COURSE INFORMATION FORM

<table>
<thead>
<tr>
<th>DISCIPLINE</th>
<th>INTE</th>
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<tr>
<td>COURSE TITLE</td>
<td>Fundamentals of Industrial Machine Repair</td>
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<td>CR.HR</td>
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<td>LECT HR.</td>
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<td>LAB HR.</td>
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<td>CLIN/INTERN HR.</td>
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CATALOG DESCRIPTION
This course is designed to present the fundamentals of the care and maintenance on a wide range of industrial equipment, including chain and gear drives, couplings and fluid power equipment. Lubricants and lubrication will be covered. The replacement of seals and bearings will be covered. Correct application and selection of hand and power tools. Basic motor alignment including laser alignment will be introduced.

PREREQUISITES
None

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. Demonstrate proper use of hand tools.
2. Select the proper lubrication for different applications.
4. Replace bearings and seals.
5. Describe the elements of mechanical systems.
6. Fit gears, belts and drives to driving elements.
7. Physically align motors and loads.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

<table>
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<tr>
<th>Outcomes</th>
<th>ESO</th>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. The student will be able to demonstrate the ability to apply foundational skills in an industrial setting, safely and to industry guidelines.
2. The student will be able to demonstrate the ability to exhibit competence in the entry-level skills of technical profession in Industrial technology.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written Examinations (1, 4, 6 & 7)
2. Project (2, 3, 5 & 6)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Lubricants
   A. Standards and ratings
   B. Applications
   C. Disposal

II. Servicing
   A. Original equipment manufacturer specifications
   B. After market equipment
   C. Filters
   D. Fittings

III. Bearing and seals
   A. Bearing types
   B. Bearing ratings
   C. Bearing removal and replacement
   D. Seal types
   E. Seal and lubricant compatibility
   F. Seal removal and replacement

IV. Mechanical systems
   A. Belts and belt drivers
   B. Gears and gear drivers
   C. Chain and chain drivers
   D. Drive alignment

V. Gear belt and driver connections
   A. Driver selection
   B. Mechanical selection
   C. Systems

VI. Alignment
   A. Laser
   B. Manual w/dial indicator