

BS Computer Science - Data Science Track

Code	Title	Semester Hours
BS in Computer Science with Cybersecurity Track Degree Plan (120 hours)		
Core Requirements (42 hours)		
First Year Seminar		3
FYE 1301	First Year Seminar	
Freshmen Composition I		3
EN 1311	Rhetoric and Composition	
or EN 1313	Rhetoric and Composition for International Students	
Literature		3
Any EN 23XX literature course		
History		3
Any 1000, 2000, or 3000-level HS course		
Social Science		6
Select two from the following: BA 1301, CJ 1301, CPH 1301, EC 2301, EC 2303, ED 2330, HU 3300, HU 3303, PO 1311, PO 1312, PO 1314, PS 1301, PS 2333, PS 2355, PS 2363, PS 3337, SC 1311, SC 2321, SC 2371, 3 hrs. of Communication Studies (CM 1341, CM 2333, CM 2334) (SMC 1313 and SMC 2302 will meet this requirement). CM 1341 recommended for this major.		
Mathematics		
Satisfied by MT 2412 in the courses required for this major.		
Natural or Physical Sciences		3
Select one: BL 1301, BL 1302, BL 3311, CH 1303, CH 1401, CH 1402, ES 1300, ES 1301, ES 1302, ES 1303, ES 1304, ES 1305, ES 1373, PY 1300, PY 1310, PY 1401, PY 1402 (SMC 1312 will meet this requirement)		
Fine Arts		3
AR 1300, AR 1301, AR 1311, AR 1312, AR 2301, AR 2321, AR 2361, AR 2362, AR 3331, AR 3351, AR 3381, AR 3392, 3 hrs. DM, 3 hrs. of MU (SMC 2303 will meet this requirement)		
Foreign Language and International Engagement		6
This requirement is satisfied through one of four ways: (1) One 3-hour course in any language at the 3000 level or above, with a grade of B or better; (2) Two courses (1311 and 1312) in a language not previously studied; (3) Two courses (2311 and 2312) in a language previously studied at the high school or college level; (4) Qualifying scores on an AP or CLEP exam, or both the ACTFL OPI and WPT exams		
Philosophy - Self		3
PL 1301	Intro to Philosophy	
(SMC 1311 will meet this requirement)		
Philosophy - Ethics		3
PL 2301	Foundations of Ethics	
(SMC 2301 will meet this requirement)		
Theology - God		3
TH 1301	Introduction to Theology	
(SMC 1314 will meet this requirement)		
Intermediate Theology		3
Any TH 33xx course		
Computer Science Major Courses (42 hours)		
CS 1310	Programming I	3
CS 1311	Programming II	3
CS 2110	Sophomore CS Seminar	1
CS 2313	Object Oriented Programming I	3
CS 2315	Algorithms	3
CS 2323	Object Oriented Programming II	3
CS 2350	Computer Architecture	3
CS 3110	Junior CS Seminar	1
CS 3310	Intro to Systems Analysis and Design	3

CS 3335	Survey of Programming Languages	3
CS 3340	Software Engineering	3
CS 3350	Operating Systems	3
CS 4110	Senior CS Seminar	1
CS 4320	Files & Databases	3
CS 4330	Computer Networks	3
CS 4395	Senior Project	3

Mathematics Minor (17 hours)

MT 2412	Calculus I	4
MT 2318	Applied Linear Algebra	3
MT 2323	Discrete Math Structures	3
MT 2413	Calculus II	4
MT 4331	Probability Theory	3

Data Science Track (9 hours)

CS 4375 Advanced Topics: Programming for Data Science	3
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Data Science Electives (Select 2 courses): 6

Data Science Electives include CS 4315 AI / CS4375 NLP / CS4375 Large Scale Data / BIO3313 Big Data / BIO 3312 Algorithms / BIO 3411 Intro BioInfo / EG4338 Data Visualization / EG4338 Data Mining / EG4338 Decision Analytics / EG4338 DS using Python and Julia / MT4332 Statistics / QM3321 Business Analytics / QM4350 Blockchain+ / QM4362 Financial Modeling

Electives (10 hours) 10

An elective can be any course taken from any discipline. Students can use these hours to pursue certificates, minors, or second majors.

Total Semester Hours 120

First Year

Fall	Semester Hours	Spring	Semester Hours
Elective		3 Literature	3
FYE 1301		3 CM 1341	3
EN 1311		3 CS 1311	3
MT 2412		4 MT 2413	4
CS 1310		3 Fine Arts	3
	16		16

Second Year

Fall	Semester Hours	Spring	Semester Hours
CS 2315		3 CS 2323	3
PL 1301		3 PL 2301	3
Foreign Language		3 CS 2350	3
CS 2313		3 Foreign Language	3
MT 2323		3 MT 2318	3
CS 2110		1	
	16		15

Third Year

Fall	Semester Hours	Spring	Semester Hours
History		3 Advanced Theology	3
TH 1301		3 CS 3340	3
CS 3310		3 CS 4330	3
CS 4320		3 CS 4375	3
CS 4331 Probability Theory		3 Elective	3
CS 3110		1	
	16		15

Fourth Year

Fall	Semester Hours	Spring	Semester Hours
Natural / Physical Science		3 Social Science	3
CS 3350		3 Data Science Elective	3
CS 3335		3 Elective	1
Data Science Elective		3 CS 4395	3
CS 4110		1 Elective (consider MT 2412 Calculus III)	3
		13	13
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Total Semester Hours 120			