



## Student Learning Outcomes Plan

### Critical Thinking - Fall 2016

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Page 1: Welcome

#### Q1

First, please tell us a little about yourself:

Your name:

Steve Rose, Dan Sanford

The name of your program

Machinist

#### Q2

Is your program externally accredited?

No, we are not externally accredited.

Page 2: Plan to improve student outcomes - part 1 (R/U)

#### Q3

Please list here the associated course number of your chosen SLO as they appear in the MCO or SLO Matrix. This first one should be emphasized early in a student's program and center on students' ability to Remember/Understand (R/U) concepts/attitudes/skills. Students demonstrate critical thinking at this level by: Recognizing the need for both quantitative and qualitative information while formulating questions; identifying available technologies/analytical methods; discerning that accurate and complete information is the basis for effective decision making.

Course #

MACH 117

SLO

operate common measuring tools such as the micrometer and gages to .0001 of an inch

#### Q4

How will you determine the extent to which student achievement has increased on this first SLO? (For example, "\_\_\_% percent of my students need to score a minimum \_\_\_% on the lab practical)

90% of my students must read precision instruments within .0005 of an inch.

#### Q5

What will you do differently this year to bring about the improvement you intend?

will work on more self directed learning and less direct lecture.

**Q6**

How will these results affect your teaching/program?

more time to practice application and apply

Page 3: Plan to improve student outcomes - part 2 (A/A)

**Q7**

Please list here the associated course number of your chosen SLO as they appear in the MCO or SLO Matrix. This second one should be emphasized mid-way through a student's program and center on students' ability to Analyze/Apply (A/A) concepts/attitudes/skills. Students demonstrate critical thinking at this level by: Demonstrating skill gathering information from and within a certain field; analyzing, interpreting and synthesizing information, strategies, resources, evidence, and/or assumptions.

Course #

**MACH 119**

SLO

**• Identify common blueprint symbology and drawing practices used in manufacturing**

**Q8**

How will you determine the extent to which student achievement has increased on this second SLO? (For example, "\_\_\_% percent of my students need to score a minimum \_\_\_% on the lab practical)

100% of students must achieve of 70% on all assessments.

**Q9**

What will you do differently this year to bring about the improvement you intend?

we have the students review content analyzing content then apply new knowledge

**Q10**

How will these results affect your teaching/program?

this will engage self directed learning

Page 4: Plan to improve student outcomes - part 3 (C/E)

**Q11**

Please list here the associated course number of your chosen SLO as they appear in the MCO or SLO Matrix. This third one should be emphasized late in a student's program and center on students' ability to Create/Evaluate (C/E) concepts/attitudes/skills. Students demonstrate critical thinking at this level by: Evaluating and testing solutions on the basis of origin, viewpoint, currency, relevance, completeness, validity and appropriateness; using creativity to generate diverse possible solutions and articulating reasoned solutions to others.

Course #

**MACH 233**

SLO #

**• Setup and execute a CNC program on the CNC milling machine**

**Q12**

How will you determine the extent to which student achievement has increased on this third SLO? (For example, "\_\_\_% percent of my students need to score a minimum \_\_\_% on the lab practical)

80% of my students need to make a part with less than 4 defects

**Q13**

What will you do differently this year to bring about the improvement you intend?

students will create job sheet pertaining to the part being made

**Q14**

How will these results affect your teaching/program?

the more efficient in job planning will encourage more creativity and critical thinking skills