Mission / Purpose

The mission of the department is to provide a broad-based, high-quality education in computer science.

Student Learning Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 4: Competence regarding the foundations
The program enables all students to achieve and demonstrate competence regarding the foundations of computer science

Connected Document
MSCS Computer Science Curriculum Map

Related Measures

M 1: Competence - Master's completion rates
Percentage of students starting a graduate program who earn at least an M.S. degree
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

New methods to measure MS competence
Established in Cycle: 2011-2012
Investigate metrics that can be used to assess the competence of our Master's students with respect to foundations of our discip...

M 2: Competence - Placement
Tracks the placement of our MS graduates in the job market, as well as their ability to obtain their "job of choice" within the field.
Source of Evidence: Academic indirect indicator of learning - other
Target: Per UA policy, there is no predefined target for this measure

SLO 5: Ability to contribute to the field
Graduating students have demonstrated the ability to contribute to the discipline in a specific area

Connected Document
MSCS Computer Science Curriculum Map

Related Measures

M 3: Contribute - Student Presentations
Number of student presentations at national/international conferences
Source of Evidence: Presentation, either individual or group
Target: Per UA policy, there is no predefined target for this measure

M 4: Contribute - Conference papers
Conference papers that include at least one student author
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure

Other Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

OthOtcm 1: Program Quality
The program will improve and sustain a high level of recognized quality

OthOtcm 2: Program Optimum Enrollment
The program will build and sustain an optimal level of annual program enrollments and degree completions

OthOtcm 3: Program Highly Valued
The program will be highly valued by its program graduates and other key constituencies it serves

Details of Action Plans for This Cycle (by Established cycle, then alpha)

New methods to measure MS competence
Investigate metrics that can be used to assess the competence of our Master's students with respect to foundations of
Established in Cycle: 2011-2012
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
  Measure: Competence - Master's completion rates | Outcome/Objective: Competence regarding the foundations

our discipline. This is currently being done by looking at MS graduation rates, which is not a valid metric. This topic will be addressed by the faculty at our Fall 2012 retreat (August 2012).
Mission / Purpose

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Student Learning Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 4: Competence regarding the foundations
The program enables all students to achieve and demonstrate competence regarding the foundations of computer science

Related Measures

M 1: Competence - Master's completion rates
Percentage of students starting a graduate program who earn at least an M.S. degree
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
Our MS graduation numbers continue to remain strong. These numbers are bolstered by the Center for Advanced Public Safety, which has several of its full-time employees who are also pursuing an advanced degree in CS.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

New methods to measure MS competence
Established in Cycle: 2011-2012
Investigate metrics that can be used to assess the competence of our Master's students with respect to foundations of our discip...

M 2: Competence - Placement
Tracks the placement of our MS graduates in the job market, as well as their ability to obtain their "job of choice" within the field.
Source of Evidence: Academic indirect indicator of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
The Career Center does not provide information for MS graduates. Informal tracking by the faculty in the department indicate that, once again, all MS program graduates were able to obtain employment within the field within a month or two after graduation.

SLO 5: Ability to contribute to the field
Graduating students have demonstrated the ability to contribute to the discipline in a specific area

Related Measures

M 3: Contribute - Student Presentations
Number of student presentations at national/international conferences
Source of Evidence: Presentation, either individual or group
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
The department continues its policy of sending students to present the results of their research whenever possible. In addition, several of our larger research groups (e.g. software engineering) have a regular meeting time where students present and discuss papers to the group.

M 4: Contribute - Conference papers
Conference papers that include at least one student author
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
The faculty had 86 peer-reviewed conference publications this past year, with well over 50% of them involving students. We continue to actively support student travel. We fully fund all domestic travel for students who
are presenting papers at conferences.

Other Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

OthOtcm 1: Program Quality
The program will improve and sustain a high level of recognized quality

Related Measures

M 5: Program Quality - Comprehensive pass rate
All students in the MS program complete an oral comprehensive exam with the graduate program director.
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
For the 2012-2013 academic year, the MS comprehensive pass rate was 100% - as reported by our graduate program director.

M 6: Program Quality - Faculty scholarly activity
The number of journal papers and research awards received by the faculty in the previous year is an indication of their engagement with graduate students on current research and scholarly activities.
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
For the 2012-2013 academic year, the fifteen tenured/tenure-track faculty members in Computer Science published 68 refereed journal articles, had 86 refereed conference publications, and generated $6,663,071 in new research awards

OthOtcm 2: Program Optimum Enrollment
The program will build and sustain an optimal level of annual program enrollments and degree completions

Related Measures

M 7: Program Optimum Enrollment - enrollment
Captures the current enrollment for the MS program, indicating the sustainability of the program
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
Enrollment numbers for the MS degree in computer science, over the last four years (Fall 2009 to Fall 2012) are 22, 29, 24 and 22. These numbers remain stable, as more emphasis is being placed on our doctoral program.

M 8: Program Optimum Enrollment - graduation
Captures current graduation rates for the program, indicating the success of students within the program
Source of Evidence: Academic direct measure of learning - other
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
Graduation numbers for the last three years in our MS program are 16, 15 and 23. These numbers are consistent and steady.

OthOtcm 3: Program Highly Valued
The program will be highly valued by its program graduates and other key constituencies it serves

Related Measures

M 9: Program Highly Valued - Exit Interviews
The graduate program director meets with all graduating MS students upon the completion of their coursework. Information is disseminated to the faculty regarding the findings from these interviews.
Source of Evidence: Exit interviews with grads/program completers
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
The graduate program director has exit interviews with all MS students. Students indicate satisfaction with the program and believe that it provides them value and allows them to seek employment in an industry of their selection.

M 10: Program Highly Valued - Advisory Board
The department maintains an active Advisory Board that meets twice a year (one via video-conference, once in-person). Discussions with the Advisory Board provide specific input regarding their perceptions of all three degree programs, as well as avenues for improvement.
Source of Evidence: Advisory board or community feedback on program
Target: Per UA policy, there is no predefined target for this measure
Finding (2012-2013) - Target: Met
At the Spring 2013 meeting, it was observed that our Advisory Board believes strongly in the value of the
At the Spring 2013 meeting, it was observed that our Advisory Board believes strongly in the value of the graduate programs at Alabama (both the MS and PhD programs). It encourages the department to find ways to enroll more of our best undergraduates in the MS program, believing that a BS/MS combination provides for a much stronger employee in the workforce.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

**New methods to measure MS competence**

Investigate metrics that can be used to assess the competence of our Master's students with respect to foundations of our discipline. This is currently being done by looking at MS graduation rates, which is not a valid metric. This topic will be addressed by the faculty at our Fall 2012 retreat (August 2012).

**Established in Cycle:** 2011-2012  
**Implementation Status:** Planned  
**Priority:** High

**Relationships (Measure | Outcome/Objective):**  
**Measure:** Competence - Master's completion rates  
**Outcome/Objective:** Competence regarding the foundations
Mission / Purpose

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Related Measures

M 1: Master's completion rates
Percentage of students starting a graduate program who earn at least an M.S. degree

Source of Evidence: Academic direct measure of learning - other

Target: Per UA policy, there is no predefined target for this measure

Finding (2011-2012) - Target: Met
This past year we graduated 21 students with an MS degree in Computer Science (10 in Fall 2011 and 11 in Spring 2012). However, the department recognizes that master's completion rates are not the best method to evaluate whether or not our MS students are truly gaining competence regarding the foundations of our discipline.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

New methods to measure MS competence
Established in Cycle: 2011-2012
Investigate metrics that can be used to assess the competence of our Master's students with respect to foundations of our discip...

SLO 2: Ability to contribute to the field
Graduating students have demonstrated the ability to contribute to the discipline in a specific area

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MSCS Computer Science Curriculum Map

Related Measures

M 2: Student Presentations
Number of student presentations at national/international conferences

Source of Evidence: Presentation, either individual or group

Target: Per UA policy, there is no predefined target for this measure

Finding (2011-2012) - Target: Met
This past year, the department had 43 separate students attending conferences. These students attended a total of 75 unique conferences, with some students attending more than one conference. These conference trips were funded by both departmental funds, Graduate School matching ($300 per trip), and individual faculty research grants.

It should be noted that the number of actual student attendances is higher than normal, as the Department hosted the 50th ACM Southeast Conference this past Spring.

M 3: Conference papers
Conference papers that include at least one student author

Source of Evidence: Academic direct measure of learning - other

Target: Per UA policy, there is no predefined target for this measure

Finding (2011-2012) - Target: Met
The Department had over 40 papers with one or more student authors that were presented at regional, national and international conferences this past year. The department generated a total of 63 papers in refereed conference proceedings, so students were involved in approximately two-thirds of the total conference publications by the department.

It should be noted that these numbers are slightly higher than normal due to the fact that the Department hosted the 50th ACM Southeast Conference on campus in March of 2012, which accounted for approximately 10 of these publications.
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**Established in Cycle:** 2011-2012  
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**Measure:** Master's completion rates  
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