

B.S. Data Science (Core)

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 2554	Calculus I	MATH 2564	Calculus II
ENGL 1013	Composition I	ECON 2143	Gen Ed, Basic Economics: Theory and Practice
DASC 1003	Intro to Data Science (incl. CoE, WCOB, ARSC Persp.)	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	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 2554 Calculus I."
 Note 3: "DASC 1003 Introduction to Data Science" satisfies ISYS 1120/1123.
 Note 4: "ECON 2143 Basic Economics: Theory and Practice" can be met by ECON 2013 + ECON 2023.

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	Statistics for Industrial Engineers I
DASC 2213	Data Visualization & Communication	GNEE NNN4	Gen Ed, Science
DASC 2113	Principles & Techniques of Data Science	DASC 2203	Data Management & Data Base
GNEE NNN3	Gen Ed, History or Government	RRRR NNN3	[Required Concentration Course]
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 INEG 2314 satisfy WCOB 1033 Data Analysis & Interpretation.
 Note 7: DASC 2103 Data Structures & Algorithms moved from "Core" to CMPA-required

Year 3 – Fall		Year 3 -- Spring	
DASC 2133	Data Ethics & Privacy (replaces PHIL 3103)	DASC 3203	Optimization Methods in Data Science
DASC 3103	Cloud Computing & Big Data	DASC 3213	Statistical Learning
GNEE NNN3	Gen Ed, Social Science	RRRR NNN3	[Required Concentration Course]
GNEE NNN4	Gen Ed, Science	GNEE NNN3	Gen Ed, Fine Arts
RRRR NNN3	[Required Concentration Course]	GNEE NNN3	Gen Ed, Social Science
16 hours	Total	15 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	Data Science Practicum I	DASC 4993	Data Science Practicum II
DASC 4113	Machine Learning	CCCC NNN3	Concentration Elective
DASC 4123	Social Problems (Issues) in DASC & Analytics	CCCC NNN3	Concentration Elective
CCCC NNN3	[Concentration Elective]	GNEE NNN2	General Elective (possible catch-up credit)
CCCC NNN3	[Concentration Elective]		
14 hours	Total	11 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	2 hours	General Elective

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