

**SUNY COLLEGE
AT ONEONTA**



THE COLLEGE SENATE

SEPTEMBER 21, 2009

APPROVED

TO: COLLEGE FACULTY
FROM: SUNIL LABROO, CHAIR, PHYSICS & ASTRONOMY
SUBJECT: ENERGY MINOR
DATE: 9/23/2009

Physics & Astronomy Department
Energy Minor - 9/16/09

Note: Any student who wants to take the energy minor must complete the following prerequisites. PHYS 103 / 104 and MATH 173 / 174 or PHYS 203 / 204, CHEM 111 / 112, and GEOL 120 or GEOL 115 or GEOL 150 or GEOL 182.

Required Courses	s.h.	Pre-requisites
GEOL 230 (Energy Resources and the Environment)	3	GEOL 120 or GEOL 115 or GEOL 150 or GEOL 182
PHYS 308 (Alternative Energy)	3	JrS, PHYS 104 and MATH 174 or PHYS 204, Chem 112.
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<ul style="list-style-type: none"> • Select 4 courses from the following list. • Courses must be from departments other than your own major department. • Two different departments must be represented. • Special topics courses offered in the sciences may be substituted for one of the below requirement if the content is appropriate and with the permission of the Physics Department Chair. 		
PHYS 320 Thermodynamics & Heat Transfer	4	PHYS 103/104 and MATH 173/174 or PHYS 204
PHYS 205/287 General Physics III / Intermediate Lab	4	PHYS 103/104 and MATH 173/174 or PHYS 204
PHYS 318 Intro to Solid State Physics	3	Jr / Sr only & PHYS 205
CHEM 214 Environmental Chemistry	3	CHEM 112
CHEM 221 Organic Chemistry I or CHEM 226 Elementary Organic Chemistry	4	CHEM 112 or CHEM 111
CHEM 351 Physical Chemistry I	3	PHYS 203 and MATH 174 "B" or better
ESCI 290 Waste Management	3	CHEM 111 and GEOL 120 or GEOL 115 or GEOL 150 or GEOL 182 or ESCI 100
GEOL 282 Hydrogeology	3	SoS, GEOL 120 or GEOL 115 or GEOL 150 or GEOL 182
GEOL 380 Environmental Geophysics	3	GEOL 120 or GEOL 115 or GEOL 150 or GEOL 182 and MATH 173, and PHYS 103 or PHYS 203
	12 – 14	
Total s.h.	18 – 20	