

SYLLABUS

Your Course Learning Plan

A. Instructor Contact and Communications**Office location:** CVAG 58 Room 161**Office hours:** Mondays, from 8:00am to 1:00 pm**Lab hours** None**Phone:** 928-717-7728
Cell 928-215-0147**E-mail address:** drew.lindsey@yc.edu**Classroom location:** Chino Valley Agribusiness & Science Technology Center 58-164**Business/Computer Lab** None**Time Frame:** Jan. 13 through April 30, 2015
Tues. and Thurs. from 1:15 to 3:15, and Wed. 1:15 to 2:15**B. General Course Information****Credit hours:** 4.0**Course description:**

Overview of transformers and how they operate. Reviews single and three-phase theory. Focuses on construction and hook-up of single-phase, three-phase and open Y and Delta transformer connections. Presents an overview of capacitor banks and surge arrestors, including applications and installation.

Course purpose: This course is designed to teach students about the underlying fundamentals of transformers and to give students the skill to understand the basics of multiple apparatus used on power lines. It will also re-iterate the transformer connections and theory, including vectors.

Student Materials:
Textbooks, software, supplies,
equipment and tools:

1. ELT 141 Lineworker Training book. (Can be purchased through the bookstore.)
2. Distribution Transformer Handbook (Can be purchased at the book store)
3. Pen/pencil and paper.
4. Access to a computer and the internet.

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C. Course Outcomes and Content

**Learning
outcomes:**

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

COURSE CONTENT:

1. Fundamentals of transformer operation and protection
2. Single phase transformer operation and connections
3. Three-phase transformer operation and connections
4. Open Y- and delta connections
5. Capacitor bank operation and installation

LEARNING OUTCOMES:

1. Describe the parts, theory of operation, and function of transformers.(1)
2. Explain the differences between conventional and self- protected transformers and describe the appropriate use of each type.(1)
3. Draw the connections and demonstrate the procedures and techniques used to install single-phase transformers.(2)
4. Draw the connections and demonstrate the procedures and techniques used to install three-phase transformers. (3)
5. Draw the connections and demonstrate the procedures and techniques used to install open Y- and delta transformers.(4)
6. Describe surge arresters and explain their operation, application, and use in the utility industry.(5)
7. Demonstrate the procedures and techniques used to install capacitor banks on power lines.(5)

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How to work the Book

The ELT 141 lineworker training book is broken into three sections. They are numbered 80201-11, 26307-11 and 80202-11. The reading assignments that are laid out in the course calendar will be labeled with the different book sections. We do not read through the book in order so it is important to know which section the reading assignment is in. The course calendar is located on blackboard under syllabus. This will explain what the class will be doing on a weekly basis. The instructor reserves the right to change the course calendar according to the needs of the students to accommodate learning.

Assessments:

There are 9 labs, 11 reviews, and 12 tests during the duration of this course. It is imperative to have your assignments handed in on time. Any late work will have points deducted. It is the responsibility of the student to reschedule any exam or any other work that is missed because of absence.

(Optional) Re-do option. It is at the discretion of the instructor to accept ANY work for re-do. If the assignment is accepted, it can be graded at a reduced point value. Tasks handed in during the last week of the semester will not have this option available.

Point Summary:

Grading:

1800-2000	A
1600-1799	B
1400-1599	C
1200-1399	D
0 -1199	F

Description

Total Points

Labs 9 @ 20 points	180
Reviews 11 @ 20 points	220
Tests 12 @ 100 points	1200
Final exam	300
Lab final	100
Total	2000

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Instructor and Institution Policies and Procedure**Student E-Mail & YC Portal**

Yavapai College requires enrolled students to have an e-mail address to which official College communications can be sent called 'Scholar'. In the best interest of effective communications management, this address resides on the College maintained e-mail system. The new student email system at Yavapai College is based on Microsoft Outlook Web Access (OWA), accessed the system by clicking on the email icon in the *myYC* Portal.

All Yavapai College instructors will communicate to student 'Scholar' emails with approved YC email addresses only, and shall communicate response time to student emails on their course syllabus.

Students are expected to check their Yavapai College e-mail account as directed by their instructor. If you need assistance, go to <http://www.yc.edu/content/myyc/emailinfo.htm>

Students may elect to forward their e-mail to an address different from their official Yavapai College account (see instructions on website), but assume full responsibility for reading e-mail at the forwarded location.

All Yavapai College students will be required to use the *myYC* Portal to register, add, or drop classes online at <http://my.yc.edu/>. First-time students will create a log-on username and password. Returning students will register and use the *myYC* Portal as well.

Internet Downloading:

Yavapai College technological equipment and resources must be used in accordance with the Copyright Guidelines. Use of Yavapai College equipment and resources to illegally copy, download, access, print or store copyrighted material or download pornographic material is strictly prohibited. For example, file swapping of copyrighted material such as music or movies is strictly prohibited. Users found to violate this policy will have their privileges to use Yavapai College technological equipment and resources revoked.

Attendance:

Regular attendance in class is mandatory. Turning in work when it is due is required. By following the syllabus, the student can finish the course by the end of the semester. Due to the rigorous nature of this course, attendance is vital for successful completion. A student who expects to be absent due to another school sponsored activity or compelling personal reason must make prior arrangements with the instructor – no exceptions! Attendance is not just showing up on time. Students are expected to pay attention while they are in class. The instructor reserves the right to remove students from class for reasons such as texting, sleeping or other disruptive behavior. A student who does not adhere to instructor and College attendance requirements may be dropped from the course as defined in the Yavapai College General Catalog.

Course Withdrawal:

To officially withdraw from a course, the student must complete a Yavapai College Change of Class Enrollment Form and submit it to the Registration Office. Withdrawing from a course after the published

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deadline for withdrawal requires instructor approval and signature. When a student withdraws from a course, a “W” will appear on the student’s permanent college record. If a student does not follow official procedures for withdrawing from a course, failing grades will be posted on the student’s permanent record.

Course mentoring:

Contact the course instructor during office or lab hours, through e-mail or phone to arrange for additional course assistance. Many student support services are also available to assist students in successful course completion.

Academic Integrity:

Honesty in academic work is a central element of the learning environment. The presentation of another individual’s work as one’s own or the act of seeking unfair academic advantage through cheating, plagiarism or other dishonest means are violations of the College’s “Student Code of Conduct.” **Any student found cheating will be asked to leave class immediately and awarded a failing grade. A “W” will NOT be an option...NO EXCEPTIONS!** .

Class behavior

Cell phones must be turned to vibrate while in class and if a call or text must be made the student is to step outside of class for that purpose. It is mandatory that all students show up ready to learn and do not disrupt the efforts of other students. Anyone found taking away from the ability of the class to learn will leave. If you plan to be late or miss class you may contact the instructor by email or phone. If a student shows up late without notice he may be told to leave class. The instructor reserves the right to remove any individual who is disrupting the potential for others to learn. Any students using the CTEC campus will use badges to enter. If you don’t have your badge you will be sent home.

Student E-mail and YC Portal

Yavapai College requires enrolled students to have an e-mail address to which official college communications can be sent called ‘Scholar’. In the best interest of effective communications management, this address will reside on the college maintained e-mail system. The new student email system at Yavapai College is based on Microsoft Outlook Web Access (OWA), access the system by clicking on the email icon in the myYC portal. Instructor will make every effort to return e-mails prior to the start of the next class.

Student Code of Conduct

Respect for the rights of others and for the College and its property are fundamental expectations for every student. The “Code of Conduct” outlines behavioral expectations, and explains the process for responding to allegations of student misconduct.

Students are expected to respond and write in a professional and appropriate manner when activities are assigned to create scenarios, discuss opinions, present on a selected subject, or post to the web board. Inappropriate language or objectionable material will not be tolerated and could result in disciplinary measures and/or a failing grade for the class.

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Web link for the Student Code of Conduct –

<http://www.yc.edu/v4content/student-services/code-conduct.htm>**Drug Free Environment**

Yavapai College's policy is to provide an environment free of drugs and alcohol. The use of illegal drugs and abuse of alcohol pose significant threats to health and can be detrimental to the physical, psychological, and social well-being of the user and the entire Yavapai College community, and is prohibited.

Tobacco Use

Yavapai College is committed to limiting exposure to the harmful effects of primary and secondary smoke to campus students, visitors, and employees. If you use the facilities at Yavapai College, we comply with ASRS 36-301.01, Smoke Free AZ. Smoking is prohibited indoors and 25 feet from all doors, windows and vents.

In order to reduce the harmful effects of tobacco use and maintain a healthful working and learning environment, the district prohibits the use of tobacco except in specific areas. Tobacco use on college property is defined as lighted pipes, cigars, cigarettes, and the use of snuff and smokeless tobacco in any form.

Disability Resources:

Yavapai College is committed to providing educational support services to students with documented disabilities. Accommodations for a student must be arranged by the student through the Disability Resources Coordinator (Prescott Campus: 928.776.2079 or Verde Valley Campus: 928.634.6563).

Cell Phone, Pages & Texting:

Yavapai College is committed to providing a quality learning environment. All cell phones and pagers must be placed in a non-audible mode while in classrooms, computer labs, the library, the learning center, and testing areas. Cell phones and pagers must be used outside these facilities.

If a cell phone or any other mobile device becomes a potential distraction the instructor reserves the right to remove the student from class.

Other Instructor Procedures

Manual work will be graded and turned back within one week if possible. Any student found mishandling the equipment in the lab will be removed from class. If any student has questions make sure to ask, either in person or in and email. Please refer to the Course Calendar for specific dates and times of class and holidays. The course calendar can be found under the syllabus tab on blackboard.

Attendance is mandatory. Any student with six unexcused absences or more may be dropped from this course. Being tardy without notifying the instructor, and receiving his express permission will be considered an absence. To receive the instructors permission he will be notified (preferably by text) before the beginning of class. My cell Phone number is 928-215-0147.