IT445
Computer Aided Manuacturing
Fall 2008 (Champaign)

Instructor: Lyle Gross
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COURSE OBJECTIVE: Demonstrate an understanding of CAD/CAM/CIM and the current state of CIM implementation.

TEXTBOOK: Computer-Integrated Manufacturing, 3rd Ed., A Rehg and Henry W. Kraebber, Prentice-Hall, Upper Saddle River, New Jersey, Columbus, Ohio, 2004.

EVALUATION:

Exam I – 100 pts
Exam II – 100 pts
Exam III – 50 pts
Project – 30 pts
Handouts – 20 pts

GRADING STANDARDS:

A:	90-100%
B:	80-89%
C:	70-79%
D:	60-69%
F:	<60%

GRADING POLICY: No late homework will be accepted and missed exams have a 20% penalty unless an appropriate, prior excuse is given to the instructor. The missed exam must be completed on the make-up date set by the instructor.

ACADEMIC CONDUCT: Cheating on examinations, submitting work of other students as your own, or plagiarism in any form will result in penalties ranging from an **F** on the assignment to expulsion from the university, depending on the seriousness of the offense.

RESEARCH PAPER: Submit a 4-5 page, double-spaced paper researching a topic related to this class. Please include a cover page and reference page indicating all works cited in the paper, including internet sources. Please hand in a hard copy paper and email an electronic copy. Format can indicate industry technology advances, new applications, enterprise enhancements, etc.

ALTERNATIVES TO RESEARCH PAPER:

Prepare and present material from Chapters 6, 7, 8, or 9 on the last weekend of class. Prepare to use visual aids such as slides, sample parts, video, etc. Presentation should last about 60 minutes. Prepare a rough outline of material and present to the instructor prior to the final weekend.

Arrange for a tour in a manufacturing area related to the topics in this class. Prepare a rough outline of the tour and present to the instructor. Meeting times for the tours is flexible based upon the needs of your facility.

Prepare an in-class demonstration of robotics, PLC's, or other integrated system. Prepare a rough outline of the process and give to the instructor. Demonstration times are flexible based upon preparation time, etc.

CLASS SCHEDULE:

<u>Weekend 1</u>
Chapters 1, 2, 3, 4, 5
Introduction to CNC Programming

<u>Weekend 2</u>
Exam I – Material from weekend 1
Chapters 10, 11, 12, 13

<u>Weekend 3</u>
Exam II – Material from weekend 2
Chapters 6, 7, 8, 9
Exam III – Material from weekend 3
Research papers due, hard copy and email