

**College of Engineering**  
**Bachelor of Science in Engineering Science and Mechanics**  
**Biomechanics Option**  
**For students graduating in Calendar Year 2009**

Name: \_\_\_\_\_

Advisor: \_\_\_\_\_

Freshman Year

Fall Semester		Spring Semester	
CHEM 1035, 1045 (Chemistry, Lab)	4	ENGE 1114 (Intro. to Engr II)	2
ENGE 1024 (Intro. to Engr. I)	2	ENGL 1106 (Freshman English)	3
ENGL 1105 (Freshmen English)	3	MATH 1206 (Calculus)	3
MATH 1205 (Calculus)	3	MATH 1224 (Vector Geometry)	2
MATH 1114 (Linear Algebra)	2	PHYS 2305 (Physics I)	4
Area 2/3 Univ. Core Requirements	3	Area 2/3 & 7 Univ. Core Requirements*	3
<b>TOTAL HOURS</b>	<b>17</b>	<b>TOTAL HOURS</b>	<b>17</b>

Sophomore Year

Fall Semester		Spring Semester	
ESM 2014 Prof. Development Seminar	1	ESM 2074 (Comp. Methods)	3
ESM 2104 (Statics)	3	ESM 2204 (Mech. of Deforms)	3
ISE 2014 (Engr. Econ.)	2	ESM 2304 (Dynamics)	3
MATH 2224 (Multivar. Calculus)	3	MATH 2214 (Differential Eqns.)	3
PHYS 2306 (Physics II)	4	MSE 2034 or 2044 (Materials Engr.)	3
Area 2/3 Univ. Core Requirements	3	Area 2/3 Univ. Core Requirements	3
Area 6 University Core Requirements	1		
<b>TOTAL HOURS</b>	<b>17</b>	<b>TOTAL HOURS</b>	<b>18</b>

Junior Year

Fall Semester		Spring Semester	
ESM 3015 (Fluid Mech. I)	2	ESM 3016 (Fluid Mech. II)	3
ESM 3054 (Behavior of Materials)	2	ESM 3034 (Fluids Lab) £	1
ESM 3064 (Behavior of Materials Lab) £	1	ESM 3124 (Inter. Dynamics)	3
ECE 3054 (Elect. Theory)	3	ESM 4004 (Inst. & Exp. Mechanics)	3
MATH 4574 (Vector & Complex Anal.)	3	ESM 4106 (Engr. Ana. Of Phys. Sys. II)	3
ME 3134 (Thermodynamics)	3	MATH 4564 (Operational Methods)	3
ESM 4105 (Engr. Ana. Of Phys. Sys. I)	3		
<b>TOTAL HOURS</b>	<b>17</b>	<b>TOTAL HOURS</b>	<b>16</b>

Senior Year

Fall Semester		Spring Semester	
ESM 4015 (Creative Design & Proj. I) %	3	ESM 4016 (Creative Design & Proj. II) %£	3
ESM 4074 (Vibration and Control)	3	ESM 4734 (Intro to FEA)	3
ESM 4234 (Mech. Bio. Mat. and Struct.)	3	ESM 4304 (Hemodynamics)	3
ESM 4204 (Musculoskeletal Biomechanics)	3	ESM 4224 (Biodynamics & Control)	3
STAT 3704 (Stat. for Engr. App.)	2	BMVS 4064 (Intro to Med Physiology) #	3
Free Elective	3	Free Elective	2
<b>TOTAL HOURS</b>	<b>17</b>	<b>TOTAL HOURS</b>	<b>17</b>

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

# BIOL 2405, 2406, and 2414 may be substituted for BMVS 4064 (Intro Medical Physiology). If students opt for BIOL 2405, 2406, and 2414, one less free elective (3 credits) is available.

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

£ Fulfills writing intensive requirement.

*Foreign Language Requirement:* Students who did not complete 2 units of 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.

*Statement on Hidden Prerequisites:* There are no hidden prerequisites for any course on this checksheet.

*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.**