

# Earth and Space Systems Laboratory

*Geology 251 Section 003, Spring 2013*

**Professor:** Mr. Bill McGuinness

**Meets:** MW 8:00-9:30 pm

**Office:** None (Sims 201/203)

**Room:** Sims 201

**Phone:** 724/584-9268

**Office Hours:** by appointment only (Rm 201)

**E-mail:** mcguinnessw@winthrop.edu

**Text:** No Text/ Lab Handouts

**Co-Requisite:** Geol 250 (Earth and Space Systems).

**Objective:** To gain understanding of the earth and space sciences through exercises and experiments.

Date	Laboratory Topic	Notes
1/7	Metric Conversions	
1/9	Hubble Model	<b>Quiz One</b> : Metric Conversions
1/14	Solar Stew	
1/16	Precession of the Earth's Axis	
<b>1/21</b>	<b>MLK</b>	
1/23	Motions of the Moon	
1/28	Atmosphere Layers	
1/30	Earth's atmosphere	
2/4	Weather	
2/6	Global Climate Presentations	
2/11	Streams	
2/13	Groundwater	
2/18	Coastal Processes & Tides	
2/20	OPEN	
2/25	Plate Tectonics	
2/27	OPEN	
3/ 4	Earthquakes	
3/6	Minerals	
<b>3/11</b>	<b>SPRING BREAK</b>	
<b>3/13</b>	<b>SPRING BREAK</b>	
3/18	Igneous Rocks	<b>Quiz Two:</b> Minerals
3/20	Weathering	<b>Quiz Three:</b> Igneous Rocks
3/25	Sedimentary Rocks	<b>Notebooks due</b>
3/27	Metamorphic Rocks	<b>Quiz Four:</b> Sedimentary Rocks
4/1	Mineral Presentations	<b>Quiz Five:</b> Metamorphic Rocks <b>Lesson Plans Due</b>
4/3	OPEN	
4/8	OPEN	
4/10	Geologic Time	
4/15	Resources	
4/17	Review –No Lab	
4/22	<b>There Is NO FINAL For the Laboratory</b>	

*Schedule subject to change*

## Laboratory Grading

Lab Exercise (15)	10 pts each	150 pts
Notebook	50 pts	50 pts
Quizzes (5)	10 pts each	50 pts
Laboratory Lesson Plan (3)	10 pts	30 pts
	<b>Total:</b>	<b>280 pts</b>
	250-280 pts =	A (s)
	225-249 pts =	B (s)
	200-224 pts =	C (s)
	175-199 pts =	D (u)
	<175 pts =	F

**Laboratories:** Each laboratory is worth 10 points. There are some double class laboratories that will be counted as 15 or 20 points. Please complete the laboratories the day they are assigned. Some laboratories may require two days.

**Notebook:** Each student will prepare and submit 5 to 6 completed laboratory write-ups the class. Please label both the write-ups with your name. You will be required to write a ~300 word essay describing what you did, what you learned and how you could apply what you learned to exercises or demonstrations to fulfill a standard in a K-8 classroom. When describing your experience, do not include exercises you did not do. You must reference the full text of the teaching standard from the South Carolina Department of Education's Earth Science standards your suggested exercise or demonstration will address, including the grade level. Lab-write-ups must be type-written and double spaced. Each laboratory write-up will be awarded up to 10 points, to a total of 50 pts. Write-ups can be handed in at any time, but **all write-ups must be handed in by March 25, 2013**.

**Lesson Plans:** Each student will prepare three (3) lesson plans that will incorporate at scientific activity that corresponds to the SC DoE Earth Science Standard. Each lesson plan is worth 10 points. Lesson plans are due by **April 1, 2013**.

**Global Learning Initiative (GLI)**. *The purpose of the Global Learning Initiative is to infuse global learning into the Touchstone (General Education) Program and in co-curricular activities. The global learning components of this course are the following: Students will present physical influences of ocean currents, wind patterns, and elevation on regional climates. Students will also predict the effect of climate change on these global areas.*

**Students with Disabilities:** *Winthrop University is dedicated to providing access to education. If you have a disability and require specific accommodations to complete this course, contact the Office of Disability Services (ODS) at 803/323-3290. Once you have your official notice of accommodations from the ODS, please inform me as early as possible in the semester*

**Winthrop University's Office of Nationally Competitive Awards (ONCA)** *identifies and assists highly motivated and talented students to apply for nationally and internationally competitive awards, scholarships, fellowships, and unique opportunities both at home and abroad. ONCA gathers and disseminates award information and deadlines across the campus community, and serves as a resource for students, faculty, and staff throughout the nationally competitive award nomination and application process. ONCA is located in Dinkins 222B. Please fill out an online information form at the bottom of the ONCA webpage [www.winthrop.edu/onca](http://www.winthrop.edu/onca) and email [onca@winthrop.edu](mailto:onca@winthrop.edu) for more information.*

**Winthrop's Academic Success Center** *is a free resource for all undergraduate students seeking to perform their best academically. The ASC offers a variety of personalized and structured resources that help students achieve academic excellence, such as tutoring, academic skill development (test taking strategies, time management counseling, and study techniques), group and individual study spaces, and academic coaching. The ASC is located on the first floor of Dinkins, Suite 106. Please contact the ASC at 803-323-3929 or [success@winthrop.edu](mailto:success@winthrop.edu). For more information on ASC services, please visit [www.winthrop.edu/success](http://www.winthrop.edu/success).*

**Non-Traditional Students** - *The Resource Center for Adult Students located in 108 Dinkins Hall, serves Winthrop's non-traditional, veteran, and transfer student populations. The Resource Center for Adult Students will provide programmatic and student support services, as well as serve as a resource for students as they transition to and navigate Winthrop's campus. The staff at the Resource Center for Adult Students looks forward to serving our non-traditional, veteran, and transfer students and would like to encourage you to refer students in these populations to our office. The Resource Center for Adult Students can be reached at (803) 323-4784.*