

MetPy: Creating Meteorological Python Workflows from Scratch

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Estimate 235 mins + 5 minutes floating time = 240 mins / 4 hrs total

Activity/Method	Content Description	Estimated Time
Introduction	Cover schedule, expectations, content areas.	10 minutes
Exploratory Data Analysis - Overview & Audience Interaction	Introduce the concept of Exploratory Data Analysis and explore audience's expectations around the topic.	20 minutes
Data - code-along section	Begin Jupyter Notebook live coding. Apply Exploratory Data Analysis and navigate accessing remote data.	45 minutes 15 minute break / challenge support time taken here
Data - challenge activity section	Challenge learners to explore multiple datasets and evaluate their viability for our problem using Exploratory Data Analysis.	15 minutes
Analysis - code-along section	Bridge data and visualization with analysis and data manipulation via xarray and MetPy.	25 minutes

Activity/Method	Content Description	Estimated Time
Visualization - code-along section	Begin constructing a figure. Re-implement earlier sections to include different or multiple data in final production.	45 minutes 15 minute break will be taken in this section
Final challenge activity section	Challenge learners to combine entire workflow in final figure preparation. Change individual pieces of workflow.	30 minutes
Wrap-up	Share produced figures of final section, provide user support opportunities.	15 minutes