

# Physical Geology Laboratory

GEOL 113, Sections 001/003, Fall 2013

---

**Lecturer:** Al Quarles

**Office:** Sims 202

**Phone:** 323-4917

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

**Meets:** Monday/Wednesday 6:30 – 9:15 pm

**Room:** Sims 202

**Office Hours:** 5:30 – 6:30 Monday/Wednesday

**Text:** Busch, R.M. Laboratory manual physical geology. Prentice Hall, New Jersey.

---

**General Education Requirements:** Geol 110 and the co-requisite Geol 113 together fulfill four hours of the Touchstone requirement for natural sciences. The courses are co-requisites, meaning that students who are taking Geol 110 are required to take Geol 113, and vice versa. Listed below are the seven fundamental student learning outcomes for natural science courses as well as examples of how they will be fulfilled in Geol 110 and 113.

**NOTE:** This syllabus is a living document; students must check the syllabus posted on the Department web site <http://chem.winthrop.edu/> for any changes prior to every class attendance.

## Class List Server Information:

Students may manually subscribe or unsubscribe to the list at any time. Directions are found at:

<http://www.winthrop.edu/technology/default.aspx?id=7081>

If you are not receiving messages from the list, please check your autoforward settings. If the Winthrop email is being autoforwarded to another account or to an incorrect address, you may not receive email. Students who have exceeded their email quota may not receive messages and should clean up their mailbox.

**Credit Hours:** 1

**Course Goals:** To explore the major processes responsible for shaping the physical Earth, and the relationship of those processes to the distribution of different landscapes, oceans, and mineral resources on Earth using hands-on demonstrations and activities. The laboratory instructions/sheets will be available in the previous link.

**Student Learning Outcomes:** Students will acquire knowledge about earth processes and natural resources (minerals and rocks), and also develop skills to interpret topographic maps.

Students should be:

1. Conversant with a few fundamental concepts from among the three main areas of natural science, including earth, life, and physical sciences. (e.g., *hydrology, plate tectonics, physical and historical geology, etc.*)
2. Able to apply the scientific methodologies of inquiry. (e.g., *Geol 113 laboratory exercises and experiments*)
3. Able to discuss the strengths and limitations of science. (e.g., *discussion of scientific methodology*)

4. Able to demonstrate an understanding of the history of scientific discovery. (e.g., *the development of plate tectonics, discovery of geologic time*)
5. Able to discuss the social and ethical contexts within which science operates. (e.g., *plate tectonics paradigm shift, ethical dilemmas in the international diamond trade*).
6. Able to communicate about scientific subjects including (lab courses only) the defense of conclusions based on one's own observations. (e.g., *Geol 113 laboratory write-ups*)
7. Able to discuss the application of scientific knowledge to the social sciences and to non-scientific disciplines. (e.g., *the uses of geologic data to make political and economic decisions about resources like water*)

**Requirements:** Class attendance and participation is mandatory. Talking is encouraged as long as it is about the laboratory subject matter. Asking questions as well as providing answers (correct or incorrect) is encouraged and your participation will influence your final grade. Achievements will be based on participation in laboratory activities, assignments/exercises submitted, and quizzes.

**Grading:** Grades in this lab will be assigned based on the point system below. Your grade will be determined by dividing your points with the total available points: ~160 points by the end of the lab. The grading scale may be adjusted downward as determined by the instructor. Extra credit work may be allowed, depending on your specific circumstances and your attendance and participation in lab. For unexcused absences, you may be able to make up the work, however, a maximum 8 points will be available, and the makeup laboratory work must be submitted or completed within 2 weeks of the original laboratory meeting. In addition, **four unexcused absences will result in an automatic F.**

Quizzes (10 points each): Four quizzes will be given: Minerals, Igneous, Sedimentary, and Metamorphic. The lowest quiz grade will be dropped from the grading system. You will have one opportunity to retake the mineral and rock quizzes, and only at the end of the next following lab session. There is no final exam or quiz for this lab.

Laboratory Exercises (10 points each): Depending on the exercise, individual or group reports may be required, to be turned in at the end of the lab.

Extra credit may be given (or not) at any time (at my discretion), for reasons that indicate your level of participation, your desire to learn, and your ability to follow instructions.

90-100% = A	(4 quality points per hour)
87-89% = B+	(3.33 quality points per hour)
80-86% = B	(3 quality points per hour)
77-79% = C+	(2.33 quality points per hour)
70-76% = C	(2 quality points per hour)
60-69% = D	(1 quality point per hour)
< 60% = F	(0 quality points per hour)

**Student Code of Conduct:** As noted in the Student Conduct Code: “Responsibility for good conduct rests with students as adult individuals.” The policy on student academic misconduct is outlined in the “Student Conduct Code Academic Misconduct Policy” online <http://www2.winthrop.edu/studentaffairs/handbook/StudentHandbook.pdf>.

**Cheating:** With quizzes and certain exercises where you work as an individual, your grade is based on your work, not your neighbors. Any attempt to submit someone else's work is plagiarism, and thus

cheating. Attempting to use any unauthorized material during quizzes (including material stored on calculators or other electronic devices) is strictly forbidden, and is cheating. Unethical behavior such as cheating will likely result in a grade of 0 for the quiz/exercise and may result in a grade of "F" for the course.

**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 Office of Disability Services, please inform me as early as possible in the semester.