## School format:

- **Hybrid portion:** From 8:45 to 14:00, the in-person content will be live-streamed from Lagos, Nigeria. Virtual participants can tune into lectures, panels, etc. There will be limited opportunities for virtual participants to ask questions during this time.

- **Dedicated virtual portion:**
  - **Scheduled lectures/panels:** From 14:00 to 17:00 there will be synchronous lectures and panels for virtual participants on Zoom. (Note: During this time, in-person participants will be doing in-person labs that will not be live-streamed.)
  - **Labs:** Computer programming or other exercises that you can walk through on your own time.
  - **Tutorials:** Instructors will walk participants through labs. This is also a session for you to ask questions as the instructor steps through the lab.
  - **Recordings:** All lectures/panels and most tutorials will be recorded and posted to the COESSING Youtube channel, and links will be posted on the 2022 tab of the COESSING website.

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**Python programming access:** [Link to JupyterHub!](#)

All Python programming labs will be accessed through a website. This website is a JupyterHub that has been set up by [2i2c.org](https://2i2c.org) just for us! All you need to do is log in and you will have access to Python, Jupyter notebooks, and (very excitingly) cloud computing resources!

To access the Hub, fill out this Google form with your Google email, and you will then be added as an authorized user of the Hub, and you will use this email to log in to the Hub. Please fill out the form as early as possible, as there can be up to a 24-hour delay to add users to the Hub. Everyone is welcome and encouraged to use the JupyterHub! More details and links on the last page of this schedule.
Live streamed in-person content

**Note:** all times are GMT+1 (Nigeria local time)

**Pre-recorded lectures**

- **Introduction to Hydrographic Science and Ocean Mapping**
  - Stephan Howden
- **Ocean Modeling for the 21st Century**
  - Raffaele Ferrari
- **Sound in the Sea: What We Can Learn If We Listen**
  - Lora Van Uffelen and Kathy Vigness-Raposa
- **Introduction to NASA Physical Oceanography Distributed Active Archive Center (PODAAC)**
  - Jinbo Wang
- **Introduction to Marine Data Visualization in Ocean Data View**
  - Winn Johnson
- **Climate Change Mitigation**
  - Adam Simon
- **Ecological Statistics**
  - Laolah Gifty Akita

**Asynchronous labs** (Python labs in rectangle)

- **ECCO data analysis with Python**
  - Paige Martin
- **Python data analysis and visualization with ARGO floats**
  - Paige Martin
- **Multi-dimensional data analysis and visualization in Python**
  - Paige Martin
- **Python programming: How and where to ask for help**
  - Paige Martin
- **Intro to Git and GitHub**
  - Paige Martin
- **Data analysis and visualization in python**
  - Paige Martin
- **Making pretty maps from your data**
  - Josué Martinez-Moreno

**In-person labs**

- **Ocean Modeling**
  - Joseph Ansong
- **Satellite Oceanography**
  - Eben Nyadjro

**Labs from previous years**

- **Ocean data inclusivity**
  - Eben Nyadjro
- **Factors governing choice of sample containers**
  - Eben Nyadjro
- **Geochemistry, mineralogy and its role in...**
  - Eben Nyadjro
- **Marine Life 2030: A Program to Focus on...**
  - Eben Nyadjro
- **Ocean Transport (Gregory Wagner and Simone Silvestri)**
- **Oceanography data...**
  - Paige Martin
- **ECCO data analysis with Python**
  - Paige Martin
- **Making pretty maps from your data**
  - Josué Martinez-Moreno

**How to read this schedule:**

1. Most colored boxes are a clickable link to a page in this document with more details and Zoom links.
2. Colors signify a connection between the content. E.g. the orange color on the graphical schedule is a tutorial for the lab in orange shown in “Asynchronous labs” above. All yellow boxes are the 2-5pm virtual synchronous content. The 2 purple boxes are opening/closing ceremonies.