

BSBDA Course Sequence (136 SCH) | Catalog 2019-2021 | B.S. in Big Data Analytics (BSBDA)

7/12/2020

Note: Arranging for Summer Session(s) is recommended to readjust and mitigate the course load during regular semesters

Semester	Program Areas	Courses' Sequence	Total of SCH
Semester 1 (Freshman)			16
	Area 1:a) Mathematics Requirements(15 SCH)		6
		MTH 1303 Calculus I: Differential and Integral Calculus	3
		MTH 1304 Discrete Mathematics	3
	Area 2:Computing Core & Major Requirements(55 SCH)		4
		CSC 1401 Computer Programming	4
	Area 4: General Education (GenEd) Program (30 SCH)		6
		Arabic:ARA 1201, ARA 1202, ARA 1203, ARA 3299, ARB 1201, ARB 1202, ARB 1203, ARB 1241	2
		ENG 1301 English Composition I	3
		FAS 0210* (0 SCH)Foundations for Academic Success: Strategic Academic Skills	0
		FYE 1101First Year Experience	1
Semester 2 (Freshman)			16
	Area 1:a) Mathematics Requirements(15 SCH)		3
		MTH 2301 Calculus II: Multivariable Calculus	3
	Area 1:b) Sciences and Engineering Requirements(15 SCH)		4
		PHY 1401Physics I	4
	Area 2:Computing Core & Major Requirements(55 SCH)		3
		CSC 2302 Data Structures	3
	Area 4: General Education (GenEd) Program (30 SCH)		6
		COM 1301 Public Speaking	3
		FAS 1220 Foundations for Academic Success: Introduction to Critical Thinking	2
		FYE 1102 First Year Experience	1
Semester 3 (Sophomore)			16
	Area 1:a) Mathematics Requirements(15 SCH)		3
		MTH 2303 Linear Algebra	3
	Area 1:b) Sciences and Engineering Requirements(15 SCH)		4
		PHY 1402 Physics II	4
	Area 2:Computing Core & Major Requirements(55 SCH)		3
		CSC 2306 Object Oriented Programming	3
	Area 3:Minor(15 SCH)		3
		Minor Course 1(3 SCH)	3
	Area 4: General Education (GenEd) Program (30 SCH)		3
		ENG 2303 Technical Writing	3
Semester 4 (Sophomore)			16
	Area 1:a) Mathematics Requirements(15 SCH)		3
		MTH 3301 Probability and Statistics for Engineers	3
	Area 1:b) Sciences and Engineering Requirements(15 SCH)		4
		Basic Sciences Elective: BIO 1401 , BIO 1402, or CHE 1401	4
	Area 2:Computing Core & Major Requirements(55 SCH)		3
		CSC 2305 Computer Organization and Architecture	3
	Area 3:Minor(15 SCH)		3
		Minor Course 2 (3 SCH)	3
	Area 4: General Education (GenEd) Program (30 SCH)		3
		Humanities: HUM 2305, HUM 2306, HUM 2307, LIT 2301, PHI 2301, PHI 2302	3
Semester 5 (Junior)			17
	Area 1:b) Sciences and Engineering Requirements(15 SCH)		3
		EGR 2302 (3 SCH)Engineering Economics	3
	Area 2:Computing Core & Major Requirements(55 SCH)		9
		CSC 3315 Languages and Compilers	3
		CSC 3323 Analysis of Algorithms	3
		CSC 3324 Software Engineering	3
	Area 3:Minor(15 SCH)		3
		Minor Course 3 (3 SCH)	3
	Area 4: General Education (GenEd) Program (30 SCH)		2
		FRN 3210	2
Semester 6 (Junior)			18
	Area 2:Computing Core & Major Requirements(55 SCH)		9
		CSC 3326 Database Systems	3
		CSC 3351 Operating Systems	3
		CSC 3371 Computer Communications and Networks	3
	Area 3:Minor(15 SCH)		3
		Minor Course 4 (3 SCH)	3
	Area 4: General Education (GenEd) Program (30 SCH)		3
		Art Appreciation & Creation*** (3 SCH)ART 1301, ART 1302, ART 1303, ART 1304, ART 1305, ART 339!	3
	Free Electives (6 SCH)		3
		Free Electivel (3 SCH)	3

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Semester 7 (Senior)		17
	Area 2:Computing Core & Major Requirements(55 SCH)	11
	Computing and Engineering Elective (2 SCH)	2
	CSC 3331 Introduction to Big Data Environment and Applications	3
	CSC 3374 Advanced and Distributed Programming Paradigms	3
	CSC 4351Statistical Analysis	3
	Area 3:Minor(15 SCH)	3
	Minor Course 5 (3 SCH)	3
	Area 4: General Education (GenEd) Program (30 SCH)	3
	History or Political Science (3 SCH)HIS 1301, HIS 2301, HUM 1310, HUM 2302, PSC 2301	3
Semester 8 (Senior)		20
	Area 2:Computing Core & Major Requirements(55 SCH)	13
	Advanced Computing Elective (3 SCH)	3
	CSC 4352 Big Data Analytics	3
	EGR 4300 Internship	3
	EGR 4402 Capstone Design	4
	Area 4: General Education (GenEd) Program (30 SCH)	4
	Civic Engagement(3)(1 SCH)XXX ****SL or SLP 1101(4)	1
	Social Sciences: ECO 1300**,GEO 1301, PSY 1301, SOC 1301, SSC 1310	3
	Free Electives (6 SCH)	3
	Free ElectiveII (3 SCH)	3
SCH Total		136