## Academic Program: CAS: Computer Science - BS

### Contact Person for Assessment:
Mohammad Mehdi Owrang-Ojaboni

### Unit Website Address:
www.american.edu/cas/cs

### Unit's Primary Department:
Comp Sci

### Learning Outcome: Programming Skills
Programmatic objectives are to ensure that upon graduation students possess strong problem solving and programming skills; are capable of using standard software development tools to create, analyze, modify, and repair software applications.

**Outcome Year:**
- 2009-2010
- 2010-2011
- 2011-2012

**Start Date:** 05/11/2009

**Outcome Status:** Active Learning Outcome

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### Assessment Plan

<table>
<thead>
<tr>
<th>Assessment Measure</th>
<th>Target</th>
<th>Schedule/Cycle</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of sample programming projects in CSC-281 from the perspective of a potential employer of an entry-level programmer.</td>
<td>The quality of architectural design, class implementations, attribute implementations, method implementations, efficiency, style and documentation must be equivalent or exceed those expected of an entry level programmer.</td>
<td>A sampling of ten CSC-281 projects should be evaluated at the end of odd years (2009S, 2011S, ...) by a committee of the Department named by the Department Chair. The Chair is responsible for acting on the data.</td>
<td>Yes</td>
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</table>

**Measure Type:**
- Final Paper/ Final Project

| Evaluation of sample programming projects in CSC-544 from the perspective of a potential employer of an entry-level programmer. | The quality of architectural design, class implementations, attribute implementations, method implementations, efficiency, style and documentation must be equivalent or exceed those expected of an entry-level programmer. | Half of the CSC-544 student projects should be evaluated at the end of every three years (2010S, 2013S,...) by an instructor named by the Chair, who reports the findings to the Chair. The Chair is responsible for acting on the data. | Yes |

**Measure Type:**
- Final Paper/ Final Project

| Review of Internship Employers evaluation and Internship reports. | Employers are satisfied with student interns' work, and student reports indicate their program of studies adequately prepare them for the internship. | Internships should be evaluated at the end of three-year cycles beginning in 2010S by the Internship Advisor who reports the findings to the Chair. The Chair is responsible for acting on the data. | Yes |

**Measure Type:**
- Field Work/ Internship

| Survey of alumni. | Overall satisfaction of accomplishment. | Alumni surveys should be evaluated at the end of three-year cycles beginning in 2011S by the Alumni Advisor who reports the findings to the Chair. The Chair is responsible for acting on the data. | Yes |

**Measure Type:**
- Survey

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### Related Courses
- CSC-281 - Introduction to Computer Science II
Learning Outcome: Computer Systems Skills
Programmatic objectives are to ensure that upon graduation students possess strong skills in developing and maintaining computer systems and networks of computer systems.

**Outcome Year:** 2009-2010
2010-2011
2011-2012

**Start Date:** 05/11/2009
**Outcome Status:** Active Learning Outcome

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<td>Demonstration of projects in operating systems, computer architecture and network design courses.</td>
<td>Successful demonstration of the projects.</td>
<td>Half of the Systems projects in CSC-330, 546, and 564 should be evaluated at the end of three years (2011S, 2014S,...) by an instructor named by the Chair who reports the findings to the Chair. The Chair is responsible for acting on the data.</td>
<td>Yes</td>
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Learning Outcome: Design Database Systems
Programmatic objectives are to ensure that upon graduation students have the ability to design and implement database systems to accept, store, and manage structured and unstructured electronic data.

**Outcome Year:** 2009-2010
2010-2011
2011-2012

**Start Date:** 05/11/2009
**Outcome Status:** Active Learning Outcome

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<td>CSC-281 projects should be evaluated at the end of odd years (2009S, 2011S, ...) by a committee of the Department named by the Department Chair. The Chair is responsible for acting on the data.</td>
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<td>Evaluation of sample programming projects in CSC-544 from the perspective of a potential employer of an entry-level programmer.</td>
<td>The quality of architectural design, class implementations, methods implementations, efficiency, style and documentation must be equivalent or exceed those expected of an entry level programmer.</td>
<td>Half of the CSC-544 student projects should be evaluated at the end of every three years (2010S, 2013S,...) by an instructor named by the Chair, who reports the findings to the Chair. The Chair is responsible for acting on the data.</td>
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<td>Evaluation of sample projects in CSC-570.</td>
<td>Project must show adequate ability to design and implement database systems to accept, store, and manage structured and unstructured electronic data.</td>
<td>Half of the CSC-570 projects are evaluated at the end of every three years (2009S, 2012S,...) by an instructor named by the Chair, who reports the findings to the Chair.</td>
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**Measure Type:** Final Paper/ Final Project
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#### Related Courses

- CSC-281 - Introduction to Computer Science II
- CSC-544 - Object Oriented Programming
- CSC-570 - Database Management Systems

#### Learning Outcome: Theoretical Foundation

Programmatic objectives are to ensure that upon graduation students possess a sound theoretical foundation providing student flexibility and adaptability to future computer technology.

**Outcome Year:**
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- 2010-2011
- 2011-2012

**Start Date:** 05/11/2009

**Outcome Status:** Active Learning Outcome

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