**Severe Storms (Thunderstorms, Tornadoes, & Hurricanes)**

**![C:\Users\knowlesk\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\X3JKHDVR\tornado_warning[1].gif]()![C:\Users\knowlesk\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\3Q1W4YQU\Tornado_Logo[1].jpg]()Final Exam Study Guide![C:\Users\knowlesk\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\W5FBEUI6\hurricane-diagram[1].gif]()![C:\Users\knowlesk\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\14Y032AX\HurricaneLogo[1].png]()**

**Thunderstorms**

* Thunderstorm definition?
* Stages of Ordinary Thunderstorms (pg 254)
* Cumulus, Mature, & Dissipating (Diagram 10.1 – pg 254 and notes in class
* Characteristics of Stages
* Multicell Thunderstorms (as families)
* Severe Thunderstorms compared to Ordinary (Air Mass) Thunderstorms
* Floods/Flash Floods
* Lightning and Thunder – What are they? / How do they occur?
* How a lightning bolt (stroke) occurs within a Thunderstorm cloud and cloud to ground – stepped leader, return stroke
* Hail – what is it and how does it occur?

**Tornadoes**

* Tornadoes – What are they? How do they occur?
* Stages of Tornado Development from Dust-whirl to Decay / Characteristics
* dust-whirl
* organizing
* mature
* shrinking
* decay
* Tornado Outbreak / Where Tornadoes Occur Most and Why
* Tornado Safety - How to protect yourself in the event of a tornado
* Tornado Watches and Warnings (what’s the difference?)
* Fujita Scale ranking tornadoes in terms of wind speed/damage (Table 10.1 pg 277)
* Where tornadoes form along a Middle-Latitude Cyclonic Storm System
* Waterspouts – how are they same/different from tornadoes on land

**Hurricanes**

* What are they? How do they occur?
* Structure of a hurricane / Anatomy of a Hurricane (study diagram as handout in class)
* Where do they occur most? Names of other storms across world like hurricanes
* Hurricane Watches and Warnings (what’s the difference)
* Damage from Hurricane – storm surge greatest cause of destruction & death (flooding)
* Safety in Hurricane
* Saffir-Simpson Scale of Hurricanes using wind speed and damage caused (Category 1-5)
* Naming of Storms – when does a storm get its name and how does the naming system go