# **MOREHEAD STATE UNIVERSITY**

College of Science and Technology Department of Applied Engineering Technology



<b>INSTRUCTOR</b> :	Dr. Sanjeev Adhikari	
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<b>OFFICE HOURS</b> :	<b>M</b> 9:00 a.m.—11:30 a.m., <b>T</b> 3:00 p.m.—5:00 p.m.	
	W 9:00 a.m.—11:30 a.m. (By appointment)	

# **COURSE CATALOG DESCRIPTION:**

Computerized drawings involving roadways, bridges, large developments, plats, and deeds. (2008–2009 Undergraduate Catalog).

PREREQUISITE:	ITCD 103—CADD I, and MATH 152—College Algebra or higher							
TEXTBOOK:	Civil Drafting Technology—7th edition							
Authors: David A. Madsen, Terence M. Shumaker, and David P. Madsen								
Publisher (Year): Pearson Prentice Hall (2010)								
<b>REFERENCE(S):</b>	1.	AutoCAD 2010 for interior Design and Space Planning Authors: Beveryl L. Kirkpatrick and James M. Kirkpatrick						
		Publisher: Prentice Hall (2010)						
	2.	Introduction to AutoCAD 2007: A Modern Perspective						
		Authors: Paul Richard and Jim Fitzgerald						
		Publisher (Year): Pearson Prentice Hall (2007)						
	3.	Beginning and Advanced AutoCAD 2011						
		Authors: Cheryl R. Shrock						
		Publisher: Industrial Press (2010)						

# **RECOMMENDED READING(S):** TBA

# IMPORTANT NOTICE: WEB-ENHANCED DISTANCE LEARNING COURSE

This course will be conducted as **web-enhanced distance learning**. <u>Lecture slides</u>, <u>assignments</u>, <u>reading documents will be posted on blackboard</u>.

#### **Topical Outline**

# 1. Week 1-4 : Basic Introduction of A+CAD

Introduction to A+CAD Controlling the Drawing Display **Basic Drawing Commands** Drawing Aids and Drafting Settings Managing Object Properties **Basic Editing Techniques** Advanced Editing Techniques Drawing and Editing Complex Objects Pattern Fills and Hatching

Adding Text and Tables **Dimensioning Drawings** Managing Paper Space Layouts Plotting and Publishing Blocks and Block Attributes Working with External References

# **Quiz about A+CAD**

2. Week 5-12: Civil Engineering Drawing Drawing the floor plan: walls, Doors and Windows **Dimensioning and Area Calculations** Drawing Elevations, Wall Sections, and Details Drawing the Furniture Installation Plan, Adding Specifications Exam 1 Map Scale for Civil Engineering Drawing Map Symbols Measuring Distance and Elevations Location and Direction of Surveying Contour Lines Profiles **Residential Subdivision Site Plan** 

Earthwork Highway map Highway Pavement Section Drawing Exam 2

- 3. Week 13-14: Application of Civil Drawing on ArchiCAD and Google Sketch Software
- 4. Week 15-16: Project on Civil/Construction Drawing **Final Project Exam**

# **IMPORTANT NOTE:**

This schedule is very tentative and subject to change(s) depending upon the progress of the class and/or at the discretion of the instructor.

# **COMPUTER USAGE**

Working knowledge of word processor and spreadsheet software is assumed and students are highly encouraged to use the software when necessary. Required report(s) and/or project(s) must be typed using personal computer.

# **Course Competencies and Assessment Techniques:**

Upon successful completion of this course, the student will have gained the following competencies as evaluated using the assessment techniques indicated:

- 1. Explore CAD's uses and benefits. Understand fundamental CAD concepts. Explore different AutoCAD data input methods. Evaluated in various assignments, exams, and portfolio.
- 2. Create a new A+CAD drawing. Create drawing layers; draw some basic objects; make some modifications to the drawing; add basic dimensions and annotation to drawings; and plot the drawing. Evaluated in various assignments, exams, and portfolio.
- 3. Draw objects using precision input methods. Evaluated in various assignments, exams, and portfolio.
- 4. Construct cross section drawings using cross section survey data. Construction an accurate cut-and-fill drawing of a proposed building site. Evaluated in various assignments, exams, and portfolio.
- 5. Identify and describe the different kinds of civil engineering drawings and detail drawings.
- 6. Describe the importance and the process of standards checking. Evaluated in various assignments, exams, and portfolio.

# **Instructional Process:**

This course is organized around a series of interrelated instructional topics. A significant portion of the course material is technical information that is covered through lecture, class discussion and practice, and small group interaction. The development of student teams is an important element of this course and team problem solving will receive considerable attention.

# Policy for Accommodating Students with Disabilities:

In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to reasonable accommodations. It is the student's responsibility to inform the instructor of any special needs before the end of the second week of class.

# ATTENDANCE, GRADING, HOMEWORK, CLASS NOTES, AND

# **EXAMINATION POLICIES**

# **1. ATTENDANCE**

1.1 Class attendance is mandatory. You are considered absent from class if you leave early or before the class is dismissed. Record will be kept. Poor class attendance may lower your semester letter grade.

1.2 You are responsible for materials covered in class, notes, assignments, etc. during your absence.

### 2. GRADING

Assignments, Project(s), and Presentation(s) 100 Examinations (Three worth 100 points each including final project) 300 Unannounced Topic/Chapter Quizzes, Attendance, 100	2.1 Semester letter grade will be weighted and computed as follows:	
Examinations (Three worth 100 points each including final project) 300 Unannounced Topic/Chapter Quizzes, Attendance, 100	Assignments, Project(s), and Presentation(s)	100
Unannounced Topic/Chapter Quizzes, Attendance, 100	Examinations (Three worth 100 points each including final project)	300
	Unannounced Topic/Chapter Quizzes, Attendance,	100
Class notes and/or Portfolio	Class notes and/or Portfolio	

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T O T A L P O I N T S ------ 500
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Course Grade		Point Range		Percentage		
		Min	Max	Min	Max	
1	А	450.00	500.00	90.00	100.00	
2	В	400.00	449.99	80.00	89.99	
3	С	350.00	399.99	70.00	79.99	
4	D	300.00	349.99	60.00	69.99	
5	E**	0.00	299.99	0.00	59.99	
6	Ι	Uncompleted work, e.g. outstanding projects, etc.				

2.2 The following table will be used in determining your course grade:

\*\* Will also be given for academic dishonesty

#### **3. HOMEWORK / PROJECTS**

3.1 Homework will be assigned at appropriate times.

All assigned homework and/or projects must be submitted to complete the course.

- 3.2 Homework or projects must be stapled (if more than one page) and submitted at the beginning of the class on the due day to receive full credit.
- 3.3 Homework submitted late will not receive full credit.
- 3.4 Pencils should be used in solving problems.
- 3.5 All lines must be drawn using a ruler or straight edge.

3.6 Please submit completed homework and/or project on the due date by yourself, a friend, fax, etc. even if excused from attending a class.

### 4. CLASS NOTES/PORTFOLIO

- 4.1 Neat, legible and complete class notes must be maintained at all times.
- 4.2 The use of a D-ring three-ring binder filled with 8.5" x 11" college-ruled sheet of notebook paper for taking notes is highly recommended.
- 4.2 The class portfolio will be turned in one week prior to the finals week and will include all course materials such as class notes, assignments, in-class small group activities, exams, presentation materials, etc.

### **5. EXAMINATIONS**

- 5.1 Examinations are close-book except advised to the contrary.
- 5.2 There will be no make-up quiz, project and/or examination. Exception, at instructor's discretion, may be given to those with medical report from a licensed practicing medical doctor.

#### 7. MISCELLANEOUS

7.1 All students are required to maintain access to computer facility with functional university e-mail capability which will be used for communication regarding all late breaking course related news about assignments, class cancellations, etc.

# 8. PROFESSIONAL ORGANIZATION MEMBERSHIP

All students enrolled in construction management or any other construction-industry related course of study are strongly recommended to become members of (i) Associated Builders and Contractors (ABC), and (ii) Associated General Contractors (AGC) Student Chapters.