THE UNIVERSITY OF MAINE

Department of Mechanical Engineering

Fall 2017 Orientation

Masoud Rais-Rohani
Chair & Richard C. Hill Professor
of Mechanical Engineering

masoud.raisrohani@maine.edu

Mechanical Engineering Facilities

MEE Labs

MEE Offices

Boardman Hall

Crosby Labs

MEE Faculty & Staff


Dr. Boyle

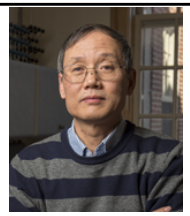

Dr. Caccese


Dr. Edalatpour


Dr. Friess


Dr. Goupee

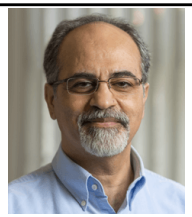

Dr. Hejrati


Dr. Jin

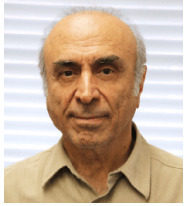

Mr. Martin


Dr. Poland


Dr. Putzeys

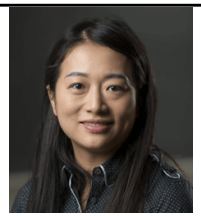

Dr. Rais-Rohani


Dr. Sayles


Dr. Shahinpoor


Dr. Thiagarajan


Dr. Vel


Dr. Xue


Dr. Yang


Dr. Zheng


Mrs. Fogarty

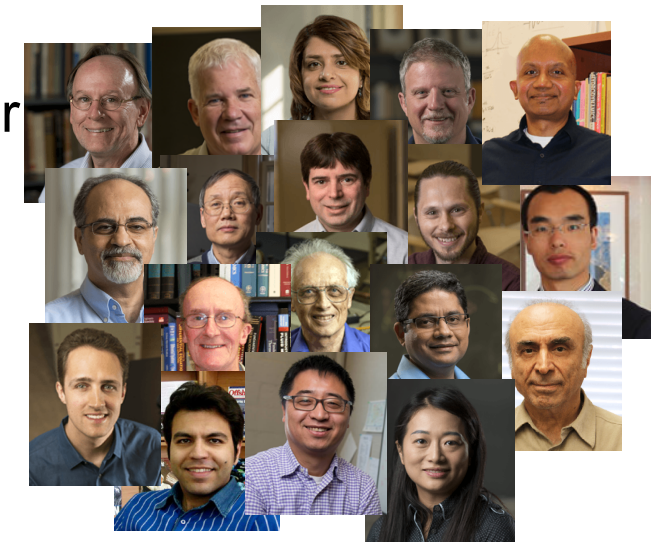

Mr. Abbadessa

Part-Time Faculty & Staff: Dr. Grant, Dr. Rubenstein, Prof. Sucec, & Mrs. Levasseur

Your Faculty Advisor

- To provide academic and professional advice
- Students meet with faculty advisors at least once per semester for pre-registration advising
- Advisors review course selections and monitor progress toward graduation
  - Student develops a **wish list** before meeting with advisor
  - Student is responsible for meeting graduation requirements
- Additional advising support available in the MEE main office (Room 219, Boardman)

Who Should You Contact for Inquiries?



- Academic advising matters => Faculty Advisor
- Course specific matters => Course Instructor
- Computer / IT matters = > IT Department
- Club membership => Club Officers / Advisor
- Crosby Lab access => Mr. Abbadessa

- First-semester registration
- Routine questions about MEE
- Accounting questions
- Or if you are facing a deadline and cannot reach your faculty advisor => Mrs. Fogarty

Mrs. Karen Fogarty

THE UNIVERSITY OF MAINE

Mechanical Engineering

Mechanical Engineering Curriculum

MECHANICAL ENGINEERING CURRICULUM

4-Year Program (Effective September 2017)

Student: ID: Advisor:

	FALL	Grade		SPRING	Grade
ENG 101	College Composition (3 cr.)	_____	COS 220	Intro to C++ Programming (3 cr.)	_____
			or ECE 177	Programming for Engineers (4 cr.)	
MAT 126	Calculus I (4 cr.)	_____	MAT 127	Calculus II (4 cr.)	_____
MEE 101	Intro to Mech. Eng. (1 cr.)	_____	MEE 150*	Statics (3 cr.)	_____
MEE 120	Eng Graphics & CAD (2 cr.)	_____	PHY 122	General Physics II (4 cr.)	_____
PHY 121	General Physics (4 cr.)	_____	Elective (2)	HVSC Elective	
Elective (1)	HVSC Elective				
CHY 121/3	Intro to Chemistry/Lab (4 cr.)	__/__	ECE 209	Fund of Electric Circuits (3 cr.)	_____
or CHY 131/3	Chemistry for Engineer/Lab				
MAT 228	Calculus III (4 cr.)	_____	MAT 258	Differential Equations (4 cr.)	_____
MEE 230*	Thermodynamics I (3 cr.)	_____	MEE 231	Thermodynamics II (3 cr.)	_____
MEE 251*	Strength of Materials (3 cr.)	_____	MEE 270*	Dynamics (3 cr.)	_____
Elective (3)	HVSC Elective		Elective (4)	Basic Science Elective (4 cr.)	
MEE 360	Fluid Mechanics (3 cr.)	_____	ECP 341	Technical Writing I (1 cr.)	
MEE 370	Controls (3 cr.)	_____	MEE 320	Materials (3 cr.)	_____
MEE 380	Design I (3 cr.)	_____	MEE 341	Mechanical Lab I (3 cr.)	_____
STS 332	Statistics for Engineers (3 cr.)	_____	MEE 381	Design II (3 cr.)	_____
Elective (5)	HVSC Elective		MEE 456	Intro to Finite Elements (3 cr.)	_____
			MEE 471	Mechanical Vibrations (3 cr)	_____
ECP 487	Technical Writing II (1 cr.)	_____	ECP 488	Technical Writing III (1 cr.)	_____
MEE 432	Heat Transfer (3 cr.)	_____	MEE 443	Mech. Lab. III (2 cr.)	_____
MEE 442	Mech. Lab II (2 cr.)	_____	MEE 488	Design IV (3 cr.)	_____
MEE 487	Design III (4 cr.)	_____	Elective (8)	MEE Technical Elective (3 cr.)	
Elective (6)	MEE Technical Elective (3 cr.)		Elective (9)	HVSC Elective	
Elective (7)	MEE Technical Elective (3 cr.)		Elective (10)	HVSC Elective	

Basic Science Elective (4 cr.)_____

Technical Electives (9 cr.)

(See the other side of this sheet for listings of appropriate technical electives.)

Course	Grade	Mechanics of Solids and Structures	Thermal Sciences & Fluid Mechanics	Dynamics & Controls

A maximum of 2 courses can be used from a subject area to satisfy the technical electives requirements.

Human Values and Social Context (HVSC) Electives (18 cr.)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics

Students are required to complete **18 credit hours** in Human Values and Social Context, selected from lists of approved courses to satisfy each of the six sub-categories listed. Each sub-category must be satisfied, although a single course can be applied in each appropriate sub-category.

* Students who joined the program beginning or after Fall 2015 must earn a "C" or better in MEE 150, MEE 230, MEE 251 and MEE 270 in order to use them as prerequisites.

Curriculum Summary

Credit (cr)	Subject
• 56	Mechanical Eng. Courses & Labs
• 19	Mathematics & Statistics
• 12	Physics & Chemistry
• 18	Humanities & Social Sciences
• 9	Technical Electives
• 6	Comp Programming & Circuits
• 10	Other Courses (e.g., Tech Writing)
• **130**	Total Credit Hours for a BS Degree

16 – 17 cr / semester
=> Graduate in 4 years!

Mechanical Engineering Curriculum

MECHANICAL ENGINEERING CURRICULUM

4-Year Program (Effective September 2017)

Student: ID: Advisor:

	FALL	Grade		SPRING	Grade
ENG 101	College Composition (3 cr.)	_____	COS 220	Intro to C++ Programming (3 cr.)	_____
			or ECE 177	Programming for Engineers (4 cr.)	
MAT 126	Calculus I (4 cr.)	_____	MAT 127	Calculus II (4 cr.)	_____
MEE 101	Intro to Mech. Eng. (1 cr.)	_____	MEE 150*	Statics (3 cr.)	_____
MEE 120	Eng Graphics & CAD (2 cr.)	_____	PHY 122	General Physics II (4 cr.)	_____
PHY 121	General Physics (4 cr.)	_____	Elective (2)	HVSC Elective	
Elective (1)	HVSC Elective				
CHY 121/3	Intro to Chemistry/Lab (4 cr.)	__/__	ECE 209	Fund of Electric Circuits (3 cr.)	_____
or	CHY 131/3 Chemistry for Engineer/Lab				
MAT 228	Calculus III (4 cr.)	_____	MAT 258	Differential Equations (4 cr.)	_____
MEE 230*	Thermodynamics I (3 cr.)	_____	MEE 231	Thermodynamics II (3 cr.)	_____
MEE 251*	Strength of Materials (3 cr.)	_____	MEE 270*	Dynamics (3 cr.)	_____
Elective (3)	HVSC Elective		Elective (4)	Basic Science Elective (4 cr.)	
MEE 360	Fluid Mechanics (3 cr.)	_____	ECP 341	Technical Writing I (1 cr.)	
MEE 370	Controls (3 cr.)	_____	MEE 320	Materials (3 cr.)	_____
MEE 380	Design I (3 cr.)	_____	MEE 341	Mechanical Lab I (3 cr.)	_____
STS 332	Statistics for Engineers (3 cr.)	_____	MEE 381	Design II (3 cr.)	_____
Elective (5)	HVSC Elective		MEE 456	Intro to Finite Elements (3 cr.)	_____
			MEE 471	Mechanical Vibrations (3 cr)	_____
ECP 487	Technical Writing II (1 cr.)	_____	ECP 488	Technical Writing III (1 cr.)	_____
MEE 432	Heat Transfer (3 cr.)	_____	MEE 443	Mech. Lab. III (2 cr.)	_____
MEE 442	Mech. Lab II (2 cr.)	_____	MEE 488	Design IV (3 cr.)	_____
MEE 487	Design III (4 cr.)	_____	Elective (8)	MEE Technical Elective (3 cr.)	
Elective (6)	MEE Technical Elective (3 cr.)		Elective (9)	HVSC Elective	
Elective (7)	MEE Technical Elective (3 cr.)		Elective (10)	HVSC Elective	

Basic Science Elective (4 cr.)_____

Technical Electives (9 cr.)

(See the other side of this sheet for listings of appropriate technical electives.)

Course	Grade	Mechanics of Solids and Structures	Thermal Sciences & Fluid Mechanics	Dynamics & Controls

A maximum of 2 courses can be used from a subject area to satisfy the technical electives requirements.

Human Values and Social Context (HVSC) Electives (18 cr.)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics

Students are required to complete **18 credit hours** in Human Values and Social Context, selected from lists of approved courses to satisfy each of the six sub-categories listed. Each sub-category must be satisfied, although a single course can be applied in each appropriate sub-category.

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BASIC SCIENCE ELECTIVES (one required - 4 cr.)

AST 109/110 or AST 215/Lab	Intro. to Astronomy or General Astronomy I, with Laboratory
BIO 100	Basic Biology
BIO 208	Anatomy and Physiology
BIO 326	General Entomology
BMB 300/305	General Microbiology with Laboratory
CHY 122/124	The Molecular Basis of Chemical Change with Laboratory
ERS 101	Introduction to Geology
ERS 102**	Environmental Geology of Maine
PHY 223/236	Special Relativity/Introductory Quantum Physics

** Satisfies the Population & Environment requirement, but it cannot be counted as both a Basic Science Elective and a HVSC Elective.

Mechanical Engineering Curriculum

MECHANICAL ENGINEERING CURRICULUM

4-Year Program (Effective September 2017)

Student: ID: Advisor:

	FALL	Grade		SPRING	Grade
ENG 101	College Composition (3 cr.)	_____	COS 220	Intro to C++ Programming (3 cr.)	_____
			or ECE 177	Programming for Engineers (4 cr.)	
MAT 126	Calculus I (4 cr.)	_____	MAT 127	Calculus II (4 cr.)	_____
MEE 101	Intro to Mech. Eng. (1 cr.)	_____	MEE 150*	Statics (3 cr.)	_____
MEE 120	Eng Graphics & CAD (2 cr.)	_____	PHY 122	General Physics II (4 cr.)	_____
PHY 121	General Physics (4 cr.)	_____	Elective (2)	HVSC Elective	
Elective (1)	HVSC Elective				
CHY 121/3	Intro to Chemistry/Lab (4 cr.)	__/__	ECE 209	Fund of Electric Circuits (3 cr.)	_____
or CHY 131/3	Chemistry for Engineer/Lab				
MAT 228	Calculus III (4 cr.)	_____	MAT 258	Differential Equations (4 cr.)	_____
MEE 230*	Thermodynamics I (3 cr.)	_____	MEE 231	Thermodynamics II (3 cr.)	_____
MEE 251*	Strength of Materials (3 cr.)	_____	MEE 270*	Dynamics (3 cr.)	_____
Elective (3)	HVSC Elective		Elective (4)	Basic Science Elective (4 cr.)	
MEE 360	Fluid Mechanics (3 cr.)	_____	ECP 341	Technical Writing I (1 cr.)	
MEE 370	Controls (3 cr.)	_____	MEE 320	Materials (3 cr.)	_____
MEE 380	Design I (3 cr.)	_____	MEE 341	Mechanical Lab I (3 cr.)	_____
STS 332	Statistics for Engineers (3 cr.)	_____	MEE 381	Design II (3 cr.)	_____
Elective (5)	HVSC Elective		MEE 456	Intro to Finite Elements (3 cr.)	_____
			MEE 471	Mechanical Vibrations (3 cr)	_____
ECP 487	Technical Writing II (1 cr.)	_____	ECP 488	Technical Writing III (1 cr.)	_____
MEE 432	Heat Transfer (3 cr.)	_____	MEE 443	Mech. Lab. III (2 cr.)	_____
MEE 442	Mech. Lab II (2 cr.)	_____	MEE 488	Design IV (3 cr.)	_____
MEE 487	Design III (4 cr.)	_____	Elective (8)	MEE Technical Elective (3 cr.)	
Elective (6)	MEE Technical Elective (3 cr.)		Elective (9)	HVSC Elective	
Elective (7)	MEE Technical Elective (3 cr.)		Elective (10)	HVSC Elective	

Basic Science Elective (4 cr.)_____

Technical Electives (9 cr.)

(See the other side of this sheet for listings of appropriate technical electives.)

Course	Grade	Mechanics of Solids and Structures	Thermal Sciences & Fluid Mechanics	Dynamics & Controls

A maximum of 2 courses can be used from a subject area to satisfy the technical electives requirements.

Human Values and Social Context (HVSC) Electives (18 cr.)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics

Students are required to complete **18 credit hours** in Human Values and Social Context, selected from lists of approved courses to satisfy each of the six sub-categories listed. Each sub-category must be satisfied, although a single course can be applied in each appropriate sub-category.

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MECHANICAL ENGINEERING TECHNICAL ELECTIVES

Mechanics of Solids and Structures

MEE 450 Mechanics of Composite Materials
MEE 453 Experimental Mechanics
MEE 455 Advanced Strength of Materials

Thermal Sciences & Fluid Mechanics

MEE 433 Solar-Thermal Engineering
MEE 434 Thermodynamic Design of Engines
MEE 448 Fixed Wing Aircraft Design
MEE 462 Fluid Mechanics II
MEE 475 Fuel Cell Science and Technology
MEE 480 Wind Energy Engineering
MEE 483 Turbomachine Design
MEE 484 Power Plant Design and Engineering
MEE 486 Refrigeration & Air Conditioning System Design
MEE 489 Offshore Floating Systems Design

Dynamics & Controls

MEE 444 Robot Dynamics and Control
MEE 445 Aeronautics
MEE 446 Astronautics
MEE 547 Flight Dynamics and Control of Aircraft
MEE 548 Spacecraft Orbit and Altitude Dynamics and Control

400 level (and higher) courses offered by other engineering programs may, with advisor approval, be used to satisfy the mechanical engineering technical elective requirement.

THE UNIVERSITY OF MAINE

Mechanical Engineering

Mechanical Engineering Curriculum

MECHANICAL ENGINEERING CURRICULUM

4-Year Program (Effective September 2017)

Student: ID: Advisor:

	FALL	Grade		SPRING	Grade
ENG 101	College Composition (3 cr.)	_____	COS 220	Intro to C++ Programming (3 cr.)	_____
			or ECE 177	Programming for Engineers (4 cr.)	
MAT 126	Calculus I (4 cr.)	_____	MAT 127	Calculus II (4 cr.)	_____
MEE 101	Intro to Mech. Eng. (1 cr.)	_____	MEE 150*	Statics (3 cr.)	_____
MEE 120	Eng Graphics & CAD (2 cr.)	_____	PHY 122	General Physics II (4 cr.)	_____
PHY 121	General Physics (4 cr.)	_____	Elective (2)	HVSC Elective	
Elective (1)	HVSC Elective				
CHY 121/3	Intro to Chemistry/Lab (4 cr.)	__/__	ECE 209	Fund of Electric Circuits (3 cr.)	_____
or CHY 131/3	Chemistry for Engineer/Lab				
MAT 228	Calculus III (4 cr.)	_____	MAT 258	Differential Equations (4 cr.)	_____
MEE 230*	Thermodynamics I (3 cr.)	_____	MEE 231	Thermodynamics II (3 cr.)	_____
MEE 251*	Strength of Materials (3 cr.)	_____	MEE 270*	Dynamics (3 cr.)	_____
Elective (3)	HVSC Elective		Elective (4)	Basic Science Elective (4 cr.)	
MEE 360	Fluid Mechanics (3 cr.)	_____	ECP 341	Technical Writing I (1 cr.)	
MEE 370	Controls (3 cr.)	_____	MEE 320	Materials (3 cr.)	_____
MEE 380	Design I (3 cr.)	_____	MEE 341	Mechanical Lab I (3 cr.)	_____
STS 332	Statistics for Engineers (3 cr.)	_____	MEE 381	Design II (3 cr.)	_____
Elective (5)	HVSC Elective		MEE 456	Intro to Finite Elements (3 cr.)	_____
			MEE 471	Mechanical Vibrations (3 cr)	_____
ECP 487	Technical Writing II (1 cr.)	_____	ECP 488	Technical Writing III (1 cr.)	_____
MEE 432	Heat Transfer (3 cr.)	_____	MEE 443	Mech. Lab. III (2 cr.)	_____
MEE 442	Mech. Lab II (2 cr.)	_____	MEE 488	Design IV (3 cr.)	_____
MEE 487	Design III (4 cr.)	_____	Elective (8)	MEE Technical Elective (3 cr.)	
Elective (6)	MEE Technical Elective (3 cr.)		Elective (9)	HVSC Elective	
Elective (7)	MEE Technical Elective (3 cr.)		Elective (10)	HVSC Elective	

Basic Science Elective (4 cr.)_____

Technical Electives (9 cr.)

(See the other side of this sheet for listings of appropriate technical electives.)

Course	Grade	Mechanics of Solids and Structures	Thermal Sciences & Fluid Mechanics	Dynamics & Controls

A maximum of 2 courses can be used from a subject area to satisfy the technical electives requirements.

Human Values and Social Context (HVSC) Electives (18 cr.)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics

Students are required to complete **18 credit hours** in Human Values and Social Context, selected from lists of approved courses to satisfy each of the six sub-categories listed. Each sub-category must be satisfied, although a single course can be applied in each appropriate sub-category.

* Students who joined the program beginning or after Fall 2015 must earn a "C" or better in MEE 150, MEE 230, MEE 251 and MEE 270 in order to use them as prerequisites.

Human Values and Social Context Electives

Human Values and Social Context Electives

- You need to complete **18 credit hours** in human values and social context (HVSC), selected from a list of approved courses
- Each of the six sub-category must be satisfied, although a single course can be applied to multiple sub-categories.
- The orientation materials that you received from the Dean's Office has a list of HVSC electives. You can search for other electives through MaineStreet.

Example:

Human Values and Social Context
(18 credit hours required)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics
HTY 103		X	X				
ANT 101			X	X			
ART 120						X	
NAS 101		X	X				
PHI 232			X		X		X
WGS 101			X	X			X

Mechanical Engineering Curriculum

MECHANICAL ENGINEERING CURRICULUM

4-Year Program (Effective September 2017)

Student: ID: Advisor:

	FALL	Grade
ENG 101	College Composition (3 cr.)	
MAT 126	Calculus I (4 cr.)	
MEE 101	Intro to Mech. Eng. (1 cr.)	
MEE 120	Eng Graphics & CAD (2 cr.)	
PHY 121	General Physics (4 cr.)	
Elective (1)	HVSC Elective	
CHY 121/3	Intro to Chemistry/Lab (4 cr.)	__/__
or CHY 131/3	Chemistry for Engineer/Lab	
MAT 228	Calculus III (4 cr.)	
MEE 230*	Thermodynamics I (3 cr.)	
MEE 251*	Strength of Materials (3 cr.)	
Elective (3)	HVSC Elective	
MEE 360	Fluid Mechanics (3 cr.)	
MEE 370	Controls (3 cr.)	
MEE 380	Design I (3 cr.)	
STS 332	Statistics for Engineers (3 cr.)	
Elective (5)	HVSC Elective	
ECP 487	Technical Writing II (1 cr.)	
MEE 432	Heat Transfer (3 cr.)	
MEE 442	Mech. Lab II (2 cr.)	
MEE 487	Design III (4 cr.)	
Elective (6)	MEE Technical Elective (3 cr.)	
Elective (7)	MEE Technical Elective (3 cr.)	

	SPRING	Grade
COS 220	Intro to C++ Programming (3 cr.)	
or ECE 177	Programming for Engineers (4 cr.)	
MAT 127	Calculus II (4 cr.)	
MEE 150*	Statics (3 cr.)	
PHY 122	General Physics II (4 cr.)	
Elective (2)	HVSC Elective	
ECE 209	Fund of Electric Circuits (3 cr.)	
MAT 258	Differential Equations (4 cr.)	
MEE 231	Thermodynamics II (3 cr.)	
MEE 270*	Dynamics (3 cr.)	
Elective (4)	Basic Science Elective (4 cr.)	
ECP 341	Technical Writing I (1 cr.)	
MEE 320	Materials (3 cr.)	
MEE 341	Mechanical Lab I (3 cr.)	
MEE 381	Design II (3 cr.)	
MEE 456	Intro to Finite Elements (3 cr.)	
MEE 471	Mechanical Vibrations (3 cr)	
ECP 488	Technical Writing III (1 cr.)	
MEE 443	Mech. Lab. III (2 cr.)	
MEE 488	Design IV (3 cr.)	
Elective (8)	MEE Technical Elective (3 cr.)	
Elective (9)	HVSC Elective	
Elective (10)	HVSC Elective	

Basic Science Elective (4 cr.)_____

Technical Electives (9 cr.)

(See the other side of this sheet for listings of appropriate technical electives.)

Course	Grade	Mechanics of Solids and Structures	Thermal Sciences & Fluid Mechanics	Dynamics & Controls

A maximum of 2 courses can be used from a subject area to satisfy the technical electives requirements.

Human Values and Social Context (HVSC) Electives (18 cr.)

Course	Grade	Western Cultural Tradition	Social Contexts & Institutions	Cultural Diversity & International Perspectives	Population & Environment	Artistic & Creative Expression	Ethics

Students are required to complete **18 credit hours** in Human Values and Social Context, selected from lists of approved courses to satisfy each of the six sub-categories listed. Each sub-category must be satisfied, although a single course can be applied in each appropriate sub-category.

* Students who joined the program beginning or after Fall 2015 must earn a "C" or better in MEE 150, MEE 230, MEE 251 and MEE 270 in order to use them as prerequisites.

Your First Semester

ENG 101 College Composition (3 cr.)

MAT 126 Calculus I (4 cr.)
MEE 101 Intro to Mech. Eng. (1 cr.)
MEE 120 Eng Graphics & CAD (2 cr.)
PHY 121 General Physics (4 cr.)
Elective (1) HVSC Elective

Aerospace Engineering Concentration

Complete three aerospace engineering courses

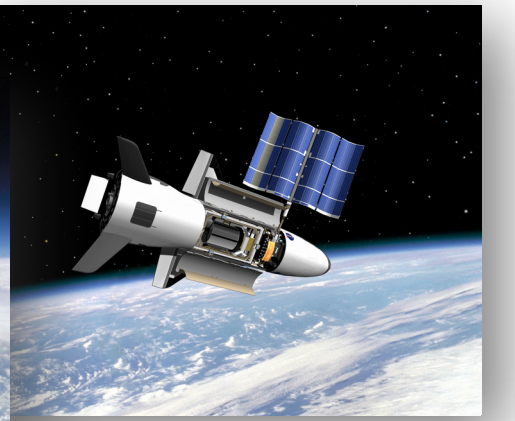
- MEE 445 – Aeronautics (treated as a tech elective)
- MEE 446 – Astronautics (treated as a tech elective)

plus

- MEE 547 – Flight Dynamics and Control of Aircraft

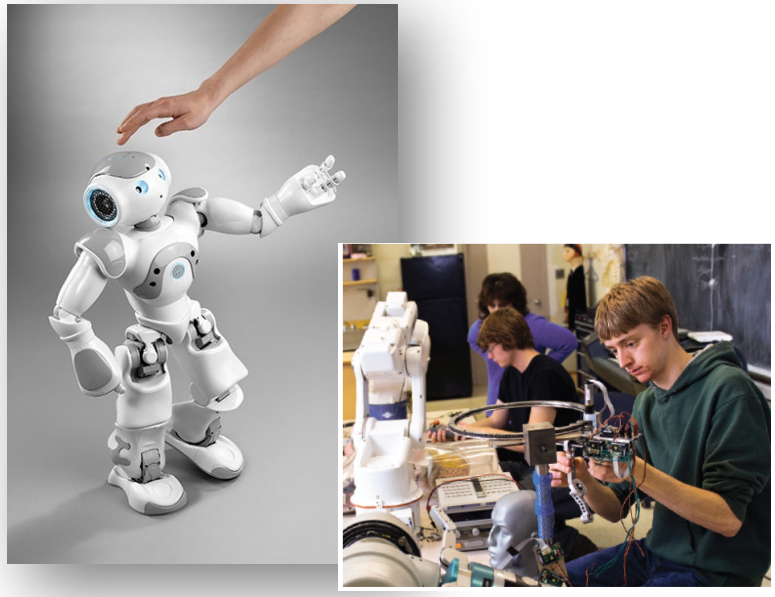
or

- MEE 548 – Spacecraft Orbital and Attitude Dynamics and Control



Expand your skills through a *Minor*!

- A Minor can be selected in addition to a major (MEE)
- It requires 18 to 21 credit hours (5 – 7 courses)
- Some courses overlap with required or elective courses
- Examples include:
  - Mathematics
  - Innovation Engineering
  - Nanotechnology
  - **Ocean & Marine Engineering**
  - **Robotics**
  - Renewable Energy



- Earning a Minor can improve your career opportunities

Honors Program

- To graduate with Honors, a student must successfully
  - complete Honors Civilizations four-semester sequence (HON 111, 112, 211, 212)
  - complete one Honors Tutorial (HON 308 – 347) or Tutorial Alternative (HON 349)
  - complete HON 170: Currents & Contexts
  - complete HON 180: A Cultural Odyssey or HON 188: Cultural Connections
  - complete the Honors Thesis: HON 498 and HON 499 including the thesis defense
  - attain an overall cumulative GPA of 3.30 or greater at the time of graduation.

- The Honors Curriculum covers the HVSC and ENG 101 requirements.

- Note: You will need to do an Honors thesis in your senior year in addition to your Mechanical Engineering Capstone Project.

- For additional information about the Honors program see http://honors.umaine.edu/

Laptop Requirement

The MEE dept requires that you own a laptop computer

- You need a Windows PC. Recommended specs posted at http://umaine.edu/mecheng/computer-policy/
- The video card needs to be compatible with SolidWorks.
- Laptops that have been specifically configured for Mechanical Engineering students will be available for purchase from the University Bookstore.
- The department will provide more information about accessing SolidWorks (for MEE 120) at the beginning of the Fall semester.

Student Organizations

American Society of Mechanical Engineers (ASME)

What do we do?

- Regular meetings
- Fundraising drives
- Cardboard canoe
- Bottle rocket challenge
- UNB Coaster Derby

Why is it important for students to be involved in ASME?

- Professional networking
- Internship opportunities
- Job placement information
- And to Have Fun!

Student Organizations

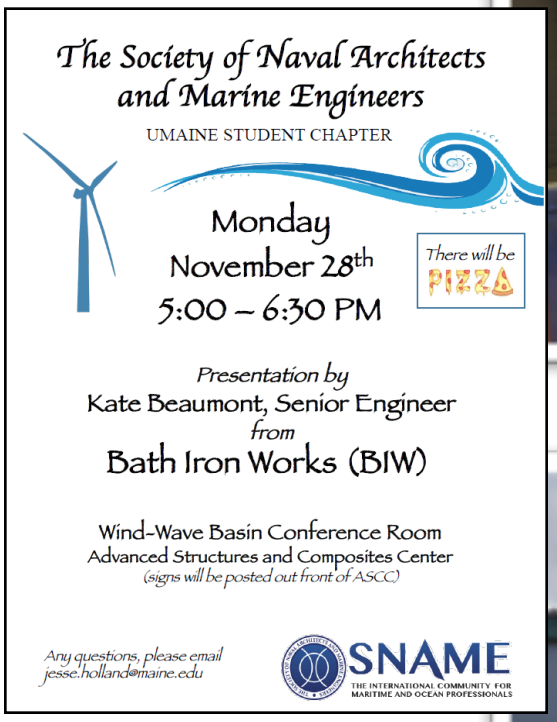
Society of Naval Architects and Marine Engineers (SNAME)

What do we do?

- Regular meetings with pizza
- Technical seminars
- Technical tours
- Competitions

Why is it important for students to be involved in SNAME?

- Scholarships!
- Professional networking through SNAME New England section
- Internship opportunities
- Job placement information
- And to Have Fun!



Student Organizations

American Institute of Aeronautics and Astronautics (AIAA)

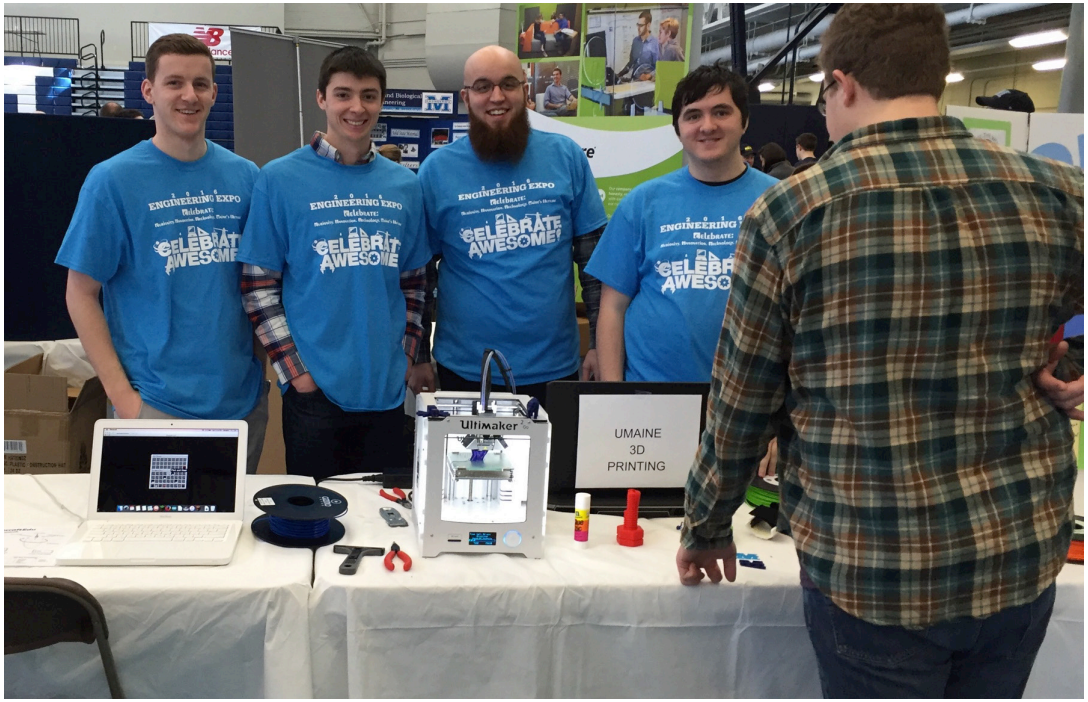
- Activities in aerospace and related fields. Regular meetings, speakers, and events. Participation in national Design-Build-Fly competition.

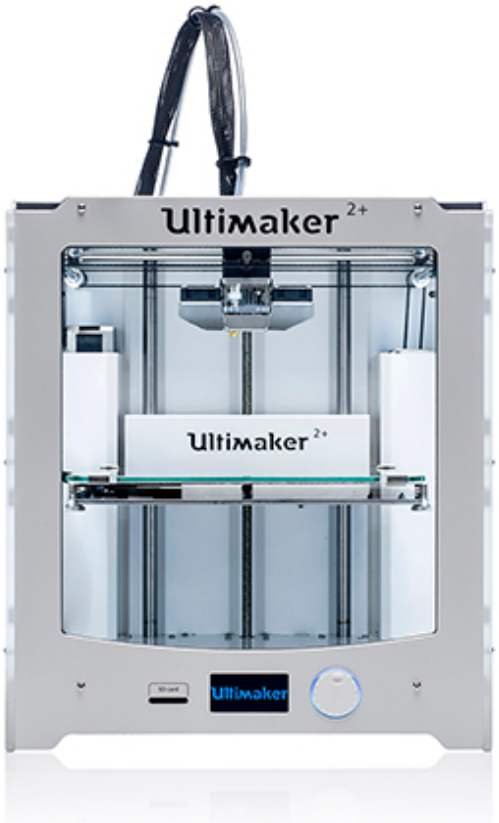
By participating in exciting activities, students engage with the aerospace industry and develop a professional network.

Student Organizations

3D Printing Club

- Learn how to 3D print, develop your own projects, train other members, and help run the 3D print lab.





Gain experience in additive manufacturing, build interesting things and projects.

Capstone Design Courses (Senior Year)

Capstone Design Highlights

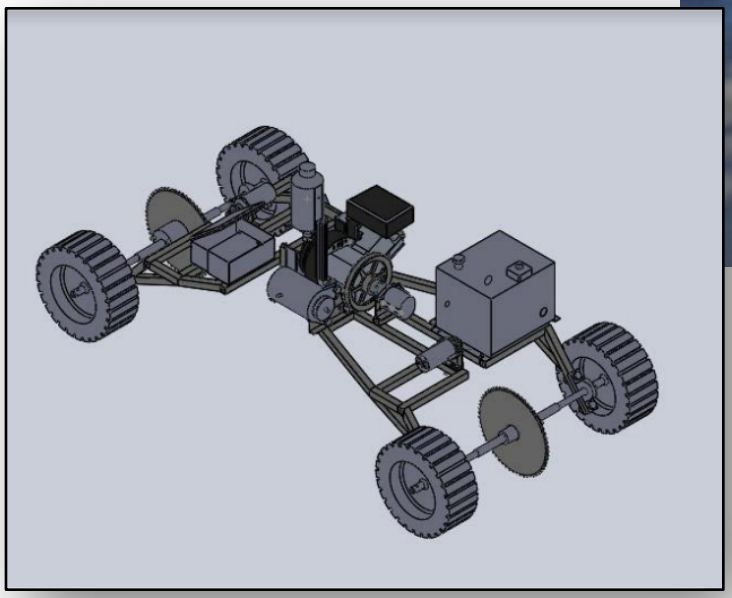
2016-2017 Land Drone Capstone Design Project

- 4 students per team
- **Mission**: Monitoring and inspecting forests, agriculture and border integrity during a New England mud season.
- **Constraints**:
  - Size < 3 ft x 3 ft x 6 ft
  - Weight < 200 lb
  - Cost < $1,400 / unit
  - Power: 2 or 4 stroke engine
  - Intelligence: Open source hardware
- Students free to design their own concepts
- Concepts can vary from one team to another
- Proof of concept through a build-test demonstration

Capstone Design Highlights

Team: Zachary Elders, Joseph Slattery, and Jacob Johns

CAD Model

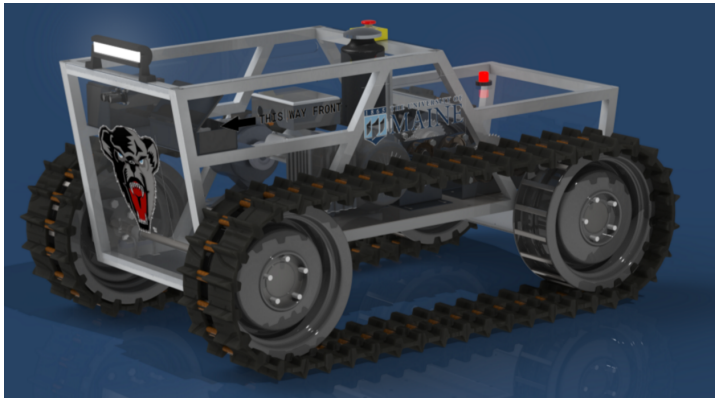


First milestone demonstration:

- Engine & Drivetrain Testing

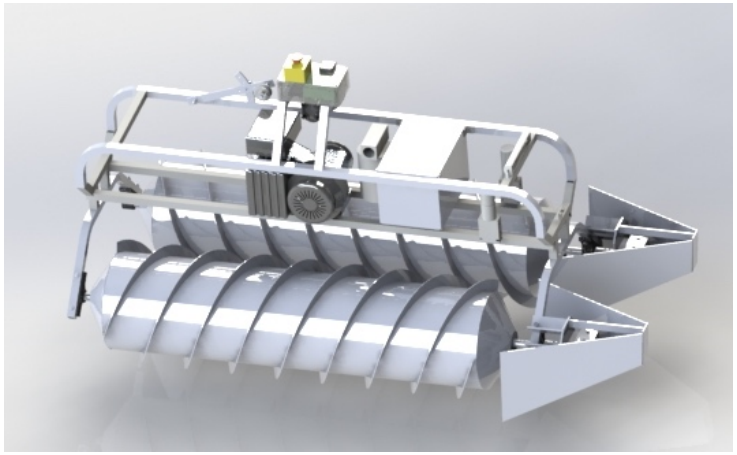
Capstone Design Highlights

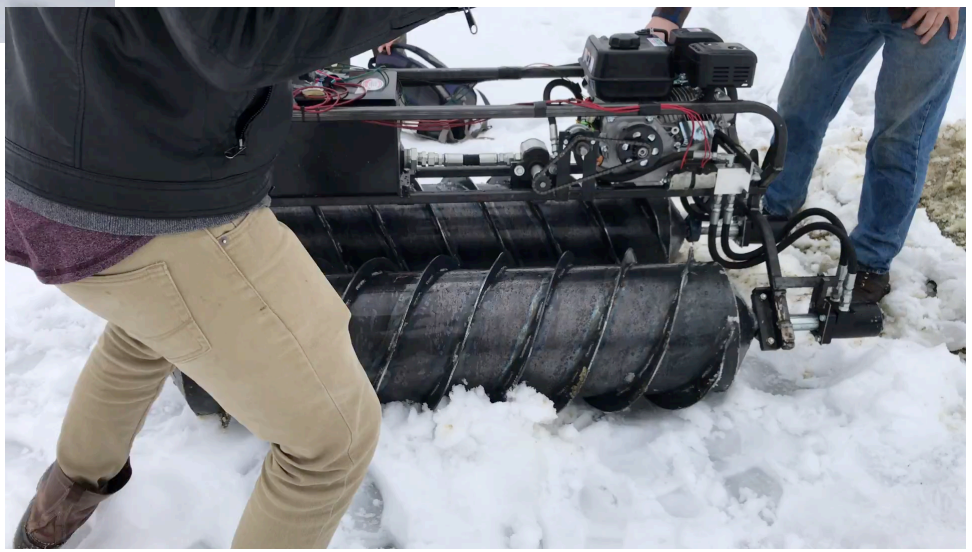
Team: Shane Cyr, Spencer Bernier, Gregory Smiddy, and Kaitlyn SeeHusen



Capstone Design Highlights

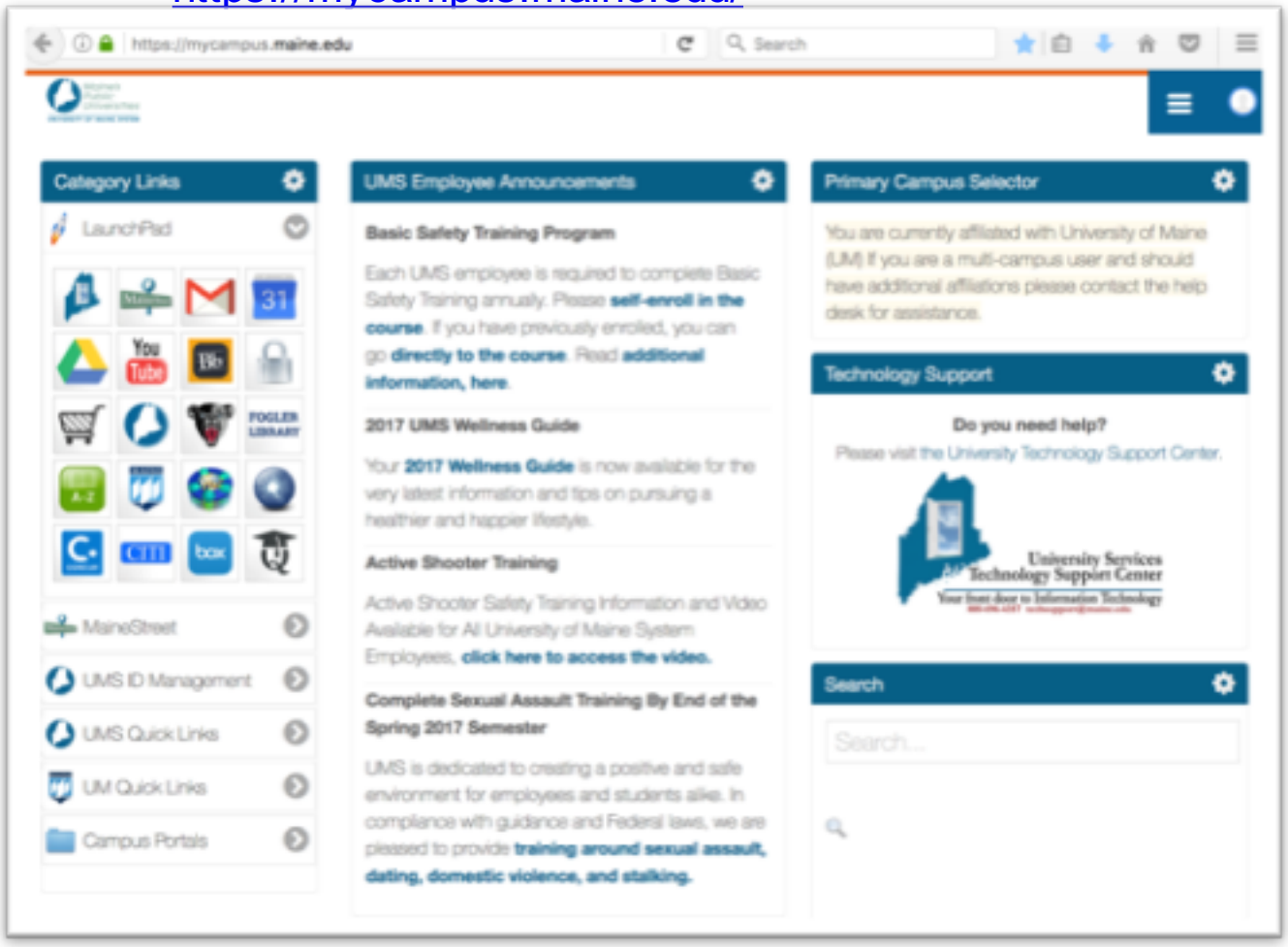
Team: Samuel Pierce, Forrest Tripp, Graham Garland, and Sean Buchanan





Accessing Campus Portal

- Your email address will be first.last@maine.edu
- You can log into MaineStreet through MyCampus using
  - https://mycampus.maine.edu/



Attention:
A student view of the portal will be slightly different.

Accessing Campus Portal

- Your email address will be first.last@maine.edu
- You can log into MaineStreet through MyCampus using
  - https://mycampus.maine.edu/

Course Registration

- If you have any AP credits, you must have them sent to the UMaine Office of Student Records via collegeboard.com
- You should have been notified by the admissions office if you are exempted from taking the math placement exam. Otherwise, you will need to take it this summer before we can register you for MAT 126 Calculus I

  http://www.umaine.edu/it/etc/mathplacementtest.php

  log in with your MaineStreet ID and password

- Transfer students are registered by Mechanical Engineering – you must transfer prior courses through the Office of Student Records

  Even if prior courses were taken within the UMaine system, you must still request a transfer credit evaluation from student records

We look forward to seeing you in the fall!