

Science Department
Middle States Action and Action Plan

Objective #1:

AMSU students will demonstrate an increased proficiency in the sciences, more specifically: (1) a 10% increase in the mean in Semester 1, Semester 2, and final course grades, and (2) a 5% increase in the mean on the NYS Regents Exams in the sciences as measured by:

a) External Assessment: NYS Living Environment Regents Exam, NYS Chemistry Regents Exam, NYS Earth Science Regents Exam, and NYS Physics Exam.

b) Internal Assessment: Semester 1, semester 2, and final course averages in Living Environment, Chemistry, Earth Science, Physics, Anatomy/Physiology, Forensic Science, and AP Biology.

<u>Action</u>	<u>Timeline</u>	<u>Responsibility</u>	<u>Resources</u>	<u>Obstacles</u>	<u>Completion Date</u>	<u>Periodic Assessment</u>
1. To increase student proficiency and interest in the sciences at AMSU through a variety of assessments and activities including:	June 2011	Science Department teachers				On a quarterly basis, department will discuss progress in this area.
Projects: Topic-specific powerpoints and	June 2011 Projects:	Science Department teachers	Models, Experiments, Charts,	Cost of printer supplies such as paper, ink,	June 2011 and ongoing	Rubrics

<p>research papers, making slides (sectioning), creating models (DNA)</p> <p>Brochures: endangered species, ecosystems, animals, plants, medical discoveries, organ systems</p>	<p>(Current)</p> <p>(for school year 2011-2012)</p>		<p>Textbooks, DVDs, preserved specimens of living organisms, computers, microscopes, dissecting kits, coverslips, lab handouts</p> <p>Library databases and books, journals</p>	<p>hardware etc.</p> <p>Availability of computers and space for work for large classes.</p> <p>Time constraint of rigorous curriculum.</p>		
<p>Laboratories: In addition to mandated labs, teachers currently, and will continue to implement, interesting and challenging lab activities to supplement the curriculum lectures such as DNA extraction, Precipitation reactions, fossilization, dissection.</p>	<p>Laboratories: June 2011</p>	<p>Science Department teachers</p>	<p>Handouts, Materials both reusable and consumables: glassware, chemicals, rock specimens and test kits, apparatus and equipment, models, analytical balance, centrifuge, preserved specimens (flora and fauna), people, internet resources, laptops, lab space</p>	<p>Limited space, inadequate seating in biology and physics labs, time constraints for lab preparation, budget constraints for materials, availability of cleaning products for lab cleanup.</p>	<p>June 2011 and ongoing</p>	<p>On a quarterly basis, department will discuss progress in this area.</p>

Field trips: department will consult with student activities coordinator to include class-specific enrichment day trips to supplement curriculum, for example AMNH, NYBG, Bronx Zoo, Six Flags Physics Day, Central Park Zoo, NY aquarium.	Field trips 2011-2012	Science Department teachers	AMSU Campus for on site trips, student activities coordinator, questionnaires, site-specific activities for exhibits held at field trip institutions and exams and reports to be completed after trips.	Parental permission, limited opportunities for trips, student scheduling obligations that vary according to year level such as retreat, service, college visits, career day. Transportation and funding for trips.		On a quarterly basis, department will discuss progress in this area.
Seminars: department will invite guest lecturers to come to specific classes to give a lesson related to the course or topic.	Seminars: 2011-2012	Science Department teachers	Professional expertise (in-house: science department, such as Ruth's work on teaching methodology, Aroon's knowledge of lab safety, Rosemary's knowledge of	Time constraint, scheduling difficulties		

			primatology and geology of the campus, Suroj's mastery of local botany.) Connections to lecturers (invited guests) through Lehman college.			
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