



**TRINITY VALLEY COMMUNITY COLLEGE
ADMINISTRATIVE-MASTER SYLLABUS**

The Administrative- Master Syllabus is an administrative tool; it is **not intended to be distributed to students.** It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of TVCC, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction. The Administrative-Master Syllabus will demonstrate that there is consistency and comparability in course offerings.

Course Title

Electrical and Electronic Drafting

Course Prefix and Number

DFTG 1458

Department – Division

Drafting – Vocational/Technical

Course Type – select from one of the following categories.

- Academic General Education Course (from ACGM – but not in TVCC Core)
- Academic TVCC Core Course
- WECM Courses

Semester Credit Hours: Lecture Hours: Lab/other hours

Semester Credit Hours	Lecture Hours	Lab/Other* Hours
4	3	3

Other hours include practicum, clinical or other types of non-lecture instruction. *If other, please specify: _____

Course Catalog Description

A study of the principles of layout of electrical and electronic drawings, stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams.

Prerequisites/co requisites

DFTG 1309 Basic Computer Aided Drafting

Topical Outline

- 1) Introduction to Electronics Drafting
 - a) Job Responsibilities
 - b) Job Levels
 - c) Skills Required
- 2) Diagrams, Types
 - a) Block
 - b) Single Line
 - c) Flow
- 3) Electronic Components
 - a) Components
 - b) Symbols
 - c) References
 - d) Standards
- 4) Schematic Diagrams
- 5) Wiring Methods and Diagrams
 - a) Point-to-Point
 - b) Highway
 - c) Baseline
 - d) Interconnections
 - e) Cable assembly
 - f) Wire Harness
- 6) Printed Circuit Design
 - a) Schematic
 - b) Design data
 - c) Part layout
 - d) Board design

Course Learning Outcomes

Upon completion of this course, the student will be able to:

- 1) Correctly draw block, single line, flow, decision, and process diagrams
- 2) Identify components by symbol

- 3) Correctly draw component symbols and correctly write their values
- 4) Correctly draw a layout schematic
- 5) Work from an engineering sketch
- 6) Correctly draw a logic diagram and interpret logic symbols
- 7) Select and correctly draw wiring method diagrams
- 8) Design a printed circuit board from engineering inputs
- 9) Design and correctly draw component enclosures
- 10) List the qualities of electronics packaging materials

Relationship to General Education Outcomes – In addition to the core competencies, Trinity Valley Community College has established ten general education goals which specify knowledge and skills that students should gain from completing courses in the various component areas of the core curriculum. Information regarding curriculum and assessment as a means for the improvement of student learning through the general education component. (Select all that apply.)

Mark with an "X"	General Education Outcome
	A. To communicate clearly and effectively in both oral and written English.
	B. To improve reading skills focused on comprehending, analyzing, interpreting, and evaluating printed materials.
	C. To understand mathematical information and utilize mathematical skills.
X	D. To demonstrate qualitative and quantitative critical thinking skills.
	E. To understand and appreciate cultural and ethnic diversity.
X	F. To utilize computer based technology in accessing information, solving problems, and communicating.
	G. To recognize and evaluate artistic achievements in the visual and performing arts.
	H. To improve basic understanding of political, economic, and social systems.
	I. To demonstrate knowledge of the physical universe and living systems.
	J. To develop skills and strategies to become an engaged learner.

Required Text(s)

Electronics Drafting
 John Frostad
Goodheart-Wilcox, Inc.
 ISBN: 1-56637-858-3

Optional Text(s)

NONE

Material/Technology to be supplied by the student.

Optional USB Flash drive for backups

Course Requirements/Grading System – describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course; not intended to restrict the individual nature by which each faculty member who teaches the course determines course requirements and final student performance, but should offer consistency within reason for all sections taught for those departments without a standardized format.

Lab Assignments 70%
Final Project 20%
Final Exam 10%
 100%

Approvals – the contents of this document have been reviewed and are found to be accurate.

Prepared by	Signature	Date
Department Head	Signature	Date
Division Chair	Signature	Date
Vice President	Signature	Date