College of Engineering
Department of Engineering Science and Mechanics
Minor in Engineering Science and Mechanics
For Students Graduating in Calendar Year 2011

Name: _____ Advisor: _____

To complete a minor in Engineering Science and Mechanics, a student must take 21 courses as indicated below.

Professor Scott Case (Room 225 Norris Hall) has been appointed to advise all students studying for a minor in ESM. In accordance with University policy and regulations, he will perform all functions appropriate to an advisor for student studying for a minor.

1. Complete 21 hours of ESM coursework on an A/F basis. A GPA of 2.0 is required in the ESM courses.

2. Complete the following courses:

ESM 2104	Statics	3____
ESM 2204	Mechanics of Deformable Bodies	3____
ESM 2304	Dynamics	3____
ESM 3054	Mechanical Behavior of Materials	2____
ESM 3064	Mechanical Behavior of Materials Laboratory	1____

3. Complete one of the following (Fluid Mechanics requirement):

ESM 3015	Fluid Mechanics	3____
or		
ESM 3024	Introduction to Fluid Mechanics	3____
or		
ME 3404	Fluid Mechanics	3____
or		
CEE 3304	Fluid Mechanics for CEE	3____
or		
AOE 3104	Aircraft Performance	3____
and		
AOE 3014	Aero/Hydrodynamics	3____
or		
AOE 3204	Ship Hydrodynamics	3____
and		
AOE 3014	Aero/Hydrodynamics	3____

4. Complete six hours from the following list. At least 3 hours must be 4xxx or above.

ESM 3016	Fluid Mechanics	3____
ESM 3124	Intermediate Dynamics	3____
ESM 3154	Solid Mechanics	3____
ESM 4004	Instrumentation and Experimental Mechanics	3____
ESM 4014	Applied Fluid Mechanics	3____
ESM 4024	Advanced Mechanical Behavior of Materials	3____
ESM 4044	Mechanics of Composite Materials	3____
ESM 4074	Vibration and Control	3____
ESM 4084/AOE 4084	Engineering Design Optimization	3____
ESM 4105-4106	Engineering Analysis of Physiologic Systems	3____
ESM 4114	Nonlinear Dynamics and Chaos	3____
ESM 4154/MSE 4154	Nondestructive Evaluation of Materials	3____
ESM 4184/AOE 4184	Design and Optimization of Composite Structures	3____
ESM 4204	Musculoskeletal Biomechanics and Biologic Control	3____
ESM 4224	Biodynamics & Control	3____
ESM 4234	Mechanics of Biological Materials and Structures	3____
ESM 4304	Hemodynamics	3____
ESM 4444/AOE 4054/CE 4444	Stability of Structures	3____
ESM 4524	Introduction to Wave Motion	3____
ESM 4574	Biomaterials	3____
ESM 4614	Reliability Methods in Engineering	2____
ESM 4734/AOE 4024	An Introduction to the Finite Element Method	3____
ESM 5405 or 5406	Clinical Internship in Biomedical Engineering	3____