# ME70
# Computer Aided Design

# Introduction

This and all notes/assignments are on the course website:
https://courses.grainger.illinois.edu/me170

**Instructor:**
**Mike L. Philpott PhD, CEng.**
Emeritus Associate Professor of Mechanical Science and Engineering

# ME170 - Computer Aided Design (CAD)
# Course Objectives

- Experience and understand the Human Centered Design (HCD) process

- Learn the fundamentals of engineering design/drafting through 3D CAD solid modeling

- Learn to describe the geometry and topology of engineered components in industry standard Engineering Drawing formats (ANSI Y14.5 , ISO M, and GD&T )

- Learn Creo/ProE Parametric/Wildfire, PTC's Engineering Design Solid Modeling Software.

- Learn aPriori CAD-integrated Cost Estimating software (introductiory)

- Introduction to Design for Manufacture (DFM)

# Contact Details

**Mike Philpott:** **Instructor for Tu/Th Lectures & Overall Course Coordination**

**Office:** 3007 MEL

**Office hrs:** 1pm-2pm Mondays, 10:00-11:00 Thursdays

**Phone Number:** **217**-244-3184

**Email:** mphilpot@illinois.edu

**TAs:** **Teaching Assistants (graduate students) responsible for lab sections, lab assignments, lab grading and final project grading**

*Office hours and other contact details:* Announced in Lab section and on website

**Graders:** **Graders (undergraduate students) assist during labs, mostly grading**

*Office hours and other contact details:* Announced in Lab section and posted on website

# MIE170 Lab Section Location

## Engineering WorkStation Lab
## 1009 MEL

# Required Course Book

**"**Creo Parametric 5.0 Basic Design**"**
**By Steven G. Smith, Published by CADquest inc.**

# ProE/CreO Software Download (optional)
http://webstore.illinois.edu or use Citrix
**Creo Paramatric 5.0**
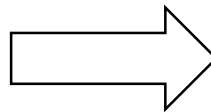
# Grading Scheme

**Class Assignments #1 - #12: 15%**
**Lab Assignments #1 - #12: 45%**
**Lab Attendance: 5%**

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**Term Design Project: 35%**
Comprising: Design Specification(5%), Concept
Selection Matrix(5%), Prelim Presentation(5%),
Final Presentation(30%), Written Report(45%),
CATME Individual Contribution(10%)

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**TOTAL: 100%**

A+ Excellent >= 95%
A Excellent >= 90%
A- Excellent >= 85%
B+ Good >= 80%
B Good > = 75%
B- Good >= 70%
C+ Fair >= 65%
C Fair >= 60%
C- Fair >= 55%
D+ Poor >= 50%
D Poor >= 45%
D- Poor >= 40 %
F Fail < 40%

# Lab Assignment
# Late Handing in Policy

❖ After the deadline you should submit your lab assignment to the "LateLabs" directory

❖ If you need extension due to illness or planned trip, e_mail instructor and request penalty waiver. Even if waiver given, ftp to "lateLabs"

❖ Penalty is 50% credit after deadline up to 2 weeks late. ZERO credit after 2 weeks.

# Lecture Class Assignment
## (aka. In-Class Assignments)

❖ With excused or un-excused class absence you can download the assignment from the class website and hand in the completed work to the instructor at the next lecture.

❖ Note: material is usually reviewed in detail during the lecture which makes this task particularly challenging at times!

❖ Excused absence: no penalty if handed in by agreed timeframe (typically 1 week)

❖ Un-excused class absence Penalty is 50% credit up to 2 weeks late. ZERO credit after 2 weeks.

# Emergency and Safety Procedures

- Emergencies can happen anywhere and at any time, so it's important that we take a minute to prepare for a situation in which our safety could depend on our ability to react quickly. Take a moment to learn the different ways to leave this building. If there's ever a fire alarm or something like that, you'll know how to get out and you'll be able to help others get out. Next, figure out the best place to go in case of severe weather – we'll need to go to a low-level in the middle of the building, away from windows. And finally, if there's ever someone trying to hurt us, our best option is to run out of the building. If we cannot do that safely, we'll want to hide somewhere we can't be seen, and we'll have to lock or barricade the door if possible and be as quiet as we can. We will not leave that safe area until we get an Illini-Alert confirming that it's safe to do so. If we can't run or hide, we'll fight back with whatever we can get our hands on. If you want to better prepare yourself for any of these situations, visit police.illinois.edu/safe. Remember you can sign up for emergency text messages at emergency.illinois.edu.

- If you have any questions, go to police.illinois.edu, or call 217-333-1216.

- **2 minute video: http://police.illinois.edu/emergency-preparedness/run-hide-fight/**

# Student Code & Academic Integrity

"All students are responsible to refrain from infractions of academic integrity, conduct that may lead to suspicion of such infractions, and conduct that aids others in such infractions."

"I did not know" is not an excuse.

The following are academic integrity infractions:

- Cheating - using or attempting to use unauthorized materials
- Plagiarism - representing the words, work, or ideas of another as your own
- Fabrication - falsification or invention of any information, including citations
- Facilitating infractions of academic integrity - helping or attempting to help another commit infraction
- Bribes, Favors, and Threats - actions intended to affect a grade or evaluation
- Academic Interference - tampering, altering or destroying educational material or depriving someone else of access to that material

(source http://www.provost.illinois.edu/academicintegrity/students.html )

Consequences…fail course or program…..or worse!

All infractions are documented in campus-wide FAIR database