MTT131 Quality Control & Inspection Syllabus

Course Information

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

Description

Students are introduced to the science of dimensional metrology and its applications to ensure form and function of machined parts and assemblies using semi-precision and precision measuring instruments.

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. Perform first piece inspection.  
2. Inspect surface finishes.  
3. Inspect parts using radius gauges.  
4. Inspect parts using angle gauges.  
5. Inspect parts using dial indicators.  
6. Measure parts using Vernier measuring tools.  
7. Measure parts using special micrometers.  
8. Measure parts using telescoping gauges.  
9. Measure parts with height gauges.
10. Measure threads.
11. Measure parts using small hole gauges.
12. Measure parts using dial calipers.
13. Measure parts using outside micrometers.
14. Measure parts using depth micrometers.
15. Inspect parts with comparison measuring tools.
16. Determine what to do with a part that does not meet specifications.
17. Clean and store precision measuring tools.

**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 Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>B</td>
</tr>
<tr>
<td>70% - 79%</td>
<td>C</td>
</tr>
<tr>
<td>60% - 69%</td>
<td>D</td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
</tr>
</tbody>
</table>

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