

**PET FORM**  
**Planning and Evaluation Tracking**  
**(2012-2013 Assessment Period)**

Division of: [Health Sciences](#)

Person Responsible for this Division: [Mark E. Rowh](#)

Department of: [Nuclear Medicine Technology](#)

Primary Person Responsible for this Form: [Mark E. Rowh](#)

Purpose Statement (With Last Updated Date):

The Amarillo College Nuclear Medicine Technology Program is committed to provide medical affiliates with entry-level nuclear medicine professionals through a comprehensive program that enables proof of competency via didactic and clinical curriculum, which complies with all requirements of the Accreditation Standards for Nuclear Medicine Technologist Education of the Joint Review Committee on Educational Programs in Nuclear Medicine Technology accrediting organization and the Texas Higher Education Coordinating Board, therefore, enhancing the quality of patient care.

In addition, the Health Science Division Mission Statement is as follows: In keeping with the mission of Amarillo college, the Health Sciences Division mission is to provide a comprehensive educational environment that will prepare the graduate to effectively engage in the daily challenges and responsibilities required of a competent entry-level Health Science Professional. (updated 8/11)

The Division Philosophy states: Health Science education at Amarillo College adheres to the philosophy that a health science career is chosen and prepared for with a dedication of the student to the dignity and mental and physical well-being of the patient. (updated 8/11)

Finally, the Nuclear Medicine Technology Program's mission statement aligns itself with that of Amarillo College..."enriching the lives of our students and community." (updated 10/12)

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**Goal Statement #1: (This goal statement includes both Strategic Plan and No Excuses outcomes.)**

Guide students to pass a nationally recognized professional certification or registry through the NMTCB. (Analysis based upon graduates from summer 2011).

This goal statement is in alignment with Goal 1 of the Strategic Plan: [Expand Student Success](#).

**Strategy 1.1 Adjust instruction and services based on assessment data.**

**Tasks1.1.1** Employees will use institutional data/evidence to determine sustainability and viability based on trend lines for instruction, academic support services, and student services.

This goal statement is in alignment with [No Excuses Goal #5](#):

**Goal 5: Attainment of Credentials (Degree, Certificate, or Transfer).**

- National/State Certification exams included as a subsection under Goal 5.

## Outcome/Objective Statement

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

**Standard E1.2: Program Assessment** states that “Programs must maintain at least an 80% pass rate over consecutive five year periods for their graduates on national certification examinations. This pass rate is to include all examination attempts by program graduates.” Students must fulfill and meet all requirements set forth by the JRCNMT before sitting for national board exams. This translates into attainment of AAS degree before program director allows student to take national exams.

**Additional Information:** In July 1996, the NMTCB began offering a computer adaptive test (CAT) for classification in association with ACT, Inc. The CAT for classification is designed to render a pass/fail decision. In a CAT of this type, examinees are NOT rank-ordered along a score scale in order to make a precise and accurate classification decision. In order to administer a CAT for classification, the items themselves are ranked at the decision point on the score scale according to their ability to classify accurately and quickly. Each item in the item pool is associated with the information on its difficulty (the proportion of examinees answering an item correctly) and discrimination (the ability of an item to distinguish between passing and failing individuals) levels. An item that has a difficulty level at or near the passing score and has good discrimination will be a better item for decision-making than another item that is too difficult or too easy or has little ability to discriminate between those examinees who should pass and those who should fail. ACT, Inc. psychometric staff obtained Item Response Theory (IRT) statistics for all items in the item pool.

A "classification" CAT is still adaptive in that those examinees whose abilities are far from the passing score (in either direction) will require fewer test items for classification than those whose ability is at or near the passing score. The test will adapt by test length rather than by item difficulty. For the classification CAT, the types of items that are administered to each and every candidate are the same: there are no "difficult items for better candidates" or "easier items for poorer candidates." All examinees receive the same type of test items. Each examinee answers a total of 80 to 90 items, and the items are different for each examinee.

Items for the classification CAT are selected in the following approximate proportions for each of four content domains of nuclear medicine technology. I. Radiation safety (15%), II. Instrumentation (20%), III. Clinical procedures (45%), and IV. Radiopharmacy (20%). Results of completed computerized exams are sent to the Program Director to assess pass rates each year, and the data is complete by Spring Semester. Note: This data is 100% complete for the graduating class of 2011.

This data is located in record in the NM program director's office and has been provided to the Institutional Effectiveness Office at Amarillo college.

- Results (If Applicable, Provide Numbers and Percentages for Quantitative Data)
  - **2010-2011 Data:** Numbers = 10 out of 14 and Percentage = 71%
  - **2011-2012 Data:** Numbers = 13 out of 13 and Percentage = 100%

- Analysis

- Provide Previous Data/Result Analysis

(Include if benchmark was met and how results relate to outcome statement):

Comparative Data and Results Analysis from 2011 to 2012 PET Forms:

**2011 Data:**

73% of graduates passed the test within one year of graduation. Scores ranged from 71-83 with an average score of 77.93.

**Total # of Graduates-13**

**Total # of Examinees-14** (includes repeater from previous year)

**Pass NMTCB Reference Scores**

**Highest Distinction-85+**

0 grads scored in this range

**Pass w/Distinction-82-84**

4 examinees passed in this range.

**Pass-75-81**

6 examinees passed in this range.

**Fail-below 75**

4 examinees failed the exam

80% standard was not met for 2011 data by 9% with 71 % pass rate.

**2012 Data:**

100% of graduates passed the test within one year of graduation. Scores ranged from 75-84 with an average score of 77.77.

**Total # of graduates: 11**

**Total # of examinees: 13** (includes two repeaters from previous year)

**Pass NMTCB Reference Scores**

**Highest Distinction-85+**

0 examinees scored in this range

**Pass w/Distinction-82-84**

2 examinees scored in this range

**Pass-75-81**

11 examinees scored in this range

80% standard was met for 2012 data by 100% pass rate.

A five-year trend of NMTCB scores (per accreditation guidelines) is shown on the next page, and the Program maintains a 93% pass rate, which is 13% above that required by the JRCNMT. The graphs on the following pages compliment the analysis.

PASS RATES NMTCB  
93%-Five-Year Trend

2007

100% (16 of 16 STUDENTS)

- 10-Pass
- 4-Pass with Distinction
- 2-Pass with Highest Distinction

2008

100% (16 of 16 STUDENTS)

- 11-Pass
- 4-Pass with Distinction
- 1-Pass with Highest Distinction

2009

94% (15 of 16 STUDENTS)

- 9-Pass
- 4-Pass with Distinction
- 2-Pass with Highest Distinction
- 1-Fail (failed 2<sup>nd</sup> attempt, as well, which is reflected within the 2010 report)

2010

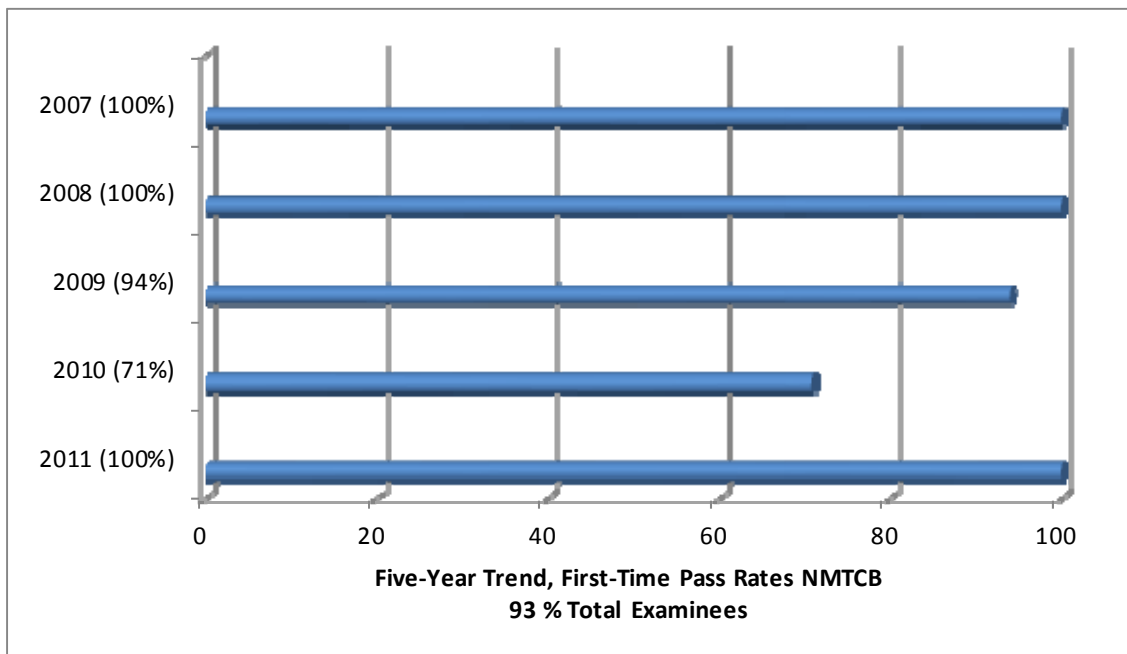
71% (10 of 14 STUDENTS)

- 6-Pass
- 4-Pass with Distinction
- 4-Fail (None have retested.)

2011

100% (13 of 13 students)

- 11-Pass
- 3-Pass with Distinction



- Improvements

- List any Improvements Made in the **2011-2012** (Last Academic) Year:

Comparative data stated above and shown on the Five-Year Trend Pass-rate Table show that the NMT students were performing as expected and exceeding expectations by the JRCNMT accrediting agency in all years, except 2010.

Final first-time pass rate reports for 2011 from NMTCB show that 100% of students who have tested have passed the national boards on the first attempt.

The Program found it necessary to increase the rigor of the capstone course, requiring students to pass all exams within the course, instead of averaging grades on exams.

- Evaluate Why Improvements Were Successful/Were Not Successful:

Improvements were successful after increasing the rigor of the capstone course as noted above, requiring students to test throughout the semester and make a passing score of 75 on all mock exams, instead of averaging exam scores to culminate into a passing semester grade.

- What Budget Implications Were Involved with this Improvement? (Please Provide Cost Estimate/Details):  
N/A

- Recommendations/Actions for **2012-2013**

- Person Responsible (Who will complete the action?):

Nuclear Medicine Technology Program Director, Faculty, and Students will be responsible for this action.

- Action Plan:

The program maintains a 93% average 5-year pass rate. The significant drop from 2009 to 2010 summons the PD to increase the rigor of the program by incorporating more critical thinking elements within major exams.

The PD will continue to engage in professional development activities that enhance teaching styles, and ultimately lead to an increase in student success across all generations.

The PD will continue to manage the NMT program with the premise that student success is important. However, the rigor of the program must be enhanced so that students are not able to sit for their national boards until they have proven merit to do so.

Course syllabi will purport the necessary grading criteria for seeing 'real grades', since the ultimate goal of the student is to perform patient care activities in a professional setting.

- Expected Time Frame Needed to Implement Action Plan (Please provide specific deadline date):

The Program implemented this plan in 2010 after the first-time pass rates plummeted to 71%. The action plan has proven itself so far. Action plan will continue in academic years 2012-2013.

- What Budget Implications Are Involved with this Action? (Please Provide Cost Estimate/Details):  
N/A
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## Goal Statement #2:

Guide students to meet or exceed the national Mean Scaled Score for all examinees from all Nuclear Medicine Technology Programs in the United States.

**(Program wishes to close this goal statement as of October 15, 2012, because no relevance to Strategic Plan or No Excuses).**

## Outcome/Objective Statement #2A

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

- Results (If Applicable, Provide Numbers and Percentages for Quantitative Data)
    - **2010-2011 Data:** Numbers = \_\_\_\_ out of \_\_\_\_ and Percentage =s \_\_\_\_%
    - **2011-2012 Data:** Numbers = \_\_\_\_ out of \_\_\_\_ and Percentage =s \_\_\_\_%
  
  - Analysis
    - Provide Previous Data/Result Analysis  
(Include if benchmark was met and how results relate to outcome statement):
  
  - Improvements
    - List any Improvements Made in the **2011-2012** (Last Academic) Year:
  
    - Evaluate Why Improvements Were Successful/Were Not Successful:
  
    - What Budget Implications Were Involved with this Improvement? (Please Provide Cost Estimate/Details):
  
  - Recommendations/Actions for **2012-2013**
    - Person Responsible (Who will complete the action?):
  
    - Action Plan:
  
    - Expected Time Frame Needed to Implement Action Plan (Please provide specific deadline date):
  
    - What Budget Implications Are Involved with this Action? (Please Provide Cost Estimate/Details):
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### Goal Statement #3: Monitor Program Effectiveness

Guide students to pass national certification/registry exams on the first attempt.

#### Outcome/Objective Statement #3A

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

After graduating the Nuclear Medicine Technology program, 85% of NMT students, who attempt the national certification/registry exam, will pass the exam on the first attempt.

**Additional Information:** Results of completed exams are sent to the Program Director by testing agencies every year.

**NOTE:** This data is 100% complete for the graduating class of 2011 by Spring semester of 2012.

- Results (If Applicable, Provide Numbers and Percentages for Quantitative Data)
  - **2010-2011 Data:** Numbers = 10 out of 14 and Percentage = 71%
  - **2011-2012 Data:** Numbers = 13 out of 13 and Percentage = 100%
  
- Analysis
  - Provide Previous Data/Result Analysis  
(Include if benchmark was met and how results relate to outcome statement):  
2011 Data:  
Standard not met by 14%, since the benchmark for the Program is 85%, and 71% students passed.  
2012 Data:  
Standard exceeded by 15%, since the benchmark for the Program is 85%, and 100% students passed.
  
- Improvements
  - List any Improvements Made in the **2011-2012** (Last Academic) Year:  
Based on the data shown, the Program shows an increase of 71% to 100% first-time pass rates, or an improvement of 29%.
  - Evaluate Why Improvements Were Successful/Were Not Successful:  
Information found in Goal Statement #1 purports this improvement in first-time pass rates.
  - What Budget Implications Were Involved with this Improvement? (Please Provide Cost Estimate/Details):  
N/A
  
- Recommendations/Actions for **2012-2013**
  - Person Responsible (Who will complete the action?):  
Program Director, Faculty, Students
  - Action Plan:  
Continue to monitor the rigor of the capstone course as noted in Goal Statement #1.
  - Expected Time Frame Needed to Implement Action Plan (Please provide specific deadline date):  
Ongoing data collection.
  - What Budget Implications Are Involved with this Action? (Please Provide Cost Estimate/Details):  
N/A