

# ENV-115

## General Geology

**Instructor :** Dr. Marty Becker **e-mail:** beckerm2@wpunj.edu

**Office :** Science Hall-450

**Phone Ex:** 3409

**Office Hours:** Tuesday and Thursday 8:00AM-9:30AM or by arrangement.

**Text :** Essentials of Geology by Lutgens, 2009, Tarbuck and Tasa, 10th ed.,

ISBN: 13: 978-0-13-600376-2

**Lab Manual :** Exercises in Introductory Geology, 4 th ed., M. Becker, PDF Files sent via WPU Blackboard.

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### Lecture Course Outline

#### Class Topic Textbook Reading

1. Introduction to Geologic Sciences/ Minerals Part I, Chapt. 3
2. Minerals Part II, Chapt.3
3. Igneous Rocks; Volcanic Activity, Chapt.4-5
4. Sediments, Sedimentary Rocks/ Weathering and Soils, Chapt. 6, 7
5. Metamorphism and Metamorphic Rocks, Chapt. 8
6. **Exam 1**
7. Maps: Topographic Handout
8. NJ Geology Handout
9. Running Water, Chapt. 15
10. Groundwater, Chapt. 16

11. Glaciers, Chapt. 17
12. Deserts and Wind, Chapt. 18
13. Shorelines/ Ocean Basins, Chapt. 12, 19
14. **Exam 2**
15. Earthquakes and Earth's Interior, Chapt. 10, 11
16. Plate Tectonics/ Mountain Building and the Evolution of Continents, Chapt. 2, 13
17. Structural Geology, Chapt. 13, 14
18. Geologic Time, Chapt. 1, 9
19. **Exam 3**

## **Selected Laboratory Exercises**

1. Minerals
2. Igneous Rocks
3. Sedimentary Rocks
4. Metamorphic Rocks
5. Topographic Maps and Aerial Photos- Part 1
6. Topographic Maps and Aerial Photos-Part 2
7. Dating of Rocks and Geologic Events
8. Running Water and Groundwater Processes
9. Earthquakes/Pacific Plate Motion
10. Glacial Processes
11. Structural Geology
12. Dryland Landforms and Coastal Processes

### 13. Lab Practical

## Field Trip Examples

- 1. New Jersey Highlands Geology and Glaciation-Weis Ecology Center
- 2. American Museum of Natural History-Rock and Mineral Collection
  - 3. Riker Hill Park-Roseland, New Jersey
  - 4. Campus Regional Geology-WPU
- During the semester, I will be offering 4 different voluntary field trips. Attendance of these field trips will be worth 5 points each for a total of 20 points. These points will be added to your overall grade at the end of the semester. Dates and times of these field trips are TBA. Each of these trips requires a 1 page typed report. You will be provided with details on how to prepare the report the day of the trip.

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## . Grades

2 Examinations 200 points

3 Lab Exercises and Attendance 100 points

Lab Practical 100 points

Field Trip(s) up to 20 points

Final exam 100 points

Your total grade is the average

compilation of these items.

You may drop the lowest exam grade.

This does not include the final exam. A missed exam **automatically counts** for your drop grade.  
No exceptions.

A = 91 and above----- C+= 75-78

A- = 89-90 -----C = 71-74

B+ = 85-88 -----C- = 69-70

B = 81-84 -----D = 68-60

B- = 79-80 -----F = 59 or less

Modifications to the individual topics and schedule on this syllabus will take place when necessary. You will be notified in advance.

Laboratory Attendance : Attendance of all labs is **mandatory**. No exceptions. There are **no lab make ups**. I will be randomly collecting three lab exercises for grading during the semester. Your lab grade will be based on attendance and these graded exercises.

\*\*\*\* Each collected lab report is worth 15 points for a total of 45 points. I will provide you in lab with details on how to prepare these three reports. Attendance of the remaining labs where no lab report is collected is worth a total of 55 points.

#### Other General Guidelines:

1. Attendance of all lectures is **highly recommended**. I will not be teaching directly from the textbook.

There is a direct correlation between students with good attendance and those will perform well in **ENV-115**.

2. All my classroom notes will be on file in the Science Enrichment Center. All classroom notes will also be available on my website
3. Exam Make Ups: All make up exams are with my approval and will take place after the final exam is given.
4. All late assignments to be graded will be assessed a penalty of one letter grade per day late.
5. Turn off all cell phones and pagers during class and lab.
6. Be courteous and a good listener to those who are speaking during class and lab.
7. Your work schedule should not conflict with scheduled course time.
8. Academic dishonesty will not be tolerated! You will receive the maximum penalties in accordance with the WPU student handbook.

#### Science Enrichment Center Coupons

You will be given 1 point for each 1 hour and 15 minute visit to the Science Enrichment Center for extra help and tutoring. A maximum of 10 visits is permitted during the semester. All accumulated points will be added to your final course grade.

Best wishes for a great semester. If you have any questions or need extra help during the semester please stop by after class or during my office hours.

Enjoy! Dr. Becker