2025 CESM Tutorial

Welcome, Introduction and Logistics

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CGD, NSF NCAR

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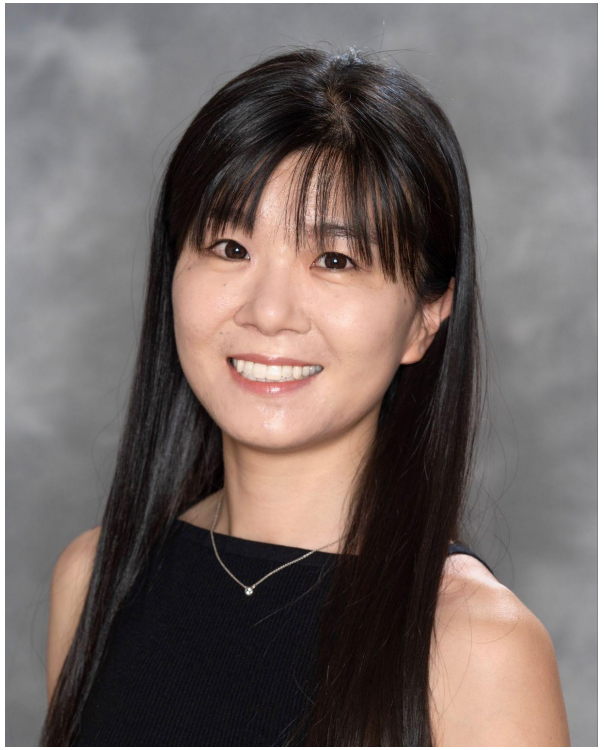
Welcome to the Mesa Laboratory

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.

Primary Contacts



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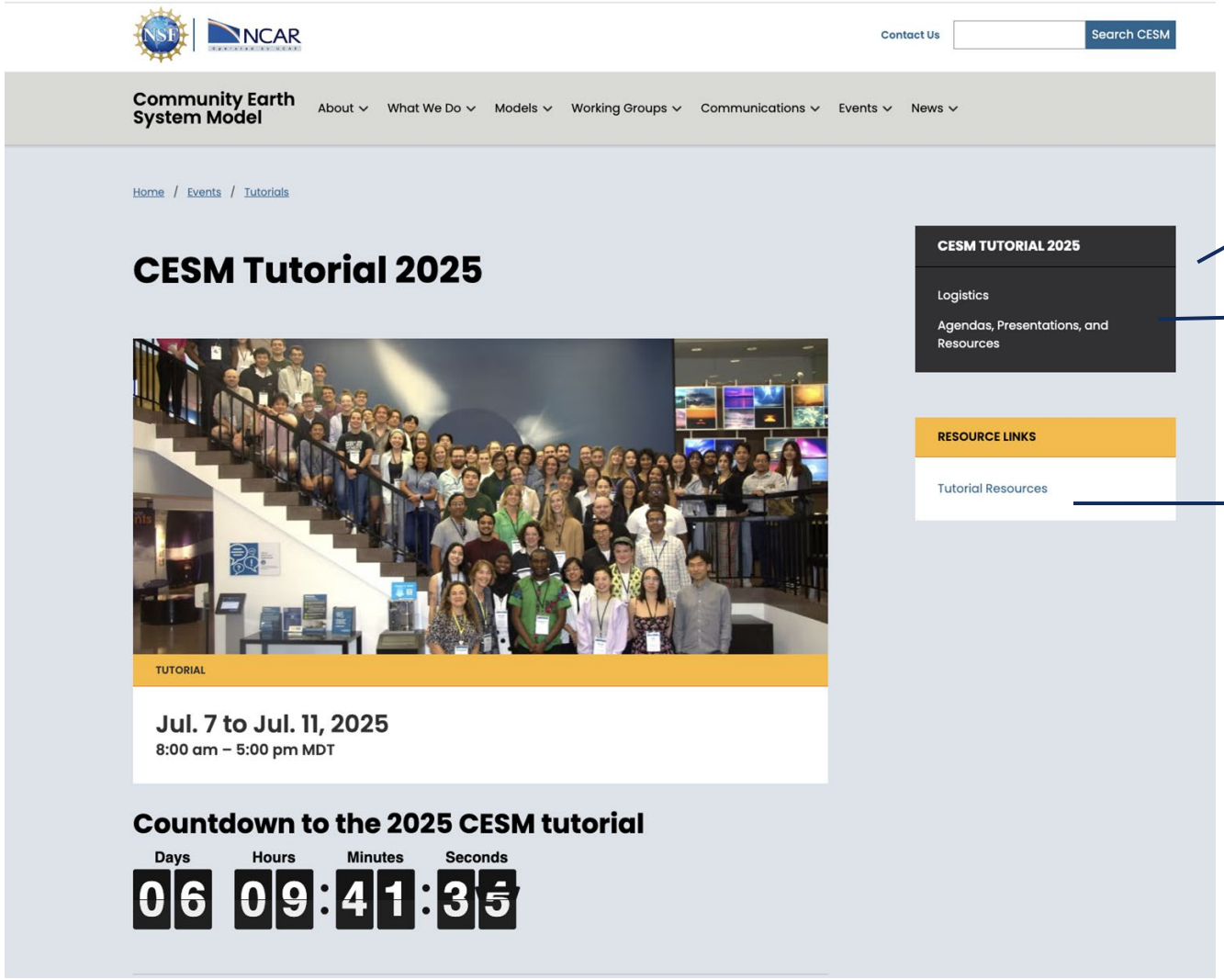
Tutorial Goals

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

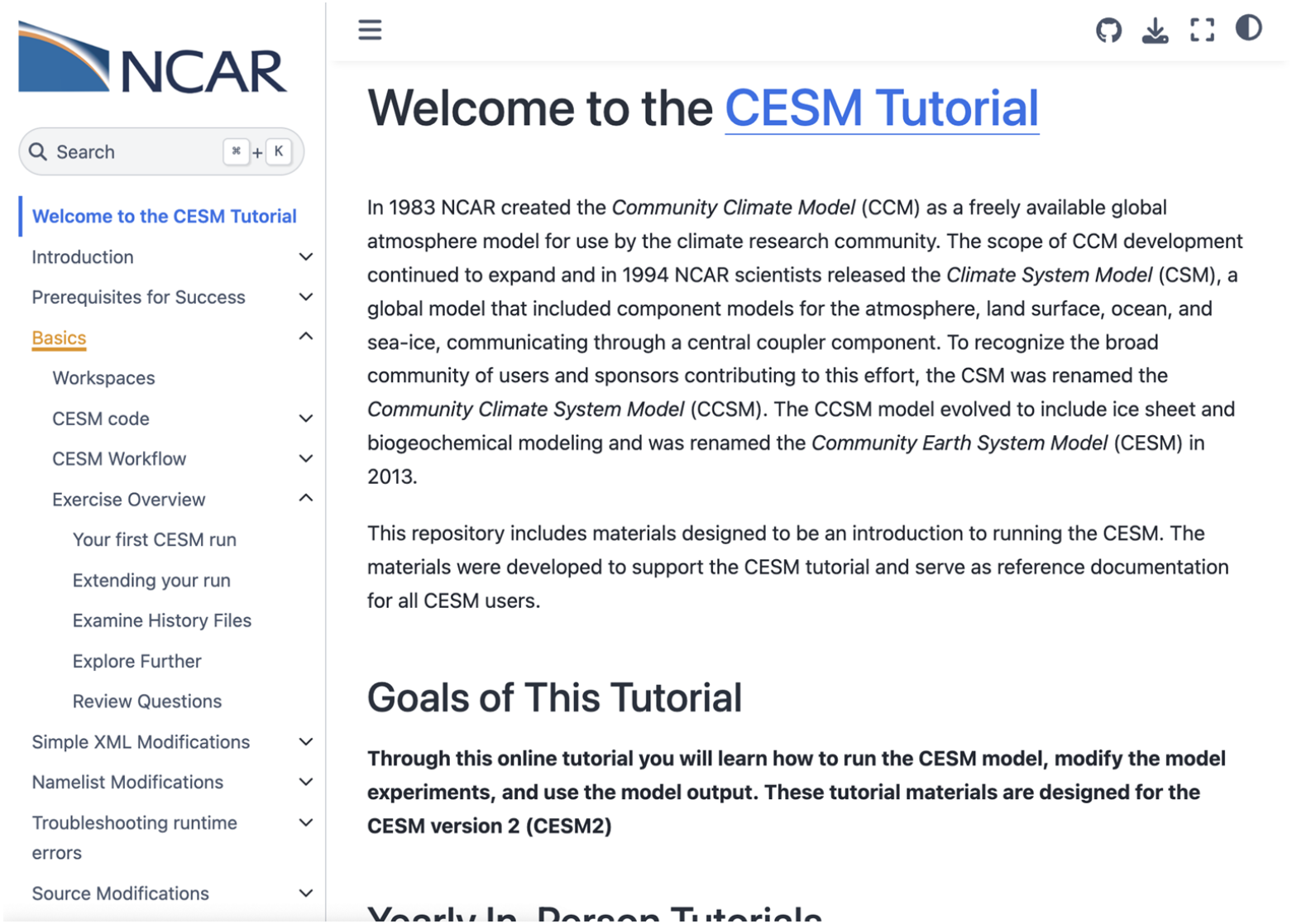


Additional info about logistics. photos, etc

agenda (including slides of lectures)

lab materials

Lab Material :https://ncar.github.io/CESM-Tutorial/



Tutorial Agenda

- **Lectures (Seminar Room)**
  - Component Lectures (CL) → information about how the core model components work
  - Specialized Lectures (SL) → Earth System Prediction, Paleoclimate, Atmosphere chemistry, variable resolution..etc

- **Lab activities (Library)**
  - Days 1-3 → all participants complete same exercises
  - Day 4 → example plotting and diagnostics for your chosen component(s)
  - Day 5 → challenge exercises focused on your area(s) of interest

Lunch activities 12:00 - 1:15 pm

- **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.
  - Stagger lunchtime if possible

- **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 Tours (optional)**
  - Private tours on Tuesday and Thursday (sign-up sheets will be sent to you); public tours on Monday, Wednesday, Friday. Meet at 12:00pm at the front entrance.
  - You can also explore the exhibit on your own.

Typical day

Morning (starts at 8:25am)

- Lectures (Seminar Room)
- Lab (Library)
- Light snacks and coffee (in front of the Main Seminar Room)
  - Only cups with lids allowed in the Main Seminar Room
  - Reduce waste and recycle whenever possible

Lunch (12:00 - 1:15 pm)

- Eat/Socialize (Cafeteria)
- Meet a scientist (Various locations)
- Mesa Lab exhibit tours (Hallway)

Afternoon (ends at 4:45pm)

- Lectures (Seminar Room)
- Lab (Library)
- Light 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?

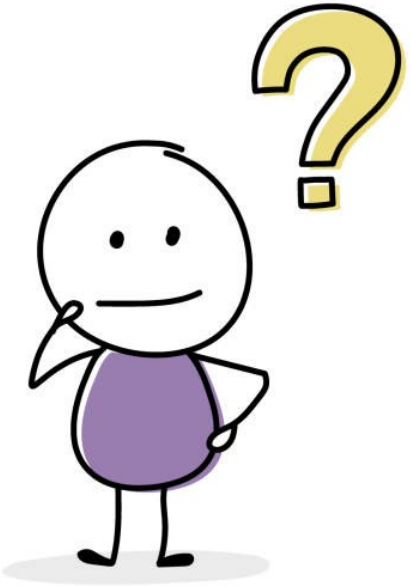
On the last day, there will be a general survey.

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

Ask Freely. There are no stupid questions

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.

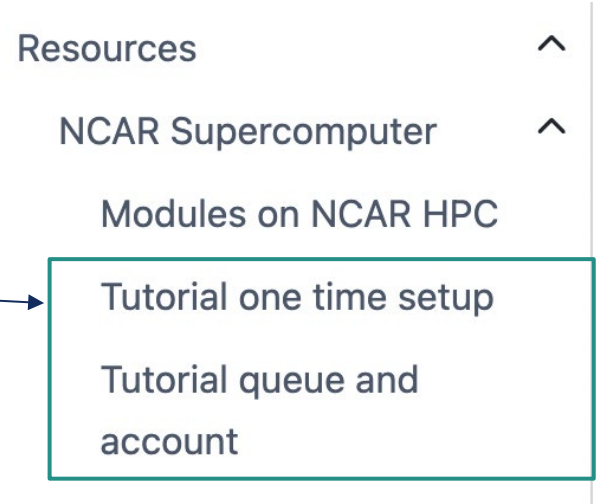
- Ask presenters during the Q&A after their lectures or at a break.
- Ask helpers during lab sessions
- Ask clarification questions at daily check-in
- Ask questions during the meet-a-scientist lunch session
- Ask your peers
- If you are not sure who to ask, let Elizabeth know
  and she will connect you with someone on the team



Computer Information

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

- **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.

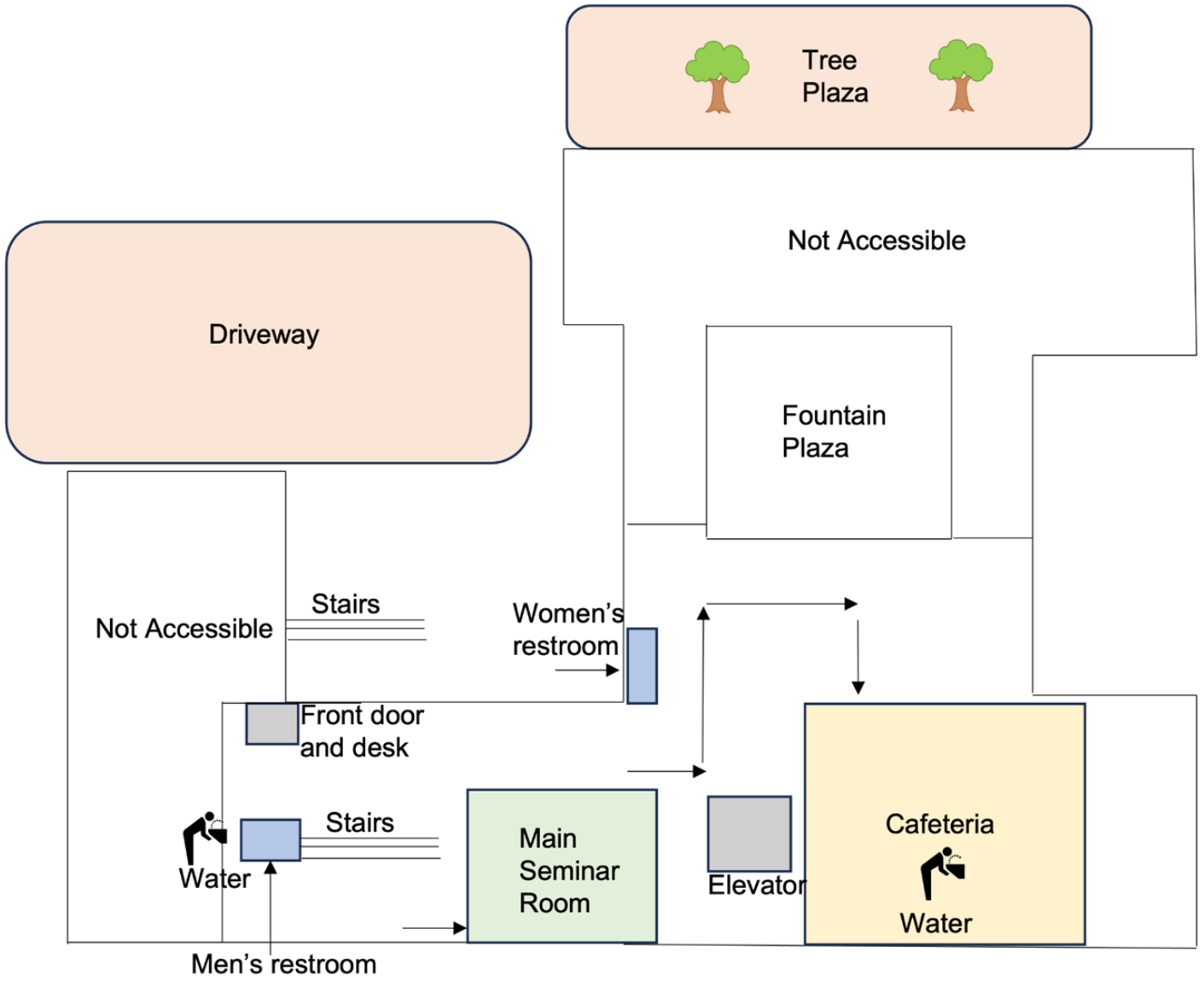


Social Time

- **Slack Channel**
  We have created a slack channel for the 2025 CESM tutorial participants. Elizabeth sent an email with the link to join the slack channel. Once here you can start coordinating with other participants to socialize and network. (Auditors are welcome to join as well)

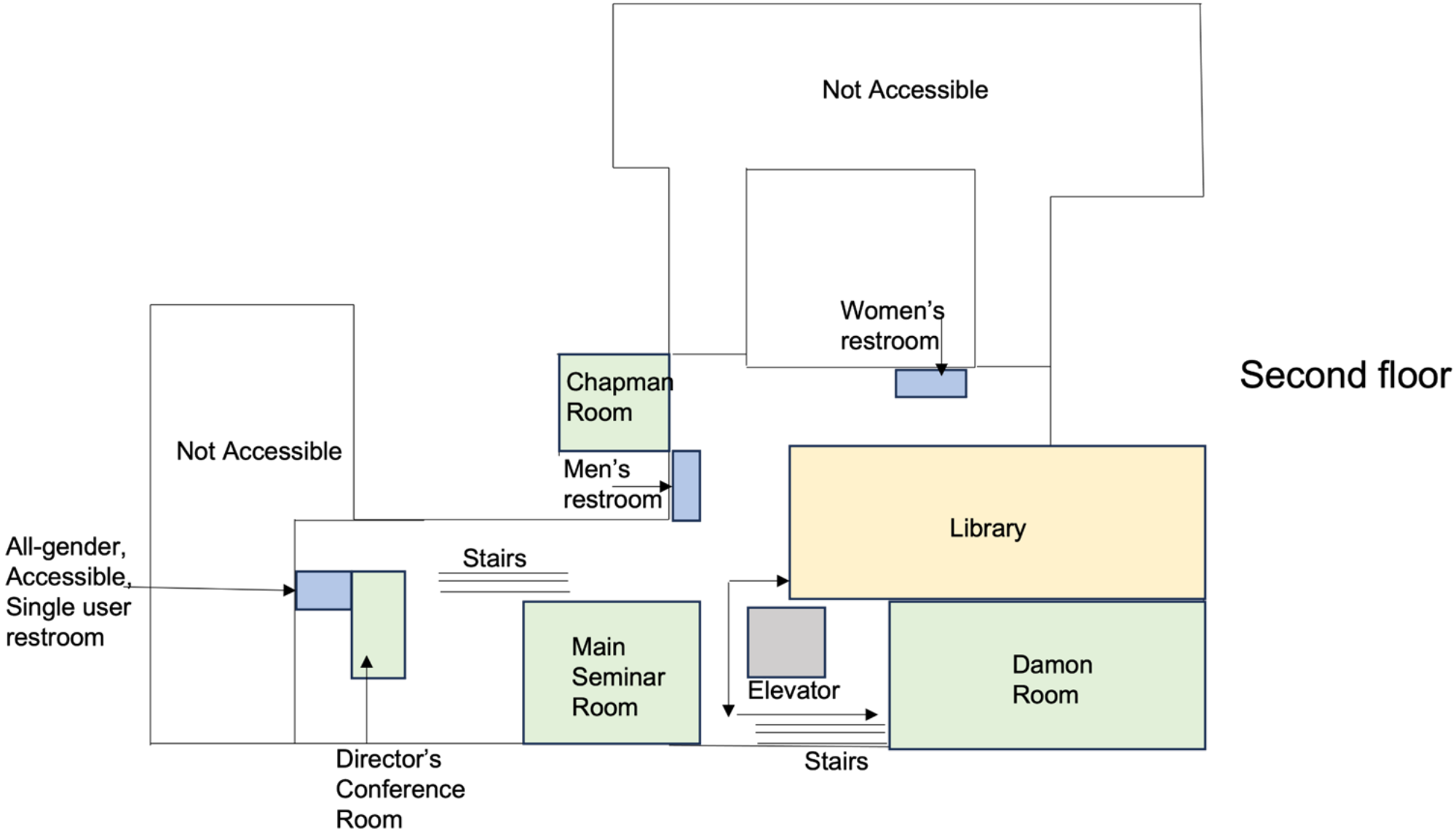
- **Special CESM Cafe**
  On Thursday, from 9:45am - 10:15 am, CGD staff , visitors, and guests from across NCAR will join us for a special CESM Cafe. Use this opportunity to meet with other staff members, ask questions, network etc.

Maps



Main floor

Maps



Second floor

Need a break: Quiet Spaces

Outdoor Seating

Walking Path

Check with our admin team for available rooms.

Questions ?