biology Courses</b>		
BIO 2010 and BIO 2010L	Cell Biology and Biochemistry (FE) and Cell Biology and Biochemistry Laboratory (FE)	4
Choose one (1) of the following: <sup>1</sup>		4
BIO 2011 and BIO 2011L	Ecological and Evolutionary Systems (FE) and Ecological and Evolutionary Systems Laboratory (FE)	
BIO 3045 and BIO 3045L	Genetics and Genetics Laboratory	
<b>Total Units</b>		<b>62-63</b>

<sup>1</sup> Recommended: Take both BIO 2011/BIO 2011L and BIO 3045/BIO 3045L if there is space in your schedule.

## Finance Track

Code	Title	Units
<b>Lower-Division Requirements</b>		
CSC 1043 and CSC 1043L	Introduction to Computer Programming and Introduction to Computer Programming Lab	3

CSC 1054 and CSC 1054L	Objects and Elementary Data Structures and Objects and Elementary Data Structures Lab	4
MTH 1064 and MTH 1064L	Calculus I (FE) and Calculus I Lab (FE)	4
MTH 1074 and MTH 1074L	Calculus II and Calculus II Lab	4
MTH 2033	Linear Algebra	3
MTH 2074	Calculus III	4
<b>Upper-Division Requirements</b>		
CSC 3003	Python and UNIX	3
CSC 3011 or CSC 3031	Machine Learning and Multivariate Modeling in R Data Visualization and Communication with R	1
ISS 4014	Data Base Systems and Web Integration	4
MTH 3012	Number Theory with Proofs	2
MTH 3033	Differential Equations	3
MTH 3043	Discrete Mathematics	3
MTH 3073	Mathematical Modeling	3
MTH 3083	Mathematical Probability and Statistics	3
MTH 4024 or MTH 4044	Real Analysis Abstract Algebra	4
MTH 4053	Advanced Applied Statistics	3
MTH 4081	Senior Seminar in Computer Science	1
Choose one (1) sequence from the following:		2-3
MTH 4072	Internship in Data Science	
MTH 4142 and MTH 4151	Data Science Project I and Data Science Project II	
<b>Finance Courses</b>		
ACC 2000	Principles of Accounting for Non-Business Majors	3
FIN 3035	Business Finance	3
Choose one (1) course from the following: <sup>1</sup>		3
ECO 1001	Principles of Macroeconomics (FE)	
ECO 1002	Principles of Microeconomics (FE)	

**Total Units** **63-64**

<sup>1</sup> If you are planning on becoming an Actuary, the Society of Actuaries requires **both** ECO 1001 and ECO 1002. The Society of Actuaries also requires FIN 3035 and FIN 3085. If you complete these two sequences with a B or better, you will receive credit for two of the 10 requirements for becoming an actuary.

**Note(s):** An elective course may not count as both an upper-division requirement and a required "additional elective."

**Total Non-FE Units for Degree: 59**