

## **GEL 17 Final Study Guide**

Midterm on Wednesday, June 11<sup>th</sup> will cover material from the 5<sup>th</sup> May to the end of the course.

It will include about 32 multiple-choice questions and a short essay. **Bring a scantron 2000 , a pencil and a clean eraser.**

- Have the scantron filled out with your ID number and name before coming to class.

For each question, there will be 3/4 wrong answers and 1 right answer. (No "best" answer, only a right answer.)

**To study** - focus on your notes from the class, figures in the folder and supplement with the readings from the book.

1) Do not get bogged down in details in that we said in class and your notes. Strive for understanding and how concepts might link with each other. I try to test your understanding of concepts and ideas, not trivial facts, so that you can figure things out later on your own.

That said, make sure you understand each of the concepts and terms that we went over.

Pay attention to any numbers that are provided during the class, but don't memorize them (unless they are in bold or on the list of key terms). For instance, I don't want you to memorize the depth of that magma chamber or the ages of specific volcanic events or other details like that. But I do want you to memorize specific numbers related to fundamental concepts that you can count in your hand (e.g.: the date, size of the most important eruption, landslides or floods etc.)

2) Figure in the folder and your notes should give you the bigger picture of the course. You'll see the inherent organization of the class and be able to relate specific topics to one another.

3) Read the book - if you've been keeping up with the reading, then you probably have a much better understanding of many of the things that I talk about in class. The relevant pages in the book expand upon what is taught in class and should give you a deeper understanding of many of the concepts and events that we've discussed. If we cover something in class that is also directly addressed in the text, then you can bet it will be on the exam.

Many of the relevant figures in the book are versions of images you've seen in class – make sure you identify those images, read the captions and use them as visual aids for understanding.

Not reading the relevant pages in the book won't kill you, but you will have a less confident understanding of the material.

4) **Draw cartoons of geologic** features and label them – doing this condenses lots of information onto a single page. (e.g., draw a subduction zone and label features, etc.)

5) Study with a friend.

*Remember, the notes that you took should be a reasonable overview of the material that we cover in lecture.*

*Coming to class, seeing the images and skimming the book will help you to decipher the notes and understand them fully.*

## Key Terms and Concepts to Understand for the GEL 17 Final

*This list is not necessarily comprehensive - there are many questions that could be asked that require general knowledge about a topic.*

ANCONA 1983	HOT SPOT	SATELLITE
RISING COLUMN	HYDROGEOLOGIC	SCORIE
ASHES	HAZARDS	SEEPS
ALASKA	INDONESIA ARCHIPELAGO	SEISMOMETERS
ASH FLOW	KRAKATAU	SHIELD VOLCANO
ASHFALL	LAHAR	SICHUAN
AUTOMATED LAHAR	LAHAR PATHWAY	SLIT DAMS
DETECTION SYSTEM	LANDSLIDE	SLOPE
AUTOMATED LANDSLIDE	LANDSLIDE FORECASTING	SLUMPING
MONITORING SYSTEM	LAPILLI	ST. HELENS
BAY AREA	LASSEN	STRATOSPHERIC HAZE
BLAST	LAVA BLURT	STRATOVOLCANO
BUBBLE	LAVA BOMBS	STREAM VENTS
CALDERA	LAVA DOME	STROMBOLI
CAUSES OF FATALITIES	LAVA FLOW	STROMBOLIAN
CHAITEN	LEVEE	SUBDUCTION
CHAMBER	LIQUEFACTION	SUBMARINE LANDSLIDE
CHECKDAMS	MAGMA	SUTTER BYPASS
CINDER CONE	MAUNA KEA	TAMBORA, 1815
CLIMATIC ERUPTIONS	MAUNA LOA	TILTMETERS
COHESION	MID OCEANIC RIDGES	TOPOGRAPHIC CHANGES
COLLAPSING COLUMN	MONITORING	TSUNAMI
CREEP	MONSERRAT	TSUNAMI DEPOSIT
CREVASSE	MT. SHASTA	UNDERSEEPAGE
DEBRIS AVALANCE	MUDFLOW	UNZEN, JAPAN
DEBRIS FLOW	NEVADO DEL RUIZ	VAJONT 1963
DORMANT	NUANUU	VESUVIAN
EARTHQUAKES	NUEE ARDENTE	VESUVIO 79AD, 1944
EL NINO, 1982	ORGANIC MATTER	VISCOSITY
ERUPTION	ORVIETO	VOLCANIC RISK
ETNA	PELEAN	VOLCANIN HAZARD
EXPLOSION	PELEE	VOLCANO FORECASTING
FALLING MATERIAL	PHREATOMAGMATIC	VOLCANOES ISLANDS
FEATHER RIVER	PINATUBO	VULCANIAN
FIELD STUDIES	PIPING	WATER
FLANK COLLAPS	PLINIAN	YOLO BYPASS
FLOOD HAZARD	POVLOV	
FLOOD RISK	PRECURSORS EVENTS	
FLOODPLAINS	PROBABILISTIC	
FLOODS	PYROCLASTIC DEBRIS	
FLOODS FORECASTING	PYROCLASTIC FLOW	
GAS	RAIN	
GEOLOGIC HAZARDS	RED CONES	
HAWAII	RING OF FIRE	
HAWAIIAN	ROCKFALL.	
HEAT FLOW	SARNO 1998	