

BSEMS Course Sequence (135 SCH) | Catalog 2019-2021 | B.S. in Engineering and Management Science (BSEMS)

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)			13
	Area 1:a) Mathematics Requirements(15 SCH)		3
		MTH 1303 Calculus I: Differential and Integral Calculus	3
	Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		4
		CSC 1402 Computer Programming for Engineers	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 (1)	2
		ENG 1301 English Composition I	3
		FAS 0210* (0 SCH)Foundations for Academic Success: Strategic Academic Skills	0
		FYE 1101 First Year Experience	1
Semester 2 (Freshman)			16
	Area 1:a) Mathematics Requirements(15 SCH)		3
		MTH 2301 Multivariable Calculus	3
	Area 1:b) Basic Sciences Requirements (15 SCH)		4
		PHY 1401 Physics I	4
	Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		3
		CSC 2309^ Data Analysis (with Phyton)	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)			18
	Area 1:a) Mathematics Requirements(15 SCH)		6
		MTH 2320 Linear Algebra	3
		MTH 3301 Probability and Statistics for Engineers	3
	Area 1:b) Basic Sciences Requirements (15 SCH)		4
		PHY 1402 Physics II	4
	Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		5
		EGR 2201 Introduction to Engineering and Design	2
		EGR 2391^ Accounting for Engineering Management	3
	Area 4: General Education (GenEd) Program (30 SCH)		3
		ENG 2303 Technical Writing	3
Semester 4 (Sophomore)			18
	Area 1:a) Mathematics Requirements(15 SCH)		3
		MTH 2304 Differential Equations	3
	Area 1:b) Basic Sciences Requirements (15 SCH)		4
		CHE 1401 Chemistry I	4
	Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		8
		EGR 2210 Computer Aided Engineering	2
		EGR 2301 Statics	3
		EGR 2302 Engineering Economics	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)			18
	Area 1:b) Basic Sciences Requirements (15 SCH)		3
		CHE 1302 Chemistry II	3
	Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		10
		EGR 2311 Dynamics	3
		EGR 2402 Electric Circuits	4
		EGR 3303 Stochastic Processes	3
	Area 4: General Education (GenEd) Program (30 SCH)		2
		French: FRN 3210 (2)	2
	Free Electives(6 SCH)		3
		Free Elective(3 SCH)	3
Semester 6 (Junior)			18
	Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		12
		CSC 3326^ Database Systems	3
		EGR 3302 Thermodynamics	3
		EGR 3304 Materials Science	3
		EGR 3391^ Principles of Management	3
	Area 3: Engineering Thematic Area(9 SCH)		3
		Engineering Thematic Area (3 SCH)	3
	Area 4: General Education (GenEd) Program (30 SCH)		3
		Art Appreciation & Creation*** : ART 1301, ART 1302, ART 1303, ART 1304, ART 1305, ART 3399, ENG 2320, HUM 2301, COM 2327***, LIT 3370***	3

Semester 7 (Senior)		18
Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		9
EGR 3301 Fluid Mechanics		3
EGR 4391# Management Information Systems (MIS)		3
EGR 4393# Production and Operations Management		3
Area 3: Engineering Thematic Area(9 SCH)		3
Engineering Thematic Area (3 SCH)		3
Area 4: General Education (GenEd) Program (30 SCH)		3
History or Political Science: HIS 1301, HIS 2301, HUM 1310, HUM 2302, PSC 2301		3
Free Electives(6 SCH)		3
Free Elective(3 SCH)		3
Semester 8 (Senior)		16
Area 2: Engineering Core and Management Science Core Requirements (60 SCH)		9
EGR 4300 Internship		3
EGR 4402 Capstone Design		4
Engineering Elective (2 SCH)		2
Area 3: Engineering Thematic Area(9 SCH)		3
Engineering Thematic Area (3 SCH)		3
Area 4: General Education (GenEd) Program (30 SCH)		4
Civic Engagement: XXX ****SL (3) or SLP 1101(4)		1
Social Sciences: ECO 1300**,GEO 1301, PSY 1301, SOC 1301, SSC 1310		3
SCH Total		135