Course Description
This course provides an overview of computer hardware, available software, operating systems and applications.
3 Cr (3 lec/pres, 0 lab, 0 other)

Course Focus
The course focus is to understand the of basic computer applications in the field of engineering. In addition, the ethical use of software and information systems will be discussed. The course purpose is to introduce the student to the use of computers in engineering. The course will include spreadsheets and mathematic software.

Text and References
None

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

1. Use personal computer
2. Generate file management system
3. Format Word document
4. Use copy, paste, and delete
5. Prepare Excel spreadsheets
6. Develop Excel mathematical spreadsheet formulas
7. Use Excel autocalc
8. Insert Excel spreadsheet formulas
9. Enhance Excel spreadsheets
10. Maintain Excel spreadsheets
11. Organize Excel data
12. Sort Excel data
13. Generate Excel spreadsheet charts
14. Use paste special in Excel
15. Record Excel macros
16. Manage Excel printing
17. Split Excel windows
18. Freeze Excel panes
19. Manage Excel circular references
20. Exchange Excel data
21. Input data files to Excel
22. Assign macros to Excel objects
23. Apply Excel logical functions
24. Use autocomplete and autocorrect
25. Manipulate Excel autofill
26. Create Excel dropdown lists
27. Work with Excel text functions
28. Use Excel data validation
29. Understand MathCAD screen
30. Use MathCAD scalar toolbar
31. Understand MathCAD edit navigation
32. Define MathCAD variable
33. Use MathCAD text regions
34. Apply MathCAD units
35. Use MathCAD subscripts
36. Solve MathCAD equations
37. Work with order of MathCAD calculations
38. Plot two dimensional MathCAD functions
39. Work with MathCAD symbolic math
40. Find MathCAD polynomial roots
41. Simplify MathCAD polynomials
42. Factor MathCAD polynomial roots
43. Insert MathCAD graphics
44. Convert MathCAD angles
45. Use MathCAD truncation
46. Use MathCAD roundoff

**Student Contributions**
Each student will spend approximately 2.5-5 hours per week preparing for class and completing assignments to turn in weekly and will be in class on time. Each week students will complete and turn in assignments as specified. In addition, there will be class quizzes. All cell phones and pagers must be silenced during class.

**Course Evaluation**
The grade scale is as follows:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 100</td>
<td>A</td>
</tr>
<tr>
<td>80 – 89</td>
<td>B</td>
</tr>
<tr>
<td>70 – 79</td>
<td>C</td>
</tr>
<tr>
<td>60 – 69</td>
<td>D</td>
</tr>
<tr>
<td>Below 60</td>
<td>F</td>
</tr>
</tbody>
</table>

Course grades will be determined from the following weighting scheme:
- Attendance: 20%
- Weekly Projects: 40%
- Quizzes: 40%

**Course Schedule**
The class meets for 4.25 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

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