

## Annual Departmental Plan Report

### Program Information

Program/Department: Environmental and Earth Science, Earth and Geographic Sciences  
 Department Chair: Elizabeth Gordon  
 Department Assessment Committee Contact: Elizabeth Gordon

*Please be as detailed as possible in your responses. We will use this information to fulfill our NECHE 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)

**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 will communicate scientific information through written, oral, and graphical expression with clarity, logical organization, and use of scientific evidence to support their ideas.	Annual	AY17-18
2.	Students will use the scientific process, including experimental design, analysis and critical evaluation of information, and integration of evidence from relevant sources, in the context of environmental investigations.	Bi-annual	
3.	Students will apply an interdisciplinary approach to analyze and propose solutions to environmental science problems.	Bi-annual	
4.	Students will describe the complex interactions between humans and their environment, including geological hazards, air and water pollution, global environmental issues, and use and conservation of Earth's resources.	Annual	AY17-18

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5.			
6.			

**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.

PLO #	Assessment description (exam, observation, national standardized exam, oral presentation with rubric, etc.)	When assessment was administered in student program (internship, 4 <sup>th</sup> year, 1 <sup>st</sup> 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”?
1	Final paper, GEOG4700	3 <sup>rd</sup> /4 <sup>th</sup> year	All majors in course	All students at least proficient (3 of 4 on rubric) on select skills	Additional learning on key skills will be added across curriculum
4	Final exam question, GEOG4200	3 <sup>rd</sup> /4 <sup>th</sup> year	All majors in course	Target not set	Students need additional practice applying learning

**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”?

<b>Other than GPA, what data/evidence is used to determine that graduates have achieved the stated outcomes for the degree? (e.g.,</b>	<b>Who interprets the evidence? What is the process? (e.g. annually by the curriculum committee)</b>	<b>What changes have been made as a result of using the data/evidence? (close the loop)</b>
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<p><b>capstone course, portfolio review, licensure examination)</b></p>		
<p>Final paper in upper level course                      -62% of students wrote an effective abstract                      -56% of students demonstrated proper writing mechanics for scientific communication                      -38% properly cited sources and used appropriate sources of information                      -62% used figures and tables effectively</p>	<p>Course instructor grades with rubric</p>	<p>Department faculty will add assignments in required courses to target specific skills                      Department faculty will work with librarians to ensure students have training in information literacy as it pertains to the major</p>
<p>Score on a cumulative question on Geomorphology final exam                       - 61% of EES majors scored 13/13 on a cumulative final exam question, indicating students made connections between the material covered in the course over the semester and applied that knowledge to analyze a real world scenario                       - 39% of majors got 77% or less correct on a final cumulative question, indicating a deficiency in making connections and applying knowledge gained to real-world scenarios</p>	<p>Instructor grades final exam with exam key.</p>	<p>- Modify course themes and discussion to emphasize applicability of the subject matter                      Provide assignments in which students must analyze and synthesize course concepts and themes</p>

**Assessment Plan for Program/Department**

- I. Insert the program or department Assessment Plan
- 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.  
 We have an assessment plan but it's outdated and will be modified this year
- 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)

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)

\*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?

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)
Number of majors in EES								
<b>AY 13</b>	<b>AY 14</b>	<b>AY 15</b>	<b>AY 16</b>	<b>AY 17</b>	<b>AY 18</b>			Satisfied with increasing numbers of majors
13	18	21	21	28	36			

b. What will be the focus next year?\*

<b>Department Performance Measure (data point from Trend Data)</b>	<b>Rationale for selection</b>	<b>Planned or Implemented Intervention</b>	<b>Current score/ Target Score</b>	<b>This measure was selected because of last Program Review or Accreditation (yes/no)</b>
Increase majors	Continue to grow program	Continue to work with admissions, develop marketing materials	Data shows 36 majors AY18, aim to top 40	

\*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:
- 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.

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.

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## **Campus Climate**

Each department was asked to review the Campus Climate Survey information distributed by the Leading for Change Committee and determine what your department has been doing to contribute to the positive outcomes identified.

The survey data may be found through this link: <https://www.fitchburgstate.edu/offices-services-directory/institutional-research-and-planning/office-of-assessment/campus-climate-survey/>

Please list the feedback and recommendations that your department provided to the Leading for Change Committee, along with any additional plans that you might have to further explore this data.

Despite some of the limitations of the data, there is clearly a difference in how white vs non-white students experience Fitchburg State. Our department began discussions on whether adding a BA option would increase accessibility – this discussion will continue.



## UARC Peer Review of the Program Annual Report

Program: \_\_\_\_\_ Date of Review: \_\_\_\_\_

<b>Program Learning Outcomes (PLOs)</b>					
<b>Criterion</b>	<b>Highly Developed (3)</b>	<b>Developed (2)</b>	<b>Emerging (1)</b>	<b>Initial (0)</b>	<b>Score</b>
<i>Program Learning Outcomes (PLOs)</i>	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.	
<i>Expected Timing of Assessment</i>	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).	
<i>Assessment Tool Quality</i>	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.	
<i>PLO Assessment</i>	More than one PLO assessed and information is complete in the chart.	At least one PLO assessed 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.	
<i>Criteria for Success</i>	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.	
<i>Summary of Findings</i>	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.	
<b>Assessment Plan for Program/Department</b>					
<b>Criterion</b>	<b>Highly Developed (3)</b>	<b>Developed (2)</b>	<b>Emerging (1)</b>	<b>Initial (0)</b>	<b>Score</b>
<i>Department or Program Assessment Plan</i>	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.	
<i>Activities and Adjustments to/Deviation from the Department/Program Assessment Plan</i>	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.	
<b>University Data</b>					
<b>Criterion</b>	<b>Highly Developed (3)</b>	<b>Developed (2)</b>	<b>Emerging (1)</b>	<b>Initial (0)</b>	<b>Score</b>
<i>SSC Data for Current Review Period</i>	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.	
<i>SSC Data for Upcoming Review Period</i>	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.		
<i>Trend Data for Current Review Period</i>	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.	
<i>Trend Data for Upcoming Review Period</i>	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.	
<b>Action Plane or External Accreditation Action Letter/Report</b>					
<b>Criterion</b>	<b>Highly Developed (3)</b>	<b>Developed (2)</b>	<b>Emerging (1)</b>	<b>Initial (0)</b>	<b>Score</b>
<i>Only for those under Program Review Annual Reflection on Program Review</i>	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.	
<i>Only for those under External Accreditation</i>	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	

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<i>Annual Reflection on Report/Letter from accrediting body.</i>			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.**