AMS Short Course Agenda Outline - Synoptic Data

Proposed Course Title

Using Python to Retrieve Weather Observations from a Mesonet API with Application to Practical Use Cases

Short description

Participants of this short course will learn how to retrieve and incorporate weather observation from Synoptic Data's API into real-world applications and tools using Python.

Activity/Method	**Content Description**	**Support Materials**	**Estimated Time**
Introductions and Background	Quick around-the-room introductions. Pre-course survey. Motivation for aggregating weather observations. Brief background on Synoptic Data aggregating obs and serving through an API	Handouts: Instructor contact info Participant list Pre-course survey Slides	30 min
Demonstrating and Interacting with the API	Hands-on demonstrations of use cases utilizing weather observations obtained from an API including: latest, historical, and precipitation observations.	Slides Python notebook templates	1.5 hr (3 demonstrations, 20 min each) Two 15 minute breaks
Participant Custom API Sprint	A development session where each participant, or group, works on their own idea or project incorporating weather observations from an API with help available from instructors.	Python notebook templates	1.5 hr
Wrap-up	Review key concepts of API. Answer any remaining questions.	Slides API cheat sheet Post-course survey	30 min