TECHNICAL COLLEGE
OF THE LOWCOUNTRY

Technical College of the Lowcountry
921 Ribaut Rd.
Beaufort, SC 29901

Industrial Technologies Division
Building 14, Room 112
843-525-8241
kboniecki@tcl.edu

AET 101
BUILDING SYSTEMS I

COURSE DESCRIPTION

This course is a study of the fundamental concepts of design and construction techniques in residential, commercial, and industrial buildings.
3 Cr (3 lect/pres, 0 lab, 0 other)

COURSE FOCUS

Upon completion of the course a student will be able to:
1. Asses, select, configure, and detail building materials, components, and assemblies to make precise descriptions and documentations of a design for comprehensive architectural projects.
2. Course will utilize lectures, assignments, a project and readings to educate students with required topics.
3. Field studies will be required along with analysis and documentation provided by the student from observations made at site locations provided by the instructor.
SKILLS TO MASTER
1. Produce sketches of construction detail that can be reproduced into working drawings.
2. Produce selection of materials that can be used for construction drawing and assemblies.
3. Learn jobsite language and terms to facilitate communicable relations with project Managers and builders.

TEXT AND REFERENCES

Fundamentals of Building Construction and Exercises in Building Construction By Edward Allen and Joseph Lano, 6 ed. Published By, John Wiley & Sons, Inc. ISBN: 978-1-118-13891-5 & 978-1-118-65328-9

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 different types soil
2. understand excavation methods
3. classify earth material
4. learn compaction requirement
5. explore zoning ordinance
6. understand building codes
7. explore foundation concrete
8. describe cement requirement
9. describe formwork ordinance

10. examine foundation building codes
11. explore foundation design
12. examine footing design
13. describe slab requirements
14. describe wood floor systems
15. learn poured in place system
16. examine raised floor system
17. study strapping requirements
18. study exterior wall systems
19. examine interior wall systems
20. learn retaining wall systems
21. develop wall strapping system
22. develop second floor system
23. demonstrate second floor requirements
24. describe wall alignment
25. study stair types
26. design stair cases
27. design spiral staircase
28. study ceiling types
29. learn suspended ceiling
30. learn ceiling sustainability
31. explore roof systems
32. determine roof system requirement
33. identify roof strapping
34. define architectural roof systems
35. describe metal roof systems
36. develop sub cornice system
37. define porch column types
38. describe beam types
39. learn exterior ceiling
40. explore exterior cornice
41. explain exterior trim
42. scrutinize siding system
43. understand door types
44. explore window types
45. learn interior trim details

STUDENT CONTRIBUTION

Each student will spend at least 5 hours per week preparing for class. Attendance is critical in this class.

COURSE EVALUATION

Your final grade will be an average of midterm 25%, assignments and class projects 50%, and final 25%.
The grading scale is as follows:
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.

Approved by: Kelli Boniecki Developed/Revised: 8/21/2019
Kelli Boniecki, 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.

HAZARDEOUS 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 TextAlert at TCL” and fill out the form or go to www.tcl.edu/textalert.asp