

Ms. Rose roseka@hamilton.k12.wi.us 262-246-6471 Voice mail ext 1760

Course Website: <https://sites.google.com/hamilton.k12.wi.us/msroseprinciplesofengineering/home>

Course Objectives

This course is designed to help students understand the field of engineering and engineering technology. Students will explore a variety of technological systems. Students will then use these experiences to learn how engineers and technicians apply math, science and technology to a design process to solve real life problems and benefit people in an ethical manner.

Course Layout

1. Teamwork and Concurrent Engineering
2. Technical Writing
3. Design Process
4. Thermodynamics
5. Electricity
6. Fluid Power - Pneumatics and Automation
7. Fluid Power - Hydraulics
8. Materials
9. Statics and Finite Element Analysis
10. Design of Experiments
11. Machine Control

Classroom Rules

1. **BACKPACKS ARE NOT ALLOWED IN THE CLASSROOM.**
2. All laptops must be shut down and plugged into the charging carts. All mice must be placed in the proper slot. **USE THE MOUSE NUMBER THAT IS THE SAME AS YOUR LAPTOP**
3. **Only wire earbuds can be used.** Earbuds will be available for those who do not have them.

Cell Phone Use

1. When a student enters their classroom, the student's cell phone must be stored in their assigned slot in the cell phone caddy. Students who do not follow teacher directions or refuse to surrender electronic devices will be subject to administrative referral and progressive discipline.
2. Students who use their personal electronic devices without permission or in a manner not intended will receive consequences according to the following protocol:
 - a. First Offense: Device will be surrendered to the teacher and returned to the student at the end of the block.
 - b. Second Offense: Device will be surrendered to the teacher and given to the High School Office. The student can retrieve the device from the High School Office at the end of the day.
 - c. Third and Subsequent Offenses: Device will be surrendered to the teacher and given to the High School Office. A parent/guardian must pick up the device. As with any persistent classroom/school disruption, progressive discipline will be applied as deemed necessary.

Grading Scale

Grade	Percentage	Rubric Score	Rubric Equivalency	Range
A	93-100	4.0	100	3.6-4.0
A/B	88-92	3.5	90	3.3-3.59
B	83-87	3.0	85	2.8-3.29
B/C	78-82	2.5	80	2.3-2.79
C	73-77	2.0	75	1.8-2.29
C/D	68-72	1.5	70	1.3-1.79
D	60-67	1.0	60	0.7-1.29
F (incomplete)	0-59	0.5	40	0.3-0.69
F (nothing)		0.0	0	0.0-0.29

Grading Breakdown:

Formative – 20%

Summative – 80%

Formative: Note completion and non-project assignments

Summative Projects

Students will be completing activities associated with engineering and 3D Modeling. With the completion of the activities the student will receive credit based on the rubric associated with the specific activity.

Summative Drawings

Drawings will be the output of every 3D Modeling learning activity. Drawing structure is based on Engineering drawing standards. Students will receive credit based on the rubric associated the the specific activity

Summative Tests

Assignment points will be given for note completion. Notes can be used on the tests.

Late Work

Late assignments will be subject to a reduction of 10% - formative and 0.5 pts - summative for each 5 school days late up to 25 days. After 25 days, it is -50% formative and -2.5 summative, 0.5 minimum. All projects, assignments, and quizzes must be submitted by the end of each grading term. At such time, missing grades will be changed to 0 and cannot be made up. See the instructor for extenuating circumstances.

Multiple Opportunities to Demonstrate Proficiency Policy:

Summative Tests:

- Retakes/corrections will be done within 1 week of the grade posting
- Retake scores will be entered in the gradebook, and
- No notes will be allowed.
- Retakes/corrections will only be allowed if written notes, worksheets, and assignments were completed before the original test time,

Summative Drawings and Projects:

- Corrections can be made if complete within 1 week of the graded drawing being returned.

Retakes/corrections will be completed during flex advisement time. Two opportunities for this will be given. If they are not utilized, the initial summative score will be the final score.

Course Fee

In order to supply the students with the necessary materials to successfully complete projects, a course fee of \$20.00 must be applied. This fee covers the cost of a variety of supplies and materials to be used over the course of the semester.

Consequences for Misbehavior:

First Offense: verbal warning

Second Offense: verbal warning

Third Offense: written warning + 3 minutes after class

Accumulation of 2 written warnings: written-up to administration

There are certain misbehaviors that will result in a write-up to administration. Some of these include, but are not limited to, indecent language or physical gestures, vandalizing property, fighting, or any misbehavior deemed excessive by Ms. Rose.

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Please review the syllabus content by using the link in the website above:

Applied Engineering and Technology Safety

Applied Engineering and Technology are courses that are largely laboratory and project based. The goal of the class is to offer your student an overview of engineering based technology in as safe of an environment as possible. Over the course of the semester, students will be exposed to various hand tools and possibly woodworking and machining equipment through the design and modeling process. If your student does not feel comfortable or safe performing any in class fabrication process, he/she is encouraged to bring it to the instructor's attention and they will assist him/her in any way possible.

The Applied Engineering and Technology safety initiative is based on teamwork. Students in the class need to help each other in a positive way by looking out for their classmates, and offering reminders if they see behavior that is unsafe.

Conversely, any intentional infraction of safety rules will be grounds for immediate removal from class and a referral to administration.

Please return this page to Ms. Rose, signed by September 8th.

I have read and I understand the information contained in the Engineering III course outline.

Printed Student Name: _____

Student Signature: _____ Date: _____

Parents: Be aware that cell phones will not be used and are not allowed to be out in the classroom. All cell phones will be placed in a phone caddy before the start of class. If your student will need to have access to their phone for medical or other reasons, please email me to let me know the circumstances.

Parent Signature: _____ Date: _____