Master Course Syllabus

Hydraulics & Pneumatics

Instructor

Name: Charlie Miller
Office Location: WWCC – Vocational Technology Building, Room 342
Office Hours: Monday – Friday, By appointment only
Phone Number: Office (509)529-2233, Cell (509)386-4295
Email Address: charles.miller@wwcc.edu

Course Information

Identifier: EST 159
Title: Hydraulics & Pneumatics
Textbook: Amatrol Online Seat – Used for multiple classes
Credits: 3
Hours Per Week: 4
Format: Lecture/Demonstration/Lab
Location: WWCC – Vocational Technology Building, Room 340
Day/Time: Tuesday & Thursday 8:30-10:20

Mandatory Tools & PPE Required:
Safety Glasses
Hard Toed Work Boots
Lock Out Tag Out Equipment

Course Description

Explores the basic principles of hydraulic and pneumatic systems, industry terminology, mechanical symbols, system components, energy and personal safety, completing calculations, review of operations and maintenance.

Grading Policy

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100 to 90%</td>
</tr>
<tr>
<td>B</td>
<td>89 to 80%</td>
</tr>
<tr>
<td>C</td>
<td>79 to 70%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;70%</td>
</tr>
</tbody>
</table>
**STUDENT LEARNING ASSESSMENTS**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>-</td>
<td>Attendance is a crucial component to this course. Each student may take 2 excused Absences without penalty. After that, each additional Absence in lecture or lab will result in a 3% deduction in your overall grade. For an absence to qualify as excused you need to call, text, or email your instructor a minimum of one hour before class starts. Tardiness and leaving early for any lecture or lab will result in a 1% deduction in your overall grade.</td>
</tr>
<tr>
<td>Participation</td>
<td>40%</td>
<td>Students that show up on time and actively participate in the lecture and complete the work assignments will receive those days’ participation points. Tardiness, leaving early, absences, sleeping in class, disruptiveness, &amp; Not having your required PPE/Tools will result in a loss of those days participation points. Participation will account for 40% of your overall grade.</td>
</tr>
<tr>
<td>Homework/Amatrol Quizzes</td>
<td>30%</td>
<td>Each week we will be covering 2 Amatrol modules. These Modules are your weekly home work. The Amatrol quiz scores will go in for your homework grade. You will have several Symbol quizzes. There will be no late homework accepted. Full completion of these assignments accounts for 30% of your overall grade.</td>
</tr>
<tr>
<td>Final</td>
<td>30%</td>
<td>One cumulative final will be given at the end of the quarter covering all pertinent information from lectures, assignments and quizzes and will account for 30% of your overall grade.</td>
</tr>
</tbody>
</table>

*****ATTENDANCE IS MANDITORY*****

- Two excused absences are allowed. Each additional absence results in a 3% deduction of overall grade.

- Being late results in a 1% deduction of your overall grade

- An absence is considered excused when you give at least one hour notice via phone text or e-mail. After 2 excused absences all others will contribute to a deduction in overall grade.

- Textbook and Calculator (Texas Instruments TI-30xa) is required to receive attendance credit.

- Work Shirt (tucked in and on your outermost layer – shirt should be showing while you are in class)

*NOTE: Grade reduction will be calculated at the end of the quarter for tardy and absences.

- Excessive (six) absences in a quarter will result in failing of the respective course, and at the departments discretion may be dropped from the training program.

- Absences may be forgiven at the instructor’s option due to illness providing a doctors letter explaining the illness is provided, and missing work is made up, or a grade of “Z” may be given, and course repeated.

WORK SHIRT: **On buttoned up and tucked in and worn as the outermost layer** when class starts. You will be considered absent until you have this done.

WORK BOOTS: **On and laced up** when class starts. You will be considered absent until you have this done.

SAFETY GLASSES: **On your person** when class starts. You will be considered absent until have this done. Side shields are acceptable for prescription glass wearers.
LAB POLICY

You must follow these directions for credit:

<table>
<thead>
<tr>
<th>Lab</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amatrol HYD Lab</td>
<td>Turn in the worksheet – initialed by instructor</td>
</tr>
<tr>
<td>Parker Lab</td>
<td>Turn in the worksheet – initialed by instructor</td>
</tr>
<tr>
<td>Automation Studios Lab</td>
<td>Print drawing and turn in - initialed by instructor – Instructor MUST see the circuit operate correctly</td>
</tr>
<tr>
<td>Pneumatic Lab</td>
<td>Turn in the worksheet – initialed by instructor</td>
</tr>
</tbody>
</table>

POLICIES AND PROCEDURES

All students will be required to adhere to the Wind Energy Technology student handbook. No late homework will be accepted. Cell phones must be on vibrate and only used for emergencies. If cell phones are used for non-emergencies during class your participation points will be deducted from that day’s class.

ETIQUETTE: Student is expected to show respect to others, and follow the student hand book. Cell phones need to be turned to silent or off during classroom and lab. Lap top computers used during class are to be used only for instruction related materials, email, or surfing the web will result in the computer being off during class period.

EXTRA CREDIT: Variable point extra credit projects may be available but cannot exceed 10% of your grade points.

DISABILITIES: To request accommodations related to a disability, contact Claudia Angus, Ph.D., Coordinator of Disability Support Services, at 527-4262 or email claudia.angus@wwcc.edu A short video explaining Disability Support Services at WWCC can be viewed by clicking http://www.youtube.com/watch?v=0UE7_EJmn5k

The student is responsible to self-identify and provide documentation of the disability. Once I receive the information I review the request and then reasonable accommodations are assigned.

COURSE OUTLINE

See Attached Work Schedule