Program Overview
The Industrial Maintenance Technician program will give the student practical, “hands-on” experience in welding, hydraulics, electricity, mechanical maintenance, maintenance machining, and PLC (programmable logic controller) equipment maintenance. Opportunities for advancement increase with further education.

Admission Requirements
Students in this program must:
- Complete application form and submit with fee (fee waiver may apply if previously submitted)
- Complete Accuplacer entrance assessment to determine placement (waiver may apply with acceptable alternative test scores and/or postsecondary degree completion)
- Review and sign the Functional Ability Statement of Understanding
- Complete admissions meeting with a WITC counselor (above requirements should be completed prior to meeting)

Program Outcomes
Employers will expect Industrial Maintenance Technician graduates to be able to:
- Demonstrate safe work procedures
- Install industrial equipment and systems
- Maintain industrial equipment and systems
- Troubleshoot industrial equipment and systems
- Repair industrial equipment and systems
- Communicate technical information

Employability essentials and indicators will also be addressed to develop personal awareness, career effectiveness, and professionalism. See page 5 of the college catalog for a list of employability essentials and indicators.

Career Outlook
Maintenance mechanics are in demand in all types of industries. Pay rates for people in the equipment maintenance field are among the highest of all trades. Typical careers available after graduation include:
- Maintenance Technician Assistant
- Maintenance Technician Foreperson
- Maintenance Machinist
- Maintenance Technician
- Maintenance Welding

Graduates may also enter the trades of Machine Repair, Machine Rebuilder, and Millwright. Graduates may advance to such positions as Maintenance Leadperson, Maintenance or Millwright Apprentice, Foreperson, or Superintendent.

Curriculum
<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>31442370</td>
<td>Gas Metal Arc Welding 1</td>
<td>3</td>
</tr>
<tr>
<td>31442373</td>
<td>Shielded Metal Arc Welding 1</td>
<td>3</td>
</tr>
<tr>
<td>31442374</td>
<td>Shielded Metal Arc Welding 2 ▲</td>
<td>2</td>
</tr>
<tr>
<td>31442379</td>
<td>Gas Tungsten Arc Welding 1</td>
<td>2</td>
</tr>
<tr>
<td>32414340</td>
<td>Basic Electrical Theory</td>
<td>2</td>
</tr>
<tr>
<td>32414341</td>
<td>Electrical Systems ▲</td>
<td>3</td>
</tr>
<tr>
<td>32414343</td>
<td>Industrial Systems Control ▲</td>
<td>3</td>
</tr>
<tr>
<td>32419301</td>
<td>Hydraulics/Pneumatics</td>
<td>3</td>
</tr>
<tr>
<td>32420305</td>
<td>Maintenance Machining</td>
<td>3</td>
</tr>
<tr>
<td>32420310</td>
<td>Print Reading</td>
<td>2</td>
</tr>
<tr>
<td>32462305</td>
<td>Rigging</td>
<td>2</td>
</tr>
<tr>
<td>32462306</td>
<td>Fabrication Processes</td>
<td>2</td>
</tr>
<tr>
<td>32462308</td>
<td>Piping Systems</td>
<td>2</td>
</tr>
<tr>
<td>32462309</td>
<td>Pump Applications</td>
<td>2</td>
</tr>
<tr>
<td>32462312</td>
<td>Bearings and Lubrication</td>
<td>2</td>
</tr>
<tr>
<td>32462314</td>
<td>Machine Leveling and Alignments</td>
<td>2</td>
</tr>
<tr>
<td>32462317</td>
<td>Industrial Safety</td>
<td>1</td>
</tr>
<tr>
<td>32462320</td>
<td>Gears, Belts, and Chain Drives</td>
<td>2</td>
</tr>
<tr>
<td>32462321</td>
<td>Conveyors (WBL)</td>
<td>2</td>
</tr>
<tr>
<td>32462322</td>
<td>Conveyor Systems Repair Lab ▲</td>
<td>3</td>
</tr>
<tr>
<td>32462330</td>
<td>Fluid Systems Repair Lab (WBL) ▲</td>
<td>2, 48</td>
</tr>
</tbody>
</table>

Employment essentials and indicators will also be addressed to develop personal awareness, career effectiveness, and professionalism. See page 5 of the college catalog for a list of employability essentials and indicators.

Program Requirements
59

- Requires a prerequisite and/or corequisite that must be completed with a grade point of 2.0 or better.
- See pages 41-43 for course descriptions.
Programs and Course Descriptions

(See pages 41-43 for General Studies course descriptions)

31442370
Gas Metal Arc Welding 1 - Credits: 3
This course introduces the student to the basics of GMAW welding operations. It includes the study of the type of metals and equipment utilized in welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

31442373
Shielded Metal Arc Welding 1 - Credits: 3
This course introduces the student to the basics of SMAW welding. It includes the study of the type of metals and equipment utilized when welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard welding techniques.

31442374
Shielded Metal Arc Welding 2 - Credits: 2
This course introduces the student to the next level of SMAW welding. It includes the study of the type of metals and equipment utilized when welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

32419301
Hydraulics/Pneumatics - Credits: 3
This course is designed to introduce the student to the theory of fluid power. The common gas laws will be analyzed. The basic system of a hydraulic unit and pneumatic unit will be the focus of this laboratory-based course. Common applications of different circuits will be explored and constructed.

32420305
Maintenance Machining - Credits: 3
This course is designed to introduce the student to the basics of machining and procedures of machines common to the industrial maintenance industry.

32420310
Print Reading - Credits: 2
This course will cover the basic principles of print reading. The emphasis will be on interpreting lines and symbols in single- and multiple-view working drawings. Topics include print reading procedures, sketching, drawing changes, and the reading of prints in maintenance areas of machining, fabrication, piping, systems, and welding.

32426305
Rigging - Credits: 2
During this course the student will be introduced to the safety procedures, the common hardware components, and the equipment used in industry for rigging to lift and move machines and equipment. The student will demonstrate industry standard rigging and lifting procedures in a laboratory-based environment.

32426306
Fabrication Processes - Credits: 2
This course is designed to introduce the student to the basics of fabrication processes that are common to the industrial maintenance field along with the tools and components used in these processes. This course is a theory-based course with hands-on lab applications.

32462300
Piping Systems - Credits: 2
This course is designed to introduce the student to basic plumbing of air, water, and other process systems found in industries. Instruction will be given in the basic principles of piping systems and equipment utilized when welding. The instruction emphasizes accepted applications in butting and joining metals utilizing standard industry techniques.

32462308
Pump Applications - Credits: 2
This course is designed to introduce the student to the theory of fluid pumping applications common to industry. General troubleshooting and maintenance procedures will be stated and practiced during this competency lab-based course.

32462312
Conveyors (WBL) - Credits: 2
This course will cover several leveling and alignment procedures that meet industry standards. A strong background in mechanical drive and fabrication is recommended.

32462322
Conveyor Systems Repair Lab - Credits: 3
This course is designed to provide a reliable work-like environment where the student is placed in a team environment to build a conveyor from the design that was created in the conveyors theory class. All welding, machining, and the fabrication of the conveyor will be done by the team. The ordering of parts and components, along with creating a journal of the project, will be a team function. COREQUISITE: 32462321 Conveyors (WBL).

32462330
Fluid Systems Repair Lab (WBL) - Credits: 2
This course is designed to give the student a chance to apply fluid power system skills in a shop environment. Students will work on projects that will require troubleshooting of fluid systems and components, and construction of fluid systems common to industry. COREQUISITES: 32419301 Hydraulics/Pneumatics, 32462308 Piping Systems, and 32462309 Pump Applications.

Gainful employment information is available at this link: http://www.witc.edu/pgmpages/industmaint/gainful-employment/Gedt.html. This information is provided as a federal requirement in an effort to help students make informed decisions related to the costs and potential employment in a chosen field.

Graduate Employment Information
(WITC Graduate Survey Responses 2014-2015; for most recent data, go to witc.edu)

<table>
<thead>
<tr>
<th>Number of graduates</th>
<th>Number employed</th>
<th>% employed in WITC district</th>
<th>Range of yearly salary</th>
<th>Average yearly salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>8</td>
<td>89%</td>
<td>$30,000*- $65,000*</td>
<td>$49,189*</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Range of yearly salary and average yearly salary based on composite from Wisconsin’s 16 technical college districts (WITC) which includes WITC graduates.

800.243.9482  witc.edu  2017-2018