



**I. COURSE DESCRIPTION:**

This course is designed to develop skills in the use of the AUTOCAD and Hiwire 2 computer aided drafting systems, to generate and modify electrical/electronic schematics and printed circuit boards (PCB's). This course will prepare the student for the automated drafting and PCB layout environment.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Correctly utilize AUTOCAD and HIWIRE menu and command structure to produce and modify schematic diagrams.

Potential Elements of the Performance:

- Effectively understand and utilize the HW2 and AUTOCAD menus and commands.
  - Produce and modify schematic diagrams with correct and accurate labelling.
  - Produce and modify schematic symbols.
2. Produce and modify Printed Circuit Board layouts for simple schematics.

Potential Elements of the Performance:

- Develop a simple PCB layout.
- Understand the PCB construction process.

**III. TOPICS:**

1. Hiwire 2 menu structures and commands.
2. AUTOCAD 2000 menu structures and commands.

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

1. 4 - 3.5" 1.44 MB Floppy Disks
2. Textbook - Introduction to AutoCAD 2000 by Mark Dix / Paul Riley

## V. EVALUATION PROCESS/GRADING SYSTEM:

The final grade will be derived as follows;

50% - Hiwire 2 ( 2 Tests = 25% each)

50% - AUTOCAD ( 2 Tests = 25% each)

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies &amp; Procedures Manual – Deferred Grades and Make-up</i> ).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

## VI. SPECIAL NOTES:

### Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

Retention of course outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

Attendance to lab activities is compulsory, unless discussed with the instructor in advance of the absence. Your attendance and final grade are directly related.

**VII. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VIII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.