



**Morehead State University**  
**ITCD 315—3D Design, Modeling, and Animation**  
**Spring 2011**



**Course syllabus**

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**Instructor:**

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Office hours: Monday & Wednesday 2:00 pm to 5:00 pm or by appointment  
Lecture: Monday 5:20 pm – 7:20 pm, Room 215  
Lab: Monday 7:30 pm – 9:30 pm, Room 215

**Prerequisites:**

ITCD 203, ITCD 215, or consent of the Instructor

**Course description:**

ITCD 315—3D Design, Modeling, and Animation

Content will include advanced dimensioning techniques, utilization of attributes, customization, 3-D modeling, animations, illustrations, presentations, and customization.

**Textbook and references:**

Technical Drawing, 13<sup>th</sup> edition, Prentice Hall Publishers. 2004. Authors: Giesecke, Mitchell, Spencer, Hill, Dygdon, Novak, Lockhart.  
A+CAD 2008 edition  
SolidWorks 2008  
ArchiCAD 12 with training guide

**Software:**

Students would gain proficiency in A+CAD 2008 and SolidWorks 2008 version, and ArchiCAD 12.

**Course Goals:**

1. To enhance potential teachers to teach Computer Aided Design (CAD) in the public schools.
2. To enhance the preparation of students for positions as Designer/Drafters
3. To act as a service course for other programs where students desire an introduction to computer-aided design and modeling.

### Course Objectives:

1. Use A+CAD, SolidWorks, and ArchiCAD to complete
  - a. Three dimensional drawings (Assessed in test 1, 2, and 3, drawings, projects)
  - b. Assembly drawings (Assesses in test 1 and 2, drawings)
  - c. Presentation models
2. Apply advanced dimensioning and tolerancing drawing in A+CAD, SolidWorks, and ArchiCAD (Assessed in test 1, 2, and 3, drawings, projects)
3. Assign attributes to drawing components (Accessed in test 1)
4. Create sheet metal drawing ( Assessed in test 1 and test 2)
5. Illustration and presentation of 3 D models ( assessed in Projects and final presentation)
6. Create exploded assembly presentation ( assessed in projects and presentations)
7. Create simulations and animations ( Assessed in test 2 and test 3, drawings, and projects)

### Tentative course outline

Week	Activity
1	Introduction, Class orientation
2	Review of A+CAD
3	Dimensioning and Tolerancing
4	Project 1
5	Test 1
6	Review of SolidWorks
7	Dimensioning and Tolerancing; Spread sheets
8	Assembly constraints
9	Presentation & Animation with SolidWorks
10	Test 2
11	Project 2
12	Introduction to ArchiCAD
13	Designing in ArchiCAD
14	Animation in ArchiCAD, Quiz
15	Project 3
16	Final Presentation
17	Final Exam

The instructor reserves the right to alter this tentative schedule as circumstances may dictate. Changes will be announced in class. It is the student's responsibility to obtain information pertaining to changes in this schedule that are announced when he/she is absent from class. The instructor retains the option to vary the assignment due policy under extenuating conditions.

### Basis for Final Grade:

Test 1:	10%
Test 2:	10%
Final Exam:	10%

Projects (3 x 10):	30%
Drawings:	25%
Attendance &	
Professional Org participation:	05%
Presentation:	05%
Quiz:	03%
Portfolio:	02%

#### Scale for the grade

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
< 60%	E

#### Instructional process:

This course is designed to provide an essential foundation of 2D drawings and 3D drawing techniques for design and modeling professional in the field of industrial and engineering technology. This course is organized around a series of interrelated instructional topics and a significant portion of the course material is technical information that is covered through lecture and in-class lab activity.

#### Attendance policy:

Class meets 4 hours per week--two-hour lecture, two hours lab. Students must attend all scheduled classes. Attendance will be taken during each class. Except in emergency situations or prior approval (official doctor's note with signature, name, telephone number and other contact information of the doctor/physician and the hospital), students will receive an unexcused absence for classes missed. Three (3) unexcused absences will automatically cancel make up of all previous work. Excessive absences excused or otherwise, will result in an E for the class.

#### Assignment policy:

All assignments should be submitted within the due date announced in the class. Late HW's, Project's or Class/lab assignments will lose 10% per day after the initial date of submission. This includes Saturdays and Sundays in addition to the weekdays and no assignments will be accepted after 4 days from the due date. The students are responsible for paper printing.

#### Accessibility policy:

Please let me know if you have conditions or situations of which I may not be aware. Students with disabilities will be accommodated with assistance from the Department and the Academic Services Center, Allie Young, 3-9121. Please inform me of such needs by the end of the second week of class.

#### Course policy:

Students are expected to act in a professional manner in dealing with all matter pertaining to the course. In particular, deceptive practices of any sort are unacceptable.

Projects are to be your own work. This does not mean that you cannot discuss ideas and approaches with other students or faculty, but you should work and do on yourself. In particular, **you should never be in possession of a copy (in any form) of all or part of another student's methodology**. If you have any questions as to what type of cooperation are acceptable, please talk to me.

#### Announcements:

You are responsible for the announcements made in the class. In addition, it's your responsibility to periodically check your blackboard, email account, and WebPages for the course details.

#### Assessment Techniques (see objectives and attached competencies for details):

Multiple assessment measures are used to determine students' competencies. **Written and performance test** are given to determine knowledge of terminology, identification of tools and materials, content and the ability to think critically. **Project and activity exercises** are given to ascertain whether students can perform design and drafting functions with CAD techniques

#### Projects and portfolio:

You will be expected to complete drawings including a final project, read blueprints, and turn in a professional portfolio that will contain all work except the final project. The portfolio will be clearly labeled on the front with your name, course, section, etc. and include a table of contents as the first page. The portfolio is due two weeks before finals.

#### Revised ADA statement

Americans with Disabilities Act (ADA): In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the Disability Services Coordinator in the Office of Academic and Career Services, 223 Allie Young Hall, 606-783- 5188, [www.moreheadstate.edu/acs/](http://www.moreheadstate.edu/acs/)

#### Campus Safety Statement:

Emergency response information will be discussed in class (if the class meets face to face). Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at the following website. [www.moreheadstate.edu/emergency](http://www.moreheadstate.edu/emergency)