

Bossier Parish Community College  
Master Syllabus

**Course Prefix and Number:** TEED 146

**Credit Hours:** 3-3-0

**Course Title:** Industrial Mechanical Theory II

**Course Prerequisite:** TEED 145

**Textbook(s):** None

**Course Description:** A continuation of TEED 145, including screw threads, wood fastenings, rigging, pumps, and air compressors.

**Learning Outcomes:**

At the end of the course, the student will:

- A. interpret job instructions for troubleshooting, maintenance, repair and operation of mechanical equipment;
- B. accurately measure physical parameters such as threads per inch, dimensions, alignment, gearing, pressures, temperatures and the like to support analysis and troubleshooting of mechanical systems;
- C. convert measurements of physical data into properly scaled graphs to support analysis and troubleshooting;
- D. interpret and apply technical information contained in construction drawings or schematic diagrams in performance of work as a mechanical or instrument craftsman; and
- E. properly interpret job instructions (function, materials, and schedule) and make reasonable estimates of associated materials and labor.

To achieve the learning outcomes, the student will or will be able to:

1. list six different types of pipe valves and their functions; (A, B, C, D)
2. describe the use of carpentry tools and board measure tables; (A, B, C, D)
3. identify different methods of sharpening saws; (A, B, C, D)
4. list five different wood fastenings and their advantages; (A, B, C, D)
5. describe different methods of joining sheet-metal work; (A, B, C, D)
6. list six different blacksmithing tools and their function; (A, B, C, D)
7. identify different types of rigging tools; (A, B, C, D)
8. define electricity and magnetism; (A, B, C, D)
9. identify different types of welding used in industry; (A, B, C, D)
10. describe six different types of pumps and list their uses; (A, B, C, D)
11. identify different air compressors and their uses; (A, B, C, D)
12. describe different hydraulics and pneumatic cylinders and controls; (A, B, C, D)
13. list ten different types of portable power tools and their uses; (A, B, C, D)
14. use calculations to determine areas, volumes, horsepower, and torque; (A, B, C, D)  
and
15. estimate materials and labor for jobs. (E)

Revised: 09/27/2018

**Course Requirements:** Complete all homework assignments, lecture tests and final exam.

**Course Grading Scale:**

90 – 100 = A  
80 – 89 = B  
70 – 79 = C  
60 – 69 = D  
0 – 59 = F

**Attendance Policy:** The college attendance policy is available at <http://www.bpcc.edu/catalog/current/academicpolicies.html>

**Course Fees:** N/A

**Nondiscrimination Statement:** Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

**COORDINATOR FOR SECTION 504 AND ADA**

Angie Cao, Student and Disability Services Specialist

Disability Services, F-254

6220 East Texas Street

Bossier City, LA 71111

Phone: 318-678-6511

Email: [acao@bpcc.edu](mailto:acao@bpcc.edu)

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

**Equity/Compliance Coordinator**

Teri Bashara, Director of Human Resources

Human Resources Office, A-105

6220 East Texas Street

Bossier City, LA 71111

Phone: 318-678-6056

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.