

**Virginia Tech - Department of Geosciences**  
**GEOS 1004 Section 62804 - Physical Geology - Online Course**  
**Syllabus Summer I 2015**

**Textbooks:** Earth: An Introduction to Physical Geology, 11<sup>th</sup> ed. (Tarbuck, Lutgens, Tasa)  
(The book is available at the Bookstore or can be purchased or rented online, either in hard copy or electronic format. Just Google the title)

**Instructor:** Dr. Fedele  
**Email:** [fedele.physical@vt.edu](mailto:fedele.physical@vt.edu)  
(I am normally quick in answering emails, however due to workload **answers might be delayed up to 24 hrs**. Hence plan to contact me at least 24 hours before any due date if you are inquiring about tests and assignments)

**Office hours:** By appointment only

**Course Prerequisites:** None

### **Learning Outcomes**

GEOS 1004 is an introductory level course about the Earth, with emphasis on its composition, structure, and dynamics. You will be learning about rocks and minerals, the building blocks of the continents, oceanic basins, and about the processes that shape the Earth, including climatic processes. Some of these processes are slow, such as the movements of continents, and change the Earth over a period of millions of years. Others are rapid, such as earthquakes and hurricanes.

At the end of this course you will be able to:

- Compare the various physical forces and processes that shape the earth and identify how those forces and processes are interrelated.
- Construct a testable hypothesis based on a limited amount of provided information.
- Summarize trends and basic statistical information from numerical data sets using Excel.
- Develop critical thinking and active learning skills about physical geology to continue inquiry-based learning beyond this course.

### **Class Structure**

The class is divided into 3 sections, for a total of 14 lessons. Each lesson has an associated narrated PowerPoint *presentation*, book chapter(s) you **WILL NEED TO READ**, a *quiz*, and an *assignment* (**check the complete lecture schedule at the end of the syllabus**).

### **Posters - Presentations**

As part of the class you will have to prepare 2 posters and 2 presentations and upload them online. Detailed instructions are provided in the class site, in the lessons section.

### **Personal Video**

As part of the class you will have to prepare a personal video to introduce yourself. Detailed instructions are provided in the class site, in the lessons section.

## The Quizzes

There are no exams (or a final) in this course, but there are timed quizzes for each lesson. Quizzes are supposed to be “closed book”. However, because I cannot verify that you are not using your notes for the quiz, all quizzes are timed. You will have 60 seconds to answer each question (i.e. 20 minutes to answer a 20-question quiz. The total number of questions will range between 20 and 30, depending on the quiz). Most of the questions are multiple choice, with some true-false or matching-type. You should have plenty of time to complete the quiz if you have studied and know the material. However, if you try to look up the answer for each question in your book, you **WILL** run out of time.

## The Assignments

An assignment is associated with each lesson. These assignments **MUST** be completed as individual work. Some of these assignments will require you to examine a data set and use Excel to summarize and graph the data. Other assignments will require you to use Google Earth (free to download) to explore a “virtual” geologic problem, or to prepare a poster. If you anticipate any issue with the learning exercises (technological or social), please let me know well in advance of the due date. *I.E. – Sending me a panicked email few hours before an assignment is due is NOT a good idea and will not work!*

## Weekly Time Commitment

As this is a fully-online class, sometimes students underestimate how much time they should spend each week working on class material. I suggest you to schedule *at least* 10 - 15 hours each week to work on this class. (*You may not need all 10 hours to work on the course, but it is better to have a few extra hours of free time than to not finish your work by the deadline!*)

## Grading

Grades will be calculated based on your numerical scores from your Quizzes, Assignments (including the posters), and the presentations. A plus/minus grading system is used in this class.

Work	% of grade
Quizzes	40
Assignments	45
Presentations + Syllabus Quiz + Personal Video	15

## Grading Scale

Grade	Score (from)	Score (to)
A	93.50	100+
A-	89.50	93.49
B+	86.50	89.49
B	83.50	86.49
B-	79.50	83.49
C+	76.50	79.49
C	73.50	76.49
C-	69.50	73.49
D+	66.50	69.49
D	63.50	66.49
D-	59.50	63.49
F	0.00	59.49

## Make ups (**WARNING: NO MAKE UPS ALLOWED FOR LATE ENROLLMENT**)

*Make-up quizzes will not be given, except in extenuating circumstances such as serious illnesses or family issues, which will have to be certified independently via the Dean's Office.* In the event that a make-up quiz is warranted, the student and the instructor will work out a time frame convenient for both. *Likewise, assignments will not be accepted late except in extenuating circumstances.* If you think that you will not be able to complete an assignment on time, please contact me **well before** the due date so arrangements can be made, if possible.

### **Make-up of online tests in the event of a technical issue – VERY VERY IMPORTANT:**

When you submit work in SCHOLAR, the system will display a submission ID. **You need to take a screenshot and save it.** This will allow you to ask for a make up if something goes wrong and your work is not saved. If after submission you do not received the ID, you need to contact me and 4help immediately. If you experience a technical problem and you do not have the submission ID, I will not accept your request for a make up. Please read the description of the technical issues included in this syllabus. **YOU HAVE BEEN WARNED!!**

### **TECHNICAL PROBLEMS WHEN TAKING ONLINE TESTS OR SUBMITTING ASSIGNMENTS VERY IMPORTANT IT WILL HAVE NEGATIVE CONSEQUENCES ON YOUR GRADE**

1. Online submission can be tricky. To minimize the possibilities of problems when taking an online quiz or exam or submitting an assignment I suggest you to do the following:
  - a. Make sure your internet connection is stable. Use a wired connection if you think you might have problems;
  - b. Restart your computer before you take the test;
  - c. Make sure you are NOT running any other software when you take the test;
  - d. Use Firefox browser only (either on a PC or a MAC);
  - e. Once you have finished the test make sure you receive the confirmation ID from SCHOLAR. Save the message (or take a screenshot). You may receive a confirmation email too. If so make sure you save it and keep it handy.
2. I **DO NOT** have any control on SCHOLAR technical problems. Contact <http://4help.vt.edu> to receive technical help.
3. I will not grant you a make up if you experience a technical problem and you **DO NOT HAVE THE SUBMISSION ID**. Take a screenshot of the submission ID and keep it for your records. If after the submission of an online test you do not receive the submission ID, you need to contact me and 4help **IMMEDIATELY**.
4. **VERY IMPORTANT:** SCHOLAR does not support access with multiple sessions. If you access scholar using multiple tabs, or multiple browser windows (or multiple browsers), or you log in from more than one device at the same time (like your laptop and your tablet for instance), your work **WILL NOT BE SAVED** when you submit a quiz or an activity. This is a **KNOWN** problem with scholar and if your work is not saved due to this, you won't be allowed a make up (The SCHOLAR IT team can check the reasons why your work was not saved, and if you report a technical problem I will inquire with them before deciding to grant a re-take).
5. **VERY IMPORTANT:** Do not start taking a quiz (or answering the questions for an assignment) too close to the deadline time. The system **WILL** cut you off if you are working passed the deadline (even if you started before it) and your work will be lost. I **WILL NOT** give you a make up for this.

**You will find additional information here:**

<https://help.scholar.vt.edu/ImportantInformationforStudents.html> - TestSubmission

## **Disability Accommodation Policy**

Virginia Tech is committed to insuring that students with documented disabilities have the opportunity to take part in educational programs and services in accordance with the requirements of the Americans with Disabilities Act (ADA) of 1990 and Section 504 of the Rehabilitation Act of 1973. Students seeking accommodations must make application with the SSD. Accommodations will be made in this class in accordance with the Accommodation Letter from the SSD, beginning at the time that the Letter is presented to the course instructor(s). *Please notify me IMMEDIATELY if SSD accommodations are needed.*

## **Academic Dishonesty**

This class will be administered following the Honor Code ([www.honorsystem.vt.edu](http://www.honorsystem.vt.edu)) and the Virginia Tech Principles of Community ([www.vt.edu/diversity/principles-of-community.html](http://www.vt.edu/diversity/principles-of-community.html)) The collegiate experience depends on the absolute integrity of the work completed by each student and it is imperative that students maintain a high standard of honor in their course work. Academic honesty is essential to develop students' full intellectual potential and self-esteem. Academic dishonesty involves, but is not limited to, one of the following: giving or receiving, offering or soliciting unauthorized assistance on any exam or assignment; plagiarism or collusion. I treat academic dishonesty very seriously in my classes, and the bottom line is "Don't Cheat!!"

**THE COURSE SCHEDULE IS ON THE NEXT PAGE**

## Course Schedule

You can work at your own pace, as long as your assignments are turned in and you have taken the quizzes by the due dates, which are clearly stated in each lesson. *After the due date / time, SCHOLAR will not allow you to take a quiz or turn in an assignments.* WHEN YOU SUBMIT a file using the Drop Box tool in SCHOLAR, the submission time is recorded by the system. So if you submit a file later I will see that.

**All Quizzes and Assignments are due by 11:00PM (East Coast Time) on the due date.**

### **Section 1: Internal Earth Processes: May 25 – June 6**

*Syllabus Quiz and personal Video MUST be completed by June 6 [30 points]*

Lesson 1: Introduction to Geology – **Due May 26** [Q20 – A20] – [R: Ch. 1]

Lesson 2: Plate Tectonics – **Due May 28** [Q20 – A25] – [R: Ch. 2]

Lesson 3: Minerals – **Due May 30** [Q20 – A25] – [R: Ch. 3]

Lesson 4: Igneous Rocks and Volcanism – **Due June 2** [Q25 – A50] – [R: Ch. 4 & Ch. 5]

Lesson 5: Earthquakes – **Due June 4** [Q25 – A30] – [R: Ch. 10 & Ch. 11]

Lesson 6: Metamorphic Rocks and Mountain Building – **Due June 6** [Q25 – A15] – [R: Ch. 8 & Ch. 14]

### **Section 2: Surface Earth Processes: June 7 – June 19**

Lesson 7: Sedimentary Rocks and Weathering – **Due June 9** [Q25 – A30] – [R: Ch. 6 & Ch. 7]

Lesson 8: Geology of VA – **Due June 11** [Q20 – A30] – [R: <http://web.wm.edu/geology/virginia/>]

Lesson 9: Groundwater – **Due June 13** [Q20 – A40] – [R: Ch. 17]

Lesson 10: Rivers and Coastlines – **Due June 16** [Q25 – A30] – [R: Ch. 16 & Ch. 20]

Lesson 11: Historical Geology – **Due June 18** [Q25 – A30] – [R: Ch. 9 & Ch. 22]

*Presentation 01 - Fracking - Due June 19 [100 points]*

### **Section 3: Climate Change and Beyond Earth: June 21 – July 3**

Lesson 12: Climate Change 1 – Past Climate Change – **Due June 23** [A30] – [R: Ch. 18 & Ch. 21]

Lesson 13: Climate Change 2 – Future Climate Change – **Due June 25** [Q30 – A50] – [R: Ch. 18 & Ch. 21]

Lesson 14: The Solar System – **Due June 30** [A30 – Q20] - - [R: Ch. 24]

*Presentation 02 – Textbook Topic - Due July 3 [100 points]*

**How to read the information between [..]:** Q20 → The lesson has a quiz which is worth 20 points

A30 → The lesson has an assignment which is worth 30 points

[15 points] → The item is worth 15 points

[R: ...] → Readings