

**PELLISSIPPI STATE COMMUNITY COLLEGE
MASTER SYLLABUS**

**ENGINEERING TECHNOLOGY CAPSTONE
ENGT 2995**

Class Hours: .0

Credit Hours: 3.0

Laboratory Hours: 6.0

Revised: Fall 2013

Catalog Course Description:

A project or research-oriented course that emphasizes synthesis through collaborative learning. Students integrate and apply previous knowledge, skills, and experiences they have learned in their major and other academic courses to complete a team-oriented project. The course emphasizes communication skills, critical thinking, problem solving, computer literacy and teaming skills.

Entry Level Standards:

Students must be proficient in the basics of their engineering technology concentration and have sufficient mastery of mathematics, communication skills, problem solving, computer literacy, and teaming skills.

Prerequisites:

Must be taken in the final semester or with coordinator approval.

Textbook(s) and Other Course Materials:

Textbook: None

Other required Materials: Additional textbooks and materials may be required.

Handouts: Instructor Generated

I. Week/Unit/Topic Basis:

Week	Topic
1-2	Course Introduction Team Formation and Project Approval
3	Review Teaming and Oral Communication Techniques
4-12	Develop & Complete Project Develop & Complete Written Report & Oral Presentation
13-14	Submit Project & Written Report Deliver Oral Presentation
15	Project Critique and/or Exams Student Course Critique

II. Course Goals*:

The course will:

- A. Demonstrate their ability to communicate effectively by developing an oral presentation, written technical report, and technical drawings. (C, F, G)
- B. Integrate and apply previous knowledge, skills, and experiences learned in major discipline and academic courses. (A-G)
- C. Apply and demonstrate computer literacy and research skills. (A-C)
- D. Demonstrate their ability to function in a team environment. (E, J)
- E. Research, develop and produce a comprehensive project. (A-K)

* Letters after course objectives reference engineering technology program goals.

III. Expected Student Learning Outcomes*:

The student will be able to:

- 1. Prepare a comprehensive technical report based on individual and collaborative effort. (A, C, E)
- 2. Prepare an oral presentation using Microsoft PowerPoint through individual and collaborative effort. (A, C, E)
- 3. Deliver oral presentation using proper speech techniques. (A, E)
- 4. Utilize library and internet research to plan, develop, and analyze a team based project. (B-E)
- 5. Utilize and synthesize engineering technology theory, laws, procedures, techniques, and psychomotor skills learned in major discipline courses. (B, E)
- 6. Utilize and synthesize mathematical, scientific, cultural, ethical, computer, and communication skills learned in academic courses. (B, E)
- 7. Utilize computer based word-processing, spreadsheet, drawing, mathematical, and discipline related software. (C, E)
- 8. Develop, implement, analyze, and complete a project in a teaming environment. (D, E)
- 9. Identify and resolve conflicts, which will decrease effectiveness in a teaming environment. (D, E)
- 10. Demonstrate ability to function as an active and effective team member. (D, E)

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

V. Evaluation:

A. Testing Procedures:

The specific evaluation methods and focus will vary according to the course content.

Students can expect to be evaluated upon:

- Use of library, internet and industry resources for research
- Communication skills, both written and verbal
- Interpretation and production of technical documents such as drawings and reports
- Team effectiveness
- Technical knowledge
- Project results
- Final presentation
- Exams

B. Grading Scale:

Final grade for this course will be based on the following alphabetical/numerical scale:

A	93-100
B+	88-92
B	83-87
C+	79-82
C	74-78
D	65-73
F	Below 65

VI. Policies:

A. Attendance Policy:

Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic Affairs, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of Academic Affairs.

B. Academic Dishonesty:

Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one's own work.
- Taking an exam for another student.

- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

C. Accommodations for disabilities:

Students that need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by sending email to disabilityservices@pstcc.edu, or visiting Goins 127, 132, 134, 135, 131. More information is available at <http://www.pstcc.edu/sswd/>.

D. Other Policies:

Use of Equipment:

Any act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring, or unauthorized use of property/equipment belonging to Pellissippi State is subject to disciplinary sanction.