

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: ESET-165 Department: ESET.AS
Course Title: Introduction to Project Management Semester: Fall Year: 2007

Objectives/Competencies

Course Objective	Competencies
1. Provide an over-all view of the electronics industry and the skills expected of an electronics technician.	a. Understand the environment in which electronic technicians work. b. Understand the mechanisms that bring about a new product. c. Understand the concept of concurrent engineering d. Understand the various aspects of quality control e. Understand how all departments in a corporation contribute to the product. f. Understand the need to work as a team g. Understand the role of approval agencies h. Understand how various components of a system combine to form a complete product.

2. Understand the need for scheduling and deadlines.

- a. Be able to create a schedule
- b. Understand the benefits and detriments of not staying on schedule
- c. Be able to read and create Gantt and PERT/CPM charts.
- d. Be able to use the PC to create schedules.

3. Introduce technical documents used in the electronics industry.

- a. Read and follow instructions.
- b. Identify key electronic components found on schematic diagrams
- c. Relate schematic diagram components and layout to actual PC board circuit component layout.
- d. Use the internet to perform technical research.
- e. Be able to extract basic information from component data sheets.

4. Develop “hands-on” skills necessary for the electronics technician.

- a. Understand how to properly prepare a soldering iron
- b. Be able to properly solder electronic connections.
- c. Be able to identify a “cold” solder joint.
- d. Be able to properly use basic hand tools.
- e. Be able to identify components specified in the documentation.
- f. Be able to follow assembly instructions to build an electronics kit.
- g. Follow a flow-chart style trouble-shooting diagram and take appropriate action.
- h. Understand how to use the DVM to make continuity tests.

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- i. Understand how to use the DVM to make DC and AC voltage measurements.
 - j. Understand how to use the DVM to make resistance measurements.
 - k. Understand how to follow a cable pin-out and check it with a DVM.
 - l. Be able to create various cables (audio, network, power) and terminate them properly.
 - m. Understand wire gauge numbers.
 - n. Understand applications of solid and stranded wire.
 - o. Identify common cable types: bundled/wire harness, ribbon, coaxial, UTP, etc.
 - p. Be able to test standard cables using dedicated cable testers.
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