## General Education Student Learning Report (rev. 7/15)

Fall 2014 - Spring 2015

# Department of Mathematics & Physical Sciences

Effectively assessing a degree program should address a number of factors:

- Valid student learning outcomes should be clearly articulated;
- Valid assessment measures should be used, consistent with the standards of professional practice;
- There should be evidence that assessment data are being used by faculty to make necessary instructional or assessment changes; and there should be evidence that instructional or assessment changes are being implemented to improve student learning

# Relationship of Degree Program Learning Outcomes to Departmental and University Missions

RSU Mission	General Education Mission
Our mission is to ensure students develop the skills and knowledge required to achieve professional and personal goals in dynamic local and global communities	General Education at Rogers State University provides a broad foundation of intellectual skills, knowledge, and perspectives to enable students across the University to achieve professional and personal goals in a dynamic local or global society.
RSU Commitments	General Education Outcomes
To provide quality associate, baccalaureate, and graduate degree opportunities and educational experiences which foster student excellence in oral and written communications, scientific reasoning, and critical and creative thinking.	<ol> <li>Think critically and creatively.</li> <li>Acquire, analyze, and evaluate knowledge of human cultures and the physical and natural world.</li> <li>Use written, oral, and visual communication effectively.</li> </ol>

RSU Mission	General Education Mission
	<ul><li>4) Develop an individual perspective on the human experience, and demonstrate an understanding of diverse perspectives and values.</li><li>5) Demonstrate civic knowledge and engagement, ethical reasoning, and skills for lifelong learning.</li></ul>
To promote an atmosphere of academic and intellectual freedom and respect for diverse expression in an environment of physical safety that is supportive of teaching and learning.	
To provide a general liberal arts education that supports specialized academic programs and prepares students for lifelong learning and service in a diverse society.	<ol> <li>Think critically and creatively.</li> <li>Acquire, analyze, and evaluate knowledge of human cultures and the physical and natural world.</li> <li>Use written, oral, and visual communication effectively.</li> <li>Develop an individual perspective on the human experience, and demonstrate an understanding of diverse perspectives and values.</li> <li>Demonstrate civic knowledge and engagement, ethical reasoning, and skills for lifelong learning.</li> </ol>
To provide students with a diverse, innovative faculty dedicated to excellence in teaching, scholarly pursuits, and continuous improvement of programs.	
To provide university-wide student services, activities, and resources that complement academic programs.	
To support and strengthen student, faculty, and administrative structures that promote shared governance of the institution.	
To promote and encourage student, faculty, staff, and community interaction in a positive academic climate that creates opportunities for cultural, intellectual, and personal enrichment for the university and the communities it serves.	

### PART 1

# Discussion of Instructional Changes Resulting from 2013-2014 General Education Student Learning Report

List and discuss all instructional or assessment changes proposed in Part 4 of last year's General Education Student Learning Report, whether implemented or not. Any other changes or assessment activities from last year, but not mentioned in last year's report, should be discussed here as well. Emphasis should be placed on student learning and considerations such as course improvements, the assessment process, and the budget. If no changes were planned or implemented, simply state "No changes were planned or implemented."

University Assessment Committee Page 2

		None proposed.
Impact of Changes on Degree Program Curriculum or Budget	Changes Implemented (Y/N)	Instructional or Assessment Changes

### ART 2

## Discussion of the University Assessment Committee's 2013-2014 Peer Review Report

changes were recommended." at a future date. If they were not or will not be implemented, please explain why. If no changes were recommended last year, simply state "No accurately summarize all feedback and recommendations from the committee, and state whether they were implemented or will be implemented [Complete this part only if the general education course(s) was among those that were peer reviewed last year.] The University Assessment Committee in its Degree Program Peer Review Report provided feedback and recommendations for improvement in assessment. List or

Feedback and Recommended Changes from the University Assessment Committee	Suggestions Implemented (Y/N)	Changes that Were or Will Be Implemented, or Rationale for Changes that Were Not Implemented
No changes were recommended.		

### PART 3

### **Analysis of Evidence of Student Learning Outcomes**

measure, document the results of the activity measured and draw any relevant conclusions related to strengths and weaknesses of their brief narrative of the assessment measures and performance standards used, as well as the sampling methods and sample sizes. For each The five General Education Outcomes are listed below. For each outcome, indicate the General Education courses being assessed, and provide a performance. Finally, indicate whether the performance measure was met or not.

University Assessment Committee

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### OUTCOME 1: Think critically and creatively

A. Course		
B. Assessment Measures	1a. Students were assessed by determining the average score on all college algebra chapter exams.	were assessed on five different course components: (1) Function Operations and Composition, (2) Zeros of Polynomial Functions, (3) Variation, (4) Logarithmic Functions, and (5) Sequences and Series
C. Performance Standards	1a. 70% of students will score 70% or better on the average of all college algebra chapter exams.	1b. 70% of all College Algebra students will perform at a 70% level or better in each of the five listed course components.
D. Sampling Methods	1a. The average of all student chapter exams were analyzed and assessed.	1b. Student homework assignments for each of the following were graded: (1) Function Operations and Composition (2) Series of Polynomial Functions (3) Variation (4)Logarithmic Functions, and (5) Sequences and Series.
E. Sample Size (N)	1a. 519	1b. (1) 418 (2) 423 (3) 352 (4) 412 (5) 410
F. Results	1a. 370/519 (71.3%) scored 70% or better on the average of all college algebra chapter exams.	1b. (1) 301/418 (72.0%) (2) 297/423 (70.2%) (3) 248/352 (70.5%) (4) 335/412 (81.3%) (5) 289/410 (70.5%)
G. Conclusions	1a. Performance standards were met. No changes needed.	1b. Performance standards were met. No changes needed.
H. Performance Standards Met (Y/N)	~	~

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1d. S were requi	1c. studwere expecte acquire analyze that is scientific sound. These dare the i foundati for a tern project trequires student evaluate validity of data and Analyze data in trequires context what ea science process classific each ev datum represei	A. Ass
tudents red to ire and	dents dents dents de and e data data y initial ation arm t that to: 1. The te the of t	B. Assessment Measures
1d. GEOL 1014 Earth Science students will	1c. 70% of the GEOL 1014 students will score at the70% level or higher on data acquisition and analysis.	C. Performance Standards
1d.Each student is required to submit a term project. Their	1c. Each student is required to submit a term project. Their research data is reviewed and graded for scientific validity as well as their interpretation of the area of each science impact.	D. Sampling Methods
1d. 115 2011-12 116 2012-13 1275 2013-14 217 2014-15	1c. 115 (11-12) 116 (12-13) 275 (13-14) 217 (14-15)	E. Sample Size (N)
1d. The following data summarizes the students' final scores on the data acquisition for	1c. 100/115 (87%) 11-12 88/116 (75.8%) 12-13 238/275 (86.5%) 13-14 170/217 (78.3%) 14-15	F. Results
1d. Performance standards were met. No changes needed.	1c. Performance standards were met. No changes needed.	G. Conclusions
1d. Y	1c. Y	H. Performance Standards Met (Y/N)

B. Assessment Measures Scientifically sound. These data
C. Performance Standards higher on the overall data acquisition and analysis for their term project.
C. Sampling Standards Methods  Standards Methods  gher on the is reviewed and graded coquisition of their term oject. In their term interpretation
mance Sampling Sample lards Methods (N)  on the is reviewed data and graded for scienfitic validity as well interpretation interpretation
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mance Sampling Sample Size (N)  on the is reviewed atta and graded ition for scienfitic validity as well rerm as their interpretation  D. E. Sample Sample (N)  Size (N)  115 2011-12 2011-12 2011-12 2012-13 2012-13 2012-13 2012-13 2013-14 2013-14 2013-14 2013-14 2013-14 2013-14 2014-15

### OUTCOME 2: Analyze and integrate knowledge.

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						each earth	
						impacted by	
						that were	
						exosphere)	
				impact.		and	
				earth science		biosphere,	
				of the area of		hydrosphere,	
				interpretation	project.	atmosphere,	
				well as their	for their term	(lithosphere,	
				validity as	and analysis	spheres	••••
				for scienfitic	acquisition	all of the earth	
				and graded	overall data	to determine	
				is reviewed	higher on the	data they are	
				research data	70% level or	Based on this	
		2014-15 155/217 (78%)		project. Their	score at the	earth events.	
		2013-14 238/275 (87%)		submit a term	students will	data from 25	***************************************
		2012-13 92/116 (79%)	155 14-15	required to	Science	to analyze	Science
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(Y/N)			(N)	Middlioda	Otalidalda	Medodieo	
Performance Standards Met	Conclusions	Results	Sample	Sampling	Performance	Assessment	Course
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OUTCOME 3: Use written, oral, and visual communication effectively.

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Assessment Measures Standards Standards Size Methods Size  Measures Standards Methods Size  3a. Students were required to analyze earth event data for their (see discussion in section1). The the earth projects are the earth the earth processes  Assessment Performance Sampling Sample (N)  Results Conclusions  Results Conclusions  Results Conclusions  Results Conclusions  Results Conclusions  Results Conclusions  All earth 3a. 116 3a. 3a. 98/116 (85%) 2012-13 standards were met. No 12-13 238/275 (86%) 2013-14 changes needed.  15 15 161/217 (74%) 2014-15 15 161/217 (74%) 2014-15 15 15 15 15 15 15 15 15 161/217 (74%) 2014-15 15 15 15 15 15 15 15 15 15 15 15 15 1	3a. Performance 2012-13 standards were met. No 2013-14 changes needed. 2014-15			and their	events'	data are	
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Assessment Performance Sampling Size Methods Size  Measures Standards Methods Size  Na. Students the GEOL to analyze earth event data for their the 70% level assessed for 217 14-  Assessment Performance Sampling Sample Results Conclusions  Nampling Size (N)  Nampling Sample Results Conclusions  Nampling Sample Results  Nampling Size	3a. Performance 2012-13 standards were met. No 2013-14 changes needed. 2014-15		15	accurate	or higher on	term project	
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Assessment Performance Sampling Sample Results Conclusions  Measures Standards Methods Size	(N/X)		2				
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	Conclusions		Sample	Sampling	Performance	Assessment	Course
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and values. OUTCOME 4: Develop an individual perspective on the human experience, and demonstrate an understanding of diverse perspectives

A. B. C. D. E. F. G. H.  Course Assessment Performance Sampling Sample Measures Standards Methods Size (N)  (Y/N)	 
C. D. E. F. G. Performance Sampling Sample Results Conclusions Standards Methods Size (N)	A. Course
D. E. F. G. Sampling Sample Results Conclusions Methods Size (N)	B. Assessment Measures
D. E. F. G. Sampling Sample Results Conclusions Methods Size (N)	C. Performance Standards
F. G. Conclusions	
G, Conclusions	E. Sample Size (N)
<b></b>	F. Results
H. Performance Standards Met (Y/N)	G. Conclusions
	H. Performance Standards Met (Y/N)

OUTCOME 5: Demonstrate civic knowledge and engagement, ethical reasoning, and skills for lifelong learning.

A. Course
B. Assessment Measures
B. C. Assessment Performance Measures Standards
D. Sampling Methods
E. Sample Size (N)
F. Results
G. Conclusions
H. Performance Standards Met (Y/N)

### ART 4

# Proposed Instructional Changes Based on Conclusions Drawn from Evidence Presented Above

State any proposed instructional or assessment changes to be implemented for the next academic year. They should be based on conclusions reported in Part 3 (above) or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook adoption, are planned." other considerations, such as curriculum, degree plan, assessment process, or budget. If no changes are planned, simply state "No changes new course proposals, curriculum modifications, etc. Explain the rationale for these changes and how they will impact student learning and

	Changes	Student Learning and Other Considerations.
No changes are planned.		

# Shared Pedagogical Insight that Improves Student Learning or Classroom Engagement

(OPTIONAL) If your department or a faculty member has developed a method or technique of teaching that seems especially effective in improving student learning or student engagement in the classroom, please provide a brief description below. More detail can be communicated during the face to face peer review session.

### Description

and empowers them to more accurately interpret the complex field data they are having to measure and gather. have found that having students have details of the field area prior to the actual studies down in the field helps the student to digest the information from the field area, geologic maps and a geologic history of the field area. This is presented at the end of the last lab session prior to the fieldtrip. I the experience more academically fulfilling, I always present the background information through PowerPoint presentations, rock hand specimens In geology courses, fieldtrips are essential in that students can actually study the physical manifestation of the earth processes. In order to make

### PART 6 (A & B)

### **Documentation of Faculty Participation and Review**

P Provide the names and signatures of all faculty members who contributed to this report and indicate their respective roles

Faculty Members	Roles in the Assessment Process (e.g., collect data, analyze data, prepare report, review report, etc.)	Signatures
Larry Elzo	Collected and Analyzed MATH 1513 Data	Low Clas
Dr. Sukhitha Vidurupola	Collected and Analyzed MATH 1513 Data	Literation Vollering to
Sam Richardson	Collected and Analyzed MATH 1513 Data	Son Pickerbon
Dr. Jamie M. Graham	Collected and Analyzed GEOL 1014 Data	Jamie M. Dishaw
		0

### B. Reviewed by:

	Dean	Department Head	Titles
	Dr. Keith Martin	Dr. Jamie Graham	Names
my ou min.	West life Man	Janus M. Souken	Signatures
	Als/16	2/15/16	Date

# RUBRIC FOR GENERAL EDUCATION STUDENT LEARNING REPORT

How well did the department incorporate instructional or assessment changes based on results and conclusions from last year's General Education Student Learning Report or from other assessment activities?

Exemplary	Established	Developing	Undeveloped
All planned changes were listed,	Most planned changes were listed, Some planned changes v	Some planned changes were	No planned changes were listed,
whether they were implemented or and their status or impact on	and their status or impact on	listed, and their status or impact on and their status or impact on	and their status or impact on
not, and their impact on curriculum	not, and their impact on curriculum   curriculum or program budget was   curriculum or program bu	dget was	curriculum or program budget was
or program budget was discussed	discussed.	not clearly discussed.	not discussed.
thoroughly.			a North Ball

## 2 Did the department include peer review feedback and provide rationale for implementing or not implementing suggestions?

Exemplary	Established	Developing	Undeveloped
All reviewer feedback was listed,	Most reviewer feedback was listed, Some reviewer feedback w	Some reviewer feedback was	Feedback from reviewers was not
and for each suggestion a clear	and for most suggestions a	listed, and for some suggestions a	included.
rationale was given for its being	rationale was given for their being	rationale was given for their being	
implemented or not.	implemented or not.	implemented or not.	

### 3) A. Are the course titles and numbers listed?

Exemplary	Established	Developing	Undeveloped
All of the courses (titles and	Most of the courses (titles and	Some of the courses (titles and	None of the courses (titles and
numbers) offered by the	numbers) offered by the	numbers) offered by the	numbers) offered by the
department are listed.	department are listed.	department are listed.	department are listed.

### Ċ Are the assessment measures appropriate for the General Education outcomes?

Exemplary	Established	Developing	Undeveloped
All assessment measures are	Most assessment measures are	Some assessment measures are	None of the assessment measures
appropriate to the General	appropriate to the General	appropriate to the General	are appropriate to the General
Education outcomes.	Education outcomes.	Education outcomes.	Education outcomes.

## ဂ Do the performance standards provide a clearly defined threshold at an acceptable level of student performance?

Exemplary	Established	Developing	Undeveloped
All performance standards provide a clearly defined threshold at an provide a clearly defined threshold at an	Most performance standards provide a clearly defined threshold	Some of the performance No performance standards provide a clearly defined a clearly defined threshold at an	No performance standards provide a clearly defined threshold at an
acceptable level of student	at an acceptable level of student	threshold at an acceptable level of	level of   acceptable level of student
performance.	performance.	student performance.	performance.

## D. Is the sampling method appropriate for all assessment measures?

Exemplary	Established	Developing	Undeveloped
The sampling methodology is appropriate for all assessment	The sampling methodology is appropriate for most assessment	The sampling methodology is appropriate for some assessment	The sampling methodology is appropriate for none of the
measures.	measures.	measures.	assessment measures.

## E. Is the sample size listed for each assessment measure?

		Davidonina	Indougloped
Exemplary	Established	речеюріпд	nadotavanio
Sample size was listed for all	Sample size was listed for most	Sample size was listed for some	Sample size was not listed for any
assessment measures.	assessment measures.	assessment measures.	assessment measures.

## F. How well do the data provide a clear and meaningful overview of the results?

Exemplary	Established	Developing	Undeveloped
For all General Education	For most General Education	For some General Education	For none of the General Education
outcomes the results were clear,	outcomes the results were clear,	outcomes the results were clear,	outcomes were the results clear,
more than a single year's results	more than a single year's results	more than a single year's results	was more than a single year's
were included, and meaningful	were included, and meaningful	were included, and meaningful	results included, or was meaningful
information was given that reveals	information was given that reveals	information was given that reveals	information given that reveals an
an overview of student	an overview of student	an overview of student	overview of student performance.
performance.	performance.	performance.	

# G. Are the conclusions reasonably drawn and significantly related to General Education outcomes?

Exemplary	
Established	
Developing	
Undeveloped	

strengths and weaknesses in the results and related to the drawn and significantly based on student performance. All conclusions are reasonably student performance. drawn and significantly based on strengths and weaknesses in the results and related to the Most conclusions are reasonably drawn and significantly based on student performance. strengths and weaknesses in the results and related to the Some conclusions are reasonably drawn and significantly based on student performance. strengths and weaknesses in No conclusions are reasonably the results or related to the

## H. Does the report indicate whether the performance standards were met?

Exemplary	Established	Developing	Undeveloped
Stated for all performance	Stated for most performance	Stated for some performance	Not stated for any performance
standards.	standards.	standards.	standard.

4 How well supported is the rationale for making assessment or instructional changes? The justification can be based on conclusions student learning and other considerations, such as the department's curriculum, General Education Student Learning Report, or adoption, new course proposals, curriculum modifications, etc. Explain the rationale for these changes and whether they will impact budget. reported in Section 3 or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook

Exemplary	Established	Developing	Undeveloped
All planned changes are	Most planned changes are	Some planned changes are	No planned changes are
specifically focused on student	specifically focused on student	specifically focused on student	specifically focused on student
learning and based on the	learning and based on the	learning and based on the	learning and based on the
conclusions. The rationale for	conclusions. The rationale for	conclusions. The rationale for	conclusions. There is no rationale.
planned changes is well grounded	planned changes is mostly well	planned changes is lacking or is	
and convincingly explained.	grounded and convincingly	not convincingly explained.	
	explained.		

### 5) Is one or more teaching technique listed?

The Peer Review Report will make note whether any techniques were included in the General Education Student Learning Report

<u></u> Does the list of faculty participants indicate how many full time faculty who teach in the program participated, their signatures, and their contributions to the report?

The faculty role is clearly identified   The faculty role is identified and it	Exemplary
Ity role is identified and it The fac	Established
ulty roles are not identi	Developing
fied. The faculty roles are not identified.	Undeveloped

of the faculty participated in the and it is apparent that the majority process. The roles are varied.

> is apparent that the majority of the faculty participated in the process The roles are not varied

Few faculty participated

determination about who sufficiently described to make Faculty participation is not participated

## **EXPLANATION & EXAMPLES OF DIRECT AND INDIRECT** EVIDENCE

DIRECT EVIDENCE of student learning is tangible, visible, self-explanatory evidence of exactly what students have and haven't learned Examples include:

- Ratings of student skills by their field experience supervisors
- 200 Scores and pass rates on licensure/certification exams or other published tests (e.g. Major Field Tests) that assess key learning outcomes
- ω Capstone experiences such as research projects, presentations, oral defenses, exhibitions, or performances that are scored using a
- Written work or performances scored using a rubric
- Portfolios of student work.
- <u>4</u>00 Scores on locally-designed tests such as final examinations in key courses, qualifying examinations, and comprehensive examinations that are accompanied by test blueprints describing what the tests assess
- Score gains between entry and exit on published or local tests or writing samples
- Employer ratings of the skills of recent graduates.
- Summaries and analyses of electronic class discussion threads
- Student reflections on their values, attitudes, and beliefs, if developing those are intended outcomes of the program

and less convincing. Examples include: INDIRECT EVIDENCE provides signs that students are probably learning, but the evidence of exactly what they are leaning is less clear

- Course grades
- Assignment grades, if not accompanied by a rubric or scoring guide
- For four year programs, admission rates into graduate programs and graduation rates from those programs.
- For two year programs, admission rates into four-year institutions and graduation rates from those programs
- Placement rates of graduates into appropriate career positions and starting salaries
- Alumni perceptions of their career responsibilities and satisfaction.
- <u>00004000</u> Student ratings of their knowledge and skills and reflections on what they have learning over the course of the program
- Those questions on end-of-course student evaluations forms that ask about the course rather than the instructor

## Degree Program Student Learning Report (rev. 7/14)

Fall 2014 - Spring 2015

## The Department of Mathematics & Physical Sciences in the School of Mathematics, Science & Health Sciences

### Physical Science, A.S.

Effectively assessing a degree program should address a number of factors:

- Valid student learning outcomes should be clearly articulated;
- Valid assessment measures should be used, consistent with the standards of professional practice;
  There should be evidence that assessment data are being used by faculty to make necessary instructional or assessment changes; and there should be evidence that instructional or assessment changes are being implemented to improve student learning.

### PART 1 (A & B)

# Relationship of Degree Program Learning Outcomes to Departmental and University Missions

Clearly state the school, department and degree program missions.

University Mission	School Mission	Department Mission	Degree Program Mission
Our mission is to ensure students	Central to the mission of the	The mission of the Department of	The Associate of Science in
develop the skills and knowledge	School is the preparation of	Mathematics and Physical	Physical Science consists of
required to achieve professional	students to achieve professional	Sciences at Rogers State	general education curriculum and
and personal goals in dynamic	and personal goals in their	University is to support students in	courses supporting other
local and global communities.	respective disciplines and to	their pursuit of knowledge in	departmental programs. In support
	enable their success in learning	mathematics and physical science.	
	dynamic local and global		school, and the department,

CHIVELSILY MISSION	OCHOO! HISSION	pegico i roginii misoron
	communities. Three departments	the degree seeks to provide a
	comprise this School, the	solid general education component
	Departments of Biology, Health	for all university students, provide
	Science, and Math and Physical	curriculum in the physical sciences
	Science. These departments	for students who are preparing for
	pledge to deliver existing and	a baccalaureate-granting program,
	newly developed programs that	and provide programs of study to
	meet student demands, and to be	students presently in the work
	responsive to the evolving	force, allowing them the
	culture of academia in general	opportunity to continue their
	and the sciences in particular.	education.
	Our strategy is to foster an	
	academic setting of diverse	
	curricula that inherently	
	incorporates an environment of	
	service an collegiality.	

w Clearly state school purposes, department purposes and degree program student learning outcomes. Align student learning outcomes with their appropriate school and department purposes, and these outcomes and purposes with their appropriate university commitments.

and	University Commitments School Purposes	
tilizes  Sus  Sus  Vered by a  possess a  gent  Sent  I uses effective  I uses effective  I uses, empirical  sed inquiry,  Sed inquiry,  Sogy, and a  environments for  lancing student	urposes	
The <i>Curriculum</i> utilizes academically rigorous methodologies delivered by a quality faculty who possess a broad base of content knowledge and promote the acquisition, application and discussion of current subject matter. The School uses effective instructional techniques, empirical and evidenced-based inquiry, innovative technology, and a variety of learning environments for the purpose of enhancing student learning.  To increase the student's abilities.  To increase the student's of the physical world, and the ability to apply this understanding in his/her personal and evidenced-based inquiry, interpret and understand his/her world mathematically.	Department Purposes	
Demonstrate problem solving skills through critical thinking and the scientific method in mathematics and science courses.  Apply problem solving skills through critical thinking and the scientific method.  Explain and predict quantitative, analytical and graphical situations.	Student Learning Outcomes	

University Commitments	School Purposes	Department Purposes	Student Learning Outcomes
To promote an atmosphere of academic and intellectual freedom and respect for diverse expression in an environment of physical safety that is supportive of teaching and learning.	The School promotes a challenging, positive, and inquisitive <i>Collegial</i> environment of high ethical standards and of frequent interactions between faculty and students to foster independent thought and the collegial exchange of ideas.		
To provide a general liberal arts education that supports specialized academic program sand prepares students for lifelong learning and service in a diverse society.	The School recognizes the importance of scientific literacy in general education and its contribution to the liberal studies curriculum of the university.	To prepare a student to matriculate into a four-year degree program in math or science-related fields.	Demonstrate an ability to design and conduct experiments, as well as to analyze and interpret data.
To provide students with a diverse, innovative faculty dedicated to excellence in teaching, scholarly pursuits and continuous improvement of programs.			
To provide university-wide student services, activities and resources that complement academic programs.			
To support and strengthen student, faculty and administrative structures that promote shared governance of the institution.			
To promote and encourage student, faculty, staff and community interaction in a positive academic climate that creates opportunities for cultural, intellectual and personal enrichment for the University and the communities it serves.	Our commitment to <b>Service</b> enhances the public welfare and economic development potential of our region by cultivating strategic partnerships with health and science-related industries, secondary and higher education institutions, and through active participation and leadership in civic	To serve as a resource for the community, utilizing the expertise of the faculty.	

University Commitments	School Purposes	Department Purposes	Student Learning Outcomes
	and professional organizations by		
	our faculty and students. These		
	collaborative efforts are based on		
	relationships, service reinforces		
	and strengthens learning, and		
	learning reinforces and strengthens service. An emphasis of service		
	encourages social awareness and		
	responsibility among raculty and students.		

### PART 2

# Discussion of Instructional Changes Resulting from 2013-2014 Degree Program Student Learning Report

discussed here as well. Emphasis should be placed on student learning and considerations such as course improvements, the List and discuss all instructional or assessment changes proposed in Part 5 of last year's Degree Program Student Learning Report, whether implemented or not. Any other changes or assessment activities from last year, but not mentioned in last year's report, should be assessment process, and the budget. If no changes were planned or implemented, simply state "No changes were planned or implemented."

Instructional or Assessment Changes	Changes Implemented (Y/N)	Impact
Missing data were added for 3b and 4a.	<b>~</b>	There is no impact on the degree program curriculum or budget is expected. The change standardizes the treatment of the assessment data.
A four-year moving average was adopted for each chemistry-related assessment measure.	~	There is no impact on the degree program curriculum or budge is expected. The change standardizes the treatment of the assessment data.
Beginning in FY14-15, Geology 1124 Historical Geology will be assessed. During this academic year, this course	~	There is no impact on the degree program curriculum or budget is expected.

collected. was offered only once and assessment data was

### PART 3

# Discussion About the University Assessment Committee's 2013-2014 Peer Review Report

will be implemented at a future date. If they were not or will not be implemented, please explain why. If no changes were recommended last year, simply state "No changes were recommended." The University Assessment Committee in its Degree Program Peer Review Report provided feedback and recommendations for improvement in assessment. List or accurately summarize all feedback and recommendations from the committee, and state whether they were implemented or

Feedback and Recommended Changes from the University Assessment Committee	Suggestions Implemented (Y/N)	Changes that Were or Will Be Implemented, or Rationale for Changes that Were Not Implemented
Regarding degree outcome 1 namely "Demonstrate a thorough knowledge and understanding of basic science principles and their applications." Consider labeling the following assessment measures: "Student Scores for CHEM 1415 on the ACS" as 1a), 1b), 1c), etc.	Υ	Included in this SLR for clarity.
The performance standard for the first assessment measure (ACS exam) states that students will score "in the 36 <sup>th</sup> percentile or higher". Why 36 <sup>th</sup> ? Is this standard suggest by ACS?	Explanation Provided	The 36 <sup>th</sup> percentile was chosen because roughly 10% of the material on the ACS exam is not taught in the course. So an approximation was made that student scores will be lowered by about that same amount. Therefore, instead of the typical student scoring in the 50 <sup>th</sup> percentile, the typical student would score in the 36 <sup>th</sup> percentile. It is understood that there are reliability issues when making this assumption but it is the opinion of the chemistry faculty that the ACS exam is a robust exam which still possesses a good reliability under these circumstances.
The Department Purposes on p. 2 lists four goal/objectives, yet the Degree Program Outcomes on p.2 includes only one. The second Department Purposes (p.3) lists one goal/objective, yet the Degree Program Outcomes on p. 3 would seem to be more appropriately aligned with the Department Purposes on p. 2.	*	The following students outcomes were incorporated into the Department Purposes as suggested by the Assessment Committee.

University Assessment Committee

Lab scores in 4a are composite lab scores (indirect measure) while lab scores in 2 are from two specific labs (direct measures).  Language has been added for clarification.	~	Why are lab scores and chapter exams listed as indirect measures? Is it because they lack rubrics scoring guides, or is it because various measures aere included in the grade?
	Z	Whereas the conclusions addressed the strengths reflected by students having met the measures' standards, there was scant if any discussion of weaknesses, which is a requirement included in the rubric.
It is implicit in the assessment process that only majors are included in the data.	Z	With some measures it is clear that only majors were included; with other measure it was not clear.

### PART 4

### **Analysis of Evidence of Student Learning Outcomes**

For all student learning outcomes (as listed in Part 1 B above), describe the assessment measures and performance standards used, as well as the sampling methods and sample sizes. For each measure, document the results of the activity measured and draw relevant conclusions related to strengths and weaknesses of their performance.

A. Student Learning Outcomes	B. Assessment Measures	C. Performance Standards	D. Sampling Methods	E. Sample Size (N)	F. Results	G. Conclusions	H. Performance Standards Met (Y/N)
<del>,</del> >	1a) Indirect	1a) At least 50%	1a) Student	1a)	1a) 50% (1/2) of	1a) A majority of	1a)
Demonstrate	Measures:	of students who	scores from	2 (14-15)	students met the	students in CHEM 1415 Y (2014-15	Y (2014-15)
a thorough	Student scores	take the	CHEM 1415:	1 (13-14)	assessment	possess basic	Y (2013-14)
knowledge	from CHEM 1415:   Americar	American	General	3 (12-13)	performance standard	knowledge of chemistry, N (2012-13	N (2012-13)
and	General	Chemical	Chemistry II on   3 (11-12)	3 (11-12)	in 2014-15; 100% (1/1) and have an	and have an	Y (2011-12)
understanding	understanding Chemistry II on	Society (ACS)	the American	5 (10-11)	of students met the	g of its	Y (2010-11)
of basic	the American	standardized	Chemical	2 (09-10)	assessment		Y (2010-09)
physical	Chemical Society	exam will score	Society (ACS)   16 Total	16 Total	performance standard	applications. With small Y: six year	Y: six year
science	(ACS) academic	in the 36th	academic		in 2013-14;	N annual fluctuations	avg.

		principles and their applications.	A. Student Learning Outcomes
1c. Indirect Measure: Student	1b) Indirect Measures: Student scores on hourly exams in MATH 1613, Trigonometry.	assessment exam.	B. Assessment Measures
1c. Students must score 70%	1b At least 70% of students earned a grade of 70% or better on the four hourly exams in Math 1613 Trigonometry	percentile or higher.	C. Performance Standards
1c. ) Student scores	1b) Student scores on hourly exams in MATH 1613, Trigonometry	assessment exam.	D. Sampling Methods
1c. 2 (14-15)	1b) 6 (14-15) 3 (13-14) 6 (12-13) 15 Total		E. Sample Size (N)
1c. 2/2 MPS majors score 70+% on lecture	1b) 4 of 6 (67%) of scored 70% or better on the hourly exams in 2014-15. 3 of 3 (100%) met the performance standard in 2013-14.	0% (0/3) of students met the assessment performance standard in 2012-13; 66.7% (2/3) of students met the assessment performance standard in 2011-12; 60% (3/5) of students met the assessment performance standard in 2010-11; 100% (2/2) of students met the assessment performance standard in 2009-10. A 6-year "moving average" showed that 9/16 (56%, N = 16) students met the assessment performance standard.	F. Results
1c. Expectations were met twice in four years!	1b) Results were above or very close to the performance target in the last two years.	are to be expected. Keeping a moving average of the data reveals any on-going trends.	G. Conclusions
1c. Y(2014-15)	1b) N(2014- 15) Y(2013-14)		H. Performance Standards Met (Y/N)

Y (2014-15) N (2013-14) Y (2012-13) Y (2011-12) N (2010-11) Y (2010-09) Y: six year avg	This measure was met in three of the past four years. With small N annual fluctuations are to be expected. Keeping a moving average of the data reveals any ongoing trends.	100% (2/2) of students met the assessment performance standard in 2014-15; 0% (0/1) of students met the assessment performance standard in 2013-14; 100% (3/3) of students met the assessment performance standard in 2012-13; 100% (3/3) of students met the assessment performance standard in 2012-13; 100% (3/3) of students met the assessment	2 (14-15) 1 (13-14) 3 (12-13) 3 (11-12) 5 (10-11) 2 (09-10) 16 Total	Student scores on these labs for CHEM 1415.	At least 50% of CHEM 1415 students who successfully complete CHEM 1415: General Chemistry II will earn a grade of 70% or higher.	each outcrop.  2a.Direct Measures: Student scores on Titration lab and Beers Law lab in CHEM 1415: General Chemistry II.	2. Apply problem solving skills through critical thinking and the scientific method.
1d. Y(2014-15)	1d.Expectations were met	1d. 100% of majors scored 70% or greater on their interpretation of the geologic processes in the field.	1d. 6 (14-15)	1d. Student scores on their final interpretation of geologic processes paper.	1d. Students must score 70% or greater on the final summary of their geologic processes interpretation paper.	1d. Indirect Measures: Students are to observe several rock outcrops of sequential ages and determine the geological processes represented by the rocks and	
N(2013-14) N(2012-13) Y(2011-12)		exams in 2014-15; 2/9 in 2013-14; 7/15(47%) in 2012-13 and 3/4 (75%) in 2011-12.	9 (13–14) 15(12-13) 4 (11-12) Total – 30	(semester total) on PHYS2015 and PHYS11114 lecture exams	or greater on lecture exams.	scores (semester total) on lecture exams in PHYS 2015 and PHYS1124 Historical Geology	
H. Performance Standards Met (Y/N)	G. Conclusions	F. Results	E. Sample Size (N)	D. Sampling Methods	C. Performance Standards	B. Assessment Measures	A. Student Learning Outcomes

	A. Student Learning Outcomes
2b. <b>Direct</b> Measures: During the year 14-15 in MATH 1613, three topics (from the course description) were evaluated. These topics were trigonometric functions, inverse trigonometric functions, and	B. Assessment Measures
2b) At least 70% of students (on the majors list) will earn a grade of 70% or better on three selected homework assignments in MATH 1613.	C. Performance Standards
2b) Student scores on three assignments worked through MATH 1613, Trigonometry.	D. Sampling Methods
2b) 6 (14-15)	E. Sample Size (N)
performance standard in 2011-12; 40% (2/5) of students met the assessment performance standard in 2010-11; 100% (2/2) of students met the assessment performance standard in 2009-10. A 6-year "moving average" showed that 12/16 (75%, N = 16) students met the assessment performance standard.  2b) 5 of 6 (83%) of the students scored 70% or better on the homework assignment "trigonometric functions".  5 of 6 (83%) of the students scored 70% or better on the homework assignment "inverse trigonometric functions").  5 of 6 (83%) of the students scored 70% or better on the homework assignment "unctions").  5 of 6 (83%) of the students scored 70% or better on the homework assignment "complex numbers".	F. Results
2b) Performance standards were met. As one might expect, student averages on the homework assignments were higher than the exam average.	G. Conclusions
2b. Y(2014- 15)	H. Performance Standards Met (Y/N)

		A. Student Learning Outcomes
2d. GEOL 1124  - Historical Geology:Student scores on a term project to develop a comprehensive scale model of Earth processes through time. Included on this model are: evolutionary and extinction events, tectonic plate locations, atmospheric conditions, sea	complex numbers.  2c Indirect Measure: Student scores (semester total) on lecture exams in PHYS 2015 and PHYS1114	B. Assessment Measures
2d. Geology majors must score 70% or greater on their comprehensive geologic model through time	2c. At least 70% of students (on the majors list) score 70% or better on lecture exams in PHYS 2015 and PHYS 1114	C. Performance Standards
2d.Final % scores on their comprehensive geologic model	2c. Student scores (semester total) on PHYS2015 and PHYS1114 lecture exams	D. Sampling Methods
2d. 5 (2014- 15)	2c. 2 (14-15) 9 (13-14) 15(12-13) 4 (11-12) Total - 30	E. Sample Size (N)
2d. 5/5 geology majors scored 70+% on their geologic time model in 2014-15.	2c. 2/2 MPS majors score 70+% on lecture exams in 2014-15; 2/9 in 2013-14; 7/15(47%) in 2012-13 and 3/4 (75%) in 2011-12.	F. Results
2d. Expectations were met.	2c. Expectations were met twice in four years!	G, Conclusions
2d. Y(2014- 15)	2c. Y(2014-15) N(2013-14) N(2012-13) Y(2011-12)	H. Performance Standards Met (Y/N)

4a) Y (2014- 15) Y (2013-14) Y (2012-13) Y (2011-12) Y (2010-11) Y (2010-09) Y: six year avg.	tools.  tools.  tools.  Aa) A majority of students in CHEM 1415 were able to design and conduct experiments, and successfully analyze and interpret the data gathered from them. With small N annual fluctuations are to be expected. Keeping	standard in 2013-14; 13/15 (87%) of MPS majors met the assessment performance standard in 2012-13; All 4 majors met the standard in 2011-12.  4a) 100% (2/2) of students met the assessment performance standard in 2014-15; 100% (1/1) of students met the assessment performance standard in 2013-14; 100% (3/3) of students met the	4a) 2 (14-15) 1 (13-14) 3 (12-13) 3 (11-12) 5 (10-11) 2 (09-10) 16 Total	Physics I.  Physics I.  4a) Student scores on the labs for CHEM 1415 General Chemistry II.	4a) At least 50% of students who successfully complete CHEM 1415: General Chemistry II will earn a lab grade of 70% or higher.	4a) Indirect Measures Student lab grade scores in CHEM 1415 General Chemistry II.	4. Design and conduct experiments, as well as to analyze and interpret data.
Y(2014-15) Y(2013-14) Y(2012-13) Y(2011-12) Y: four year avg.	W .	3a) 2/2 MPS majors met the assessment performance standard in 2014-15. 9/9 MPS majors met the assessment performance	3a) 2 (14-15) 9(13-14) 15(12-13) 4(11-12) 30 Total	3a) Unit laboratory reports in PHYS 1114: General Physics I and PHYS 2015	3a) At least 50% of students will average 70% or better on unit laboratory reports in PHYS 1114: and PHYS	major orogenic events, climatic changes, etc.  3a) Direct measure: Unit laboratory reports in PHYS 1114: General Physics and 2015 Engineering	3. Explain and predict quantitative, analytical and graphical situations.
H. Performance Standards Met (Y/N)	G. Conclusions	F. Results	E. Sample Size (N)	D. Sampling Methods	C. Performance Standards	Assessment Measures level change,	A. Student Learning Outcomes

. 4b) of s ave bett and	A. Student A Learning Outcomes
4b) At least 50% of students will average 70% or better on Unit laboratory reports in PHYS 1114: and PHYS2015	B. Assessment Measures
4b) 4b) Unit laboratory reports in PHYS 1114: General Physics I and PHYS 2015 Engineering Physics I.	C. Performance Standards
4b) Unit laboratory reports in PHYS 1114: General Physics I and PHYS 2015 Engineering Physics I.	D. Sampling Methods
4b) 2 (14-15) 9(13-14) 15(12-13) 4(11-12) 30 Total	E. Sample Size (N)
of students met the assessment performance standard in 2011-12; 60% (3/5) of students met the assessment performance standard in 2010-11; 100% (2/2) of students met the assessment performance standard in 2009-10; A 6-year "moving average" showed that 14/16 (87%, N = 16) students met the assessment performance standard.  4b) 2/2 MPS majors met the assessment performance standard in 2014-15. 9/9 MPS majors met the assessment performance standard in 2013-14; 13/15 (87%) of MPS majors met the assessment performance standard in 2012-13; All 4 majors met the standard in 2012-13; All 4 majors met the standard in 2011-12.	F. Results
4b) A majority of students in PHYS1114 and PHYS2015 were able to show their ability to design and conduct experiments, as well as to analyze and interpret the data using mathematical/graphical tools.	G. Conclusions
Y(2014-15) Y(2013-14) Y(2012-13) Y(2011-12) Y: four year avg	H. Performance Standards Met (Y/N)

St Cut
A. Student Learning Outcomes
B. Assessment Measures
nent res
C. Performance Standards
D. Sampling Methods
E. Sample Size (N)
F. Results
G. Conclusions
H. Performance Standards Met (Y/N)

### ART 5

# Proposed Instructional Changes Based on Conclusions Drawn from Evidence Presented Above

other considerations, such as curriculum, degree plan, assessment process, or budget. If no changes are planned, simply state "No changes reported in Part 4 (above) or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook adoption, new course proposals, curriculum modifications, etc. Explain the rationale for these changes and how they will impact student learning and State any proposed instructional or assessment changes to be implemented for the next academic year. They should be based on conclusions

are planned."

Student Learning Outcomes	Instructional or Assessment Changes	Rationale for Changes	Impact of Planned Changes on Student Learning and Other Considerations.
No changes are planned by Chemistry.	No changes are planned by Chemistry.	N/A	N/A
MATH 1613	MATH 1613	N/A	N/A
PHYS 1114 and PHYS 2015	No changes are planned by Physics.	N/A	N/A
No changes are planned in Geology.	GEOL 1124 – No changes are planned.	. N/A	N/A

### PART 6

# Shared Pedagogical Insight that Improves Student Learning or Classroom Engagement

communicated during the face to face peer review session. improving student learning or student engagement in the classroom, please provide a brief description below. More detail can be (OPTIONAL) If your department or a faculty member has developed a method or technique of teaching that seems especially effective in

### Description

### PART 7 (A & B)

### Assessment Measures and Faculty Participation

### A. Assessment Measures

How many different assessment measures were used?

Chemistry:

MATH 1613:

PHYS 1114: PHYS 2015:

**GEOL 1124** 

 $\mathcal{N}$ List the direct measures (see rubric)

Chemistry:

functions, inverse trigonometric functions and complex numbers MATH 1613: 3 This year MATH 1613, three topics (from the course description) were evaluated. These topics included trigonometric

PHYS 1114: No direct measures were used.

PHYS 2015: No direct measures were used.

**GEOL 1124** 1 - Geological Time Scale Term Project was used

ယ List the indirect measures (see rubric):

Chemistry:

No indirect measures were used

MATH 1613: PHYS 1114: PHYS 2015: Only indirect measures were used – Scores of (a) total (10-12) Lab Reports & (b) Exam scores (Semester Total) Only indirect measures were used – Scores of (a) total (10-12) Lab Reports & (b) Exam scores (Semester Total)

1 - Evaluation of regional geologic processes in the field by analyzing several outcrops of rocks

1) Provide the names and signatures of all faculty members who contributed to this report and indicate their respective roles:

Faculty Members	Roles in the Assessment Process	Signatures
	(e.g., collect data, analyze data, prepare report, review report, etc.)	
Dr. Kirk Voska	Collection of Chemistry data	Cas als
Dr. Kasia Roberts	Collection of Chemistry data	NROOLT
Dr. Doug Grenier	Collection of Math data	Se ri
Dr. Min Soe	Collection of Physics data	MW Sm.
Dr. Suhkitha Vidurupola	Collection of Math data and preparation of report	Supporting Volkrays to
Dr. Jamie M.Graham	Collection of GEOL1124 date and preparation of report	Janu Jo Suhan

2) Reviewed by:

	Dean	Department Head	Titles
	Dr. Keith Martin	Dr. Jamie Graham	Names
11000	Start Killian	Junio M. Diglans	Signatures
110	2/15/1/2	2/15/16	Date

# RUBRIC FOR STUDENT LEARNING STUDENT LEARNING REPORT

## 1) A. Are the school, department and program missions clearly stated?

Exemplary	Established	Developing	Undeveloped
The program, department, and	The program, department, and	The program, department, and	The program, department, and
school missions are clearly stated.	school missions are stated, yet	school missions are incomplete	school missions are not stated.
	exhibit some deficiency (e.g., are	and exhibit some deficiency (e.g.,	
	partial or brief).	are partial or brief).	

## ĊΩ Are student learning outcomes and department purposes aligned with university commitments and school purposes?

Exemplary	Established	Developing	Undeveloped
Student learning outcomes and	Student learning outcomes and	Student learning outcomes and	Student learning outcomes and
department purposes are aligned	department purposes demonstrate	department purposes demonstrate	department purposes do not
with university commitments and	some alignment with university	limited alignment with university	demonstrate alignment with
school purposes.	commitments and school purposes.   commitment and school p	commitment and school purposes.	university commitment and school
			purposes.

### 2 How well did the department incorporate instructional or assessment changes from last year's report or from other assessment activities?

Exemplary	Established	Developing	Undeveloped
All planned changes were listed,	Most planned changes were listed, Some planned changes	Some planned changes were	No planned changes were listed,
whether they were implemented or and their status or impact on	and their status or impact on	listed, and their status or impact on	impact on and their status or impact on
not, and their impact on curriculum	not, and their impact on curriculum   curriculum or program budget was   curriculum or program budget was	curriculum or program budget was	curriculum or program budget was
or program budget was discussed   discussed	discussed.	not clearly discussed.	not discussed.
thoroughly.			

# Did the department include peer review feedback and provide rationale for implementing or not implementing suggestions?

and for each suggestion a clear rationale was given for its being implemented or not.  and for most suggestions a rationale was given for their being implemented or not.	and for most suggestions a rationale was given for their being implemented or not.    listed, and for some suggestions a rationale was given for their being implemented or not.
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## 4) A. Are the student learning outcomes listed and measurable?

Exemplary	Established	Developing	Undeveloped
All student learning outcomes are	Most student learning outcomes	Some student learning outcomes	Student learning outcomes are
listed and measurable in student	are listed and measurable in	are listed and measurable in	either not listed or not measurable.
behavioral action verbs (e.g.,	student behavioral action verbs	student behavioral action verbs	
Bloom's Taxonomy)	(e.g., Bloom's Taxonomy).	(e.g., Bloom's Taxonomy).	

## B. Are the assessment measures appropriate for the student learning outcomes?

Exemplary	Established	Developing	Undeveloped
All assessment measures are appropriate to the student learning	All assessment measures are  appropriate to the student learning appropriate to the student learning	Some assessment measures are appropriate to the student learning	None of the assessment measures are appropriate to the student
outcomes.	outcomes.	outcomes.	learning outcomes.

## ဂ Do the performance standards provide a clearly defined threshold at an acceptable level of student performance?

Exemplary	Established	Developing	Undeveloped
All performance standards provide	Most performance standards	Some of the performance	No performance standards provide
a clearly defined threshold at an	provide a clearly defined threshold	standards provide a clearly defined	defined a clearly defined threshold at an
acceptable level of student	at an acceptable level of student	threshold at an acceptable level of	level of   acceptable level of student
performance.	performance.	student performance.	performance.

## D. Is the sampling method appropriate for all assessment measures?

Exemplary	Established	Developing	Undeveloped
The sampling methodology is	The sampling methodology is	The sampling methodology is	The sampling methodology is
appropriate for all assessment	appropriate for most assessment	ent	appropriate for none of the
measures.	measures.	measures.	assessment measures.

## E. is the sample size listed for each assessment measure?

Exemplary	
Established	
Developing	
Undeveloped	

assessment measures. assessment measures.	Sample size was listed for all Sample size was listed for most	
assessment measures.	Sample size was listed for some	
assessment measures.	Sample size was not listed for any	

## F. How well do the data provide clear and meaningful overview of the results?

Exemplary	Established	Developing	Undeveloped
For all student learning outcomes	For most student learning	For some student learning	For none of the student learning
the results were clear, more than a outcomes the results were clear.	outcomes the results were clear,	outcomes the results were clear,	outcomes were the results clear,
single year's results were included,   more than a single year's results	more than a single year's results	more than a single year's results	more than a single year's results
and meaningful information was	were included, and meaningful	were included, and meaningful	were included, and meaningful
given that reveals an overview of	information was given that reveals	information was given that reveals	information was given that reveals
student performance.	an overview of student	an overview of student	an overview of student
	performance.	performance.	performance.

### ဂ Are the conclusions reasonably drawn and significantly related to student learning outcomes?

Some conclusions are reasonably No conclusions are reasonably	e reasonably
drawn and significantly based on drawn and significantly based on	antly based on
the results and related to the the results or related to the	ed to the
strengths and weaknesses in strengths and weaknesses in	knesses in
student performance. student performance.	ce.
	d signific d signific s or relat and wea erforman

## H. Does the report indicate whether the performance standards were met?

Exemplary	Established	Developing	Undeveloped
Stated for all performance	Stated for most performance	Stated for some performance	Not stated for any performance
standards.	standards.	standards.	standard.

5 How well supported is the rationale for making assessment or instructional changes? The justification can be based on conclusions adoption, new course proposals, curriculum modifications, etc. Explain the rationale for these changes and how they will impact student learning and other considerations, such as curriculum degree plan, assessment process, or budget reported in Part 4 or on informal activities, such as faculty meetings and discussions, conferences, pilot projects, textbook

All planned changes are Most planned changes are Some planned changes are No planned changes are	Exemplary	Established	Developing	Undeveloped
	All planned changes are	Most planned changes are	Some planned changes are	planned changes a

	and convincingly explained.	planned changes is well grounded   planned changes is mostly well	conclusions. The rationale for	learning and based on the	specifically focused on student
explained.	grounded and convincingly	planned changes is mostly well	conclusions. The rationale for	learning and based on the	specifically focused on student
	not convincingly explained.	planned changes is lacking or is	conclusions. The rationale for	learning and based on the	specifically focused on student
			conclusions. There is no rationale.	learning and based on the	specifically focused on student

## <u></u> Did the faculty include at least one teaching technique they believe improves student learning or student engagement in the classroom?

## 7) A. How well did the faculty vary the assessment measures?

Exemplary	Established	Developing	Undeveloped
Assessment measures vary and	Assessment measures vary, but	Assessment measures do not vary   Assessment measures are not all	Assessment measures are not all
include multiple direct measures	they are all direct. The number of	or are all indirect. There is some	listed or are listed in the wrong
and at least one indirect measure.	measures is consistent with those	inconsistency in the number of	category. The total number of
The number of measures is	listed.	measures recorded and the total	measures is not consistent with
consistent with those listed.		listed.	those listed.

# B. Does the list of faculty participants clearly describe their role in the assessment process?

The faculty role is clearly identified and it is apparent that the majority of the faculty participated in the process. The roles are varied.	Exemplary
The faculty role is clearly identified and it and it is apparent that the majority of the of the faculty participated in the process. The roles are varied.  The faculty role is identified and it is apparent that the majority of the faculty participated.  The faculty role is identified and it is apparent that the majority of the faculty participated.  The roles are not identified and it is apparent that the majority of the faculty participated.  The faculty role is clearly identified and it is apparent that the majority of the faculty participated.  The faculty role is identified and it is apparent that the majority of the faculty participated.  The faculty role is identified and it is apparent that the majority of the faculty participated.  The faculty roles are not identified and it is apparent that the majority of the faculty participated.	Established
The faculty roles are not identified. Few faculty participated.	Developing
The faculty roles are not identified. Faculty participation is not sufficiently described to make a determination about who participated.	Undeveloped

### EXPLANATION Ç٥ EXAMPLES O DIRECT AND INDIRECT EVIDENCE

Examples include: DIRECT EVIDENCE of student learning is tangible, visible, self-explanatory evidence of exactly what students have and haven't learned

- Ratings of student skills by their field experience supervisors
- **5** Scores and pass rates on licensure/certification exams or other published tests (e.g. Major Field Tests) that assess key learning outcomes
- ω Capstone experiences such as research projects, presentations, oral defenses, exhibitions, or performances that are scored using
- Written work or performances scored using a rubric
- <u>400</u> Portfolios of student work.
- Scores on locally-designed tests such as final examinations in key courses, qualifying examinations, and comprehensive examinations that are accompanied by test blueprints describing what the tests assess
- Score gains between entry and exit on published or local tests or writing samples
- Employer ratings of the skills of recent graduates.
- Summaries and analyses of electronic class discussion threads
- Student reflections on their values, attitudes, and beliefs, if developing those are intended outcomes of the program

and less convincing. Examples include: INDIRECT EVIDENCE provides signs that students are probably learning, but the evidence of exactly what they are leaning is less clear

- Course grades
- Assignment grades, if not accompanied by a rubric or scoring guide
- For four year programs, admission rates into graduate programs and graduation rates from those programs.
- For two year programs, admission rates into four-year institutions and graduation rates from those programs
- Placement rates of graduates into appropriate career positions and starting salaries
- <del>1</del>99795432 Alumni perceptions of their career responsibilities and satisfaction.
  - Student ratings of their knowledge and skills and reflections on what they have learning over the course of the program
  - Those questions on end-of-course student evaluations forms that ask about the course rather than the instructor
  - Student/alumni satisfaction with their learning, collected through surveys, exit interviews, or tocus groups
- Honors, awards, and scholarships earned by students and alumni

Suskie, L. (2004). Assessing Student Learning: A Common Sense Guide. Anker Publishing Company: Bolton, MA

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