

**COLLEGE OF ENGINEERING
BACHELOR OF SCIENCE IN ENGINEERING SCIENCE AND MECHANICS
BIOMECHANICS OPTION**

For students graduating in Calendar Year 2008

NAME _____

Freshman

	Grades & Credits	
CHEM 1074-1084: General Chemistry for Engineers	4	_____
ENGE 1024 Engineering Exploration	2	_____
ENGE 1114 Exploration Engineering Design or ENGE 1104 Exploration of Digital Future	2	_____
ENGL 1105-1106: Freshman English	3	_____
MATH 1205-1206: Calculus I, Calculus II	3	_____
MATH 1114: Elementary Linear Algebra, Math 1224: Vector Geometry	2	_____
PHYS 2305: Foundations of Physics	4	_____
Area 2/3 University Core Requirements	3	_____
Area 2/3 & 7 University Core Requirement [±]	3	_____

34 hrs.

Sophomore

ESM 2014 Professional Seminar for ESM Students*	1	_____
ESM 2104: Statics*	3	_____
ESM 2304: Dynamics*	3	_____
ESM 2204: Mechanics of Deformable Bodies*	3	_____
MATH 2224: Multivariable Calculus, Math 2214: Differential Equations	3	_____
PHYS 2306: Foundations of Physics	4	_____
ISE 2014: Engineering Economy	2	_____
ESM 2074: Computational Methods*	3	_____
MSE 2034: Elements of Materials Engineering	3	_____
Area 6 University Core Requirements	1	_____
BIOL 2405: Human Physiology [#]	3	_____
BIOL 2406: Human Physiology, BIOL 2414 Human Physiology Lab [#]	3	_____

35 hrs.

Junior

MATH 4574: Vector and Complex Analysis, Math 4564: Operational Methods	3	_____
ECE 3054: Electrical Theory	3	_____
ESM 3124: Intermediate Dynamics*	3	_____
ME 3134: Thermodynamics	3	_____
ESM 4105-4106: Engr. Ana. Of Phys. Syst I, II*	3	_____
ESM 3015, 3016: Fluid Mechanics I, Fluid Mechanics II*	2	_____
ESM 3034: Fluid Mechanics Lab [£] *	1	_____
ESM 3054: Mechanical Behavior of Materials*	2	_____
ESM 3064: Mechanical Behavior of Materials Lab [£] *	1	_____
ESM 4004: Inst. & Exp. Mechanics*	3	_____

33 hrs.

Senior

ESM 4015: Senior Design, ESM 4016: Senior Project [£] *	3	_____
ESM 4074: Vibration & Control*	3	_____
ESM 4734: Finite Element Method*	3	_____
ESM 4304: Hemodynamics*	3	_____
ESM 4204: Musculoskeletal Biomechanics (Tech Elect.)*	3	_____
ESM 4224 Biodynamics & Control*	3	_____
ESM 4234: Mech Bio Mat and Struct*	3	_____
STAT 3704: Statistics for Engineering Applications	2	_____
Area 2/3 University Core Requirements	3	_____
Free Elective	2	_____

34 hrs.

Foreign language requirement: Students who did not complete 2 units of a foreign language in high school must earn 6 credit hours of a college level foreign language, such credits to be in addition to those normally required for graduation.

Eligibility for continued enrollment: upon having completed 72 hours (including transfer, advanced placement, advanced standing, and credit by examination), "satisfactory progress" toward a B.S. degree will include the following minimum criteria: all courses in the freshman year; MATH 2214, 2224; ESM 2014, 2104, 2204, 2304, 2074; PHYS 2305, 2306.

[±] Only selected courses can satisfy both Area 2/3 & 7 requirements. Use extra care when selecting this course.

[#] BMVS 4064 (Intro Medical Physiology) can be taken in lieu of BIOL 2405, 2406, and 2414. If student opts for BMVS 4064, one free elective (3 credits) is required.

See next page

[%] Students must also complete a senior design project within the area of biomechanics

[‡] Fulfills writing intensive requirement.

* In major GPA

Statement on Hidden Prerequisites: There are no hidden prerequisites for any course on this check sheet.
An in-major (all ESM classes) and overall GPA of 2.0 is required for graduation.

A TOTAL OF 136 SEMESTER HOURS ARE REQUIRED FOR GRADUATION.

Freshman (2004-2005)

November 14, 2005