

# Computer Science MS

## *Expanded Statement of Institutional Purpose*

### **Institutional Mission Reference**

The Computer Science program offers graduate students a high quality degree program in computer science that meets national standards of excellence. Program faculty are committed to quality teaching and research. The computer science MS Program supports the University's mission of providing advanced professional education for the Hampton Roads area, the Commonwealth of Virginia, the United States of America and the international community.

### **Institutional Goal(s) Supported**

The Computer Science MS program supports the University goals of (a) quality graduate academic programs, (b) quality teaching, (c) development of new technology and (d) discovery of new knowledge.

### *Intended Educational (Student) Outcomes, Methods for Assessment, Criteria for Success, Assessment Results, and Use of Results*

### **Intended Outcome 1**

Students will acquire broad fundamental knowledge of computer science.

**Method for Assessing Outcome 1 and Criterion for Success:** Toward the end of their program, students must pass the diagnostic exam at the masters level. This exam covers a breadth of computer science field. The outcome of this exam is determined by the entire computer science faculty.

**Summary of Assessment Data Collected for Outcome 1:** During the 2000-2001 academic year, 45 masters students took the departmental diagnostic exam. Eight (18 percent) failed the exam.

**Alternate Method for Assessing Outcome 1 and Criterion for Success:** Students must also take four core courses which together with prerequisite undergraduate courses cover the breadth of computer science. Students must maintain overall B average to graduate.

**Summary of Assessment Data Collected, Alternate Method for Outcome 1:** This is a graduation requirement and is confirmed by the Graduate Program Director before a student graduates, so no additional data are collected.

### **Intended Outcome 2**

Students will acquire in-depth knowledge in a subject area of their specialization.

**Method for Assessing Outcome 2 and Criterion for Success:** In the diagnostic exam, every student must also answer questions on journal article(s) in the area of their specialization.

**Summary of Assessment Data Collected for Outcome 2:** All 45 masters' students who took the exam answered one in-depth question on a journal article they were provided. In each case where a student failed to adequately answer questions on the paper, that student's overall outcome on the exam was a failure also.

**Alternate Method for Assessing Outcome 2 and Criterion for Success:** Students must complete either a project or thesis in the area of their specialization.

**Summary of Assessment Data Collected, Alternate Method for Outcome 2:** Since this is a graduation requirement, no additional data was collected.

**Intended Outcome 3**

Students will have acquired an ability to tackle and solve new problems.

**Method for Assessing Outcome 3 and Criterion for Success:** Toward the end of their program, students must pass the diagnostic exam at the masters level. This exam covers a breadth of computer science field. Each student's outcome on this exam is determined by the entire computer science faculty.

**Summary of Assessment Data Collected for Outcome 3:** As previously stated, 45 masters students took the diagnostic exam last year. Eighteen percent of the student who took the exam failed.

**Alternate Method for Assessing Outcome 3 and Criterion for Success:** In the diagnostic exam, every student must answer questions on journal article(s) in the area of their specialization.

**Summary of Assessment Data Collected, Alternate Method for Outcome 3:** All 45 students who took the diagnostic exam answered questions on a journal article they were provided.

**Alternate Method for Assessing Outcome 3 and Criterion for Success:** Students must complete either a project or thesis in the area of their specialization.

**Summary of Assessment Data Collected, Alternate Method for Outcome 3:** Since this is a graduation requirement and is confirmed by the Graduate Program Director prior to graduation, no additional data were collected.

**Intended Outcome 4**

Students will communicate effectively orally and in writing.

**Method for Assessing Outcome 4 and Criterion for Success:** All students are required to do a thesis or project and submit a written report on their work. This report is read by faculty members.

**Summary of Assessment Data Collected for Outcome 4:** As a degree requirement, all masters students completed a thesis or a written report (in the case of a project) and make an oral presentation to the faculty on their thesis or project. As a degree requirement, no additional data was collected.