Amarillo College

PET FORM
Planning and Evaluation Tracking
(2011-2012 Assessment Period)

Division of: Arts & Sciences

Person Responsible for this Division: Jerry Moller

Department of: Math, Sciences, & Engineering

Person Responsible for this Form: Emery Shier

Purpose Statement (With Last Updated Date): To provide quality learning in the physical sciences. (2005?)

Goal Statement #1:

Collaborate with Partners in the Community (AC Strategic Plan through 2015: Strategy 3.2).

Outcome/Objective Statement

(Be sure to include audience, behavior, conditions, degree/benchmark, and evaluation method):

Continue external training for Pantex Technician testing. Offer testing opportunities twice per year. (From 2010-2011 PET form)

Continue providing services for Pantex Technicians who wish to advance in rank by taking an exam administered by AC Faculty after several training/tutoring sessions with promotions generally offered to those who pass the exam with a 80% or better grade (AC Strategic Plan through 2015: Task3.2.4).

- Results (Provide Numbers and Percentages for Quantitative Data)
  - **2009-2010 Data:** 2 out of 3 (67%) passed the exam
    Testing and review sessions are offered as needed by Pantex (one in Fall and one in Spring, as necessary). None were requested in 2010-2011.
- Recommendations/Actions for **2011-2012**
  - Person Responsible (Who will complete the action?): Emery Shier
  - Action Plan: Remain available for testing and training. Contact Pantex to inquire about their needs. Discontinue monitoring as it is "as needed" and not continuous.
  - Expected Time Frame Needed to Implement Action Plan: Contact Pantex by November 15th to inquire about technicians interested in testing this year.
  - Budget Information Needed for Future Action (Cost/Details): Pantex pays for training and testing and AC pays faculty for their time.

Goal Statement #2:

Collaborate with Partners in the Community (AC Strategic Plan through 2015: Strategy 3.2).

Outcome/Objective Statement

(Be sure to include audience, behavior, conditions, degree/benchmark, and evaluation method):

Work with Region 16 to provide quality training for science teachers in the Texas Panhandle through the Regional Collaborative for Excellence in Science and Mathematics Teaching. (From 2010-2011 PET from)

Maintain our existing relationship with Region XVI (as part of the Regional Collaborative for Excellence in Science and Mathematics Teaching) in offering Panhandle area ISD science teachers (Elementary through High School) an opportunity to improve their core understanding of science concepts, as evaluated by pre- and post-tests over the subjects, by offering a special course designed for existing teachers yearly (up to 108 hours training) (AC Strategic Plan through 2015: Task3.2.4).

- Results (Provide Numbers and Percentages for Quantitative Data)
  - In the Spring 2011 course, of the 15 students who completed both tests, 9 (60%) showed a marked (8 or more percentage points) improvement on their test scores.
  - Overall, the class average of those 15 students improved more than 10 percentage points.
- Recommendations/Actions for **2011-2012**
  - Person Responsible (Who will complete the action?): Emery Shier, Mary Graff, Jennifer Rabson
  - Action Plan: Continue current class and begin preparations for Spring semester. Maintain dialogue with Region XVI coordinator
  - Expected Time Frame Needed to Implement Action Plan (Please provide specific deadline date): Normal academic year dates for classes. Discussions with Region XVI coordinator are ongoing.
  - Budget Information Needed for Future Action (Cost/Details): Contingent on grant through TEA as administered by Region XVI. AC receives tuition and pays for overhead and salaries as normal.

Goal Statement #3:

Certify quality instruction and academic support services (AC Strategic Plan through 2015: Strategy 1.3).

Outcome/Objective Statement

(Be sure to include audience, behavior, conditions, degree/benchmark, and evaluation method):

Instructional leadership will assess the quality of each degree for students who have an interest in the Physical Sciences in order to eliminate "road blocks" and improve retention of students as monitored by number of declared majors and number of degrees received (AC Strategic Plan through 2015: Task 1.3.1).

- Analysis

  Fourfold:
  - Geology—eliminate Geology major and monitor pass rates for new classes taught at non-majors level.
  - Physics—remove COSC 1317 requirement (class rarely occurs) and replace with MATH 1342 so completion of the degree is more likely. Monitor number of declared majors and degrees granted.
  - Chemistry—remove COSC 1317 requirement and replace with MATH 1342. This also makes Chemistry major more attractive to Pre-Pharm majors since Statistics is required for Pharmacy School. Monitor number of declared majors and degrees granted.
  - Pre-Pharm—eliminate major and encourage students to enroll as Chemistry majors since they would then fall under STEM and can make use of the grants, scholarships, and other opportunities for STEM students. Monitor number of declared majors and degrees granted for Chemistry. Monitor number of students from AC that are accepted into Pharmacy Schools.
- Recommendations/Actions for **2011-2012**
  - Person Responsible (Who will complete the action?): Emery Shier, Richard Hobbs, Yufeng Sun
  - Action Plan: Begin applications for Curriculum Committee

- Expected Time Frame Needed to Implement Action Plan (Please provide specific deadline date): Must be submitted to Curriculum Committee by February 14th, 2012
- Budget Information Needed for Future Action (Cost/Details): none

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Goal Statement #4:

Align AC's program offerings with university baccalaureate degrees (AC Strategic Plan through 2015: Strategy 1.7)

Outcome/Objective Statement

(Be sure to include audience, behavior, conditions, degree/benchmark, and evaluation method):

Maintain high rigor for all students in those classes which transfer to 4-year institutions as monitored by pass rates, baccalaureate degrees granted, and, if available, standardized test scores (*e.g.* 50-60% of our students score 50th percentile or better on standardized tests).

- Results (Provide Numbers and Percentages for Quantitative Data)
  - Of students who took the American Chemical Society (ACS) nationally standardized test for the 1st semester of Chemistry (GC2009F), the number of students who scored in the 50th percentile or higher are below.
  - **2009-2010 Data:** Numbers = 69 out of 118 (58.5%) (Six sections, 3 instructors)
  - **2010-2011 Data:** Numbers = 77 out of 118 (65.25%) (Seven sections, 4 instructors)
- Analysis
  - Data from previous academic years (**2005-6**, 52.0%; **2006-7**, 46.5%; **2007-8**, 52.1%; & **2008-9**, 52.3%) indicate we are keeping a high academic standard and even improving it in recent years.
  - The nature of the ACS data is such that we would wish at least 50% of our students score 50th percentile or higher at a minimum.
- Recommendations/Actions for **2011-2012**
  - Person Responsible (Who will complete the action?): all Physical Science faculty
  - Action Plan: Maintain rigor and pass on high standards to new faculty.
  - Expected Time Frame Needed to Implement Action Plan (Please provide specific deadline date): normal academic calendar
  - Budget Information Needed for Future Action (Cost/Details): none

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