Dates	Day	Module	Topic	Activity	Assignment	Release date	Due date
	M		Introduction, class logistics, overview of the modern data science landscape	Lecture	Set up CyVerse & GitHub accounts	Aug 26	Aug 30
	W		Initial overview of CyVerse, GitHub, and VSCode	Lecture/Hands-on			
Week 1 (Aug 26-31)	F		Getting started with python and git - pt 1	Hands-on	git practice	Aug 30	Sept 6
	M		Labor Day Observed	Break			
	W	Course introduction and computing environment setup	Getting started with python and git - pt 2	Hands-on			
Week 2 (Sep 2-6)	F		Assignment: basic python exercises	Lab	basic python exercises	Sept 6	Sept 13
	M		The scientific python ecosystem: numpy & matplotlib	Lecture/Hands-on			
	W		Getting started with numpy	Hands-on			
Week 3 (Sep 9-13)	F		Getting started with matplotlib	Hands-on	basic numpy exercises	Sept 13	Sept 20
	M		numpy and matplotlib pt 2	Hands-on			
	W	Foundations of scientific computing with python	Statistical analysis with python: scipy	Lecture/Hands-on			
Week 4 (Sep 16-20)	F		Assignment: Scientific python & data analysis	Lab	scientific python exercises	Sept 20	Sept 27
	M		Datasets for humans: Beyond raw arrays	Lecture			
	W		Introduction to tabular data & pandas	Hands-on			
Week 5 (Sep 23-27)	F		Basic timeseries analysis	Hands-on/lab	basic pandas exercises	Sept 27	Oct 4
	M		Exploratory data analysis and data repositories	Lecture	verde river forecast 1	Sept 30	Oct 7
	W		Scraping data via web requests	Hands-on			
Week 6 (Sep 30-Oct 4)	F		Day of remembrance for Thomas Meixner	Break			
	M		Geospatial data analysis and representations	Lecture			
	W		Introduction to vector data and geopandas	Hands-on			
Week 7 (Oct 7-11)	F		Assignment: geopandas exercises	Lab	geopandas exercises	Oct 11	Oct 18
	M	Modern geoscience python data stack and advanced datastructures	Overview of modern geoscience python stack	Lecture			
	W		Introduction to raster data and xarray	Hands-on			
Week 8 (Oct 14-18)	F		Assignment: xarray exercises	Lab	xarray exercises	Oct 18	Oct 28
	M		Out of office: No class	Break			
	W		Principles of data visualization	Lecture			
Week 9 (Oct 21-25)	F	Data visualization	Customizing your matplotlib figures	Hands-on			
	M		Beyond notebooks: scripts & modules	Hands-on	xarray exercises 2	Oct 28	Nov 4
	W		Introduction to the command line	Hands-on			
Week 10 (Oct 28-Nov1)	F		Building command line interfaces	Lab			
	M		Managing python environments with conda	Hands-on	verde river forecast 2	Oct 28	Nov 15
	W		Writing clean code	Hands-on			
Week 11 (Nov 4-8)	F	Tooling and workflow management	Work day for forecast generator	Lab			
	M		Veterans Day Observed	Break			
	W		Overview of Earth data repositories	Lecture/Hands-on			
Week 12 (Nov 11-15)	F		Working with data on the cloud	Hands-on			
	M		Working with data on the cloud	Hands-on			
	W		Assignment: Analyzing climate trends	Lab	climate trend analysis	Nov 18	Dec 9
Week 13 (Nov 18-22)	F		FAIR and CARE Principles	Lecture & discussion			
	M		Assignment: Analyzing climate trends	Lab			
	W		Thanksgiving Break	Break			
Week 14 (Nov 25-29)	F	Working with large, cloud-based da	Thanksgiving Break	Break			
	M		Generative AI tools	Lecture/Hands-on			
	W		Assignment: Analyzing climate trends	Lab			
Week 15 (Dec 2-6)	F		Show and tell	Discussion			
Week 16 (Dec 9)	M	Show and tell + research	Course reflection and discussion	Discussion			