1. Course Name and Number:

<table>
<thead>
<tr>
<th>Introduction to Assembly Language Programming</th>
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<tbody>
<tr>
<td>CS118</td>
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2. All Course SLOs from the Course Outline of Record:

**Student Learning Outcomes**

The student will:
1. Demonstrate knowledge of functions and characteristics of an assembly language (such as MASM for Intel 80x86 and IA-32 Processor architecture)
2. Demonstrate knowledge of the use of registers, method of addressing, common instruction formats, stack processing, array and indirect processing.
3. Demonstrate the ability to program elementary programs in assembly language and provide appropriate documentation.
4. Evaluate basic boolean logic and analyze how it applies to programming and computer hardware.
5. Compare ways that application programs communicate with the operating system using interrupt handlers, system calls, and common memory areas.
6. Show how high-level languages translate statements into native machine code.
7. Survey CS concepts such as virtual machines, memory management, instruction execution, pipelining, cache, paging, and error-correction codes.
7. Construct programs to demonstrate several of these concepts.

3. Specific Course SLO(s) assessed as part of this project:

6. Show how high-level languages translate statements into native machine code.

4. Assessment strategy or tool used in the assessment. (Describe below, and if applicable copy/paste any additional related documents at end of this form (i.e. Rubric, score sheet, test
Three questions were put into the final exam to assess the student's ability to translate from high-level language to assembly language.

5. **Specific aspects of the assessment tool which link up to specific Course SLOs being assessed** (i.e. Which specific test questions measured which Course SLOs? Note: May describe with #4 above.):

The questions required the student to understand what the code was doing well enough to translate it to a different language. This assesses their ability in an authentic way since there is no multiple choice guess; they must be able to perform the code writing from their head with no textbook.

6. **Results and analysis of the data.** *(Explain below and if applicable copy/paste any related documents, i.e. spreadsheets with data at the end of this document.)*:

   6. **Show** how high-level languages **translate** statements into native machine code.

   This SLO was assessed by including 3 questions in the final exam that specifically focused on this skill. By comparing the results of these questions only with the overall grades in the course, we can see if this SLO is weaker or stronger in general than other techniques being taught. The 3 questions chosen total to 9 points.

<table>
<thead>
<tr>
<th>Summary of final exam questions related to translation from C to ASM</th>
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</thead>
<tbody>
<tr>
<td>Excellent (7-9 points)</td>
</tr>
<tr>
<td>8 (45%)</td>
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</tbody>
</table>

   The overall grades in the course are similar percentages:

   Excellent (45%), Acceptable (40%), Unsatisfactory (15%)

   From that I believe that this SLO has enough focus compared to others.
7. **Describe any faculty dialogue that occurred as part of the assessment process** (i.e. Were results shared at a department meeting? Was there discussion about changing any SLOs? Etc.):

N/A

8. **Next steps** (i.e. any planned revisions to curriculum or teaching strategies to promote student success, future assessment plans, etc.):

Based on this result I think there is enough focus on this skill and that this SLO is being met.

9. **Results of implemented changes, if available at this time:**

N/A

Please save your finished document in the following format:

`yyyysemester-sloa-courseid.doc`

example: `2012fall-sloa-engl101c.doc`