

Study Concepts for Exam 2

Geology 10113

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General Comments

- Anything in the presentations or that I have talked about is fair game for the exam.
- I will not ask you about information in the book I have not talked about.
- I do not expect and will not ask simple fact regurgitation - I expect you to have a working knowledge of the concepts discussed.
- If you do well on the various multiple choice questions given by the textbook publisher (http://wps.prenhall.com/esm_tarbuck_earth_8) for the chapters we have covered you should do well.
- Those who wait to study usually do poorly.

2

Geologic Time

- What are the differences between relative and absolute geologic time?
- The geological 'laws' used to work out relative dating
- Unconformities and how to detect them
- Geologic history from block diagram
- Lithologic and Biostratigraphic correlation
- William Smith and his contributions to geology
- Fossil zones and first and last appearances
- Half-lives and Radiometric dating

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Mass Wasting

- Definition of mass wasting
- Controls on mass wasting
- Criteria used in classification of mass wasting
- Types of motion in mass wasting
- Types of mass wasting

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Surface Water

- Distribution of Earth's water resources
- The Water Cycle
- Turbulent and laminar flow and controls on stream velocity
- Position of maximum velocity and turbulence in a stream cross section
- Gradient, Longitudinal profile, base level and features that control flow in streams
- Stream Discharge
- Types of intrusive structures
- Stream processes
- Stream erosion: River terraces, cutbanks, load types
- Competence and Capacity
- Point bars and braided bars
- Floodplain deposits, alluvial fans, deltas, meandering streams, oxbow lakes, superimposed meanders, drainage basin and tributaries
- Flooding

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Ground Water

- Groundwater zones
- Streams and the water table
- Darcy's Law, Hydraulic head and water towers
- Rock properties that affect flow of ground water
- Aquifers and Aquitards
- Wells and Springs
- Heated ground water
- Karst and caverns

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Glaciers

- Definition and controls
- Types of glaciers
- Snow to Ice
- Valley glacier dynamics
- Valley glacier features - erosional and depositional
- Continental glaciers and the Ice Ages
- Continental glacier features
- Pluvial lakes

7

Deserts

- Basic definitions
- Subtropical and middle latitude deserts
- Chemical and physical weather in deserts
- Water and wind as erosional agents in deserts
- Basin and Range in North America and its desert features
- Types of dunes
- Deflation and its effects
- Desertification

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