Chemistry

Annual Assessment 2016-2017
Created on the Assessment Insight System

Annual Assessment

Chemistry Minor

Program Profile

Program Mission Statement
Please insert your program mission statement here

The Chemistry Minor at William Woods University exists both to supplement the Biology major and to create in the students a full understanding of the sciences, emphasizing the discipline of Chemistry, as they relate to the world at large.

Program Data

Delivery Method

Traditional On Campus (selected)
Online
Hybrid

Students Majors 2015-2016

Student Minors 2015-2016

53

Student Majors 2016-2017

Student Minors 2016-2017

Concentrations 2015-2016
If your program contains concentrations, please list the concentrations and the number of students identified within each concentration.

Concentrations 2016-2017
If your program contains concentrations, please list the concentrations and the number of students identified with each concentration.

Student Demographics
Program goals for student retention, persistence and degree completion are? What do the persistence numbers mean to the faculty in the program? Are your persistence numbers what you expected? If not, how could the numbers be improved? What is the optimal enrollment for the program?

Is the Program Externally Accredited

Yes
No (selected)

External Accreditation
Name the Accrediting Agency or entity including the last review/approval. Is there an accrediting body for the field of study? If yes, what is the name of the group. Is the program seeking accreditation?If no, why?

Program Assessment

Standard/Outcome

Identifier	Description
WWU2016.1	Major Field Competence: Students will demonstrate excellence in an academic or professional discipline, and engage in the process of academic discovery.
WWU2016.2	Ethics: Students will exhibit values and behaviors that address self- respect and respect for others that will enable success and participation in the larger society.
WWU2016.3	Self-Liberation: Students will develop an honest understanding and appreciation of themselves and others resulting in an ability to make individual decisions.
WWU2016.4	Lifelong Education: Students will possess an intellectual curiosity and desire for continual learning both within and beyond formal education in preparation for participation in a global society.

Additional Standards/Outcomes

Identifier	Description
CHM.1	Demonstrate a fundamental understanding of chemical concepts relating to all branches of chemistry, including analytical, organic, physical, inorganic, and biochemistry.
CHM.2	Demonstrate a thorough understanding of the periodic table of elements and how it can be used to determine trends in chemical reactivity and stability.
CHM.3	Logically apply the scientific method to everyday situations in order to facilitate an understanding of the world around us.
CHM.4	Integrate empirical evidence with experimental data, such that solid conclusions can be formulated.

General Education Alignment to Program
How do the General Education criteria align with the Program Objectives? What courses within your program build upon skills learned in general education courses (please list the program course and the general education criteria). The General Education clusters are: Critical Analysis, Creative Expression, Quantitative Inquiry, and Society & the Individual. See attached for more detailed breakdown.

GE_Cluster_Descriptions_FINAL_Version_Approved.docx

Curriculum Map

A - Assessed
I - Introduced
R - Reinforced
M - Master

Chemistry Minor Program Assessment Plan

	CHM 114	**CHM 115**	**CHM 124**	**CHM 125**	**CHM 314**	**CHM 315**	**CHM 324**	**CHM 325**
CHM.1 Demonstrate a fundamental understanding of chemical concepts relating to all branches of chemistry, including analytical, organic, physical, inorganic, and biochemistry.	I	R	R, A	R	R	M, A		
CHM.2 Demonstrate a thorough understanding of the periodic table of elements and how it can be used to determine trends in chemical reactivity and stability.	I, R	R	A					
CHM.3 Logically apply the scientific method to everyday situations in order to facilitate an understanding of the world around us.	I, A	R	A					
CHM.4 Integrate empirical evidence with experimental data, such that solid conclusions can be formulated.		I		A		M, A		

Assessment Findings

Assessment Findings for the Assessment Measure level for Chemistry Minor Program Assessment Plan

CHM.1 Demonstrate a fundamental understanding of chemical concepts relating to all branches of chemistry, including analytical, organic, physical, inorganic, and biochemistry.

Chm 124				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Quiz/Exam	Has the criterion Students will score above 70% on coursework related to the objective been met yet?			
Direct - Class Assignment	Has the criterion Students will score above 80 % on coursework related to the objective been met yet?			
Direct - Observation Report	Has the criterion Objective will be measured in lab through lab instructor/student interaction. Students are required to be 100% proficient been met yet?			

Chm 315				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Quiz/Exam	Has the criterion Students will score above 70 % on coursework related to the objective been met yet?			

Direct - Class Assignment	Has the criterion Students will score above 80 % on coursework related to the objective been met yet?			
Direct - Observation Report	Has the criterion Objective will be measured in lab through lab instructor/student interaction. Students are required to be 100% proficient been met yet?			

CHM.2 Demonstrate a thorough understanding of the periodic table of elements and how it can be used to determine trends in chemical reactivity and stability.

Chm 124				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Final Exam	Has the criterion Students will score above 70% on questions related to the objective been met yet?			
Direct - Quiz/Exam	Has the criterion Students will score above 70% on questions related to the objective been met yet?			
Direct - Class Assignment	Has the criterion Students will score above 80% on homework been met yet?			

CHM.3 Logically apply the scientific method to everyday situations in order to facilitate an understanding of the world around us.

Chm 114				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Class Assignment	Has the criterion Students will score above 70% on coursework related to the objective; homework should be above 80% been met yet?			
Direct - Observation Report	Has the criterion Objective will be measured in lab through lab instructor/student interaction. Students are required to be 100% proficient been met yet?			
Direct - Quiz/Exam	Has the criterion Students will score above 70% on coursework related to the objective been met yet?			

Chm 124				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Class Assignment	Has the criterion Students will score above 70% on coursework related to the objective; homework should be above 80% been met yet?			
Direct - Observation Report	Has the criterion Objective will be measured in lab			

	through lab instructor/student interaction. Students are required to be 100% proficient been met yet?			
Direct - Quiz/Exam	Has the criterion Students will score above 70% on coursework related to the objective been met yet?			

CHM.4 Integrate empirical evidence with experimental data, such that solid conclusions can be formulated.

Chm 125				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the Assessments**	**Improvement Narratives**
Direct - Class Assignment	Has the criterion Students will score above 70% on lab reports, pre-lab/post-lab assignments that require understanding of the objective to complete been met yet?			
Direct - Observation Report	Has the criterion Objective will be measured in lab through lab instructor/student interaction. Students are required to be 100% proficient been met yet?			

Chm 315				
Assessment Measure	**Criterion**	**Summary**	**Attachments of the**	**Improvement Narratives**

			Assessments	
Direct - Class Assignment	Has the criterion Students will score above 70% on lab reports, pre-lab/post-lab assignments that require understanding of the objective to complete been met yet?			
Direct - Observation Report	Has the criterion Objective will be measured in lab through lab instructor/student interaction. Students are required to be 100% proficient been met yet?			

Improvement Narrative List

Assessment Findings for the Assessment Measure level
No improvement narratives have been added.

Annual Assessment Rubric

5.000 pts 33.33%

Clear	3.000 Assessment Reflects Best Practices	2.000 Assessment Meets the Expectations of the University	1.000 Assessment Needs Development	0.000 Assessment is Inadequate	N/A
Learning Objectives weight: 1.000	✓ • Detailed, measurable program learning objectives • Objectives are shared with students and faculty	• Measurable program learning objectives. • Learning objectives are available to students.	• Program learning objectives are identified and are generally measurable	• Program learning objectives are not clear or measurable	N/A
Comment:					
Assessment Measures weight: 1.000	• Multiple measures are used to assess a student-learning objectives. • Rubrics or guides are used for the measures. • All measurements are clearly described. • External evaluation of student learning included.	✓ • Assessment measures relate to program learning objectives. • Various measures are used to assess student learning. • Measures chosen provide useful information about student learning.	• Assessment focuses on class content only. • Minimal description of how the assessment relates to the objective. • Minimal assessment measures established.	• Assessment measures not connected to objectives. • Assessment measures are not clear. • No assessment measures are established.	N/A
Comment:					
Assessment Results weight: 1.000	• All objectives are assessed annually, or a rotation schedule is provided. • Data are collected and analyzed to show learning over time. • Standards for performance and gaps in student learning are clearly identified.	• Most objectives assessed annually. • Data collected and analyzed showing an annual snapshot of student learning. • Data are used to highlight gaps in student learning. • Some data from non-course based content.	• Data collected for at least one program objective. • Data collection is incomplete. • Gaps in student learning not identified. • Lacking external data to support course data.	✓ • Learning objectives are not routinely assessed. • Routine data is not collected. • No discussion on gaps in student learning. • No use of external data to support student learning. • Assessment data not yet collected.	N/A
Comment:					
Faculty Analysis and Conclusions weight: 1.000	• Data is shared that incorporates multiple faculty from the program. • Discussions on data results incorporate multiple faculty. • Opportunities for adjunct faculty to participate. • Includes input from external sources when possible.	• Multiple program faculty receive assessment results. • Assessment results are discussed • Specific conclusions about student learning are made based on the available assessment results.	• Minimal faculty input about results is sought • Data not used to determine success or not to the objective. • Minimal conclusions made.	✓ • Faculty input is not sought. • Conclusions about student learning are not identified. • N/A Program recently started or too few graduates to suggest any changes.	N/A
Comment:	The assessment was not completed due to issue with program faculty and completing the report				
Actions to Improve Learning and Assessment weight: 1.000	• All assessment methods, timetable for assessing, and evaluating the effectiveness modifications are included. • Changes to assessment are inclusive of multiple faculty. • Description of changes is detailed and and linked to assessment results.	• More than one change to assessment is proposed, timetable for assessment, and evaluating the change is provided. • Changes to assessment measures is highlighted. • Changes are realistic, with a good probability of improving learning or assessment.	• At least one change to improve learning or assessment is identified. • The proposed action(s) relates to faculty conclusions about areas for improvement. • Adjustments to the assessment are proposed but not clearly connected to data	✓ • Lacking actions to improve student learning. • Actions discussed lack supportive data. • Lacking discussion of the effectiveness of the assessment plan	N/A
Comment:					