# **ME201 VEHICLE DESIGN AND TESTING**

SPRING 2021

#### Instructor Information

#### Instructor

Garrett Potts Porter Dallenbach

#### Email

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# Office Location & Hours

Mindworks by Appointment Mindworks by Appointment

# **General Information**

#### Description

This course runs parallel with the U of I Clean Snowmobile Challenge Team. We will be covering numerous aspects of vehicle design and testing with focus being predominantly being on improving efficiency, emissions, and noise in the powersports industry.

#### **Expectations and Goals**

In the course, the student is expected to participate in class as well as homework and studying. The topics we will cover are listed below; the student will be tested through quizzes and homework in the subjects covered. The goal of this course in to improve your skills as an engineer through applying your knowledge to real world problems.

# **Course Materials**

# **Required Materials**

All material for this course will be provided! Key textbooks include Blair and Haywood which can be found in Mindworks.

# **Optional Materials**

CSC Jackets: ~ \$85

CSC Polo: ~ \$10

# **Required Reading**

- Bradbury Thesis
- Johnson Thesis
- CSC Rules

# **Grading Scale**

Participation:	50%
Quizzes:	25%
Homework:	25%

Total: 100%

Normal Grading: 90% - 100% A; 80% - 89% B; 70% - 79% C; <70% F

# Schedule

	Date	Lesson	Homework	Due date
Week 1	13-Jan			
Week 2	20-Jan			
Week 3	27-Jan	Testing Methodology	Testing Assignment	3-Feb
Week 4	3-Feb	Sensors	Sensor Assignment	10-Feb
Week 5	10-Feb	Competition paper	Rules, paper section	17-Feb
Week 6	17-Feb	Injection methods	Johnson 1-20	24-Feb
Week 7	24-Feb	Homo vs strat Injection	Johnson 20-40	3-Mar
Week 8	3-Mar	Injection conclusions	Johnson 60-76	10-Mar
Week 9	10-Mar	Graph Review	No Assignment	17-Mar
Week 10	17-Mar	Competition Week	No Assignment	24-Mar
Week 11	24-Mar	Class finished		31-Mar
Week 12	31-Mar			7-Apr
Week 13	7-Apr			14-Apr
Week 14	14-Apr			21-Apr
Week 15	21-Apr			28-Apr
Week 16	28-Apr			5-May
Week 17	5-May			12-May