



2024 CESM Tutorial

Welcome, Introduction and Logistics

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Climate & Global Dynamics, NSF NCAR

Aug 5-9, 2024

Welcome to the Mesa Laboratory



Land Acknowledgement



We recognize the many contributions of Indigenous peoples in Colorado and acknowledge that the Mesa Laboratory is located on the traditional territories and ancestral homelands of the Cheyenne, Arapaho, Ute and many other Native American nations. It is important to recognize the history of the state, however difficult, and the histories and experiences of the Indigenous peoples who have lived in these territories for millennia. Their forced removal from these territories has caused devastating and lasting impacts. While we can never undo or rectify the devastation wrought on Indigenous peoples, we commit to improving and enhancing engagement with Indigenous peoples and issues locally and globally.

Code of Conduct

Here we value respectful dialogue, please . . .



CGD's Vision: A Culture of Respect & Belonging

<https://www.cgd.ucar.edu/about/diversity>

UCAR DEI Office

<https://www.ucar.edu/who-we-are/diversity-inclusion/office>

Report ethics concerns

<https://www.ucar.edu/who-we-are/ethics>

Norm	Meeting Agenda and Action
Share the Air OR Share Speaking Time	MEETING AGENDA: specify time for individuals with different and varied perspectives ACTION: Designate a facilitator (who encourages sharing). Speak concisely when it's your turn.
Show Appreciation & Acknowledge Teamwork	MEETING AGENDA: Include bright spots as an agenda item; create collaborative time during meetings ACTION: Include your team member's name on your slides, name who provided you with the idea
Listen to Understand	MEETING AGENDA: everyone summarizes ; write and share meeting minutes ACTION: Ask real questions to learn more , not to argue - for example, "Tell me more"
Communicate Context	MEETING AGENDA: Items or discussion start with background information ACTION: Describe the goal/purpose of the conversation/meeting
Value New Ideas & Encourage Innovation	MEETING AGENDA: specify time for new ideas/innovation, ACTION: "Tell me more," and build on others ideas - "yes, that's great , and.... (not but) "
Offer Constructive Feedback	MEETING AGENDA: make time for review and reflection ACTION: ask "what worked well?" Check your understanding. Ask "what feedback would be meaningful?"

Primary Contacts



Cecile Hannay
CESM Tutorial Committee Chair



Elizabeth Faircloth
CESM Tutorial Coordinator

Tutorial Goals

As a result of attending the CESM Tutorial, attendees will:

- Gain a foundational scientific understanding of the core CESM components and CESM features.
- Be able to run and modify the model and use the output.
- Have opportunities to network with peers and CESM scientists.
- Attain an understanding of High Performance Computing (HPC) needed for CESM.
- Perceive the tutorials to be an inclusive learning environment.

CESM Tutorial Website

<https://www.cesm.ucar.edu/events/tutorials/cesm>

The screenshot shows the website for the CESM Tutorial 2024. At the top left is the NCAR logo and 'COMMUNITY EARTH SYSTEM MODEL' with a 'CESM' tag. A search bar is at the top right. A navigation menu includes Home, About, What We Do, Models, Working Groups, Events, and News. The breadcrumb trail is Home / Events / Tutorials. The main heading is 'CESM Tutorial 2024'. Below it is a photo of three people working on laptops. A yellow bar below the photo says 'TUTORIAL'. The dates are 'Aug. 5 to Aug. 9, 2024' with the time '8:00 am – 5:00 pm MDT' and location 'NSF NCAR MESA LAB, BOULDER, CO'. A paragraph of text describes the CESM model. On the right, a sidebar has a 'CESM TUTORIAL 2024' section with links for 'Logistics', 'Agendas, Presentations, and Resources', and 'RESOURCE LINKS'. The 'RESOURCE LINKS' section includes 'Lab Materials', 'Agenda', and 'Photo Gallery'.

agenda (including slides of lectures)

lab materials

Additional info about logistics, photos, etc

Tutorial Agenda

- **Lectures (Seminar Room)**
 - Model component → Atmosphere, Ocean, Land, Sea-ice, Land-ice, etc
 - Other topics → Climate Variability, Paleoclimate, Variable resolution, etc...
- **Lab activities (Library + Breakout Rooms)**
 - Days 1-3 → all participants complete same exercises
 - Day 4 → challenge exercises focused on your area(s) of interest
 - Day 5 → example plotting and diagnostics for your chosen component(s)

Lunch activities

- **Lunch (Mesa Lab cafeteria)**
 - Food is available in the Mesa Lab cafeteria.
 - Vegetarian and Gluten free options are available.
 - You are responsible for paying for your own lunch.
- **Meet a scientist (optional) (breakout areas)**
 - Lunch on Tuesday/Wednesday/Thursday
 - Casual conversation with a scientist with no fixed agenda
 - You need to fill the form (with your 1st/2nd/3rd choice)
 - We will **assign you to one scientist** to ensure reasonably sized groups
- **Mesa Lab Exhibit (optional)**
 - Public tour on Monday, Wednesday, Friday. Meet at noon at the front entrance
 - You can also explore the exhibit on your own.

Typical day

Morning

Lectures (Seminar Room)

Lab (Library)

Snacks (in front of Seminar Room)

Lunch

Eat/Socialize (Cafeteria)

Meet a scientist (Various locations)

Mesa Lab exhibit (Hallway)

Afternoon

Lectures (Seminar Room)

Lab (Library)

Snacks (Damon Room)

Daily check-in (Seminar Room)

Daily check-in

At the end of each day, we will reconvene in the main seminar for the daily check-in

- we will discuss what went well and what didn't.
- you will complete the daily survey.

For each lecture:

- How relevant was the content of the class to your interests or needs?
- Was the difficulty level of the class appropriate for your skill level?
- Any additional comments or suggestions?

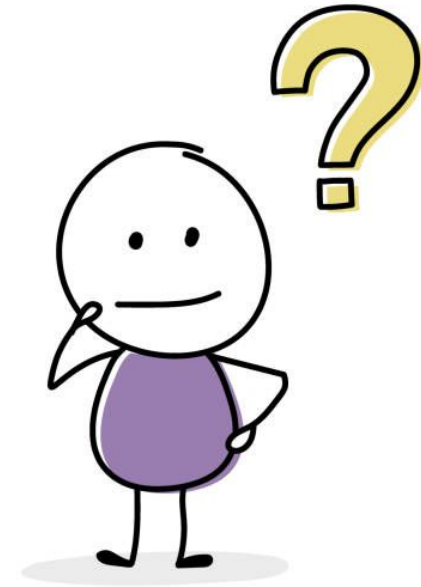
On the last day, there will be a general survey.

These surveys are important for us to improve the content of the tutorial. Please fill the survey. Thanks in advance.

Ask Freely. No Question is Stupid

We all come from different backgrounds and are here to learn. There are no stupid questions! Please do not leave still confused and with your questions unanswered.

- Ask presenters during the Q&A after their lectures or at a break.
- Ask helpers during lab sessions
- Ask clarification questions at daily check-in
- Ask during the meet-a-scientist lunch session
- Ask your peers



- **Wireless access**

- Use the **UCAR Visitor** wireless. It is an open, unencrypted network (require registration for access).
- Use the **Eduroam** wireless only if you have it already installed on your computer

- **Project account & Reservation Queues**

- We have set the **project account** as a default in the .profile or .tschrc files we instruct you to use.
- To use the **reservation queue**, you need to follow instructions in **Lab Materials**
- If you have problems using these or conflicts with other, existing project codes please let us know ASAP.


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UCAR | ATMOSPHERIC RESEARCH

Select connect to agree to the [terms of use](#) and gain access to the UCAR Visitor Network.

UCAR employees can use Eduroam or GlobalProtect now for encrypted access to all UCAR networks.



Questions about UCAR Visitor? Visit our FAQ page [here](#).

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National Science Foundation 

Resources ^

NCAR Supercomputer ^

Modules on NCAR HPC

Tutorial one time setup

Tutorial queue and account

Social Time

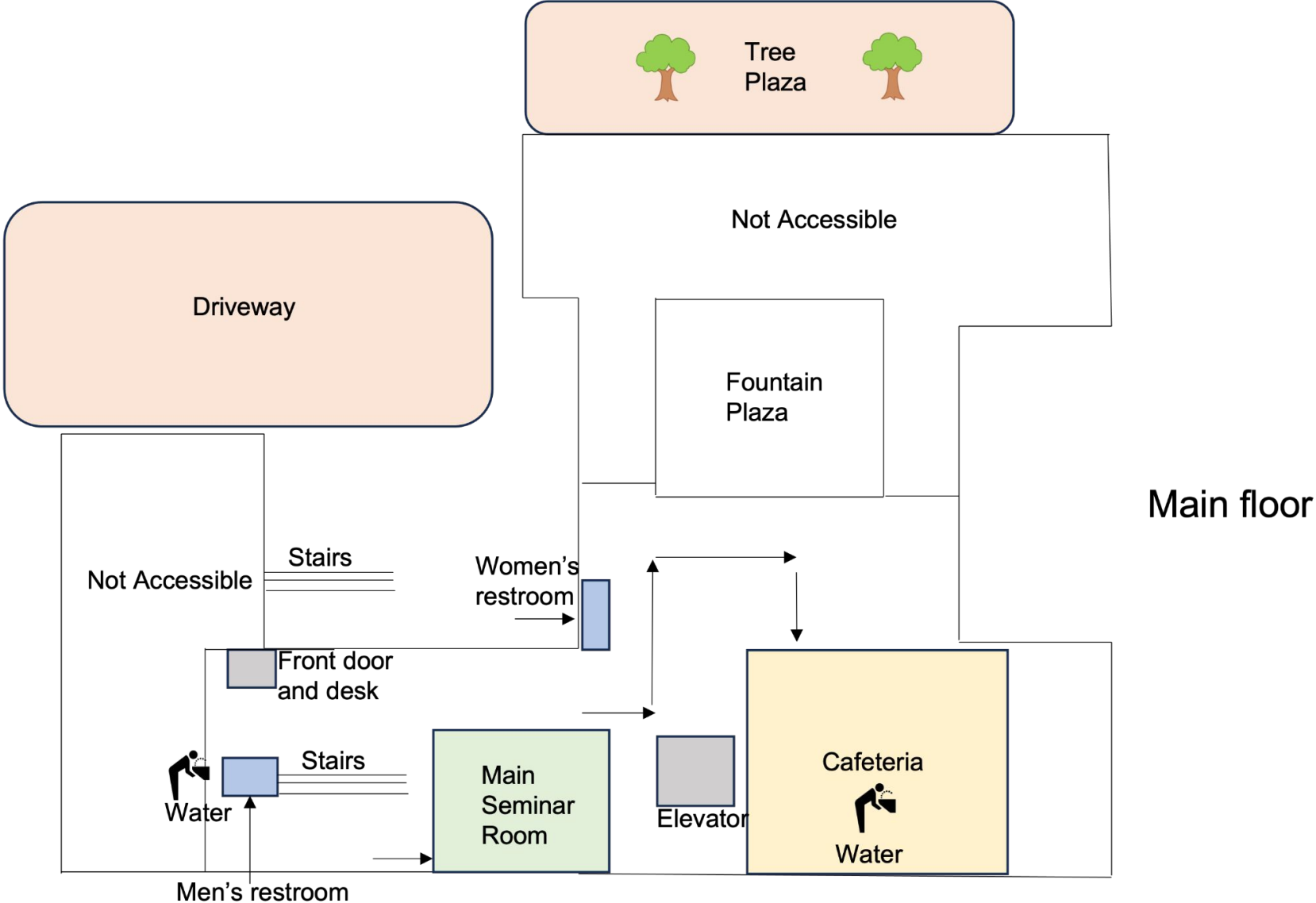
- **GroupMe Channel**

We have created a GroupMe channel for the 2024 CESM participants. Elizabeth sent an email with the link to join the GroupMe channel. Once here you can start coordinating with other participants to socialize and network. Please remember that on this GroupMe channel we expect you to abide by the [UCAR Code of Conduct](#).

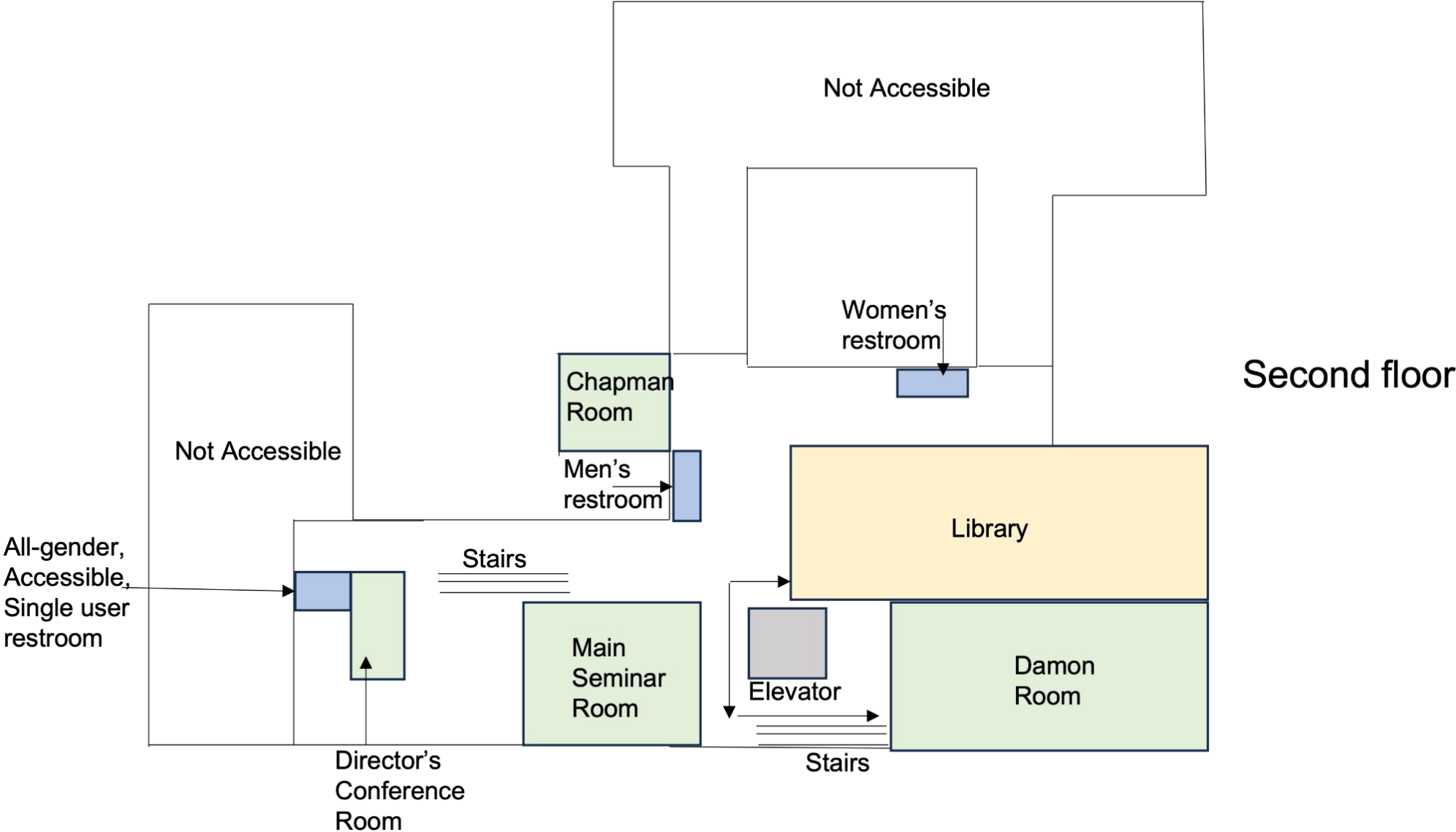
- **Special CESM Cafe**

On Thursday, from 9:45am - 10:30 am, various staff that are involved with the CESM Project, and guests from across NCAR will join us for a special CESM Cafe. Use this opportunity to meet with other staff members, ask questions, etc.

Maps



Maps



Need a break: Quiet Spaces

QUIET ROOM



Outdoor Seating



Walking Path



Check with our admin team for available rooms.
Damon Room is available all week.

Questions ?

