

ESC2000 Introduction to Earth Science

Spring, 2020

Midterm Exam 1 Study Guide

This guide provides only a general overview of what students should know for the exam.

To do well on the exam, students have to know everything that was covered in lecture. Only an in- depth knowledge of the material will result in a good grade. Even though all questions will be from the class notes **students should use their book to prepare for the exam to get a better understanding of the material.**

1. know terminology and definitions

- e.g. air pressure; isobars
- e.g. air mass, fronts (4 types!)
- e.g. anthropogenic

2. understand processes

- e.g. sea breeze - land breeze (don't memorize, understand)
- e.g. how does wind start (understand process behind movement of air) e.g. how does Coriolis force affect wind, N and S hemisphere
- e.g. movement of air masses/fronts
- e.g. processes at fronts that cause precipitation
- e.g. greenhouse gas sources, the greenhouse effect

3. Topics

a. Weather

- Composition of the atmosphere (gasses and particles)
- Movement of air/wind near anticyclone and cyclone
- Symbols for fronts on weather maps
- Cross section through warm and cold fronts

b. Tornadoes and Hurricanes

- Origin of tornadoes and hurricanes
- Anatomy of tornadoes
- Factors influencing tornado fatalities

b. Greenhouse Gases and Global Warming

- Natural vs anthropogenic greenhouse gases
- Methods of measuring greenhouse gas concentrations
- NOVA Extreme Ice