College of The Sequoias
Industrial Maintenance
Vocational Training
Fall 2014

Coordinator:	Mario Bringetto	
Classrooms:	Hanford 106/108	
Class Days:	Monday-Friday	
Class Time:	8:10am – 1:00 p.m.	
My Office:	Tool room office room 108	
Office Hours:	Monday-Friday	7:30 – 8:05 a.m. 1:00-2:30 p.m.
Email:	mariob@cos.edu	Contact me here anytime.
Phone:	559-583-2560	Call this number to leave a message.

CATALOG COURSE DESCRIPTION:
ITEC 100 is the first semester of a two semester program in Industrial Maintenance Technology. This course will provide the students with theories, concepts and skills utilized in the areas of basic electricity, machine tool operation, acetylene and MIG welding, hydraulics/pneumatics and mechanics.

FIELD TRIP REQUIREMENTS: Required

Course Objectives

The main concepts for this course will ask students to...

1. Acquire skills as an Industrial Maintenance Technician in the area of electricity.
2. Become competent at interpreting hydraulic schematics, and building and repairing Hydraulic circuits.
3. Acquire entry-level skills in the use of a machine lathe.
4. Acquire skills in MIG welding and electrode selection.
5. Acquire knowledge in the repair and design of mechanical power transmission machines.
6. Interpret and design relay ladder logic.
7. Use a multi-meter with industrial electricity.
8. Apply basic electricity knowledge for use in electrical troubleshooting.
9. Draw an electrical schematic.
10. Acquire the skill of identifying electrical symbols.

Student Learning Outcomes

1. ***Basic Electricity*** understand and use Ohm's and Watt's Laws with industrial electricity.
2. ***Hydraulics*** understand and use Pascal's Law, and fluid power principles to build and troubleshoot industrial circuits.
3. ***Machining*** understand the principles of machining for an engine lathe, and milling machine, and use the skills to produce an industrial metal part.
4. ***GMAW welding*** upon completion of this course the student will be able to identify the correct MIG weld process to use in effecting an industrial repair, and accomplish it with steel.
5. ***Industrial mechanics*** understand the principles of industrial mechanical power transmission, and be able to identify and repair industrial equipment.

Course Overview

The class will be using the National Center of Construction Education and Research (NCCER) Industrial Maintenance Electrical and Instrumentation Curriculum. The class will also be covering Manufacturing Skill Standards Council (MSSC) curriculum. Upon successful completion of the program the student will receive a certificate of completion. This class will also be covering soft skills, attendance, and resume writing with employment skills.

Assignments

Reading:

We will be reading 2 NCCER text books. Each module has a chapter review at the end of the chapter that will need to be completed.

Writing:

There will be fill in the word work sheets and reports that will need to be filled out with most modules.

Homework:

There will be nightly homework in a variety of formats to aid in reinforcing lecture topics.

Lab Content:

We will have specific labs that reflect each module. Labs will have specific tasks for example:

1. List 5 OSHA recognized safety violation and provide the annual statistics for injuries or fatalities regarding the violation.
2. Figure out the square footage of rooms from reading the blueprints provided.
3. List (5) types of pliers and a use for each.
4. You will need basic tools to complete labs. Screwdrivers, pliers, saw are examples of the tools necessary for participating in lab exercises. You will be responsible for being prepared for class, bringing the necessary tools for the given lab.

Student Email

Each student has been given a College of the Sequoias official email address. You will receive information from COS and your instructor only through this address and you must use this email address when sending email to your instructor.

Required Texts and Materials

ALL READING MUST BE DONE BEFORE CLASS MEETING ACCORDING TO SCHEDULE!

In an effort to help students succeed we will be offering the chance to use brand new COS NCCER books. The books will be loaned out under the understanding there are no markings allowed in the books. If the books show excessive wear the student will forfeit the 2000 points towards the grade.

1. *NCCER Core Curriculum*
2. *NCCER Industrial Maintenance level 1E&I*
3. *NEC Code book 2014*
4. *Thumb Drive*

Recommended Texts

1. *Uglys electrical reference*
2. *OSHA Electrical Safety Guidelines (pocket edition)*

Important Dates

Every day is very important as you will see in the schedule.

Required tools
You will need basic tools and **safety glasses** to complete labs. Screwdrivers, pliers, strippers, crimpers are examples of the tools necessary for participating in lab exercises. You will be responsible for being prepared for class, bringing the necessary tools for the given lab.

Attendance Policy: Face-to-Face and Online

Face-to-face (classroom) portion of this class: We will meet daily. **If a student is not present at the first face-to-face meeting the student will be dropped from the class. If a student misses 4 face-to-face classes, the school reserves the right to drop the student from the class.**

Online portion of this class: My sense of who is "attending" online comes from the submission of your work, from your questions to me via email and from your MSSC training. MSSC allows instructors to track how often and in what ways students are logging into the course. **If you miss submitting 3 consecutive assignments, It will be presumed that you have chosen not to proceed in the course and you will be dropped from the course.**

During the course of the semester emergencies may arise. If you must miss class for several days (due to illness, family emergency, job, etc.) or miss online assignments, **you must contact me immediately and provide written documentation ex. Doctor note.** If you do not contact me to discuss your absence, it will affect your grade.

Students with Disabilities

Every effort will be made to accommodate students with disabilities. Students must be registered with the COS Disability Resource Center and provide me with proof/list of accommodations that are needed. The time to do this is the first couple of weeks during the semester. No "retroactive" accommodations will be made.

Grading

Students in Industrial Maintenance earn grades of A, B, C, D, F.
You will be completing a variety of assignments to earn a grade in this course. These include activities from reading, quizzes, writing and revision, group work, oral reports and class participation. If you desire to discuss your grade at any time, you may make an appointment to see me during office hours.

Type of Assignment	Possible Points
Class Participation, Attendance, 25 points per week	425 points possible
Homework / Lab assignments	425 points possible
NCCER exams 100 points each exam	2200 points possible
Online MSSC assignments 200 points each	400 points possible
Final Exam	250 points possible

- **Class Participation.** Participation is defined as reading the assignments before coming to class or working online. In the classroom you will be working in groups to exchange ideas and Online you will be participating in MSSC assignments, as well as additional NCCER assignments.

- **Daily Assignments** will take many forms in this course. They include writing exercises, resume, reading assignments from the text (all to be read before class the next day), periodicals and Internet sites, quizzes, revision work, oral reports and any other form of reading, writing and understanding that leads to developing your skills.

- MSSC will continue throughout the semester. ***The majority of the online portion of this class will be done on your own time***. You will answer questions that are posted throughout the online modules.

Grading Scale

Each assignment will have a point value attached to it. Here is the percentage breakdown of the final grade: A 100-90%, B 89-80%, C 79-70%, D 69-60%, F 59-0%

Failing to test on a scheduled test day will result in a 0. There are no incomplete grades.

This class offers an opportunity to become NCCER certified on top of just earning units. Each module must be passed with a 70% or above to become certified. The two opportunities available this semester are core, and level 1 certifications. Failure to pass any one module will result in not obtaining the certificate although each module passed will be awarded.

Make up tests will be offered at the end of each book one time per book. You can make up to (2) exams per book. This will not improve the grade in the course, but you can obtain your NCCER certificate.

Late Work

"Late Work" means any work that is not turned in at the beginning of the period on the day it is due or by the deadline given in each online assignment. Late work always has consequences that impact your learning. **I do not accept late in-class work or homework. Computer problems are never an acceptable reason for turning in late work.**

HELPFUL INFORMATION

- It is your responsibility to stay informed of any changes in assignment due dates, readings etc. Missing a class does not excuse you from this responsibility. Find a trustworthy classmate early in the semester and exchange phone numbers so you both can keep up with any changes. Being absent is no excuse for late work, late essays, or just not knowing what is going on in class.
- It is each student's responsibility to officially withdraw from any course. Not attending class and failing to withdraw from Industrial Maintenance will result in an "F".
- Class attendance is vital. Remember, if you have more than four absences, I may drop you from this class.
- Save all your writing, notes, and research information – everything you have done in the class. You never know when you might need them again.
- Should you have to miss class for an extended period of time due to illness, jury duty, work, family emergencies, etc., notify your instructor immediately so individual arrangements can be made.
- The College of the Sequoias rules and regulations will be observed and enforced regarding academic policies such as discipline and attendance.
- ***Syllabus subject to change to improve the overall learning experience.***
- Upon completion of the two semesters it is the student's responsibility to apply for the certificate In Industrial Maintenance.

I have read, received a copy and understand the Fall 2014 ITEC 100 CRN 14508 syllabus.

PRINT NAME:_____

SIGNATURE:_____

DATE:_____