Annual Departmental Plan Report

Program Information

Program/Department: **mathematics**
Department Chair: **Mary Ann Barbato**
Department Assessment Committee Contact: **jenn berg/Sarah Wright**

Please be as detailed as possible in your responses. We will use this information to fulfill our NEASC requirements and this report will help with your next Program Review or aid with your external accreditation. This file is to be kept in the department and an electronic file is due to the Director of Assessment by May 31 each academic year.

Program Learning Outcomes (PLOs) (Educational Objectives).

<mark>what is below is part of the draft that will go through departmental approval AY18/19</mark>

   I.   **List all PLOs and the timeline for assessment.**

PLO #	PLO – Stated in assessable terms.	Timing of assessment (annual, semester, bi-annual, etc.)	When was the last assessment of the PLO completed?

1.	Students should develop effective thinking and communication skills.
	
	  a) state problems carefully, articulate assumptions, understand the importance of precise definition, and reason logically to conclusions;
	  b) identify and model essential features of a complex situation, modify models as necessary for tractability, and draw useful conclusions;
	  c) deduce general principles from particular instances;
		(a)(c)(f)(h) – every other year
		
		(b)(d)(e)(g) -every other year
		
		(i)(j) – every 3 years (with PLO 4)	

	d) use and compare analytical, visual, and numerical perspectives in exploring mathematics; e) assess the correctness of solutions, create and explore examples, carry out mathematical experiments, and devise and test conjectures; f) recognize and make mathematically rigorous arguments g) read mathematics with understanding; h) communicate mathematical ideas clearly and coherently both verbally and in writing to audiences of varying mathematical sophistication; i) approach mathematical problems with curiosity and creativity and persist in the face of difficulties; j) work creatively and self-sufficiently with mathematics.		
2.	Students should learn to link applications and theory. a) Mathematics students should encounter a range of contemporary applications that motivate and illustrate the ideas they are studying b) learn to apply mathematical ideas to problems in those areas. c) Students should come to see mathematical theory as useful and enlightening in both pure and applied contexts.	Every three years	
3.	Students should learn to use technological tools. a) Mathematical sciences major programs should teach students to use technology effectively, both as a tool for solving problems b) Mathematical sciences major programs should teach students to use technology effectively, as an aid to exploring mathematical ideas. c) Use of technology should occur with increasing sophistication throughout a major curriculum.	Every three years	

4.	Students should develop mathematical independence and experience open-ended inquiry.
	
	   a) A mathematical sciences major should be structured to move students beyond the carefully choreographed mathematical experiences of the classroom.
	   b) A major curriculum should gradually prepare students to pursue open-ended questions
	   c) to speak and write about mathematics with increasing depth and sophistication.
		Every three years	

5.			
6.			

six-year timeline

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1 a,c,f,h	**1 b,d,e,g**	**1 a,c,f,h**	**1b,d,e,g**	**1 a,c,f,h**	**1 b,d,e,g**
2	**3**	**4 & 1i,j**	**2**	**3**	**4 & 1i,j**

II.   **PLO Assessment (Please report on the PLOs assessed and/or reviewed this year, programs should be assessing at least one each year.)**

Using the table below, list and briefly describe the **direct method(s)** used to collect information assessing whether students are learning the core sets of knowledge (K), skills (S) and attitudes (A) identified as essential.

NONE ASSESSED THIS YEAR

PLO #	Assessment description (exam, observation, national standardized exam, oral presentation with rubric, etc.)	When assessment was administered in student program (internship, 4th year, 1st year, etc.)	To which students were assessments administered (all, only a sample, etc.)	What is the target set for the PLO? (criteria for success)	Reflection on the results: How was the "loop closed"?

III.   **Summary of Findings:** Briefly summarize the results of the PLO assessments reported in Section II above combined with other relevant evidence gathered and show how these are being reviewed/discussed. How are you "closing the loop"?

NONE ANALYZED THIS YEAR

Other than GPA, what data/ evidence is used to determine that graduates have achieved the stated outcomes for the degree? (e.g., capstone course, portfolio review, licensure examination)	Who interprets the evidence? What is the process? (e.g. annually by the curriculum committee)	What changes have been made as a result of using the data/evidence? (close the loop)

Assessment Plan for Program/Department

    I.   Insert the program or department Assessment Plan: **PLAN BEING REVISED OVER SUMMER**

    II.   Explain any changes in the assessment plan including new or revised PLOs, new assessments that the program/department plans to implement and new targets or goals set for student success.

    III.   If you do not have a plan, would you like help in developing one?

                   ☐   Yes

University Data

    I.   **SSC Data**

Indicate **at least one** Student Success Performance Measure that the department/program has identified for planned change or improvement.

Freshman retention, bottleneck courses, graduation rates, at risk student retention etc.

    a.   What was the focus this year?

Student Success Measure (data point from SSC)	Implemented Intervention	Update on Implemented Intervention (i.e. change in target, satisfied with outcome, not satisfied, will continue or not)
% students complete credit bearing math course within first year	**PIF grant activities (almost all first-year courses placement and curricular modification including development of QR course)**	**Developed changes to achieve this goal. hiring staff member that will keep track of success**

b.   What will your focus be for the upcoming year?*

Student Success Measure (data point from SSC)	Rationale for selection	Planned or Implemented Intervention	Current score/ Target Score	This measure was selected because of last Program Review or Accreditation (yes/no)
More on first-year completion				

*Note: Programs may wish to monitor or review the same data point over multiple years.

II.   Trend Data

Indicate **at least one** Department Performance Measure that the program/department identified for change or improvement. Number of graduates, number of majors, credit production, substitutions etc.

a.   What was the focus this year? **none identified by the department (department focus on PIF activities)**

Department Performance Measure (data point from Trend Data)	Implemented Intervention	Update on Implemented Intervention (i.e. change in target, satisfied with outcome, not satisfied, will continue or not)

b. What will be the focus next year?* **select one as department**

Department Performance Measure (data point from Trend Data)	Rationale for selection	Planned or Implemented Intervention	Current score/ Target Score	This measure was selected because of last Program Review or Accreditation (yes/no)

*Note: Programs may wish to monitor or review the same data point over multiple years.

Program Review Action Plan or External Accreditation Action Letter/Report

Annual Reflection/Follow-up on Action Plan from last Program Review or external accreditation (only complete the table that is appropriate for your program)

I. **Programs that fall under Program Review:**
   i. Date of most recent Review: **SPRING 2017**
   ii. Insert the Action Plan table from your last Program Review and give any progress towards completing the tasks or achieving targets set forth in the plan. **ACTION PLAN WAS DEVELOPED THIS YEAR**

Specific area where improvement is needed	Evidence to support the recommended change	Person(s) responsible for implementing the change	Timeline for implementation	Resources needed	Assessment Plan	Progress Made this Year

   iii. If you do not have an action plan, would you like help in developing one based on your last program review and needs of the program?

☐ Yes

II. **Programs with external Accreditation:**
   i. Accreditor:
   ii. Date of last review:
   iii. Date of next review and type of review:
   iv. List key performance indicators:

List key issues for continuing accreditation identified in accreditation action letter or report.	Key performance indicators as required by agency or selected by program (licensure, board or bar pass rates; employment rates, etc.)(If required.)	Update on fulfilling the action letter/report or on meeting the key performance indicators.

UARC Peer Review of the Program Annual Report

Program: _____ Date of Review: _____

Program Learning Outcomes (PLOs)					
Criterion	**Highly Developed (3)**	**Developed (2)**	**Emerging (1)**	**Initial (0)**	**Score**
Program Learning Outcomes (PLOs)	All or almost all PLOs clearly stated and measurable.	Most of the PLOs clearly stated and measurable.	PLOs written in general, broad or abstract statements OR are not measurable.	PLOs not provided.	
Expected Timing of Assessment	All or almost all PLOs have a timeline stated.	Most PLOs have a timeline stated.	Very few PLOs have a stated timeline.	No timelines are given or are To Be Determined (TBD).	
Assessment Tool Quality	Assessment tool(s) is/are strong: very good quality and appropriate.	Assessment tool(s) are acceptable: good quality and appropriate	Assessment tool(s) are a good start but could use some strengthening or changes.	Assessment tool(s) are either not appropriate or not discussed.	
PLO Assessment	More than one PLO assessed and information is complete in the chart.	At least one PLO assed and information is complete in chart.	At least one PLO assessed, information is not complete in chart.	No assessments completed during the academic year reported.	
Criteria for Success	The criteria for student success of each PLO is clearly stated and is appropriate.	Most criteria for student success of each PLO is clearly stated and is appropriate.	Criteria for student success discussed or touched upon but not clearly stated or is not appropriate.	Criteria for student success not provided.	
Summary of Findings	Measures used in from PLO assessment fully incorporated with additional	Very limited use of data from PLO assessment incorporated with	Used evidence other than PLO assessment to	No summary utilizing	

	evidence to formulate the summary and analysis supports the summary.	additional evidence to formulate the summary and analysis somewhat supports summary.	formulate the summary or analysis of the data doesn't seem to support summary.	assessment data is evident.	
Assessment Plan for Program/Department					
Criterion	**Highly Developed (3)**	**Developed (2)**	**Emerging (1)**	**Initial (0)**	**Score**
Department or Program Assessment Plan	Assessment Plan provided. Has clearly stated process with reasonable expectations.	Assessment Plan provided. Has somewhat clear process and/or somewhat reasonable expectations.	Assessment Plan provided, the process is not clear and/or the expectations are not reasonable.	No Assessment Plan provided.	
Activities and Adjustments to/Deviation from the Department/Program Assessment Plan	Decision to change or not change the assessment plan are clearly stated and decision(s) are appropriate based on the reported results.	Decision to change or not change the assessment plan are described in general terms and may be appropriate based on the reported results.	Decision to change or not change the assessment plan are vague and lack clarity.	No changes are discussed.	
University Data					
Criterion	**Highly Developed (3)**	**Developed (2)**	**Emerging (1)**	**Initial (0)**	**Score**
SSC Data for Current Review Period	Intervention undertaken by program/department for at least one SSC data point. Clearly documented results.	Intervention undertaken by program/department for at least one SSC data point. Plan not fully implemented.	Planned intervention by program/ department for at least one SSC data point. No plan implemented.	No SSC data analyzed and/or reported on.	
SSC Data for Upcoming Review Period	At least one component of the SSC data selected to assess, rationale provided, targets set and intervention	At least one component of the SSC selected to assessed, some of the rationale provided,	SSC data discussed and some or part of the assessment, targets or	No SSC data analyzed and/or reported on.	

	seems to be appropriate based on information provided.	targets set and intervention seems to be appropriate based on information provided.	interventions are emerging but not fully appropriate.		
Trend Data for Current Review Period	Intervention undertaken by program/department for at least one Trend data point. Clearly documented results.	Intervention undertaken by program/department for at least one Trend data point. Plan not fully implemented.	Planned intervention by program/ department for at least one Trend data point. No plan implemented.	No Trend data analyzed and/or reported on.	
Trend Data for Upcoming Review Period	At least one component of the Trend data selected to assess, rationale provided, targets set and intervention seems to be appropriate based on information provided.	At least one component of the Trend selected to assessed, some of the rationale provided, targets set and intervention seems to be appropriate based on information provided.	Trend data discussed and some or part of the assessment, targets or interventions are emerging but not fully appropriate.	No Trend data analyzed and/or reported on.	
Action Plane or External Accreditation Action Letter/Report					
Criterion	**Highly Developed (3)**	**Developed (2)**	**Emerging (1)**	**Initial (0)**	**Score**
Only for those under Program Review *Annual Reflection on Program Review*	Full Action Plan provided with definitive on-going progress clearly stated.	Full Action Plan provided with some discussion of on-going progress plans stated.	Full Action Plan provided with vague ideas regarding on-going progress plans stated.	Action Plan is either not provided or there no progress or plans stated for progress discussed.	
Only for those under External Accreditation	Key issues and performance standards provided with definitive on-going progress clearly stated.	Key issues and performance standards provided with some discussion of on-going progress stated.	Key issues and performance standards provided with vague ideas regarding on-going	Key issues and/or performance standards are either not provided or there	

Annual Reflection on Report/Letter from accrediting body.			progress plans stated.	has been no progress or plans stated for progress.	
Comments:					

NOTE: This rubric is NOT an evaluation of the program/department. It is simply a tool for UARC to use as an aid in reviewing and providing constructive feedback to each program.