Initial Departmental Review

The CIS curriculum focuses on four basic areas of Information Technology:

- Networking and Telecommunications
- Programming and Application Development
- Web Technologies and Social Media
- Microsoft Office

It is very possible for a student pursuing a certificate to study within only one area.

In order to make general statements about CIS’ General Educational Outcomes (GEO’s), each area needs to be assessed first with respect to the GEO’s they offer. Only those GEO’s that are found to be present in each area can be confidently attributed to the department as a whole.

To accomplish this, each instructor was asked to list the appropriate GEO’s his/her class provided, for classes the instructor has taught over the past two years. The results are summarized below:

<table>
<thead>
<tr>
<th>General Education Outcome</th>
<th>Percent Agreeing</th>
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<tbody>
<tr>
<td>Does the student demonstrate critical thinking by seeing how knowledge and theories have been created, tested, and revised and by assembling evidence, evaluating its significance, and using it to address and/or solve the issue?</td>
<td>80</td>
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<tr>
<td>Does the student practice analytical inquiry by categorizing information, ideals, and concepts?</td>
<td>90</td>
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<tr>
<td>Does the student learn information literacy by gathering, evaluating, and appropriately citing information?</td>
<td>70</td>
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<tr>
<td>Does the student practice quantitative reasoning by presenting accurate calculations and symbolic operations?</td>
<td>70</td>
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<tr>
<td>Does the student demonstrate communication fluency by using technology appropriately and ethically to gather information and support to his or her ideas?</td>
<td>90</td>
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<tr>
<td>Does the student engage diverse perspectives and civic issues by identifying and encountering various cultures and perspectives, describing how they affect interpretation of information in terms of historic and contemporary assumptions?</td>
<td>40</td>
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<tr>
<td>Does the student encounter sustainable practices by examining how theories of sustainable use and ecology affect environmental, social, and economic health?</td>
<td>60</td>
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<tr>
<td>Has the student acquired and applied knowledge specific to a field of study by describing past and emerging practices, citing core theories, examining key issues, demonstrating competent use of current terminology, and applying these skills and specified knowledge to real-world scenarios?</td>
<td>100</td>
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The results show that only the acquisition of skills and applying them to real-world scenarios is felt to be consistent throughout the courses within CIS. This is not to say that other outcomes are not provided, but they will vary depending on the path of study a student takes.

The Assessment Plan
One important requirement of any assessment process is that it be applied consistently to avoid “contamination” of the data gathered.

There are several “pairings” of courses within CIS that present concepts on an Introductory level, and then an Advanced level – Introduction to Computer Science (CIS 101), for example covers the Introductory levels of Word, Excel, Access and PowerPoint, while CIS 150 provides the Advanced material.

Such pairings offer the opportunity to unobtrusively assess the level of skills obtained in the Introductory level class. The Advanced class can measure the skills delineated in the Course Outline of the Introductory class as part of a review process prior to covering the Advanced material on the topic. This eliminates multiple sources that could make the measurement less valid.

The Assessment Plan will be collecting data in this manner from the Advanced classes in all four areas mentioned above measuring skills that should be obtained in the Introductory class. It is expected this will be fairly labor-intensive to set up, and the limitations of this methodology are not yet known. The benefits are the ease of collecting the data (eventually) and the process is far less disruptive to the classroom setting.

Assessment Plan Implementation

To determine the usefulness of the plan, a model will be run to measure the skills student have in Excel, prior to that material being covered in the Advanced Excel which is a part of CIS 150.

The Course Objectives of CIS 101 state that the student will learn to use Microsoft Excel in the preparation of spreadsheet-based documents. The specific skills include:

- Using the Functions of SUM, AVERAGE and COUNT across Rows and Columns
- Creating a Column and a Pie Chart
- Filtering a Table

Prior to studying the advanced features of Excel, the students will be given a test to measure their knowledge and skill in using these features covered in CIS 101. It will also be determined if the student had taken CIS 101, and how recently this was done.

The testing will be done in October, 2013.

In addition, the faculty will again be surveyed. This time, they will be asked to identify any of the GEO’s of each specific class they have taught. The results will allow identification of any GEO by class and Certificate/degree. This will be completed by November, 2013

Tools similar to the Excel skills can then be designed for each area of study to measure the specific skills and the GEO that are provided across the CIS department. It is reasonable to project that these measurements will be in place during Spring, 2014.