Year- End Report
2013-2014

Department: Computer Information Systems

CIS – Programming
AA/AAAS 149

Document Prepared By:

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Department Information

Annual Updates

Review & Documentation:

Current year goals & outcomes
Integrate mobile application development and application security into curriculum. We have accomplished this goal through our Mobile Development and Security course, CO275. We continue to create new curriculum in existing and new courses that treat these two topics as we redesign this academic program over the coming year.

Goals for next year
Completely redesign this academic program; taking into account current trends in software development, the needs of our four-year transfer partners, and the needs of employers in our community.

Internal collaborations and partnerships
We will request assistance from the Communications Department in order to implement a plan to market this degree via social media and other appropriate outlets. We also will request the IT Department’s help to continue to develop infrastructure to insure students have adequate resources for online learning.

External collaborations and partnerships
Tim Koets has been working with Northwestern Community College and Lake Shore Community College on a grant for a developer apprenticeship program. This grant involves the creation of apprenticeship programs at our institutions with the potential of collaboration in sharing courses, materials, and possibly even students. In order for this to succeed, we need to create a pre-apprenticeship plan where we offer courses in the first year that would equip a student to embark upon an apprenticeship with an employer in the second year. Northwestern College has built a curriculum centered around the Microsoft technology stack in response to employer demands in their area. As such, they are teaching to a series of Microsoft certification exams in order to assess student knowledge and provide a credential to assure an employer the student has the necessary skills. We have seen similar needs from our community partners, and so as we develop the programming degree, we need to keep this in mind and change or create new courses that offer students the ability to take and pass those certifications to enable them to enter an apprenticeship with local employers. The nature of the courses and content is being negotiated with local employers to solicit their interest and commitment to the program.
Departmental needs for support from other departments within the college

See section on “Internal collaborations and partnerships”; note we will continue to rely on assistance from our Curriculum Development Specialist as well as our Transfer and Articulation Coordinator throughout this redesign process.

Program accreditation Updates

N/A

Description of departmental advising plan and outcomes

The CIS Department created an advising policy for the department that includes a series of outreach events to students throughout the year. These events, combined with email and social networking communications, will be used to “advertise” the new degree and promote its advantages to the student as opposed to other colleges in the area. As we modify courses, we will make students aware of all changes impacting the degree.

Departmental professional development activities

If we fully commit to the Microsoft certification approach, faculty who teach course in this program will need to become familiar with the Microsoft Certification exams relevant to the curriculum and degree.

Student Awards

N/A

Other department updates

2013-2014 has been a huge year of learning for CIS faculty in terms of curriculum revisions and degree alignment. We have met a total of 20 hours in 2013-2014 as a staff with Katie Daniels and Erin Busscher to learn the intricacies of what is needed to improve our degree offerings for students and realign both AA transfer degrees and AAAS workforce development degrees. These efforts have not been without frustration as we try to develop processes with varying degrees of successes and setbacks. We are making progress, however, and have realigned degrees making choices clearer for students, faculty and transfer partners. Individual courses have been more closely aligned with transfer partners of GVSU, FSU and Davenport for AA degrees including Programming.
Faculty & Staff

Faculty & Staff Annual Updates

Professional Development Activities
2013-2014 has been a huge year of learning for CIS faculty in terms of curriculum revisions and degree alignment. We have met a total of 20 hours in 2013-2014 as a staff with Katie Daniels and Erin Busscher to learn the intricacies of what is needed to improve our degree offerings for students and realign both AA transfer degrees and AAAS workforce development degrees. These efforts have not been without frustration as we try to develop processes and take one-step forward, then two steps back. We are making progress, however, and have realigned degrees making choices clearer for students, faculty and transfer partners. Individual courses have been more closely aligned with transfer partners of GVSU, FSU and Davenport for AA degrees.

EOL/Release Time Work
N/A

Faculty & Staff Accomplishments/Awards
N/A

Faculty Development for Upcoming Year
We need additional training and development in curricular alignment and an overall understanding of the APR process.
### Perkins Indicators

<table>
<thead>
<tr>
<th>CIP Code</th>
<th>Program Code</th>
<th>Program</th>
<th>1p1 Technical Skills</th>
<th>2p1 Degree/Cert Award</th>
<th>3p1 Retention &amp; Transfer</th>
<th>4p1 Placement</th>
<th>5p1 Non Trad Participation</th>
<th>5p2 Non Trad Completion</th>
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<tr>
<td>11.0201</td>
<td>149</td>
<td>Computer Programming</td>
<td>N/A</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
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</tbody>
</table>

**Perkins Indicators Analysis & Summary**

Our CIS-Programming degree is one of our more popular programs in terms of both enrollment and completion. That said, we have much needed room for improvement in both areas. With the redesign effort, combined with a solid plan for marketing and advertising, we believe all of the Perkins indicators will be substantially impacted over time.
Assessment of Student Learning

*Computer Applications – Computer Programming – 149*

Program Outcomes:

1. Provide students who complete an AAAS degree the skills needed to successfully seek employment as a computer programmer or software engineer.
2. Provide students who complete an AA degree the ability to transfer to a university to seek a degree in computer programming or software engineering.
3. Provide students who complete an AA degree the ability, through transfer, to obtain an advanced degree employed as a computer information manager, software architect, consultant, systems analyst, or system developer.

<table>
<thead>
<tr>
<th>Program Learning Outcomes</th>
<th>ILO</th>
<th>Measure</th>
<th>Findings/ Improvements/Impact</th>
<th>Status, Fall 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate effectively with co-workers in person and in writing.</td>
<td>Communication</td>
<td>Group projects in-class as well as written assignments.</td>
<td>Effective</td>
<td>Complete</td>
</tr>
<tr>
<td>Communicate with customers of diverse social, cultural and ethnic backgrounds to obtain software requirements</td>
<td>Communication, Critical Thinking, Social Responsibility</td>
<td>Assignments in class</td>
<td>Effective</td>
<td>Complete</td>
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<tr>
<td>Translate customer requirements into detailed programming specifications</td>
<td>Critical Thinking</td>
<td>Assignments in class</td>
<td>Effective</td>
<td>Complete</td>
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<tr>
<td>Develop critical thinking skills in order to take programming</td>
<td>Critical Thinking</td>
<td>Assignments in class</td>
<td>Effective</td>
<td>Complete</td>
</tr>
<tr>
<td>Program Learning Outcomes</td>
<td>ILO</td>
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<td>specifications and develop logical instruction sequences that meet the specifications.</td>
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<tr>
<td>Read and write technical documents</td>
<td>Communication</td>
<td>Assignments in class</td>
<td>Effective</td>
<td>Complete</td>
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<tr>
<td>Diagnose logical and syntax errors in computer programs</td>
<td>Critical Thinking</td>
<td>Assignments in class</td>
<td>Effective</td>
<td>Complete</td>
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<tr>
<td>Develop timeliness, reliability and organizational skills demonstrated by regular attendance and participation in class.</td>
<td>Personal Responsibility</td>
<td>Attendance and performance in class</td>
<td>Effective</td>
<td>Complete</td>
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