FIU Knight Foundation School of Computing and Information Sciences

Bachelor of Science in Data Science and AI (effective Fall 2026)

Simple Syllabus Search Tip Course Catalog Search Tip

#BSC2010/ BSC2010L *Gen Biology I/ Lab (4 credits)*

PHY2048/ PHY2048L *Physics with Calculus I/Lab (5 credits)*

MAC 2311 *Calculus I (4 credits)*

MAD 2104 *Discrete Math* Pre: MAC1105

OR

COT 3100* *Discrete Structures*

COP 2047# *Python Programming I*

CTS 1500 *Emerging Topics in Digital Life*

ENC3249^ *Professional & Tech Writing for Computing* **(GRW)**

STA 2023% *Stat for Bus and Eco*

MAC 2312 *Calculus II (4 credits)*

CAP 2757 *Introduction to Data Science*

COP 3410 *Computational Thinking*

COP 3045 *Python Programming II*

CGS 3095 *Tech in the Global Arena* **(GL)**

CAI 4105 *Introduction to Machine Learning*

MAS 3105 *Linear Algebra*

OR

MAC 2313 *Multivariable Calculus (4 credits)*

OR

COT 3510* *Applied Linear Structures*

CAP 3764 *Advanced Data Science*

COP 3538 *Data Structures Fundamentals*

CIS 3950 *Capstone I (1 credit) [Junior standing]*

CAI 4002 *Artificial Intelligence*

CIS 4951 *Capstone II (2 credits) [Senior standing]*

A line indicates a prerequisite. The course above must be completed before the course below can be taken.

A diamond indicates a co-requisite. The course closer to the diamond may be taken at the same time or earlier as the co-requisite. The co-requisite is a prerequisite for any course that requires the course closer to the diamond.

For advising assistance, please email cisadvising@fiu.edu

All courses are 3 credits except as noted.

Concentration Electives:

Complete 12 credits either from one chosen concentration, **or** complete 12 credits from any of the concentrations

Computational and Big Data Analytics

- CAI 4203 Introduction to Deep Learning
- CAP 4770 Introduction to Data Mining
- CEN 4083 Introduction to Cloud Computing
- COP 4534 Algorithm Techniques
- COP 4703 Information Storage and Retrieval Concepts
- COT 4431 Applied Parallel Computing

Artificial Intelligence and Robotics

- CAI 4203 Introduction to Deep Learning
- CAI 4304 Natural Language Processing
- CAP 4453 Introduction to Robot Vision
- CAP 4506 Introduction to Game Theory
- CAP 4770 Introduction to Data Mining
- CDA 4625 Introduction to Mobile Robotics

Statistical Modeling

- CAP 4770 Introduction to Data Mining
- CAP 4830 Fundamentals of Modeling & Simulations
- MAD 3301 Graph Theory
- MAD 3401 Numerical Analysis
- STA 3164 Statistical Methods II (Prereq: STA 3163)
- STA 4234 Introduction to Regression Analysis

% STA2023
Prerequisite is High school algebra.
See Advisor for other equivalent statistics course.

Concentration Elective Courses

The list of electives will be updated with acceptable elective courses from computing, math and stat programs.

See Advisor for other equivalent courses

*** COT3100:**
Prereq: MAC XXXX (any MAC course)
Coreq:(COP2047 or COP2210 or COP2250 or EEL2280)

^ ENC3249/ ENC3213 prerequisite: complete the UCC English requirements