Computer Information Systems and Computer Science

The following tables contain the results for the Major Field Test in Computer Science, which is taken by both computer science and computer information systems majors. The results from the Day Program are very encouraging and seem to be moving steadily up. The AHE results are significantly lower and have changed very little over the years. The lower performance reported below can be partially explained by the fact that the exam is intended for computer science students and not computer information systems students. Almost all AHE students are CIS majors. In the reporting period, there appears to have been one computer science student who graduated from the Evening program. The department received several Degree Program Assessment forms. Not much useful information was contained in the forms. It appears that the outcomes observed are dependent on what projects students choose to research during the particular semester.

There is one curriculum change to report related to past assessment and review. This fall, a new course was proposed, CISS 175, which is intended to replace CISS 170 for students planning to major in Computer Science, Computer Information Systems, and Management Information Systems. This course is often referred to as CS 0 and was recommended in our most recent program review as well as by faculty attending our integration conference. The course has received initial approval by CAP and should be in place for the Academic Year 2012-2013. We believe that this course will help better prepare students for their programming sequence, which is typically very difficult for students, especially in the accelerated eight-week format in AHE. We hope that students will come out of the sequence more equipped to use programming in future courses if they have a smoother introduction to it.

The department had been considering changes to the CIS curriculum, but it was determined that the degree as currently designed had merit. It will continue to be offered in the Day Program. Instead, the department made significant revision to the MIS curriculum (see below) that will probably make it more attractive to AHE students. In any case, now that this decision has been made, it is time to create a departmental exam for the CIS major. This project had been postponed while the curriculum was sorted out. It is unclear how quickly the test can be put together, but it might be ready for trial in the coming year depending on the availability of test banks that can be imported into D2L and administered using the D2L quiz tool. We believe that creating a test inside D2L would be the easiest way to keep the test secure and the questions randomized, but there are administrative issues to be dealt with as well.
Management Information Systems

The department received several Degree Program Analysis Forms; however, very little useful information could be gleaned from these forms. About the most useful observation was that it is difficult to incorporate oral presentation, an objective of the culminating experience course, into an online class. Other weaknesses mentioned related to the research paper writing process, which has been mentioned in previous years. It is unclear how many students were being assessed since the form does not collect this information. Graduates in the MIS program take the Major Field Test in Business; however, the scores for these students were not separated from those for business majors, who take the same exam. Thus, we cannot make any statement based on the performance on this exam. It seems clear that we need a better strategy for assessing this major.

The good news is that long overdue changes have been proposed for the MIS major, based on program review results from several years ago. These changes have been initially approved by CAP and should be in place for the 2012-2013 Academic Year. Now that the curriculum has been revised, and given that other forms of assessment are providing little information, the department will need to make it a priority to propose alternatives, or at least determine how to get better information from the forms and test
we are currently using. In the revised major, MIS students will no longer take the same core courses as business majors, so it may not be appropriate to continue taking the Business MFT. Also, the Business MFT does not test over the use of technology in business or any topic related to information systems management. The Computer Science MFT is not an alternative, so a departmental test will likely need to be created, unless another standardized test can be located.

Mathematics

During this reporting period, five students completed the B.S. in Mathematics degree. All five of the students were also pursuing secondary certification in mathematics; thus, they all completed MATH 493 Senior Seminar in Mathematics for Teachers. The Degree Program Analysis Form for this reports indicated successful and unsuccessful students. The table below summarizes the results from the MFT for each calendar year. These results are all from the day program since the mathematics major is not offered in any other venue.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean</th>
<th>Standard Deviation From National Mean</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>146.6</td>
<td>-0.53</td>
<td>5</td>
</tr>
<tr>
<td>2010</td>
<td>169.4</td>
<td>0.74</td>
<td>5</td>
</tr>
<tr>
<td>2009</td>
<td>141.5</td>
<td>-0.80</td>
<td>4</td>
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<tr>
<td>2008</td>
<td>158.1</td>
<td>0.16</td>
<td>9</td>
</tr>
<tr>
<td>2007</td>
<td>147.3</td>
<td>-0.50</td>
<td>7</td>
</tr>
<tr>
<td>2006</td>
<td>158.1</td>
<td>-0.61</td>
<td>3</td>
</tr>
</tbody>
</table>

This year our performance was very close to previous results with 2010 standing out as an exceptionally good year. The percentile rank for the students overall was the 29th percentile which is not a great result. Four years ago the major was redesigned to add a second course in advanced calculus and to require more upper-level mathematics elective courses. Students will graduate under the new requirements for the first time in 2012, so we still waiting to see if these changes make a difference. We have no recommendations to make for the mathematics curriculum at the current time.
Departmental Program Assessment

Components and Process

Program Name: B.S in Computer Information Systems

Academic Year: 2010-2011

Completer of Form: Suzanne Tourville

<table>
<thead>
<tr>
<th>Sources of Evaluative Information (check all that apply and provide narrative as necessary)</th>
<th>Agency for Program Evaluation/Change (check all that apply)</th>
<th>Assessment Feedback Loop (check all that apply)</th>
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<tr>
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<td></td>
<td></td>
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<tr>
<td>X Standardized test Comp Sci MFT</td>
<td>X Full-time faculty</td>
<td>X Regular departmental meetings</td>
</tr>
<tr>
<td>□ Portfolios</td>
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<tr>
<td>□ Case studies</td>
<td>□ EVP/DAA</td>
<td>X FIC’s</td>
</tr>
<tr>
<td>□ Senior exam</td>
<td>□ VP/AHE</td>
<td>□ Other ________</td>
</tr>
<tr>
<td>□ Other Research Paper</td>
<td>X Other Program Review</td>
<td></td>
</tr>
</tbody>
</table>

Indirect:

□ Surveys
□ Exit interviews
□ Alumni surveys
□ Internship/practica feedback
□ Other ________

Feedback Loop Results (check all that apply and provide brief narrative)

X Specific changes in curriculum
□ Specific changes in pedagogy
□ Personnel changes
□ Creation of advisory groups
□ Pursuit of specialized accreditation
□ Specific change in program admission standards
□ Other ________
### Departmental Program Assessment

#### Components and Process

**Program Name:** B.S. in Computer Science  
**Academic Year:** 2010-2011  
**Completer of Form:** Suzanne Tourville

#### Sources of Evaluative Information
(check all that apply and provide narrative as necessary)

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#### Indirect:
- □ Surveys
- □ Exit interviews
- □ Alumni surveys
- □ Internship/practica feedback
- □ Other _________

#### Feedback Loop Results
(check all that apply and provide brief narrative)

| □ Specific changes in curriculum |
| □ Specific changes in pedagogy |
| □ Personnel changes |
| □ Creation of advisory groups |
| □ Pursuit of specialized accreditation |
| **Specific change in program admission standards** |
| □ Other _________ |
**Departmental Program Assessment**

**Components and Process**

Program Name: B.S. Mathematics

Academic Year: 2010-2011

Completer of Form: Suzanne Tourville

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**Direct:**
- X Standardized test: MATH MFT
- □ Portfolios
- □ Case studies
- □ Senior exam
- □ Other: MATH 493/494 Projects & Presentations

- X Full-time faculty
- □ Academic Assessment Committee
- □ EVP/DAA
- □ VP/AHE
- □ Other _________

- X Regular departmental meetings
- □ Academic Assessment Committee meetings
- □ FIC’s
- X Other: Informal Conversations

**Indirect:**
- □ Surveys
- □ Exit interviews
- □ Alumni surveys
- □ Internship/practical feedback
- □ Other _________

**Feedback Loop Results**

(check all that apply and provide brief narrative)

- □ Specific changes in curriculum
- □ Specific changes in pedagogy
- □ Personnel changes
- □ Creation of advisory groups
- □ Pursuit of specialized accreditation
- □ Specific change in program admission standards
- □ Other _________
Departmental Program Assessment

Components and Process

Program Name: B.S. in Management Information Systems

Academic Year: 2010-2011

Completer of Form: Suzanne Tourville

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Feedback Loop Results

(check all that apply and provide brief narrative)

X Specific changes in curriculum
□ Specific changes in pedagogy
□ Personnel changes
□ Creation of advisory groups
□ Pursuit of specialized accreditation
   Specific change in program admission standards
□ Other
Program Assessment Components and Process

Degree Name: Computer Information Systems

Academic Year: 2010 - 2011

Completer of Form: Eric Cunningham, Associate Dean (Academics), AHE

Sources of Evaluative Information:
• Direct: ETS Major Field Test (MFT) for Computer Science
• Indirect: Degree Program Assessment Form (DPAF)

Agency for Program Evaluation / Change: Vice President, Division for Adult Higher Education (AHE)

Assessment Feedback Loop: Assessment results and methods to improve the assessment culture are discussed at both Campus Directors' Conferences (Spring & Fall). Assessment was discussed in significant detail at the department's faculty integration conference in Fall 2010. At the campus level, assessment results are discussed at each faculty meeting (minimum of twice yearly at each campus). Assessment results are also an habitual agenda item for the periodic Lead Faculty Member conference calls.

Assessment Goals: No academic program below 30th percentile. No campus below 30th percentile in any discipline.

Feedback Loop Results: National benchmark: Mean = 149.1; Standard Deviation = 16.1. In general, the performance of the AHE Computer Information Systems (CIS) students has been well below the national norm. There were 11 students from AHE in this year's cohort. Their aggregate score was 131.8 ranking in the 13th percentile. The MFT results for the CIS students do not accurately portray their knowledge of their major. This is because the MFT used to assess the CIS students is a Computer Science examination. There are significant areas tested by the Computer Science MFT not covered in the CIS curriculum. AHE believes that the college should discontinue the use of the MFT for the CIS students. The instrument serves only to demoralize the CIS students and exacerbate any attempts to foster a positive culture of assessment. It is likely a more accurate picture of the achievement of the CIS students would be obtained if a locally produced departmental test was used.
Program Assessment Components and Process

Degree Name: Management Information Systems (MIS)

Academic Year: 2010 - 2011

Completer of Form: Eric Cunningham, Associate Dean (Academics), AHE

Sources of Evaluative Information:
- Direct: ETS Major Field Test (MFT)
- Indirect: Degree Program Assessment Form (DPAF)

Agency for Program Evaluation / Change: Vice President, Division for Adult Higher Education (AHE)

Assessment Feedback Loop: The Management Information Systems program continues to be a small program. Assessment results and methods to improve the assessment culture are discussed at both Campus Directors’ Conferences (Spring & Fall). Assessment was discussed in significant detail at the department’s faculty integration conference in Fall 2010. At the campus level assessment results are discussed at each faculty meeting (minimum of twice yearly at each campus). Assessment results are also an habitual agenda item for the periodic Lead Faculty Member conference calls.

Assessment Goals: No academic program below 30th percentile. No campus below 30th percentile in any discipline.

Feedback Loop Results: The MIS students take the Business Administration MFT. Their scores are recorded in the Business capstone course cohort so the data for MIS students is not easily discerned. Steps will be taken to identify the MIS students separately in the future. Faculty members teaching CISS 492 – Senior Seminar in Management Information Systems complete the DPAF.