EGT 109
INTRODUCTION TO ENGINEERING/DESIGN GRAPHICS

Course Description
This course is a study of basic graphical concepts for engineering graphics, including freehand sketching and computer applications. 3 Cr (3 lect/pres, 0 lab, 0 other)

Course Focus
Upon completion of this course, the student will be able to visualize, sketch and do free hand drawings. They will also have an understanding of the Engineering design process and be able to brainstorm ideas and draw simple 3D solid drawings.

Text and References

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

1. understand engineering drawing history
2. define Architecture and Engineering drafting fields
3. identify drafting related disciplines
4. research professional drafting organizations
5. identify current drafting terminology
6. discuss drafting field requirements
7. list employment seeking points
8. learn intellectual property rights
9. explain workplace ethics
10. demonstrate manual drafting skills
11. identify engineer, architect, and metric scales
12. identify sheet sizes
13. generate border and title block drawing
14. describe CAD design formats
15. explain CAD environment
16. define geometric constraints
17. create CAD system text
18. describe computer equipments
19. describe project planning process
20. identify national CAD standards
21. identify Cartesian coordinate system
22. determine drawing scale factor
23. describe file management process
24. identify research process
25. list CAD software programs
26. discuss computer aided drafting techniques
27. explain different modeling methods
28. understand importance solid modeling
29. discuss parametric modeling
30. explain engineering animation
31. discuss virtual reality
32. construct space bisectors
33. discuss sketched features
34. develop proportion concepts
35. master sketching techniques
36. sketch circular lines
37. sketch geometric shapes
38. draw freehand ellipses
39. draw freehand polygons
40. draw freehand tangencies
41. draw parallel and perpendicular lines
42. draw pictorial representations
43. understand block techniques
44. translate engineering sketches
45. sketch orthogonal projections
46. identify industrial drawing lines
47. draw ASME standard lines
48. explain parts, feature, subassemblies, and assemblies relationship
49. solve engineering design problems

Student Contributions
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, tests are to be completed as assigned. Students will also complete mid-term and 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 2.5 lecture/presentation hours per week. Course content will be taught in the order that the content goals are presented in the syllabus.

Approved by:  Kenneth Flick ______________________________________________ Developed/Revised:  8/2013
Ken Flick, Division Dean for Business/Industrial Division
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. Reinstatement requires the signature of the division dean.
- 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 withdrawal 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, WTCG 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

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. On the homepage, click on “emergency Text Alert at TCL” and fill out the form or go to www.tcl.edu/textalert.asp