Mission / Purpose
The mission of the Department of Aerospace Engineering and Mechanics is to provide high-quality undergraduate, graduate, and continuing education that supports the aerospace, and other, industries; to attract and retain high-quality students; to conduct high-quality research on critical problems in the aerospace, and other, industries that will advance the body of scientific knowledge and support the department's education programs; and serve constituencies (e.g. individual practicing engineers and computer scientists, industry, government, educational entities, and technical societies) through professional expertise, active involvement, and availability of facilities.

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

SLO 4: Advanced Knowledge
Graduate will demonstrate a thorough knowledge of the theory and practice of modern engineering techniques in a general area of aerospace engineering and/or engineering mechanics (content knowledge).

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 7: Qualifying Exam Pass Rate
Percentage of students successfully completing the qualifying examinations to the total number of students taking the qualifying examination.

Source of Evidence: Writing exam to assure certain proficiency level

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
3 PhD students took the qualifying exams. 3 students passed the qualifying exams.

M 8: Coursework Requirements: Exceptions
Average number of exceptions and overrides to published coursework requirements for graduating PhD students.

Source of Evidence: Academic indirect indicator of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
0 exceptions/overrides for students graduating with a PhD during reporting period. 2012-2013: 3.82 GPA - Average GPA for students graduating with a PhD during 2012-2013.

SLO 5: Independent Critical Thinking
Graduates will demonstrate independent critical thinking in a specialized area of either aerospace engineering or engineering mechanics (skills/ability).

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 9: Peer Reviewed Scholarly Works Submitted
Average number of peer-reviewed scholarly works (conference and archival journal) submitted by PhD students at the time of their graduation.

Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Not Reported This Cycle
Not tracked this assessment cycle.

M 10: Quality of Dissertation
Average quality of written dissertations as evaluated by students’ dissertation committees.

Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1
Target: No Target

Finding (2012-2013) - Target: Not Reported This Cycle
Data not collected this assessment cycle.

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

Assessment of Dissertation Quality
Established in Cycle: 2012-2013
A new assessment survey will be developed to quantify the quality of the written dissertation. The survey will query the disser...

SLO 6: (RETIRED) Apply Knowledge to Novel Problems/Situations
(Skills/Abilities) PhD/AEM graduates should be able to apply knowledge gained to novel problems and situations and move into new situations

Connected Document
PhDAEM Curriculum Map 1

SLO 7: (RETIRED) An Improvement Outcome Derived
(An Improvement Outcome Derived From their 2010-11 Assessment Findings) Increase number of scholarly works and course options

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 11: (RETIRED) Increased number of courses
Increased number of courses available through the newly formed Aerospace Consortium of Alabama
Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No Target

M 12: (RETIRED) Alumnae feedback
Alumnae feedback
Source of Evidence: Academic indirect indicator of learning - other

M 13: (RETIRED) Career placement of graduates
Career placement of graduates
Source of Evidence: Academic indirect indicator of learning - other

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

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

Related Measures

M 1: Peer Reviewed Journal Publications: Accepted
Number of peer reviewed journal publications accepted for publication per PhD student.
Source of Evidence: Exit interviews with grads/program completers

Connected Document
PhDAEM Curriculum Map 1

Target:
No Target

Finding (2012-2013) - Target: Not Reported This Cycle
Not tracked during this assessment period.

M 2: GRE Scores: Admitted Students
Average GRE composite score for students admitted to Ph.D. program.
Source of Evidence: Standardized test of subject matter knowledge

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
13 PhD students accepted into program. Average GRE (new scaling): 313.23. The minimum requirement for admission to the UA Graduate School is 300.

OthOtcn 2: Program Optimal Enrollment
The program will build and sustain an optimal level of annual program enrollments and degree completion.

Connected Document
AEM Graduate Program Enrollments

Related Measures
M 3: Enrollment
Number of students enrolled in PhD program.
Source of Evidence: Academic indirect indicator of learning - other

Connected Document
AEM Graduate Program Enrollments

Target:
No target set.

Finding (2012-2013) - Target: Met
Fall 2012: 11 PhD students enrolled.

M 4: Degrees Conferred
Number of PhD degrees conferred.
Source of Evidence: Existing data

Target:
2.25 PhD graduates per year (5-year average). Alabama Commission on Higher Education (ACHE) requirement.

Finding (2012-2013) - Target: Not Met
2012-2013: 3 PhD student graduated. Five year average: 1.6 PhD graduates per year.

Related Action Plans (by Established cycle, then alpha):
Increase 5-year average of PhD degrees conferred per year
Established in Cycle: 2012-2013
The AEM Department will refocus its resources to increase the number of PhD students in the program.
For full information, see the Details of Action Plans section of this report.

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

Related Measures

M 5: Career Placement
Career placement demographic for graduating PhD students.
Source of Evidence: Exit interviews with grads/program completers

Target:
No target set.

Finding (2012-2013) - Target: Not Reported This Cycle
No data collected this cycle.

M 6: SOI: Graduate Courses
Average Student Opinion of Instruction for 500-level and above courses during the reporting period.
Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
4.07 Weighted average of SOI rating of graduate courses. Maximum possible rating of 5.00. Weighting factor - standard semester credit hours.

Details of Action Plans for This Cycle (by Established cycle, then alpha)
Assessment of Dissertation Quality
A new assessment survey will be developed to quantify the quality of the written dissertation. The survey will query the dissertation committee for input as to the quality of the dissertation and the dissertation research.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Quality of Dissertation | Outcome/Objective: Independent Critical Thinking

Implementation Description: Survey to be completed immediately after the oral defense of the dissertation.
Projected Completion Date: 12/2013
Responsible Person/Group: Graduate Program Coordinator

Increase 5-year average of PhD degrees conferred per year
The AEM Department will refocus its resources to increase the number of PhD students in the program.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Degrees Conferred | Outcome/Objective: Program Optimal Enrollment

Implementation Description: Highest priority for departmental GTA positions will be given to PhD students.
Projected Completion Date: 05/2014
Responsible Person/Group: John Baker
Mission / Purpose

The Educational Specialist program in Elementary Education program of the Department of Curriculum and Instruction is designed to facilitate the professional growth of educators as reflective decision-makers who facilitate student learning. This organizing theme provides focus and continuity across the coursework. The program integrates essential knowledge, established and current research findings, and sound professional practice within the structure of specific courses and experiences. In designing the program, faculty incorporate guidelines from specific professional societies and associations, state of Alabama certification requirements, research, and their own professional judgments.

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

SLO 1: Content Knowledge

Students will demonstrate appropriate scholarly writing related to content knowledge within a specific line of scholarly inquiry (e.g., teaching and learning high school physics, intersections of race and class in learning to read in elementary school, and so forth).

Connected Document
Postmaster Sec ed Curriculum Maps

Related Measures

M 1: Individual Course Papers--Content

EdS Students complete papers that demonstrate their developing content knowledge within an area of scholarly inquiry (e.g., teaching AP Physics in high school, the intersection of race and class in learning to read in kindergarten, and so forth). For this measure assessors are particularly interested in the literature review section of the paper. This is assessed in CIE 625 (Science), CIE 626 (Social Science), CIE 680 (Mathematics), and CRD 690 (Literacy).

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
25% Outstanding; 50% Very Good or Acceptable; 25% or less according to the EDS Teaching Field Course Paper Rubric

Finding (2012-2013) - Target: Met
5% scored Outstanding, 95% Very Good or Acceptable and 5% unacceptable.

M 2: Comprehensive Exam--Content

EdS Students take a comprehensive exam after they’ve finished their coursework and before they graduate. This comprehensive exam is an assessment of their facility with scholarly writing, research methods, and content knowledge. The focus of this measure is on content knowledge.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Target:
25% Outstanding; 50% Very Good or Acceptable; 25% or less Unacceptable according to the EDS Comprehensive Exam Rubric

Finding (2012-2013) - Target: Met
100% scored Acceptable

SLO 2: Original Research

Students will design original scholarly research within their selected area of study that meets the professional standards of the field.

Connected Document
Postmaster Sec ed Curriculum Maps

Related Measures

M 3: Individual Course Papers--Research

EdS students complete papers that demonstrate their developing research methodology expertise within an area of scholarly inquiry (English, ESL, Mathematics, and so on). For this measure assessors are particularly interested in the research methodology section of the paper/project. This is assessed in CIE 625 (Science), CIE 626 (Social Science), CIE 680 (Mathematics), and CRD 690 (Literacy).

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
25% Outstanding; 50% Very Good or Acceptable; 25% or less Unacceptable according to the EDS Teaching Field Course Paper

Finding (2012-2013) - Target: Met
5% scored Outstanding, 95% Very Good or Acceptable and 5% scored Unacceptable.

M 4: Comprehensive Exam--Research
EdS Students take a comprehensive exam after they have finished their coursework and before they graduate. This comprehensive exam is an assessment of their facility with scholarly writing, research methods, and content knowledge. The focus of this measure is on research methods.

Source of Evidence: Comprehensive/end-of-program subject matter exam

**Target:**
25% Outstanding; 50% Very Good or Acceptable; 25% or less Unacceptable according to the EDS Comprehensive Exam Rubric

**Finding (2012-2013) - Target: Partially Met**
66% Acceptable and 33% Unacceptable

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

**OthOtcm 3: Quality**
The program will improve and sustain a high level of recognized quality.

**Connected Document**
Postmaster Sec ed Curriculum Maps

**Related Measures**

**M 5: SOIs**
Student evaluations of EdS course professors.

Source of Evidence: Evaluations

**Target:**
Mean scores on all items in the SOI will be = or > 3/5. Scores on rigor and timeliness of feedback will be particularly scrutinized this year.

**Finding (2012-2013) - Target: Met**
Of the four Eds courses taught in the Spring and Summer 2013 semesters, the mean score for rigor: 4.50 and timeliness: 4.90.

**M 6: Professional Activities**
All faculty teaching certification courses will do two or more of the following each and every year. 1. Attend a professional development sessions  2. Present papers at professional conferences  3. Submit papers to professional journals  4. Publish in books and/or peer-reviewed journals  5. Develop and submit a proposal for external funding of $100,000 or more as PI or Co-PI b. Complete 10 guest teaching hours in public school each semester.

Source of Evidence: Performance (recital, exhibit, science project)

**Target:**
Each course instructor will demonstrate fulfillment of at least 2 of the indicators of quality.

**Finding (2012-2013) - Target: Met**
100% of faculty attend professional development sessions. 100% of faculty present papers at professional conferences. 100% of faculty submit papers to professional journals. 80% of faculty publish in books and/or peer-reviewed journals. 35% of faculty develop and submit a proposal for external funding of $100,000 or more as PI or Co-PI. 100% of faculty complete 10 guest teaching hours in public school each year.

**OthOtcm 4: Enrollments and Completions**
The program will build and sustain an optimal level of annual program enrollments and degree completions.

**Connected Document**
Postmaster Sec ed Curriculum Maps

**Related Measures**

**M 7: Enrollment and Completion Data**
Data from OIRA and department about EdS enrollments, progress toward comps, and completions. This data will be separated by discipline (English, History, and so forth) and program (ELE or SCTL).

Source of Evidence: Existing data

**Target:**
We will analyze trends over the past three years and develop a target for next year.

**Finding (2012-2013) - Target: Met**
For the 2012-2013 year, 4 elementary EDS students are presently enrolled and taking courses. Two of these students began in the spring and summer of 2013. The other 2 students began in the spring 2011 semester. Approximately, 75% of these students have completed at least 3 courses (9) hours of the program. The other 25% has completed at least 2 courses. Acceptable progress has been made toward program completion for 75% (3 of 4) of the students. However, the other 25% has not progressed at the same rate.

**M 8: Comp Exam and Entry Data Analyses**
By critically assessing performance on comps each year and comparing those data to admission criteria on the GRE or MAT, we hope to better ascertain if we need to alter admission credentials for the department.
Source of Evidence: Comprehensive/end-of-program subject matter exam

Target:
100% pass rate on the GRE and MAT.

Finding (2012-2013) - Target: Not Reported This Cycle
We have an action plan in place to address this measure.

OthOcm 5: Highly Valued
The program will be highly valued by its program graduates and other key constituencies it serves.

Connected Document
Postmaster Sec ed Curriculum Maps

Related Measures

M 9: Exit Surveys
All graduates will be asked to complete a survey about their program.

Source of Evidence: Student satisfaction survey at end of the program

Target:
Mean of 5/7 on survey items related to how highly the students value their program.

Finding (2012-2013) - Target: Not Reported This Cycle
We will begin collecting this data in the Spring 2014 semester. Surveys have been created and as part of the action plan will be sent to graduates in May and August of the calendar year.

M 10: Report Card
Alabama Department of of Education Report Card.

Source of Evidence: Evaluations

Target:
B or better on State Report Card

Finding (2012-2013) - Target: Met
We earned an A
University of Alabama

Detailed Assessment Report
2012-2013 Aerospace Engineering and Mechanics Ph.D
As of: 7/15/2014 02:51 PM CENTRAL

Mission / Purpose
The mission of the Department of Aerospace Engineering and Mechanics is: to provide high-quality undergraduate, graduate, and continuing education that supports the aerospace, and other, industries; to attract and retain high-quality students; to conduct high-quality research on critical problems in the aerospace, and other, industries that will advance the body of scientific knowledge and support the department's education programs; and serve constituencies (e.g. individual practicing engineers and computer scientists, industry, government, educational entities, and technical societies) through professional expertise, active involvement, and availability of facilities.

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

SLO 4: Advanced Knowledge
Graduate will demonstrate a thorough knowledge of the theory and practice of modern engineering techniques in a general area of aerospace engineering and/or engineering mechanics (content knowledge).

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 7: Qualifying Exam Pass Rate
Percentage of students successfully completing the qualifying examinations to the total number of students taking the qualifying examination.

Source of Evidence: Writing exam to assure certain proficiency level

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
3 PhD students took the qualifying exams. 3 students passed the qualifying exams.

M 8: Coursework Requirements: Exceptions
Average number of exceptions and overrides to published coursework requirements for graduating PhD students.

Source of Evidence: Academic indirect indicator of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
0 exceptions/overrides for students graduating with a PhD during reporting period. 2012-2013: 3.82 GPA - Average GPA for students graduating with a PhD during 2012-2013.

SLO 5: Independent Critical Thinking
Graduates will demonstrate independent critical thinking in a specialized area of either aerospace engineering or engineering mechanics (skills/ability).

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 9: Peer Reviewed Scholarly Works Submitted
Average number of peer-reviewed scholarly works (conference and archival journal) submitted by PhD students at the time of their graduation.

Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Not Reported This Cycle
Not tracked this assessment cycle.

M 10: Quality of Dissertation
Average quality of written dissertations as evaluated by students' dissertation committees.

Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1
Target:
No Target

Finding (2012-2013) - Target: Not Reported This Cycle
Data not collected this assessment cycle.

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

Assessment of Dissertation Quality
Established in Cycle: 2012-2013
A new assessment survey will be developed to quantify the quality of the written dissertation. The survey will query the disser...

SLO 6: (RETIRE) Apply Knowledge to Novel Problems/Situations
(Skills/Abilities) PhDAEM graduates should be able to apply knowledge gained to novel problems and situations and move into new situations

Connected Document
PhDAEM Curriculum Map 1

SLO 7: (RETIRE) An Improvement Outcome Derived
(An Improvement Outcome Derived From their 2010-11 Assessment Findings) Increase number of scholarly works and course options

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 11: (RETIRE) Increased number of courses
Increased number of courses available through the newly formed Aerospace Consortium of Alabama
Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No Target

M 12: (RETIRE) Alumnae feedback
Alumnae feedback
Source of Evidence: Academic indirect indicator of learning - other

M 13: (RETIRE) Career placement of graduates
Career placement of graduates
Source of Evidence: Academic indirect indicator of learning - other

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 1: Peer Reviewed Journal Publications: Accepted
Number of peer reviewed journal publications accepted for publication per PhD student.
Source of Evidence: Exit interviews with grads/program completers

Connected Document
PhDAEM Curriculum Map 1

Target:
No Target

Finding (2012-2013) - Target: Not Reported This Cycle
Not tracked during this assessment period.

M 2: GRE Scores: Admitted Students
Average GRE composite score for students admitted to Ph.D. program.
Source of Evidence: Standardized test of subject matter knowledge

Connected Document
PhDAEM Curriculum Map 1

Target:
No target set.

Finding (2012-2013) - Target: Met
13 PhD students accepted into program. Average GRE (new scaling): 313.23. The minimum requirement for admission to the UA Graduate School is 300.

OthOtcm 2: Program Optimal Enrollment
The program will build and sustain an optimal level of annual program enrollments and degree completion.

Connected Document
AEM Graduate Program Enrollments

Related Measures
M 3: Enrollment
Number of students enrolled in PhD program.
Source of Evidence: Academic indirect indicator of learning - other

Connected Document
AEM Graduate Program Enrollments

Target:
No target set.

Finding (2012-2013) - Target: Met
Fall 2012: 11 PhD students enrolled.

M 4: Degrees Conferred
Number of PhD degrees conferred.
Source of Evidence: Existing data

Target:
2.25 PhD graduates per year (5-year average). Alabama Commission on Higher Education (ACHE) requirement.

Finding (2012-2013) - Target: Not Met
2012-2013: 3 PhD student graduated. Five year average: 1.6 PhD graduates per year.

Related Action Plans (by Established cycle, then alpha):
Increase 5-year average of PhD degrees conferred per year
Established in Cycle: 2012-2013
The AEM Department will refocus its resources to increase the number of PhD students in the program.

For full information, see the Details of Action Plans section of this report.

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

Related Measures

M 5: Career Placement
Career placement demographic for graduating PhD students.
Source of Evidence: Exit interviews with grads/program completers

Target:
No target set.

Finding (2012-2013) - Target: Not Reported This Cycle
No data collected this cycle.

M 6: SOI: Graduate Courses
Average Student Opinion of Instruction for 500-level and above courses during the reporting period.
Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map

Target:
No target set.

Finding (2012-2013) - Target: Met
4.07 Weighted average of SOI rating of graduate courses. Maximum possible rating of 5.00. Weighting factor - standard semester credit hours.

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

Assessment of Dissertation Quality
A new assessment survey will be developed to quantify the quality of the written dissertation. The survey will query the dissertation committee for input as to the quality of the dissertation and the dissertation research.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Quality of Dissertation | Outcome/Objective: Independent Critical Thinking
Implementation Description: Survey to be completed immediately after the oral defense of the dissertation.
Projected Completion Date: 12/2013
 Responsible Person/Group: Graduate Program Coordinator

Increase 5-year average of PhD degrees conferred per year
The AEM Department will refocus its resources to increase the number of PhD students in the program.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Degrees Confirmed | Outcome/Objective: Program Optimal Enrollment
Implementation Description: Highest priority for departmental GTA positions will be given to PhD students.
Projected Completion Date: 05/2014
 Responsible Person/Group: John Baker
Mission / Purpose

The Educational Specialist program in Elementary Education program of the Department of Curriculum and Instruction is designed to facilitate the professional growth of educators as reflective decision-makers who facilitate student learning. This organizing theme provides focus and continuity across the coursework. The program integrates essential knowledge, established and current research findings, and sound professional practice within the structure of specific courses and experiences. In designing the program, faculty incorporate guidelines from specific professional societies and associations, state of Alabama certification requirements, research, and their own professional judgments.

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

SLO 1: Content Knowledge

Students will demonstrate appropriate scholarly writing related to content knowledge within a specific line of scholarly inquiry (e.g. teaching and learning high school physics, intersections of race and class in learning to read in elementary school, and so forth).

Related Measures

M 1: Individual Course Papers--Content
EdS Students complete papers that demonstrate their developing content knowledge within an area of scholarly inquiry (e.g. teaching AP Physics in high school, the intersection of race and class in learning to read in kindergarten, and so forth). For this measure assessors are particularly interested in the literature review section of the paper. This is assessed in CIE 625 (Science), CIE 626 (Social Science), CIE 680 (Mathematics), and CRD 690 (Literacy).

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
25% Outstanding; 50% Very Good or Acceptable; 25% or less according to the EDS Teaching Field Course Paper Rubric

Finding (2012-2013) - Target: Met
5% scored Outstanding, 95% Very Good or Acceptable and 5% unacceptable.

M 2: Comprehensive Exam--Content

EdS Students take a comprehensive exam after they've finished their coursework and before they graduate. This comprehensive exam is an assessment of their facility with scholarly writing, research methods, and content knowledge. The focus of this measure is on content knowledge.

Source of Evidence: Comprehensive/end-of-program subject matter exam

Target:
25% Outstanding; 50% Very Good or Acceptable; 25% or less Unacceptable according to the EDS Comprehensive Exam Rubric

Finding (2012-2013) - Target: Met
100% scored Acceptable

SLO 2: Original Research

Students will design original scholarly research within their selected area of study that meets the professional standards of the field.

Related Measures

M 3: Individual Course Papers--Research

EdS students complete papers that demonstrate their developing research methodology expertise within an area of scholarly inquiry (English, ESL, Mathematics, and so on). For this measure assessors are particularly interested in the research methodology section of the paper/project. This is assessed in CIE 625 (Science), CIE 626 (Social Science), CIE 680 (Mathematics), and CRD 690 (Literacy).

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
25% Outstanding; 50% Very Good or Acceptable; 25% or less Unacceptable according to the EDS Teaching Field Course Paper

Finding (2012-2013) - Target: Met
5% scored Outstanding, 95% Very Good or Acceptable and 5% scored Unacceptable.

M 4: Comprehensive Exam--Research
EdS Students take a comprehensive exam after they have finished their coursework and before they graduate. This comprehensive exam is an assessment of their facility with scholarly writing, research methods, and content knowledge. The focus of this measure is on research methods.

**Source of Evidence:** Comprehensive/end-of-program subject matter exam

**Target:**
25% Outstanding: 50% Very Good or Acceptable; 25% or less Unacceptable according to the EDS Comprehensive Exam Rubric

**Finding (2012-2013) - Target: Partially Met**
66% Acceptable and 33% Unacceptable

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

#### OthOtcm 3: Quality

The program will improve and sustain a high level of recognized quality.

**Connected Document**
Postmaster Sec ed Curriculum Maps

**Related Measures**

**M 5: SOIs**

Student evaluations of EdS course professors.

**Source of Evidence:** Evaluations

**Target:**
Mean scores on all items in the SOI will be = or > 3/5. Scores on rigor and timeliness of feedback will be particularly scrutinized this year.

**Finding (2012-2013) - Target: Met**
Of the four Eds courses taught in the Spring and Summer 2013 semesters, the mean score for rigor: 4.50 and timeliness: 4.90.

**M 6: Professional Activities**

All faculty teaching certification courses will do two or more of the following each and every year. 1. Attend a professional development sessions 2. Present papers at professional conferences 3. Submit papers to professional journals 4. Publish in books and/or peer-reviewed journals 5. Develop and submit a proposal for external funding of $100,000 or more as PI or Co-PI b. Complete 10 guest teaching hours in public school each semester.

**Source of Evidence:** Performance (recital, exhibit, science project)

**Target:**
Each course instructor will demonstrate fulfillment of at least 2 of the indicators of quality.

**Finding (2012-2013) - Target: Met**
100% of faculty attend professional development sessions.
100% of faculty present papers at professional conferences.
100% of faculty submit papers to professional journals.
80% of faculty publish in books and/or peer-reviewed journals.
35% of faculty develop and submit a proposal for external funding of $100,000 or more as PI or Co-PI.
100% of faculty complete 10 guest teaching hours in public school each year.

#### OthOtcm 4: Enrollments and Completions

The program will build and sustain an optimal level of annual program enrollments and degree completions.

**Connected Document**
Postmaster Sec ed Curriculum Maps

**Related Measures**

**M 7: Enrollment and Completion Data**

Data from OIRA and department about EdS enrollments, progress toward comps, and completions. This data will be separated by discipline (English, History, and so forth) and program (ELE or SCTL).

**Source of Evidence:** Existing data

**Target:**
We will analyze trends over the past three years and develop a target for next year.

**Finding (2012-2013) - Target: Met**
For the 2012-2013 year, 4 elementary EdS students are presently enrolled and taking courses. Two of these students began in the spring and summer of 2013. The other 2 students began in the spring 2011 semester. Approximately, 75% of these students have completed at least 3 courses (9) hours of the program. The other 25% has completed at least 2 courses. Acceptable progress has been made toward program completion for 75% (3 of 4) of the students. However, the other 25% has not progressed at the same rate.

**M 8: Comp Exam and Entry Data Analyses**

By critically assessing performance on comps each year and comparing those data to admission criteria on the GRE or MAT, we hope to better ascertain if we need to alter admission credentials for the department.
Source of Evidence: Comprehensive/end-of-program subject matter exam

**Target:**
100% pass rate on the GRE and MAT.

**Finding (2012-2013) - Target: Not Reported This Cycle**
We have an action plan in place to address this measure.

**OthOtcm 5: Highly Valued**
The program will be highly valued by its program graduates and other key constituencies it serves.

**Connected Document**
Postmaster Sec ed Curriculum Maps

**Related Measures**

**M 9: Exit Surveys**
All graduates will be asked to complete a survey about their program.

Source of Evidence: Student satisfaction survey at end of the program

**Target:**
Mean of 5/7 on survey items related to how highly the students value their program.

**Finding (2012-2013) - Target: Not Reported This Cycle**
We will begin collecting this data in the Spring 2014 semester. Surveys have been created and as part of the action plan will be sent to graduates in May and August of the calendar year.

**M 10: Report Card**
Alabama Department of of Education Report Card.

Source of Evidence: Evaluations

**Target:**
B or better on State Report Card

**Finding (2012-2013) - Target: Met**
We earned an A
Detailed Assessment Report
2011-2012 Aerospace Engineering and Mechanics Ph.D
As of: 7/19/2014 02:52 PM CENTRAL

Mission / Purpose
The mission of the Department of Aerospace Engineering and Mechanics is: to provide high-quality undergraduate, graduate, and continuing education that supports the aerospace, and other, industries; to attract and retain high-quality students; to conduct high-quality research on critical problems in the aerospace, and other, industries that will advance the body of scientific knowledge and support the department's education programs; and serve constituencies (e.g. individual practicing engineers and computer scientists, industry, government, educational entities, and technical societies) through professional expertise, active involvement, and availability of facilities.

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

SLO 1: Discipline Knowledge in Specialty
(Discipline Knowledge) PhDAEM graduates should be highly proficient in their chosen area of specialty
Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 1: Written qualifying exams
Written qualifying exams
Source of Evidence: Writing exam to assure certain proficiency level
Connected Document
PhDAEM Curriculum Map 1

M 2: Written dissertation and defense
Written dissertation and defense
Source of Evidence: Academic direct measure of learning - other
Connected Document
PhDAEM Curriculum Map 1

Target:
No Target
Finding (2011-2012) - Target: Met
PhD Dissertation and Defense:

<table>
<thead>
<tr>
<th>Year</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>3</td>
</tr>
<tr>
<td>2011-2012</td>
<td>1</td>
</tr>
</tbody>
</table>

SLO 2: Critical Thinking, Analysis, Synthesis
(Skills/Abilities) PhDAEM graduates should be able to think critically and have the ability to analyze and synthesize data.

Connected Document
PhDAEM Curriculum Map 1

Related Measures

M 2: Written dissertation and defense
Written dissertation and defense
Source of Evidence: Academic direct measure of learning - other
Connected Document
PhDAEM Curriculum Map 1

Target:
No Target
Finding (2011-2012) - Target: Met
PhD Dissertation and Defense:

<table>
<thead>
<tr>
<th>Year</th>
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<tr>
<td>2011-2012</td>
<td>1</td>
</tr>
</tbody>
</table>

M 3: Dissertation proposal
Dissertation proposal
Source of Evidence: Academic direct measure of learning - other
Connected Document
PhDAEM Curriculum Map 1

Target:
No Target
Finding (2011-2012) - Target: Met
These data no longer collected. Discontinue as a Measure.
**M 4: Written dissertation and defense**
Written dissertation and defense 2
Source of Evidence: Academic direct measure of learning - other

**Connected Document**
PhDAEM Curriculum Map 1

**Target:**
No Target

*Findings (2011-2012) - Target: Met*
PhD Dissertation and Defense:

2010-2011: 3
2011-2012: 1

**SLO 3: Apply Knowledge to Novel Problems/Situations**
(Skills/Abilities) PhDAEM graduates should be able to apply knowledge gained to novel problems and situations and move into new situations

**Connected Document**
PhDAEM Curriculum Map 1

**Related Measures**

**M 5: (Co)authorship of at least one published scholarly work**
(Co)authorship of at least one published scholarly work
Source of Evidence: Academic direct measure of learning - other

**Connected Document**
PhDAEM Curriculum Map 1

**Target:**
No Target

*Findings (2011-2012) - Target: Met*
(Co)authorship of scholarly work:

2010-2011: 11
2011-2012: 13

(Co)authorship adequate.

**SLO 4: An Improvement Outcome Derived**
(An Improvement Outcome Derived From their 2010-11 Assessment Findings) Increase number of scholarly works and course options

**Connected Document**
PhDAEM Curriculum Map 1

**Related Measures**

**M 6: Number of scholarly works**
Number of scholarly works
Source of Evidence: Academic direct measure of learning - other

**Connected Document**
PhDAEM Curriculum Map 1

**Target:**
No Target

*Findings (2011-2012) - Target: Met*
(Co)authorship of scholarly work:

2010-2011: 11
2011-2012: 13

(Co)authorship adequate.

**M 7: Increased number of courses**
Increased number of courses available through the newly formed Aerospace Consortium of Alabama
Source of Evidence: Academic direct measure of learning - other

**Connected Document**
PhDAEM Curriculum Map 1

**Target:**
No Target

*Findings (2011-2012) - Target: Not Reported This Cycle*
Proposed Alabama Aerospace Consortium (which would open up more course options) has not yet been approved. So, no findings or conclusions are possible at present.

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

**OthOutcm 5: Recognized quality**
The program will improve and sustain a high level of recognized quality.
Related Measures

M 5: (Co)authorship of at least one published scholarly work
(Co)authorship of at least one published scholarly work
Source of Evidence: Academic direct measure of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No Target

Finding (2011-2012) - Target: Met
(Co)authorship of scholarly work:

2010-2011: 11
2011-2012: 13

(Co)authorship adequate.

M 8: (Co)authorship of at least one published scholarly work
Student (co)authorship of at least one published scholarly work
Source of Evidence: Academic indirect indicator of learning - other

Connected Document
PhDAEM Curriculum Map 1

Target:
No Target

Finding (2011-2012) - Target: Met
(Co)authorship of scholarly work:

2010-2011: 11
2011-2012: 13

(Co)authorship adequate.

M 9: Career placement of graduates
Career placement of graduates
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target

Finding (2011-2012) - Target: Met
Career Placement after graduation:

<table>
<thead>
<tr>
<th></th>
<th>Academic</th>
<th>Other (Industry, Government, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011:</td>
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<tr>
<td>2012:</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Adequate Placement.

OthOtm 6: Optimal level
The program will build and sustain an optimal level of annual program enrollments and degree completion.

Connected Document
AEM Graduate Program Enrollments

Related Measures

M 10: Annual graduation rates
Annual graduation rates
Source of Evidence: Academic indirect indicator of learning - other

Target:
ACHE requires a five year average of 2.25 graduates

Finding (2011-2012) - Target: Not Reported This Cycle

2007-2008: 4 (PhD ESM)
2008-2009: 1 (PhD ESM)
2009-2010: 2 (PhD ESM)
2010-2011: 2 (PhD ESM)
2011-2012: 2 (as of May 2012); 1 is PhD ESM, 1 is the new PhD AEM

PhD ESM 5 year graduation rate did not meet ACHE requirements. Degree has changed to PhD AEM so as to attract students with interest in Aerospace Engineering as well as those with an interest in Engineering Science and Mechanics.

M 11: Enrollment trends
Enrollment trends
Source of Evidence: Academic indirect indicator of learning - other

Connected Document
AEM Graduate Program Enrollments

Target:
No Target

Finding (2011-2012) - Target: Met
Enrollment in the recently PhD-AEM program shows an increase over enrollments in the previous PhD-ESM program. This is a hoped-for result, though it is still early to classify this as a "trend".

OthOtcn 7: Program Value
The program will be highly valued by its program graduates and other key constituencies it serves.

Related Measures

M 9: Career placement of graduates
Career placement of graduates
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target

Finding (2011-2012) - Target: Met
Career Placement after graduation:

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<tr>
<td>2012:</td>
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</tbody>
</table>

Adequate Placement.

M 12: Alumnae feedback
Alumnae feedback
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target

Finding (2011-2012) - Target: Met
No feedback, other than career placement, received.

M 13: Career placement of graduates
Career placement of graduates
Source of Evidence: Academic indirect indicator of learning - other

Target:
No Target

Finding (2011-2012) - Target: Met
Career Placement after graduation:

<table>
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<td>2012:</td>
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Curriculum Maps #1 (In which courses or in what activities or assignments are Student Learning Outcomes Addressed)

<table>
<thead>
<tr>
<th></th>
<th>Student Learning Outcome 1</th>
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<th>Student Learning Outcome 3</th>
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<tr>
<td>AEM 500</td>
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<td>Course 2</td>
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<tr>
<td>AEM 562 or 668</td>
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<td>Course 3</td>
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<td>AEM 635 or 637</td>
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<td>Course 4</td>
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<td>GES 554</td>
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</table>
Curriculum Map II  (What assessment measures will be employed in which courses/activities/assignments for each Student learning Outcome)

| Course 1  | AEM 500 | Course 2  | AEM 562 or 668 | Course 3  | AEM 635 or 637 | Course 4  | GES 554 | Required Experience | Diss. Defense | 1.2 | 2.2 | 3.2 | Required Task | Qual. Exams | 1.1 | - | - | Required Task | Diss. Proposal | 2.1 | - | - | Required Task | Diss. Dissertation | 1.2 | 2.2 | 3.2 | - | Activity 1 | Publ. (co)author | - | - | - | 4.1 |
AEM Graduate Program Enrollments

- MSAE
- MSESM
- PhD ESM
- PhD AEM