

ET263L
ELECTRONIC COMMUNICATIONS LAB

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CREDIT HOURS: 1.0

TEXT: Wheeler, ET-263 LABORATORY MANUAL (DeVry-KC)

<u>LAB#</u>	<u>DESCRIPTION</u>	<u>REPORT DUE WEEK #</u>
1	Colpitts Oscillator	3
2	Buffer Amplifier	5
3	AM Modulator	7
4	AM Detector	8
5	Voltage Controlled Oscillator	10
6	Phase-Locked-Loop	12
7	FM Modulation & Detection	14

Report Format - TO BE FOLLOWED CLOSELY:

1) **LAB WORK PAGES** -- These are the pages with recorded data and observations from laboratory. There must be a sign-off (myself or FA) on the first of the work pages in order for you to receive credit for the lab report. These pages are worth 60 points.

IMPORTANT: If calculations are required on any work sheets, the work must be clearly shown, or no credit will be assigned for that portion of the assignment.

2) **SCHEMATIC PAGE** -- Shows the circuitry you built in lab. Must be technically accurate, and very neat. May be generated by hand (template and grid paper required), by Electronic Workbench, or OrCAD/OrCAD capture.. The schematic diagram is worth 40 points. **Your name and section must appear on all drawings.**

All work must be turned in directly to the instructor during lab.

GRADING

Each report in ET263L is worth 100 points. A total of 7 reports are required, therefore, 700 points are possible in this course.

Letter grades are assigned as follows:

<u>Grade</u>	<u>Percentage %</u>	<u>Quality of Work</u>
A	90 - 100%	Excellent
B	80 - 89 %	Superior in most respects
C	70 - 79 %	Average; meets expectations
D	60 - 69 %	Below expectations
F	< 60 %	Inadequate, failing

LAB PARTNERS

There are no lab partners allowed in ET263L. Each person is expected to write his/her own report. All circuits must be clearly marked with your name to obtain a sign-off.

LAB SUCCESS HINTS

The successful student will have all circuits built and ready to test before going to lab. Lab handouts and other information distributed in class are extremely important, and should be studied and understood before attempting the experiment. Save all lab handouts, you will need the information from them all term!

LATE WORK

Late lab reports are accepted with a 10% penalty up to one week beyond the due date. Beyond that time, the report is not accepted and a zero is recorded in the gradebook for that report. *Reports are due during the lab period that your lab section meets, and are considered late after the end of the lab.* The lab period ends at xx50 UTC in the second hour. (UTC = Universal Coordinated Time; Standard World Time).

PLAGIARISM

Copying the work of another, and claiming it to be your own is plagiarism. This includes (but is not limited to) copying others homework, copying from a lab manual or textbook, or collusion. The minimum penalty for cheating in any form is a grade of zero for the element involved; in some cases, failure of the course and/or expulsion from the Institute will also result. **All cases of misconduct will be documented and forwarded to Student Services for disciplinary consideration.** The DeVry Student Handbook contains complete information on this topic.

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PLAGIARISM (CONTINUED)

Please do not turn in any work that is not your own! If in doubt, ask the instructor. Here are some ways to avoid any problems:

- Don't share your computer files (text, OrCAD, etc) with anyone else.
- Don't share a diskette (or other media) with another student; it's too easy to get files mixed up.
- Don't copy answers from a neighbor. If you don't understand how to do it, ask!
- Decline any request from fellow students for a copy of your work. Anybody needing help should ask the instructor.

GOOD DATA PROCESSING PROCEDURES

Computers will be used for the generation of schematic drawings in this lab. The student can expect to spend many hours creating and updating these drawings; loss of this data can be disastrous! The following tips will help to minimize the chance of losing a project:

- Make frequent backups. These backups should be in at least two different physical locations.
- Always keep schoolwork on two different diskettes. Both of these disks will contain identical information. If one diskette is damaged by a computer, the data can still be recovered from the other during the lab period.
- Don't save your data to the hard disk on the workstation, except in an emergency. The hard disks on lab workstations are periodically "cleaned" of any extra information as part of a housekeeping program.
- Keep the work for each class on a separate disk.
- Write your name, course, section, and professor's name on each disk. This will make it easier for others to return your work to you should you accidentally leave a disk behind.
- If you're using a computer at home, an *anti-virus* program is strongly recommended.

V. MISCELLANEOUS INFORMATION

EMERGENCY PROCEDURES - There are plaques located in the lab discussing emergency procedures. The instructor will remain in charge of your class group in an emergency situation.

FOOD and DRINK - Are not allowed in the laboratory at any time.

NEATNESS - You are required to keep your laboratory area clean. When you leave lab, your workspace must be ready for the next person's use.