



## 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:

Dan Achman

The name of your program

Software Development

#### 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 #

SOFT 102

SLO

Apply problem solving to develop algorithms

#### 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)

80% of my students will score 80 % or higher on their assignments

#### Q5

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

I will include more weekly quizzes to enforce deeper understanding of the concepts needed to develop algorithms. I will spend more time in lab with students working examples with them.

**Q6**

How will these results affect your teaching/program?

The ability to problem solve and develop the necessary algorithms is key to being successful in this field. This course is the foundation for much of the program to come for the students.

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 #	<b>CS&amp;141</b>
SLO	<b>Employ basic programming concepts utilizing Java programming</b>

**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)

80 % of students will score 100% on program correctness for the assignments submitted.

**Q9**

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

We will utilize an online resource that allows you to complete short exercises in coding and offers instant feedback on your work.

**Q10**

How will these results affect your teaching/program?

Learning to program to all about practicing the new concepts and this is another way to obtain that practice. While I will assign certain exercises, I hope that the instant feedback this site provides will encourage further utilization by the students.

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 #

**SOFT 208**

SLO #

**Discuss full spectrum of requirements for systems  
Development Lifecycle concepts**

### 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 students will score 80 % or better on quizzes

### Q13

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

We will work on case studies that accompany each topic in a lab environment. The students will be able to work in teams and ask questions and I can guide them as they work through their case study. The case studies are designed to reinforce the learning for the week.

### Q14

How will these results affect your teaching/program?

Students will have a deeper understanding of the development of the overall systems beyond the individual program they are working on