B.S. Data Science (Core)

Financial Data Analytics (FIDA) Concentration 8-Semester *Suggested* Plan of Study
120 Total Credit Hours of which 21 Credit Hours are Concentration-specific Hours
Concentration-specific hours are notational for hours and when in this *suggested* Plan of Study

Year 1 – Fall			Year 1 -- Spring	
MATH 2554C	Calculus I		MATH 2564C	Calculus II
ENGL 1013	Composition I		ECON 2143/H	Gen Ed, Basic Economics: Theory and Practice
DASC 1003/H	Intro to Data Science (incl. CoE, WCOB, ARSC Perspectives)		ENGL 1033	Gen Ed, Technical Composition II
DASC 1104	Programming Languages for Data Science (Python, R)		DASC 1204	Intro to Object Oriented Programming for DASC (Java)
			DASC 1223/H	Role of Data Science in Today's World
14 hours	**Total**		**17 hours**	**Total**
7 hours	Data Science Core - Required (New + Existing Courses)		11 hours	Data Science Core - Required (N + E Courses)
0 hours	Data Science – Concentration Required + Elective		0 hours	Data Science – Concentration Required + Elective
7 hours	Gen Ed		6 hours	Gen Ed
0 hours	General Elective		0 hours	General Elective

Note 1: "DASC 1011 Success In Data Science Studies" is required if not "Cal I ready."
Note 2: "MATH 2043 Survey of Calculus" requires "MATH 2445 Calculus I with Review" in place of "MATH 2554C Calculus I."
Note 3: "DASC 1003/H Introduction to Data Science" satisfies ISYS 1120/1123.

Year 2 – Fall			Year 2 -- Spring	
DASC 2594	Multivariable Math for Data Scientists		SEVI 2053	Business Foundations (DASC-only section)
INEG 2323	Probability & Stochastic Processes for Industrial Engineers		INEG 2314/H	Statistics for Industrial Engineers I
DASC 2213	Data Visualization & Communication		GNED NNN4	Gen Ed, Science
DASC 2113	Principles & Techniques of Data Science		DASC 2203	Data Management & Data Base
GNED NNN3	Gen Ed, History or Government		ACCT 2013	Accounting Principles
16 hours	**Total**		**17 hours**	**Total**
14 hours	Data Science Core – Required (New + Existing Courses)		9 hours	Data Science Core – Required (N + E Courses)
0 hours	Data Science – Concentration Required + Elective		3 hours	Data Science – Concentration Required + Elective
3 hours	Gen Ed		4 hours	Gen Ed
0 hours	General Elective		0 hours	General Elective

Note 5: (STAT 3013 Intro. to Probability + STAT 3003 Statistical Methods) can be substituted for (INEG 2323 + INEG 2314).
Note 6: STAT 3013 or STAT 3003 or INEG 2323 or INEG 2314 satisfy WCOB/BUSI 1033 Data Analysis & Interpretation.
Note 7: DASC 2103 Data Structures & Algorithms moved from "Core" to CMPA-required for all students starting Fall 2023.

Year 3 – Fall			Year 3 -- Spring	
DASC 2133	Data Ethics & Privacy (replaces PHIL 3103)		DASC 3203	Optimization Methods in Data Science
DASC 3103/H	Cloud Computing & Big Data		DASC 3213	Statistical Learning
GNED NNN3	Gen Ed, Social Science		FINN 3103	Financial Modeling
GNED NNN4	Gen Ed, Science		GNED NNN3	Gen Ed, Social Science
FINN 2043	Principles of Finance		GNED NNN3	Gen Ed, Fine Arts
16 hours	**Total**		**16 hours**	**Total**
3 hours	Data Science Core - Required (New + Existing Courses)		6 hours	Data Science Core - Required (N + E Courses)
3 hours	Data Science – Concentration Required + Elective		3 hours	Data Science – Concentration Required + Elective
10 hours	Gen Ed		6 hours	Gen Ed
0 hours	General Elective		0 hours	General Elective

Year 4 – Fall			Year 4 -- Spring	
DASC 4892/H	Data Science Practicum I		DASC 4993/H	Data Science Practicum II
DASC 4113/H	Machine Learning		FINN XXX3	Finance Elective
DASC 4123	Social Problems (Issues) in DASC & Analytics		FINN XXX3	Finance Elective
FINN 4323	Financial Data Analytics I			
FINN XXX3	Finance Elective			
14 hours	**Total**		**9 hours**	**Total**
8 hours	Data Science Core - Required (New + Existing Courses)		3 hours	Data Science Core - Required (N + E Courses)
6 hours	Data Science – Concentration Required + Elective		6 hours	Data Science – Concentration Required + Elective
0 hours	Gen Ed		0 hours	Gen Ed
0 hours	General Elective		0 hours	General Elective

Note 8: Students doing an Honors Thesis use DASC 400VH Honors Thesis in Data Science (at least 1 credit hour) in Year 4 and usually Year 4 – Spring.

Total Hours by Course Category				
120 hours	Total			
61 hours	Data Science Core - Required (New + Existing Courses)			
21 hours	Data Science – Concentration Required + Elective			
36 hours	Gen Ed			
2 hours	General Elective			