CHIPOLA COLLEGE
COURSE SYLLABUS
Chipola’s website: www.chipola.edu

COURSE TITLE: CAD Civil
COURSE NUMBER: ETD 2551

COURSE DESCRIPTION (with prerequisites):
This course will provide instruction in the various commands, methods, and techniques of computer aided drafting systems for civil engineering especially using AutoCAD and the Civil 3D software modules. Software operations will be stressed and the student will complete a series of exercises, drawings, and projects. Prerequisite: ETD 1320, Intro to AutoCAD. 3 semester credit hours

NAME(S) OF INSTRUCTORS:
Olabode Ogedengbe, Workforce Development Building, Room 123, phone 718-2390, OgedengeO@chipola.edu.

EFFECTIVE ACADEMIC YEAR:
2018-2019

REQUIRED TEXTBOOKS AND INSTRUCTIONAL MATERIALS:
Mastering AutoCAD Civil 3D 2013” by Holland and Mercier published by Sybex.
ISBN 978-1-118-28175-8

GRADING POLICY:
The standing of a student in each course is expressed by one of the following letters and corresponding grading system:
A – 90 – 100
B – 80 – 89
C – 70 – 79
D – 60 – 69
F – 59 or less
The Chipola Catalog provides policies and procedures regarding the grading system. A student’s Grade Point Average is derived from the grading system/quality point scale.

ATTENDANCE AND WITHDRAWAL POLICIES:
Chipola College expects regular attendance of all students, and all instructors record attendance daily. Students who are absent from classes for any reason other than official college activities must satisfy the instructor concerned that the absence was due to illness or other clearly unavoidable reasons. Otherwise, the student may suffer grade loss at the discretion of the instructor. Chipola policy allows each instructor to specify in the Instructor First Day Handout whether or not an absence is excusable and what affect the absence or tardy may have on the grade.
A student is allowed to repeat a course a maximum of three (3) times. **On the third attempt a student (1) must bear the full cost of instruction (unless waived by Student Services), (2) cannot withdraw, and (3) must receive a grade.**

**MAKE-UP POLICY:**
Chipola allows each instructor to specify in the Instructor First Day Handout the makeup policy.

**ACADEMIC HONOR CODE POLICY:**
Students are expected to uphold the Academic Honor Code. Chipola College’s Honor Code is based on the premise that each student has the responsibility to (1) uphold the highest standards of academic honesty in his/her own work; (2) refuse to tolerate academic dishonesty in the college community; and (3) foster a high sense of honor and social responsibility on the part of students. Further information regarding the Academic Honor Code may be found in the Chipola Catalog, Student Governance section.

**STUDENTS WITH DISABILITIES POLICY:**
Chipola College is committed to making all programs and facilities accessible to anyone with a disability. Chipola’s goal is for students to obtain maximum benefit from their educational experience and to effectively transition into the college environment. Students with disabilities are requested to voluntarily contact the Office of Students with Disabilities to complete the intake process and determine their eligibility for reasonable accommodations.

**NOTICE OF EQUAL ACCESS/EQUAL OPPORTUNITY AND NONDISCRIMINATION:**
Chipola College does not discriminate against any persons, employees, students, applicants or others affiliated with the college with regard to race, color, religion, ethnicity, national origin, age, veteran’s status, disability, gender, genetic information, marital status, pregnancy or any other protected class under applicable federal and state laws, in any college program, activity or employment.

Wendy Pippen, Associate Vice President of Human Resources, Equity Officer and Title IX Coordinator, 3094 Indian Circle, Marianna, FL 32446, Building A, Room 183C, 850-718-2269, pippenw@chipola.edu.

**LIBRARY AND ON-LINE REFERENCE MATERIALS:**
The library is a comprehensive learning resource center providing information in print, electronic, and multimedia format to support the educational objectives of the College. On-line catalogs, e-books and electronic databases can be accessed by using the LINCCWeb icon on the Chipola Library website at www.chipola.edu/library. If you have questions about database usage consult the “How to Use the Chipola Databases” on the Library website or call the Library at 850/718-2274 during regular hours. Library hours are posted each semester at the building entrance and on the Library website. See your Instructor First Day Handout for individual instructor recommendations and resources.
TECHNOLOGY RESOURCES:
The college’s learning management system is **Canvas**. Classes become available on Canvas on the first day of the semester. It is the student’s responsibility to log onto the Canvas system the first day of class to establish the first day of attendance and to check announcements. All official class communication must be through Canvas. For further information, contact your instructor or the Director of eLearning. The Canvas support hotline is available online in live chat and on the phone, toll-free, at 855-308-2812 for any issues in accessing or utilizing Canvas. The **Technology Center**, located in the library, is equipped with computer workstations. Lab hours are posted each semester at the building entrance and on the Library website.

FREE TUTORING RESOURCES:
The **Academic Center for Excellence (ACE)** Lab, located in Building L, offers free tutoring from 8 a.m. to 5 p.m. and is equipped with computer workstations. ACE lab hours are posted each semester at the room entrance and on the website. Additionally, Chipola College has contracted **Smarthinking**, a Pearson Company, for online tutoring services, accessible especially from 5 p.m. to 8 a.m. and weekends. Smarthinking can be accessed through Canvas.

ELECTRONIC DEVICE USAGE STATEMENT:
Classrooms should be free of all unnecessary distractions from the task of learning. Therefore, as a general rule, students should silence and avoid use of all electronic devices (laptops, phones, tablets, etc.) not being used for coursework. Consult first-day handouts for any specific policies related to the use of electronic devices in the classroom, as they may vary depending upon the nature of the course or the guidelines of the instructor. Faculty reserve the right to regulate the use of electronic devices and their accessories in class.

DISCIPLINE SPECIFIC COMPETENCIES / LEARNING OUTCOMES:
**Program Learning Outcome:** Use technology to organize, acquire, and convey information on drawings and reports.

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<th>COURSE-LEVEL STUDENT LEARNING OUTCOMES FOR ETD 2551</th>
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At the completion of the course, the student will be able to:

- Produce civil engineering type drawings using computer aided drafting software.
- Generate boundary survey drawings based on metes and bounds description.
- Understand the project flow and drawings needed for subdivision and roadway projects.
- Define the basic terminology used in the civil engineering and surveying.
- Create a Plan/Profile drawing, Cross Section drawing, and a Contour map.
- Make use of technology to organize, acquire, convey, and present information.
- Communicate with clarity and precision regarding basic civil engineering concepts.
- Calculate Cut/Fill volumes using Digital Terrain surface models.

Demonstrate mastery of computer aided drafting (CAD) by constructing engineering, mechanical, and geometrical drawings. Demonstrate ability to sketch, letter, and generate line-work to describe various objects. Demonstrate ability to read and produce drawings involving orthographic projection, sections, pictorial and auxiliary views. Demonstrate a wide range of mathematical skills including plane trigonometry, strength of materials, technical, and other engineering problems, including theories learned in engineering mechanics. Demonstrate ability to use standard surveying equipment to make measurements and calculations to run a traverse, establish levels, keep notes and produce required drawings. Demonstrate ability to analyze physical and mechanical properties of soil and concrete. Demonstrate ability to solve basic hydraulic problems using the theory of incompressible fluids. Demonstrate on-site skills required to establish grades, locate property lines and utilities and produce plots and calculate cut and fill by average-end-area.

Assessment methods used are:

Q, UT, SD, SP, Proj, F
MEANS OF ACCOMPLISHING STUDENT LEARNING OUTCOMES:
Learning outcomes are determined by measuring the ability of each student to retain the learning objectives of the course. Performance-based methods, such as completion of assigned projects, general knowledge tests, oral and written presentations of assignments, group discussions, observation of mastery of critical skills and analysis of the final product will determine the final grade on this course.

ASSIGNMENT AND/OR COURSE OUTLINE

ETD 2551 - CAD CIVIL TENTATIVE SCHEDULE
GENERAL INFORMATION, OPERATIONS, & CONFIGURATION
READ Chapter 1 - Complete Exercises: p10-12, p33, & p42-44

PROJECT 1

POINTS - READ Chapter 3
Complete Exercises: p97, p102-103, p106-107, & p111-113

PROJECT 2

DTM – SURFACES READ Chapter 4

PROJECT 3

PARCELS READ Chapter 5

PARCELS PROJECT

ALIGNMENTS and PROFILES READ Chapter 6 and 7

CD Due with Chapters 1, 3, 4, and 5

ASSEMBLIES and CORRIDORS for ROADWAY DESIGN READ Chapter 8, 10 and 11

CORRIDOR PROJECT

SUPER ELEVATION and CROSS SECTIONS READ Chapter 12 and 13
Complete Exercises: p550-552, & p558-560 (p564-565 & p565-566 for extra credit)

**GRADING, PLAN PRODUCTION, and QUANTITIES**  
READ Chapter 16, 17, and 19  
Complete Exer.: p795-797, p800-801, p809-812, p812-816, & p816-817  

CD Due with Chapters 6, 7, 8, 10, and 11

**PIPE NETWORKS and STORM ANALYSIS**  
READ Chapter 14 and 15  
Complete Exer.: p686-687 & p690-695 (p695-697, p706-716, p729-733 for extra credit)

PROJECT 4501

CD Due with Chapters 12, 13, 14, 16, 17, and 19

ALL PROJECTS AND EXERCISES ARE DUE by the last class

Final Exam

**ETD 2551 - CAD CIVIL**

**Equipment Provided:** Computers with AutoCAD - Civil 3D software are available on campus. The CD-RW disk will be used by you for storage of completed work and by your instructor to review completed exercises and drawings for use in grading. *It is recommended that you obtain a Flash/Jump/Thumb drive for your use as storage/backup of drawings and projects from your Civil 3D folder.*

**Additional Lab Time:** Lab time can be arranged with your professor or can be used at the times listed on the door.

**Suggestions for study:** Students should follow the schedule for assignments and due dates, read ahead on topics to be covered in class, ask questions to clarify the topics that are not completely clear to you, and work with your instructor during lab times.

**Attendance & Class Policies:** It is imperative that you attend every class session to receive the most benefit for this course. Attendance is required except for designated lab sessions as scheduled by the instructor. An absence may be excused with appropriate written evidence.

**No disruptions, disrespectful behavior, or violation of the student code will be tolerated.** Chipola College and your instructor are committed to maintaining standards of academic honesty and integrity is a shared responsibility. All are expected to know and comply with Chipola’s Academic Integrity Policy which prohibits dishonesty in any form, including, but not limited to cheating, plagiarism, fabrication, and other forms of misconduct.

**No food or open drinks are permitted in the classroom. No cell phone or pager use is allowed in the classroom and should be turned off during lectures and presentations.**

**GRADING PROCEDURES:** - 55% - EXERCISES & TUTORIALS  
20% - PROJECTS  
10% - CLASS PARTICIPATION & ATTENDANCE  
15% - FINAL EXAM
A - EXCELLENT 90 – 100  
B - ABOVE AVERAGE 80 – 89  
C - AVERAGE 70 - 79  
D - BELOW AVERAGE 60 - 69  
F - FAILURE 0 - 59

Work is due two weeks after assignment or as per schedule. **Work that is late will lose points.** Grades are recorded in Canvas. Exercises/Drawings will be graded on a 10 point scale. Projects will be graded on a 50 point scale. Project 4501 will be graded on a 100 point scale. Numerical Grade (0-100) will be based on AutoCAD drawings produced in the 4501 Project.

The instructor reserves the right to modify this schedule for the benefit of the class as he may evaluate. Any changes will be communicated to the class in advance.

See your Instructor First Day Handout for individual instructor assignment schedule.