Chapter 4

Exam 3

A 12
B 18 hi 99.5
C 36 lo 53
D 4 med 78
F 5

Review
- lecture
  Notes, Book, Powerpoints, Quizes
- Lab
  Notes, Book, Powerpoints, Quizes
- Practice problems
- Discussion Questions
- Turn off your phone/TV ⇒ study
- Keep notes

1 page

DBL Single Sided
Hand Written

Bring Calculator

Final - Monday May 6 12-3
Review - Downstairs 9-12
Chap 1
Geologic History of Georgia
Current Physiographic Provinces
Types of landscapes, Formation
A Piedmont Landscape
Soils - A definition
Hydrology: Stream Order & Patterns
Energy: Heat Budget

Chap 2
Weathering & Soil Formation
Texture, Structure, Color
Weathering & Parent Materials
Physical & Chemical
Types of parent materials
Soil Profile Formation
Four processes: Lasses, Adjction, Transformation, -locations
Five factors: cl OR PT

Chap 3 Soil Classification
Pedons
Diagnostic As ( mollic, umbri, histic, ochric)
B3 ( cambic, argillic, spodic, oxic)
Soil Orders
Soil Development
Drainage Classes
Describing & Examples
Chap 4  Soil Physical Properties
  Particle size, density, porosity
  Managing

Chap 5  Soil Chemical Properties
  Clay minerals + permanent charge
  Colloids w/ variable charge
  Exchange Capacity
  Examples !!!

Chap 6  Plant Nutrients
  Plant growth factors
  Essential Elements
  Plant uptake
  Macros, Secondary, Micros, & cations/ions
  pH

Chap 7  Soil Biology
  Soil organisms & roles
  Soil productivity

Ch 8  Fertilizers & Mgmt
  Crop responses
  Kinds of fertilizers
  Lime
  Fert practices & calculations
  Examples !!!
Chap 9 Soil Water
Hydrologic Cycle - Residence Times
Soil-Water Interactions
Water Content
Plant water uptake
Plant available water
Soil water movement
Questions !!

Chap 10 Precip & ET
Conservation of mass
Precipitation (mechanisms, types, variating)
ET (Evaporation + Transpiration)
Modifying the water budget
Questions !!

Ch 11 Infiltration, Streamflow, & Groundwater
Water budgets
Infiltration
Sources of Streamflow
Subsurface water movement
Groundwater Applications
Water supply
Stream Characteristics
Land Management
Ch 12 Hydrologic Statistics & Hydraulics
- Hydrographs
- Discharge Measurements
- Hydrologic Statistics
- Effects of Land Management

Ch 13 Erosion & Sedimentation
- History & Significance
- Processes & Mechanisms
- Water Erosion Prediction
- Types of Measurement
- Sampling Strategies
- Prevention of Sediment & Drinking Water

Ch 14 Waste Treatment & Assimilation
- What's a Contaminant?
- Risk Assessment
- Water Quality Regulation
- Solid & Toxic Waste Disposal