Fau	NEW/CHANGE PROGRAM REQUEST Undergraduate Programs		UUPC Approval UFS Approval Banner	
FLORIDA ATLANTIC	Department		Catalog	
UNIVERSITY	College			
Program Name		New Program*	Effective Date (TERM & YEAR)	
		Change Program*		
Please explain the requested change(s) and offer rationale below or on an attachment.				
*All new programs : Faculty Contact/	and changes to existing programs must be a <b>Email/Phone</b>		ts that may be affected by the	
Approved by	It. VI		Date	
Department Chain			2/12/2024	
College Curriculu	m Chair Hongbo Su		2/13/2024	
College Dean	$ \leftarrow  $		2/14/24	
UUPC Chair				
Undergraduate St	udies Dean			
UFS President				
Provost				

Email this form and attachments to <u>mjenning@fau.edu</u> seven business days before the UUPC meeting.

## DATA SCIENCE AND ANALYTICS BACHELOR OF SCIENCE (B.S.)

#### **Degree Requirements**

The minimum number of credits required for the Bachelor of Science with major in Data Science and Analytics is 120 credits: 36 credits in the Intellectual Foundations Program, 48 credits of major requirements and up to 36 credits of general electives. Additional requirements:

- 1. A minimum of 45 upper-division credits;
- 2. Students must attain a minimum grade of "C" in all major courses to receive credit in the major; and
- 3. No major course with a pass/fail grade will be accepted.

The 48 required credits for the major are listed below.

Common Core		
Tools for Data Science	CAP 2751	3
Experimental Design and Data Analysis	CAP 2753	3
Artificial Intelligence for Social Good	CCJ 3071	3
Data Science Capstone	ISC 4941	3
Mathematics for Data Science	MAP 2192	3
Data Management and Analysis with Excel	QMB 3302	3
Introductory Statistics	STA 2023	3
Common Core Credits		21

#### **Electives**

Choose two courses from the List of Elective Courses for all Concentrations *Elective Credits*6

### **Data Science and Engineering Concentration**

Concentration Core Requirements			
Introduction to Data Science and Analytics	CAP 4773	3	
Take all courses from either Group 1 or Group 2			
Group 1			
Introduction to Programming in C (if applicable)*	COP 2220	3	
Foundations of Computer Science	COP 3014	3	
Data Structures and Algorithm Analysis	COP 3530	3	

Group 2		
Introduction to Programming in Python	COP 3035	3
Introduction to Software Design	<u>CEN 3062</u>	<u>3</u>
Data Structures and Algorithm Analysis with Python	COP 3410	3
Concentration Core Credits	<u>12 <mark>9-12</mark></u>	

# Concentration Core Electives. Choose three courses or four courses so that the total of concentration credits is 21.

of concentration er cuits is 21.		
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Computer Systems Performance	CEN 4400	3
Evaluation		
Introduction to Database Structures	COP 3540	3
Introduction to Internet Computing	COP 3813	3
Introduction to Web Programming	<u>COP 3826</u>	3
Python Programming	COP 4045	3
Applied Database Systems	COP 4703	3
Concentration Elective Credits		9 <del>-12</del>
Concentration Credits		21

\* Students who have taken a college-level introductory course in programming may substitute this course with one of the Concentration Elective Courses, with permission of the advisor.