Course Title: Introduction to Computer Programming

Date: March 25, 2010

Course Number: COP 1000

Number of Credits: 03

Subject Area: Service Course

Coordinator: Mark Weiss
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Catalog Description: Uses graphics and animation in a media programming environment to engage students with no programming experience. Students develop problem solving skills and learn fundamental programming concepts.

Textbooks:

References: None

Prerequisites Courses: None

Corequisites Courses: None

Type: Service course.

Objective: This course, which is intended for non-computing majors or dual enrollment programs, is designed to introduce programming concepts using a modern interactive tool such as Alice or Scratch, or Python with graphics libraries.

Course Outcomes:

1. Be familiar with downloading, installing, and using a programming environment.
2. Be familiar with specifying algorithms to solve real-world problems.
3. Be familiar with how algorithms can be implemented within computer programs.
4. Be familiar with the program development cycle.
School of Computing and Information Sciences  
COP 1XXX  
Introduction to Computer Programming

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number of Lecture Hours</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting started, setting the stage, objects in 3D Space, setting the stage manually.</td>
<td>9</td>
<td>O1, O3</td>
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<tr>
<td>First Alice program, program life cycle, functions, data types and variables.</td>
<td>9</td>
<td>O2, O3, O4, O5</td>
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<tr>
<td>Object concepts applied in problem solving</td>
<td>9</td>
<td>O2, O3, O5</td>
</tr>
<tr>
<td>Control structures applied in problem solving</td>
<td>9</td>
<td>O2, O3, O6, O7</td>
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</table>
**Justification**

Similar courses commonly called CS-0 have been successfully taught to non-majors at dozens of universities including top schools such as Georgia Tech and Duke, and peer universities such as University of Texas El-Paso, and Texas A&M.