MTT116 Machine Tool Processes Syllabus

Course Information

Credits 1
Office Phone 785-228-6412
Campus Washburn Institute of Technology
Address 5724 SW Huntoon
City/State/Zip Topeka, Kansas 66604
Office Fax 785-273-7080

Description
Students learn to conduct a job hazard analysis for a machine tool group, analyze blueprints to layout parts and materials, select hand tools and common machine shop mechanical hardware for specific applications, prescribe cutting tools for assigned operations, calculate stock size to minimize drop, machine parts to specifications outlined in machine handbooks, summarize preparations for machining operations, and apply precautions to minimize hazards for work with lathes, mills, drills and grinders. Prerequisite: OSHA 10 or 30 Safety Course

Textbooks


Student Learning Outcomes:
A. Communicate effectively
B. Integrate technology
C. Learn effectively
D. Demonstrate cooperative teamwork skills
E. Apply safety in the workplace
F. Think critically and creatively
G. Demonstrate responsible work ethics

Competencies
1. Conduct a job hazard analysis for a machine tool shop.
2. Analyze blueprints to lay out parts to be machined.
3. Select hand tools for assigned applications.
4. Calculate stock size for least amount drop.
5. Examine specifications in machinery handbooks needed to machine parts to size.
6. Summarize preparations for machining operations.
7. Select common machine shop mechanical hardware for assigned applications.
8. Apply precautions needed to minimize hazards for work with lathes, mills, drills and grinders.
9. Prescribe cutting tools for assigned operations and applications.

Guidelines for Success

Assessment Plan
Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution’s technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Rationale and Grading Scale
Grading is based on the quality of shop assignments, attendance, tests and quiz scores.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
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<tr>
<td>80% - 89%</td>
<td>B</td>
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<tr>
<td>70% - 79%</td>
<td>C</td>
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<td>60% - 69%</td>
<td>D</td>
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<tr>
<td>Below 60%</td>
<td>F</td>
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The minimum acceptable passing grade is C. The total grade will be calculated using the following formula: Attendance = 10%, shop assignments = 30%, tests = 20% and quizzes = 10%, Semester final = 30%. 100% attendance adds 5% to the final score, less than 90% attendance deducts 5% from the final score.

Attendance
Attendance is required. Please see instructor for make-up policy for excused and school related absences.
Disability
The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator
Phone: 785-228-6356
E-Mail: ssscoordinator@washburn.edu