

Technical College of the Lowcountry  
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## **EGT252 ADVANCED CAD**

### **COURSE DESCRIPTION**

This course covers advanced concepts of the CAD software and its applications. Topics such as creating 3-D wire framed construction, shading techniques, user coordinate systems and computer animations using the AutoCAD software are covered.

3 Credits

### **COURSE FOCUS**

Upon completion of the course a student will be able to use CAD workstation and create three-dimensional wire frame and solid modeling drawings. The students will also be introduced to the rendering aspect of the AutoCAD software. Students will be introduced to Autodesk Inventor for parametric modeling.

### **TEXT AND REFERENCES**

Required textbook: Parametric modeling with Autodesk Inventor 2015, By Shih, SDC Publications, ISBN: 978-1-58503-882-4

Reference book: Harnessing AutoCAD 2013 and beyond, By: Stellman and Krishnan, Autodesk Press

### **COURSE GOALS**

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives.

1. explore tool palettes
2. compose partial load drawings
3. manage drawing properties
4. use CAD calculator
5. manage named objects
6. use utility display command
7. use object properties
8. use X,Y, Z filters
9. use shell command
10. explore mvsetup utility

11. explore layer translator
12. use time and audit commands
13. use OLE command
14. customize AutoCAD settings
15. export drawing data
16. import drawing data
17. understand CAD standards
18. set workspace commands
19. launch default web browser
20. use communication center
21. open internet drawings
22. save internet drawings
23. create useful hyperlink
24. create DWF files
25. use eTransmit utility
26. publish web drawings
27. manage drawing sets
28. create layout views automatically
29. define user coordinate system
30. explore view cube tool
31. create 3D objects
32. use 3D edit commands
33. create extruded solids
34. explore revolve command
35. create composite solids
36. obtain solid mass properties
37. place paper space multi-view
38. generate viewport views
39. apply 3D printing
40. manage visual styles
41. render 3D model
42. define ambient light
43. explore sun feature
44. create modify material
45. export saved image
46. create walkthrough presentations

## **STUDENT CONTRIBUTION**

Each student will spend approximately 2.5-5 hours per week preparing for class and completing assignments to turn in weekly.

Each week students will turn in assignments as specified on Blackboard. In addition, chapter tests are to be completed as assigned. Students will also complete a final exam/project to demonstrate their knowledge of the material.

Student Attendance Policy: See student handbook within the TCL Catalog.

## **COURSE EVALUATION**

The grading scale is as follows:

Assignments and class work = 50%, Midterm Exam = 25%, and Final Exam = 25%.

90 - 100 = A    80 - 89 = B    70 - 79 = C    60 - 69 = D    Below 60 = F

## **COURSE SCHEDULE**

The class meets for 3 lecture/presentation hours per week. Course content will be taught in the order that the content goals are presented in the syllabus.

## ADA STATEMENT

The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.

## ACADEMIC MISCONDUCT

There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student's responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the *TCL Student Handbook*, the Division Office, and the Learning Resources Center.

## ATTENDANCE

The College's statement of policy indicates that students must attend ninety percent of total class hours or they will be in violation of the attendance policy.

- Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
- Students taking an online/internet class must sign in **and** communicate with the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
- Reinstatement requires the signature of the division dean.

In the event it becomes necessary for a student to withdraw from the course **OR if a student stops attending class, it is the student's responsibility to initiate and complete the necessary paperwork.** Withdrawing from class may have consequences associated with financial aid and time to completion.

When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor **MUST** withdraw the student with a grade of "W", "WP", or "WF" depending on the date the student exceeded the allowed absences and the student's progress up to the last date of attendance

**or**

Under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.

Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.

- A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.

A copy of TCL's STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL) is on file in the Division Office and in the Learning Resources Center.

## **HAZARDOUS WEATHER**

In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVV 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. [www.tcl.edu/textalert.asp](http://www.tcl.edu/textalert.asp)

## **EMERGENCY TEXT MESSAGE ALERT**

Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. Participants receive immediate notification of emergency events and weather cancelations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and announcements. Go to [www.tcl.edu](http://www.tcl.edu). On the homepage, click on “emergency Text Alert at TCL” and fill out the form or go to [www.tcl.edu/textalert.asp](http://www.tcl.edu/textalert.asp)