

This course will cover the processes leading to extreme weather phenomena and how extreme weather phenomena are expected to change in a warming climate, with a focus on physical mechanisms. The course will explore connections between weather and climate, approaches of characterizing extreme events, and detection and attribution of long-term changes. These are active areas of current research, so the course will be structured around close reading and detailed discussion of contemporary papers in the peer-reviewed literature.

## Includes:

- Extreme Precipitation
- Droughts
- Floods

- Extreme Temperature
- Heat Waves
- Tropical Cyclones
- Severe Convective Storms

Instructor: Dr. Allison Wing

Course Meets Wednesdays 2:30-5 PM

Prerequisites: MET 4301/5311, MET 4420/5425, MET 4450/5451 or

permission of instructor