

# DATA ANALYTICS MINOR

A minor in Data Analytics is offered to those who wish to complement study in another discipline. This minor allows students to have the skills to work in cross disciplinary teams to solve challenging scientific problems.

Specializations are available in the following:

- Biology: Environmental Science
- Biology: Genetics
- Business
- Chemistry
- Finance
- Physics
- Psychology
- Sports Science

This minor is not available to students who earn a major in Information Systems.

| Code   | Title   | Units |
|--|---|-------|
| <b>Lower-Division Requirements</b>                       |   |       |
| CSC 1043 and CSC 1043L                                   | Introduction to Computer Programming and Introduction to Computer Programming Lab               | 3     |
| Choose one (1) sequence from the following:              |   | 3-4   |
| MTH 1044   | Calculus with Applications (GE)   |       |
| MTH 1064 and MTH 1064L                                   | Calculus I (GE) and Calculus I Lab (GE)   |       |
| MTH 1073   | Business Calculus (GE)  |       |
| Choose one (1) course from the following:                |   | 3     |
| MTH 2003   | Introduction to Statistics  |       |
| MTH 3063   | Calculus Based Statistics with R  |       |
| MTH 3083   | Mathematical Probability and Statistics   |       |
| <b>Upper-Division Requirements</b>                       |   |       |
| CSC 3003 or EGR 3003                                     | Python and UNIX   | 3     |
| CSC 3011 or CSC 3031                                     | Machine Learning and Multivariate Modeling in R and Data Visualization and Communication with R | 1     |
| CSC 3022 or ISS 4014                                     | Data Management for Data Analytics and Data Base Systems and Web Integration                    | 2-4   |
| Choose one (1) sequence from the following:              |   | 3     |
| CSC 4133   | Service Learning in Computer Science  |       |
| HON 4098 and HON 4099                                    | Honors Project I and Honors Project II  |       |
| KIN 4084   | Practicum in Kinesiology  |       |
| MTH 4142 and MTH 4151                                    | Data Science Project I and Data Science Project II  |       |
| MTH 4133   | Service Learning in Mathematics   |       |
| MTH 4162 and MTH 4171                                    | Project for Data Analytics Minors I and Project for Data Analytics Minors II                    |       |
| <b>Specialization Courses</b>                            |   |       |
| Choose one (1) of the following areas of specialization: |   | 8-16  |
| <i>Biology: Environmental Science</i>                    |   |       |

BIO 2011 Ecological and Evolutionary Systems (GE)  
and BIO 2011L Ecological and Evolutionary Systems Lab (GE)

BIO 3063 Conservation Ecology  
and BIO 3063L Conservation Ecology Lab

## *Biology: Genetics*

BIO 2010 Cell Biology and Biochemistry (GE)  
and BIO 2010L Cell Biology and Biochemistry Lab (GE)

BIO 3045 Genetics  
and BIO 3045L Genetics Lab

## *Business*

MGT 2012 Principles of Management

MKT 2032 Principles of Marketing

Choose one (1) course from the following:

BUS 4080 International Business

MGT 3020 Organizational Behavior

MGT 4012 Leadership Theory and Practice

## *Chemistry*

CHE 1052 General Chemistry I (GE)  
and CHE 1052L General Chemistry I Lab (GE)

CHE 1053 General Chemistry II  
and CHE 1053L General Chemistry II Lab

CHE 2013 Analytical Chemistry  
and CHE 2013L Analytical Chemistry Lab

CHE 3025 Chemical Thermodynamics and Kinetics  
and CHE 3025L Chemical Thermodynamics and Kinetics Lab

## *Finance*

ACC 2001 Principles of Financial Accounting

ACC 2002 Principles of Managerial Accounting

FIN 3035 Business Finance

## *Physics*

PHY 2044 University Physics I (GE)  
and PHY 2044L University Physics I Lab (GE)

PHY 2054 University Physics II  
and PHY 2054L University Physics II Lab

PHY 3003 Modern Physics  
and PHY 3003L Modern Physics Lab

## *Psychology*

PSY 1003 General Psychology (GE)

PSY 3020 Social Psychology

PSY 4009 Psychology of Cognition and Learning

## *Sports Science*

KIN 2080 Care and Prevention of Athletic Injuries

Choose six (6) units from the following:

KIN 2050 Medical Terminology

KIN 2080L Care and Prevention of Athletic Injuries Lab

KIN 3027 Applied Biomechanics<sup>1</sup>

KIN 3027L Biomechanics Lab

|                    |  |
|--------------------|--|
| KIN 3070           | Praxis of Strength Training and Conditioning |
| <b>Total Units</b> | <b>26-37</b>                                 |

<sup>1</sup> Prerequisite KIN 3025 waived with KIN 2080.