UNIVERSITY ASSESSMENT COMMITTEE Feedback to Academic Departments on Assessment Activities Reported in 2011 Annual Reports

GRADUATE PROGRAMS

DEPARTMENT_Chemical Engineering – M.S. in Si	<u>ustainabie i</u>	Energy Eng	ineering_DATE_April 24, 2012_
COMMITTEE MEMBER(S) CONDUCTING REV	IEW <u>Eric</u>	E. Johnson	and Cassie Gerhardt
1. STUDENT LEARNING GOALS			
Were any goals referenced?If so, were goals well articulated?Do goals address student learning?	YES	NO	QUALIFIED Y/N QUALIFIED Y/N QUALIFIED Y/N
Comments:			
The Annual Report of the Chemical Engineering Departm Master of Science in Sustainable Energy Engineering. The the Civil Engineering Department were consulted as well, of Science in Sustainable Energy Engineering was found to	e annual rep and no info	orts of the S	chool of Engineering & Mines and of
2. ASSESSMENT METHODS			
 Were any specific assessment methods referenced? If so, were specifically chosen assessment methods appropriately aligned with individual 	YES	NO_X	QUALIFIED Y/N
goals? • Were both direct and indirect assessment	YES	NO	QUALIFIED Y/N
methods used as components of a "multiple measures" approach?	YES	NO	QUALIFIED Y/N
Comments:			
The Annual Report of the Chemical Engineering Departm Science in Sustainable Energy Engineering. The annual re Engineering Department were consulted as well, and no in Sustainable Energy Engineering was found there either.	eports of the	School of E	ngineering & Mines and of the Civil
3. ASSESSMENT RESULTS			
Were any assessment results reported?	YES	NO_ <u>X</u>	QUALIFIED Y/N
• If so, were the results clear in terms of how they specifically affirm achievement of goals?	YES	NO	QUALIFIED Y/N
If so, were the results clear in terms of how they indicate need for improvement? We also be indicated to the formula of the control of	YES	NO	QUALIFIED Y/N
 Were the results tied to goals for student learning? 	YES	NO	QUALIFIED Y/N

Comments:

The Annual Report of the Chemical Engineering Department contains no assessment information for the Masters of Science in Sustainable Energy Engineering. The annual reports of the School of Engineering & Mines and of the Civil

Engineering Department were consulted as well, and no information regarding assessment for the Masters of Science in Sustainable Energy Engineering was found there either.

4. CLOSING	THE LOOP						
results reported • If ch	ns taken on the basis of 1? so, do curricular or oth nanges arising from assirectly address goals for	ner improvements/ essment results			QUALIFIED Y/N		
Comments:							
all graduate st including as to	udents in order to gua	arantee that students i duation. It is does not	receive feedba	ck from the	implemented as a requirement for esis or dissertation committees, as taken on the basis of assessmen		
SUMMARY							
	Strengths			Areas j	for Improvement		
A specific plan for assessment is in place. Student learning goals are well-articulated. Assessment methods are clearly described. Assessment methods are appropriately selected. Assessment methods are well-implemented. Direct and indirect methods are implemented. Results are reported. Results are tied to closing the loop. (Decision-making is tied to evidence.)			 X No specific plan for assessment is in place. X Student learning goals are not well-articulated. X Assessment methods are not clearly described. X Assessment methods are not appropriately selected. X Assessment methods are not well-implemented. A single type of assessment methods predominates. X No results are reported. Results are not clearly tied to closing the loop. (Decision-making is not directly tied to evidence.) 				
The Chemical	Engineering graduate can be referenced.	ECOMMENDATION PROPERTY OF THE PROPERTY OF T		or the Mast	ers of Science in Sustainable Ener	gy	
			A		(1)		
	report ces (cited in annual rep lease describe)	oort)		sment plan (ous assessm			
Reviewer(s):	Name Department Phone Number e-mail	Eric E. Johnson School of Law 701-777-2264 eric.johnson@er		Memor 701-77 cassie.	gerhardt@email.und.edu		
Section 1: N		Section 3: N					
N = NA =	= no information avail	nt all, or it is not done in able	-		arning s completely and appropriately done	e	

UNIVERSITY ASSESSMENT COMMITTEE Feedback to Academic Departments on Assessment Activities Reported in 2011 Annual Reports **GRADUATE PROGRAMS**

DEPARTMENT_Chemical Engineering - Ph.D. in Chemical Engineering_DATE_April 24, 2012_

COMMITTEE MEMBER(S) CONDUCTING REV	IEW <u>Eric l</u>	E. Johnson	and Cassie Gerhardt
1. STUDENT LEARNING GOALS			
Were any goals referenced?If so, were goals well articulated?Do goals address student learning?	YES	NO_X	QUALIFIED Y/N QUALIFIED Y/N QUALIFIED Y/N _X
Comments:			
There is no posted assessment plan for the Ph.D. program. The goals referenced lack specificity. For instance, Studer will be well prepared for a career in industry, government	nt Learning G	oal 3 is "Stu	dent Learning Goal 3: Graduates
The objectives under the goals reference tasks that studen per se.	ts are expecte	ed to comple	te rather than learning objectives,
2. ASSESSMENT METHODS			
 Were any specific assessment methods referenced? If so, were specifically chosen assessment methods appropriately aligned with individual 	YES	NO_X	QUALIFIED Y/N
goals? • Were both direct and indirect assessment	YES	NO	QUALIFIED Y/N
methods used as components of a "multiple measures" approach?	YES	NO	QUALIFIED Y/N
Comments:			
The Annual Report states that the Chemical Engineering collecting data for future assessment, and notes that the p of what assessment methods are being used.			

3. ASSESSMENT RESULTS

Were any assessment results reported?	YES	NO_ <u>X</u>	QUALIFIED Y/N
 If so, were the results clear in terms of how they specifically affirm achievement of goals? 	YES	NO	QUALIFIED Y/N
 If so, were the results clear in terms of how they indicate need for improvement? Were the results tied to goals for student 	YES	NO	QUALIFIED Y/N
learning?	YES	NO	QUALIFIED Y/N

Comments:

The Annual Report states that the performance and progress of the six doctoral students "is being monitored for future assessment," but no results are reported.

4. CLOSING	G THE LOOP			
results report	If so, do curricular or other impr	rovements/	YES 1	NO_X_ QUALIFIED Y/N
	changes arising from assessmen directly address goals for studen		YES	NO QUALIFIED Y/N
Comments:				
all graduate including as	students in order to guarantee	e that students re n. It is does not ap	ceive feedback	nas been implemented as a requirement for from thesis or dissertation committees, action was taken on the basis of assessment,
SUMMARY	Strengths			Areas for Improvement
	_			Areas for Improvement
Student Assessm Assessm Direct a: Results a: Results a:	fic plan for assessment is in place learning goals are well-articulated and methods are clearly described and methods are appropriately sometiment methods are well-implement indirect methods are implementare reported. The are tied to closing the loop. The are tied to evidence.	ed. ed. elected. tted. ented.	X Student le X Assessme X Assessme X Assessme A single ty X No results Results are	arning goals are not well-articulated. In methods are not clearly described. In methods are not appropriately selected. In methods are not well-implemented. In methods predominates. In are reported. In the methods predominates. In are reported. In the methods predominates. In the methods are not clearly tied to closing the loop. In the methods are not clearly tied to evidence.
The Chemics referenced.	A SUMMARY AND RECONTAIL Engineering graduate prograwers recommend the developments of REVIEWED	ram has no assess	ment plan for t	he Ph.D. in Engineering that can be program.
			A saasama	ant alon (or mosted)
	dices (cited in annual report) (please describe)	-		ent plan (as posted) assessment review
Reviewer(s):	Department S Phone Number	Eric E. Johnson School of Law 701-777-2264 eric.johnson@ema	uil.und.edu	Cassie Gehardt Memorial Union 701-777-3667 cassie.gerhardt@email.und.edu
Section 1: N	I Section 2: <u>N</u> Sect	tion 3: <u>N</u> S	ection 4: <u>N</u>	
Coding Key:	- was this is done annuaries	alv and wall		
Y N	yes, this is done appropriateno, this is not done at all, or		elationship to st	udent learning
NA ?		ent; however, evide	ence is lacking t	hat this is completely and appropriately done

DEPARTMENT_	Chemical Engineering, B.S.		D	ATE <u>April 17, 2012</u>	
COMMITTEE M	IEMBER(S) CONDUCTING F	REVIEW_ <u>Eric</u>	E. Johnson	n and Cassie Gerhardt	
1. STUDENT LEA	RNING GOALS				
If so, wDo goa	ny goals referenced? vere goals well articulated? als address student learning?	YES X YES X YES X	NO NO NO	QUALIFIED Y/N	
Comments: Learning goals and measurement and e	objectives are comprehensive and	d are stated in a n	nanner that	is both specific and capable of	f
(shown in alignment X 1 Commu X 2 Thinkin X 3 Thinkin X 4 Thinkin X 5 Informa X 6 Diversit X 7 Lifelong X 8 Service/	partmental goals, please also consider within parentheses) and identify which incation — written or oral ("able to we go and reasoning — critical thinking (and reasoning — creative thinking goand reasoning — quantitative reason tion literacy ("be able to access and y ("demonstrate understanding of dig learning ("commit themselves to literate the critizenship ("share responsibility being departmental goals and alignmental goals are goals and alignmental goals and alignmental goals are goals and alignmental goals and goals are goals and goals and goals and goals are goals and goals and goals and goals are goals goals and goals g	write and speak in vor "be intellectually (or "be intellectually in in graphy empired evaluatefor effectiversity and use that ifelong learning") of the for their communication of the street of the street in th	lar to depart various setting y curious"; a ly creative" rical dataa ective, efficient understand	mental goals. Ings with a sense of purpose/audi analyze, synthesize, evaluate) (sexplore, discover, engage) analyze graphical information") ent, and ethical use") ding") or the world")	dence")
The department's g	goals appear to have been thought	fully constructed	to further t	he Essential Studies program.	
2. ASSESSMENT	METHODS				
• If so, w	sessment methods referenced? vere specifically chosen assessment is appropriately aligned with individ	YES_X	NO	QUALIFIED Y/N	
goals?	both direct and indirect assessment	YES_X	NO	QUALIFIED Y/N	
method	Is used as components of a "multiple res" approach?	e YES <u>X</u>	NO	QUALIFIED Y/N	

Comments:

The assessment methods appear appropriate, and they are spelled out in detail.

3. ASSESSME	NT RESULTS			
	ment results reported?	YES_X	NO	QUALIFIED Y/N
the	they specifically affirm achievement of goals?	YES	NO	QUALIFIED Y/N <u>X</u>
the	y indicate need for improvement? ere the results tied to goals for student	YES	NO	QUALIFIED Y/N X
	arning?	YES	NO	QUALIFIED Y/N <u>X</u>
Comments:				
relation to affir assessment resulting addition to de	partmental goals, some assessment results ma	vement. The	e annual repo	rt did not, however, contain onal and Essential Studies goals.
1 Com2 Thin3 Thin4 Thin5 Infor	ls for which the department presents findings munication – written or oral ("able to write a king and reasoning – critical thinking (or "be king and reasoning – creative thinking (or "be king and reasoning – quantitative reasoning (mation literacy ("be able to access and evaluative thinking (or "demonstrate understanding of diversity")	nd speak in v intellectually e intellectuall "apply empir atefor effec	arious settings y curious"; ana ly creative"; ex- rical dataana ctive, efficient	s with a sense of purpose/audience") alyze, synthesize, evaluate) xplore, discover, engage) alyze graphical information") x, and ethical use")
7 Lifel	ong learning ("commit themselves to lifelong	g learning")		
8 Serv	ice/citizenship ("share responsibility both for	their commu	nities and for	the world")
Comments regar	rding results and the application of results to	department	al, institution	al and Essential Studies goals:
	nent results themselves do not appear in thapplicable to Essential Studies goals.	e report, it is	s not possible	to opine as to how those assessment
4. CLOSING T	THE LOOP			
Were any action results reported?	s taken on the basis of assessment	YES X	NO	QUALIFIED Y/N

Comments:

If so, do curricular or other improvements/ changes arising from assessment results directly address goals for student learning?

The report contains numerous examples of loop-closing activities; however, because specific results are not reported, it is not possible to say – from the information in the report – that the changes directly address goals for student learning.

YES_____ NO___ QUALIFIED Y/N X

SUMMARY

Sti	ren	oti	h
Su	c_{II}	zu	un

Areas for Improvement

	G		•
X A specifi	c plan for assessment is in	place. No spec	cific plan for assessment is in place.
	earning goals are well-artic		learning goals are not well-articulated.
	nt methods are clearly desc		nent methods are not clearly described.
	nt methods are appropriate		nent methods are not appropriately selected.
	nt methods are well-implen		nent methods are not well-implemented.
	d indirect methods are impl		e type of assessment methods predominates.
Results are			lts are reported.
	e tied to closing the loop.		are not clearly tied to closing the loop.
	-making is tied to evidence		on-making is not directly tied to evidence.)
The Chemical Moreover, asso	essment activities appear lpful for outsiders review	has a well-crafted assessment pl to have borne fruit.	an that appears to exhibit considerable utility.
The departme	nt is to be commended on	its thoughtful assessment progr	am.
MATERIALS	REVIEWED		
X Annual	renort	X Asses	sment plan (as posted)
	ces (cited in annual report)		ous assessment review
D i (*)	N	Esia E. Jahnson	Carrie Cabarda
Reviewer(s):	Name	Eric E. Johnson	Cassie Gehardt
	Department	School of Law	Memorial Union
	Phone Number	701-777-2264	701-777-3667
	e-mail	eric.johnson@email.und.edu	cassie.gerhardt@email.und.edu
Section 1: <u>Y</u>	Section 2: <u>Y</u> S	Section 3: _? Section 4:Y	<u> </u>
	= yes, this is done appropr		
		l, or it is not done in relationship to	o student learning
	= no information reported		
?	 action or progress is app 	oarent; however, evidence is lackin	g that this is completely and appropriately done

UNIVERSITY ASSESSMENT COMMITTEE Feedback to Academic Departments on Assessment Activities Reported in <u>2011</u> Annual Reports

GRADUATE PROGRAMS

DEPARTMENT_	Chemical Engineering – Masters	Programs	DATE	April 24, 2012	
COMMITTEE MEMBER(S) CONDUCTING REVIEW <u>Eric E. Johnson and Cassie Gerhardt</u>					
1. STUDENT LEAR	NING GOALS				
• If so, wer	y goals referenced? re goals well articulated? address student learning?	YES	NO	QUALIFIED Y/N QUALIFIED Y/N _X QUALIFIED Y/N _X	
Comments:					
	s are set out in the assessment plan, I will have mastered selected topics in ectives."				
The objectives under per se.	the goals reference tasks that studen	ts are expect	ed to complet	e rather than learning objectives,	
plan, dated 2004-2009	noted in the University Assessment 05, has apparently not been revised sin specific skills or values that a studen	ce. The Com	mittee's 2009	Preport suggested incorporating	
We note that there is	no information in the Annual Report	or assessme	nt plan refer	encing the M.Eng. degree, as such.	
2. ASSESSMENT M	ETHODS				
• If so, wer	essment methods referenced? re specifically chosen assessment appropriately aligned with individual	YES_X_	NO	QUALIFIED Y/N	
goals?	h direct and indirect assessment	YES	NO	QUALIFIED Y/N X	
methods	used as components of a "multiple" approach?	YES_X_	NO	QUALIFIED Y/N	
Comments:					
There are multiple modes of assessment, many of which are very appropriate. However, some methods seem unlikely to be probative, including "[c]ourse grades [and] credit hour progress." We also echo the 2009 report suggestion:					
One particular method of assessing student learning that was noted in this table, however, was "draft program of study (POS) completed" as a way of measuring student learning goal #1 "Graduates will have mastered selected topics in chemical engineering to achieve their specific goals and objectives". This particular method (completing a POS) most likely would not ensure that a student would master chemical engineering concepts or topics and the department may want to reconsider this assessment method.					
3. ASSESSMENT R	ESULTS				
Were any assessment i	÷	YES	NO	QUALIFIED Y/N <u>X</u>	
	re the results clear in terms of how iffically affirm achievement of goals?	YES	NO_ <u>X</u>	QUALIFIED Y/N	

 If so, were the results clear in terms of how they indicate need for improvement? 	YES	NO_ <u>X</u>	QUALIFIED Y/N
 Were the results tied to goals for student learning? 	YES	NO_ <u>X</u>	QUALIFIED Y/N
Comments:			
The annual report discloses that assessment data collect Committee before the end of 2010. The report does not, the report indicate how the results related to goals. Base graduate program "is meeting our educational objective conclusion is based on assessment results. The report also student exit interviews is the need to improve advising probservation seems relevant to programmatic review, but	however, inceed on the depeter and learning so says, "Andertaining to	dicate what the partment's seling goals." It is area for impr progress towa	e assessment results were, nor does f-study, the report concluded that the s not clear, however, how this ovement noted by the review based on and degree requirements." This
4. CLOSING THE LOOP			
Were any actions taken on the basis of assessment results reported? • If so, do curricular or other improvements/	YES	NO	QUALIFIED Y/N X
changes arising from assessment results directly address goals for student learning?	YES	NO_ <u>X</u> _	_ QUALIFIED Y/N
Comments:			
The report says that a scheme of formal annual progres all graduate students in order to guarantee that student including as to progress toward graduation. It is not cle action does not specifically address student learning goa	s receive fee ar that this a	dback from th	esis or dissertation committees,
SUMMARY			
Strengths		Areas	for Improvement
	X_ Stu Ass Ass A s A s X_ No X_ Re	specific plan for dent learning gressment methor essment methor essment methor ingle type of as results are repsults are not clear.	or assessment is in place. goals are not well-articulated. ods are not clearly described. ods are not appropriately selected. ods are not well-implemented. ssessment methods predominates.

OVERALL SUMMARY AND RECOMMENDATIONS:

The Chemical Engineering graduate program may be viewing programmatic review activity as assessment activity. The department might undertake an effort to distinguish the two. Given the vagueness and problematic formulation of learning goals and objectives, and given the age of the current assessment plan, it might be a good time to review and revise.

We also suggest that the department create goals for the M.Eng. degree.

MATERIALS	REVIEWED		
	report ices (cited in annual report) blease describe)		nent plan (as posted) s assessment review
Reviewer(s):	Name Department Phone Number e-mail	Eric E. Johnson School of Law 701-777-2264 eric.johnson@email.und.edu	Cassie Gehardt Memorial Union 701-777-3667 cassie.gerhardt@email.und.edu
Section 1: _?	Section 2: _? Sec	etion 3: <u>N</u> Section 4: <u>N</u>	
Coding Key:			
	= yes, this is done appropri		
		or it is not done in relationship to s	student learning
NA	= no information available		
9	 action or progress is appear 	rent: however, evidence is lacking	that this is completely and appropriately done