

Chemistry Assessment Planning Report

MSCHE Assessment Plan Format

Program Learning Outcome Name	Program Learning Outcome	Outcome Year(s)	Assessment Method	Measurement Scale	Target
Application & Critical Thinking 13-14	The ability to effectively apply fundamental chemical principles and critical thinking in achieving the objectives of an integrative experience such as an internship or independent research project.	2013 - 2014			
Awareness of impacts 13-14	An advanced awareness of the ethical impact of chemical science upon society and the global environment.	2013 - 2014			
Communication Skills 13-14	The ability to communicate effectively orally and in writing to both technical and general audiences.	2013 - 2014			
Competency in Tools 13-14	Competencies in the various tools required for the successful practice of chemistry: math, statistics, computer applications, information technology, etc, including the ability to critically evaluate the chemical literature as applied to their disciplines and to analyze data using appropriate tools.	2013 - 2014			
Fundamental Chemistry Principles 13-14	A sound understanding of the fundamental chemical principles and underlying theories in the core areas of chemistry (analytical, organic, inorganic, physical) with an emphasis on critical thinking and	2013 - 2014	Exam/Quiz - In Course	>70% - Exceeding Expectations 45% - 70% - Meeting Expectations 35% - 44% - Approaching Expectations <35 - Not Meeting Expectations	70% of students will meet or exceed expectations

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Fundamental Chemistry Principles 13-14	problem-solving.	2013 - 2014	Exam/Quiz - In Course	>70% - Exceeding Expectations 45% - 70% - Meeting Expectations 35% - 44% - Approaching Expectations <35 - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>75% - Exceeding Expectations 66% - 75% - Meeting Expectations 50% - 65% - Approaching Expectations <50 - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>80% - Exceeding Expectations 60% - 80% - Meeting Expectations 51% - 59% - Approaching Expectations <50% - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>80% - Exceeding Expectations 65% - 80% - Meeting Expectations 50% - 64% - Approaching Expectations <50 - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>80% - Exceeds Expectations 65% - 80% - Meeting Expectations 51% - 64% - Approaching Expectations <50% - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>85% - Exceeding Expectations 66% - 85% - Meeting Expectations 51% - 65% - Approaching Expectations <50% - Not Meeting Expectations	50% of students meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>85% - Exceeding expectations 70% - 85% - Meeting Expectations 51% - 69% - Approaching Expectations <50% - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - Standardized	>46 - Exceeding Expectations 27 - 45 - Meeting Expectations 19 - 26 - Approaching Expectations <19 - Not Meeting Expectations	50% of students will meet or exceed expectations
		2013 - 2014	Lab Project	>75% - Exceeding Expectations 60% - 75% - Meeting Expectations 50% - 59% - Approaching Expectations <50% - Not Meeting Expectations	70% of students will meet or exceed expectations.
		2013 - 2014	Lab Project	>85% - Exceeding Expectations 75% - 85% - Meeting Expectations 61% - 74% - Approaching Expectations <60% - Not Meeting Expectations	70% of students will meet or exceed expectations.
2013 - 2014	Lab Project	>85% - Exceeding expectations	70% of students will meet or exceed expectations		

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		2013 - 2014	Lab Project	80% - 85% - Meeting Expectations 75% - 80% - Approaching Expectations <75% - Not Meeting Expectations	70% of students will meet or exceed expectations
Fundamental Principles in Specialties 13-14	A sound understanding of the fundamental chemical principles, underlying theories, and applications of one of the departmental specialties (biochemistry/natural products, environmental, polymer).	2013 - 2014	Exam/Quiz - In Course	>80% - Exceeding Expectations 60% - 79% - Meeting Expectations 45% - 59% - Approaching Expectations <44% - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>80% - Exceeding Expectations 60% - 79% - Meeting Expectations 45% - 59% - Approaching Expectations <44% - Not Meeting Expectations	70% of students will meet or exceed expectations.
		2013 - 2014	Exam/Quiz - In Course	>85% - Exceeding Expectations 65% - 84% - Meeting Expectations 50% - 64% - Approaching Expectations <50% - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>85% - Exceeding Expectations 65% - 84% - Meeting Expectations 50% - 64% - Approaching Expectations <50% - Not Meeting Expectations	70% will meet or exceed expectations
		2013 - 2014	Exam/Quiz - In Course	>85% - Exceeding Expectations 65% - 84% - Meeting Expectations 55% - 64% - Approaching Expectations <54% - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Exam/Quiz - Standardized	>42 - Exceeding Expectations 32 - 41 - Meeting Expectations 23 - 31 - Approaching Expectations <22 - Not Meeting Expectations	70% of students will meet or exceed expectations
		2013 - 2014	Final Project	>85% - Exceeding Expectations 65% - 84% - Meeting Expectations 55% - 64% - Approaching Expectations <54% - Not Meeting Expectations	70% of students will meet or exceed expectations.
		2013 - 2014	Portfolio Review	>84% - Exceeding Expectations 60% - 84% - Meeting Expectations 50% - 59% - Approaching Expectations <50% - Not Meeting Expectations	70% of students will meet or exceed expectations.
Hands-on	Hands-on skills and	2013 - 2014	Lab Project	Qualitative Rubric attached in related	95% meeting or exceeding expectations

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Skills 13-14	knowledge of safe practices in the experimental and instrumental aspects of chemistry through laboratory course experiences and independent research projects.	2013 - 2014	Lab Project	documents.	95% meeting or exceeding expectations