

# COLORADO MESA UNIVERSITY

## Program Outcome and Assessment Plan

**Program Name: Computer Science**

**Date: September 15, 2013**

| Program Outcomes   | Courses/Educational Strategies<br>Indicate if outcome is Beginning(B), Developing(D) or Advanced(A) | Assessment Method(s)  | Time of Data Collection/<br>Person Responsible  | Results of Assessment  | Actions Taken  |
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| <b>Outcome #1</b><br>Students will write programs in multiple programming languages, and be able to translate concepts between languages.    | CSCI 112 CS 2 Data Structures (D)<br><br>CSCI 310 Advanced Programming (D)                          | <b>What:</b> Individual Programming project<br><br><b>How:</b> Specific programming projects will be created by the instructors, so a bank of programs will be available for use. Depending on the specific language, an appropriate project will be given to the students to complete. A rubric for grading the projects will be developed to assure comparable grading across courses and programs. | <b>Who:</b> Course Instructor<br><br><b>When:</b> Each semester                           | <b>Results:</b><br><b>Key Findings:</b><br><b>Conclusions:</b> | <b>Action:</b><br><b>Re-evaluation Date:</b><br>Each fall semester, results from prior year will be examined |
| <b>Outcome #2</b><br>Students will develop the technical specification, and develop, design and test a software solution for a given problem | CSCI 490 Software Engineering (A)<br><br>CSCI 337 User Interface Design (D)                         | <b>What:</b> Team projects<br><br><b>How:</b> Students will be assigned to a team and will either choose or be assigned a semester-long project to complete. A rubric for grading the projects will be developed to assure comparable grading across courses and programs.  | <b>Who:</b> Course Instructor<br><br><b>When:</b> Each semester these courses are offered | <b>Results:</b><br><b>Key Findings:</b><br><b>Conclusions:</b> | <b>Action:</b><br><b>Re-evaluation Date:</b><br>Each fall semester, results from prior year will be examined |

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| <b>Outcome #3</b><br>Students will analyze and measure competing hardware and software components and defend a choice for a given situation | CSCI 484 Computer Networks (D)<br><br>CSCI 490 Software Engineering (A) | <b>What:</b> Tests<br><br><b>How:</b> Homework/Project<br><br>In CSCI 484, a project will be assigned where students choose appropriate technologies to create a network for a given situation, and will justify their choice.<br><br>In CSCI 490, as part of the semester project, students will have to examine alternative solutions for the project, and then explain/defend how they arrived at their choices. Assessment will be made as part of the project assessment by the Course Instructor and other CS faculty using a rubric created by the department. | <b>Who:</b> Course Instructor<br><br><b>When:</b> Each semester these courses are offered | <b>Results:</b><br><b>Key Findings:</b><br><b>Conclusions:</b> | <b>Action:</b><br><b>Re-evaluation Date:</b><br>Each fall semester, results from prior year will be examined |
| <b>Outcome #4</b><br>Students will independently learn and use new technologies   | CSCI 370 Computer Security (D)<br><br>CSCI 490 Software Engineering (A) | <b>What:</b> Assignments and Projects<br><br><b>How:</b> Students will independently find and learn state-of-the-art tools and technologies to effectively and efficiently solve the real-world assignments and projects. Students will be assigned to a team to do a short independent research and present their findings as the final project.   | <b>Who:</b> Course Instructor<br><br><b>When:</b> Each semester these courses are offered | <b>Results:</b><br><b>Key Findings:</b><br><b>Conclusions:</b> | <b>Action:</b><br><b>Re-evaluation Date:</b><br>Each fall semester, results from prior year will be examined |

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| <b>Outcome #4</b><br>Students will work in teams to solve large scale problems | CSCI 337 User Interface Design (D)<br><br>CSCI 490 Software Engineering (A) | <b>What:</b> Team Projects – Projects assigned will require students to explore and use tools learned independently<br><br><b>How:</b> Projects and presentation of projects will be graded by instructor/CS faculty with a rubric to be created | <b>Who:</b> Course Instructor<br><br><b>When:</b> Each semester these courses are offered | <b>Results:</b><br><b>Key Findings:</b><br><b>Conclusions:</b> | <b>Action:</b><br><b>Re-evaluation Date:</b><br>Each fall semester, results from prior year will be examined |
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Template adapted from Long Beach City College and Indiana State University Assessment Plans .