Graduate Student Mentor Training
Summer 2024 Syllabus

Instructors

Dr. Catherine Berdanier
Associate Professor of Mechanical Engineering
Penn State University
cgb9@psu.edu

Dr. Joshua Sunshine
Assistant Professor in the Institute for Software Research
Carnegie Mellon University

Zoom:
- Session A: https://cra-org.zoom.us/j/85871093078?pwd=azNOK0tvVnZnTiorMDVvOWY0eFVLQT09
- Session B: https://cra-org.zoom.us/j/88965552426?pwd=NmZwODVCCc2RaQW5yL2UwYUM5bC9mdz09

Canvas Site:
- https://cra.instructure.com/courses/121

Discord Server: https://discord.gg/nWgd7RBejC Server ID 1132064598497964104

<table>
<thead>
<tr>
<th>Graduate Student Mentor Training Course</th>
<th>Summer 2024 Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session</td>
<td>1</td>
</tr>
</tbody>
</table>

Session A will meet from 2:00 pm – 3:00 pm ET / 11:00 am – 12:00 pm PT.

Session B will meet from 3:30 pm – 4:30 pm ET / 12:30 pm – 1:30 pm PT.
Course Description

The purpose of this course is to provide graduate computer science students effective mentorship training in support of their engagement with undergraduate researchers in computer science. This program, sponsored by the Computing Research Association, is designed to align strategically with an undergraduate focused curriculum that mentees will undertake, which is focused on research skills. Mentorship is one of the most critical pieces in determining whether an undergraduate student will consider pursuing graduate study and research focused careers and is essential to broadening access to and participation in graduate-level computer science research fields. Your jobs as mentors are extremely important, and we are excited to facilitate a strategic course in mentorship training for you grounded in our research and practice expertise.

Core Learning Goals

There are four overarching learning objectives in this course aimed at graduate student mentors of undergraduate researchers. By the end of this course, participants should be able to:

1. Describe principles by which optimal mentorship happens in computer science research environments.
2. Directly apply best practices in mentorship to current relationships with mentees.
3. Curate an inclusive mentorship philosophy that can inform their current and future mentoring relationships.
4. Create welcoming mentoring environments by which undergraduate researchers can thrive as future scholars.

Course Materials

Zoom: We will be holding live class sessions online with Zoom. Please be sure that you are able to join Zoom meetings prior to the start of class.

- A: https://cra-org.zoom.us/j/85871093078?pwd=azNOK0tvVnZnTlorMDVvOWY0eFVLQT09
- B: https://cra-org.zoom.us/j/88965552426?pwd=NmZwODVCc2RaQW5yL2UwYUM5bC9mdz09

Webcam and Microphone: We will be having significant group interactions online and thus a functioning webcam and microphone are necessary to facilitate these interactions.
Course Content Schedule

<table>
<thead>
<tr>
<th>Session</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demystifying Mentoring: How People Learn in Research Settings</td>
</tr>
<tr>
<td>2</td>
<td>“Who am I as a Mentor?” Articulating Your Mentoring Philosophy</td>
</tr>
<tr>
<td>3</td>
<td>Helping your Mentees to Flourish and Thrive in Research</td>
</tr>
<tr>
<td>4</td>
<td>“Something’s a Little Off…” Assessing Possible (non-technical) Root Causes of Issues and What to do When Things Go Awry</td>
</tr>
<tr>
<td>5</td>
<td>Managing Mentoring “Merge Conflicts”: Techniques for Mentors and Mentees to Align</td>
</tr>
<tr>
<td>6</td>
<td>Teaching Strategies: Worked Examples and Contrasting Cases</td>
</tr>
<tr>
<td>7</td>
<td>Continuous Integration: Helping your Mentee feel like they Belong in the Computing Research Community</td>
</tr>
<tr>
<td>8</td>
<td>Decoding your Mentee: Assessing Understanding through Artifacts</td>
</tr>
<tr>
<td>9</td>
<td>Beyond “Red Squiggly Lines”: Giving Effective Feedback</td>
</tr>
<tr>
<td>10</td>
<td>Teaching Techniques: Elaboration and Question-Driven Learning</td>
</tr>
<tr>
<td>11</td>
<td>Reassessing and Reflecting on Your Mentoring Philosophy</td>
</tr>
</tbody>
</table>

Expectations for Participation:

This class is designed to be interactive, so that you all can meet and develop working relationships with each other as future colleagues in computer science. We will have a variety of interactive components facilitated throughout this course, so you will all be able to share perspectives and build your mentorship knowledge. We expect you to engage with the material, rather than multitasking, and to fully commit to engaging in the participation exercises, breakout rooms, and any other tasks facilitated by the instructors. Below are the expectations listed in the independent contractor’s agreement you will be expected to sign:

- **Attendance:** You will attend all course sessions; arriving on-time, with your camera on for the full length of the sessions, and willing to participate in discussions.
  - NOTE: Participants who have more than two unexcused absences, or who do not participate fully in the course, will NOT receive a stipend.
- **Participation:** You will make a concerted effort to provide positive mentorship to your undergraduate mentees.
- **Completion of Assignments:** You will complete assignments, tasks, or projects assigned throughout the program duration in a timely fashion.
- **Evaluation:** To the extent you feel comfortable, you will provide feedback on the program through surveys or evaluations.
- **Professionalism:** You will conduct yourself in a professional manner at all times, including interactions with program staff, fellow participants, and mentees.
- **Documentation:** You will provide any necessary documentation or evidence of completed tasks or achievements to verify eligibility for the stipend. In order to receive your stipend you will need to complete CRA’s Direct Deposit Form and share either a W-9 or W-8BEN form with the program team.
**Zoom Courtesy and Respect:**

Content around mentoring and facilitating healthy mentees can sometimes raise some personal issues, some of which may be sensitive or personal. This course is intended to be a bounded community, and all members of this community should feel safe to share as much as they would like. If there is ever a time where you do not feel respected or safe in this community, please contact one of the instructors. We have the following ground rules for community engagement and respect:

1. **This course requires active participation:** The more you share, the more we grow and learn together as a community.
2. **“Lessons leave, Stories Stay”:** If someone shares something about their own experiences in this safe environment, keep that confidential, while taking the “lessons learned” with you.
3. **We are all together in learning to be mentors:** This course is designed to teach principles but also work with you in “real time” as you’re mentoring, so don’t hesitate to bring issues up for discussion with the group as they arise.
4. **No two people share the same exact worldview:** We (and our mentees) all have our own set of experiences that influence how we interpret situations, requiring empathy and reflection.

**Discord Server Etiquette:**

A Discord Server was created to facilitate discussion among course participants outside of course meeting times. Here are a few do's and don’ts about communicating in this online discussion forum:

Do…

- Ask questions and engage in conversations as often as possible.
- Be patient and respectful of others and their ideas and opinions they post online.
- Remember to be thoughtful and use professional language.
- Contact the instructor if you feel that inappropriate content or behavior has occurred as part of the course.

Do NOT…

- Use inappropriate language—this includes, but is not limited to, the use of curse words, swearing, or language that is derogatory.
- Post inappropriate materials—for example, accidentally posting/showing a picture that is not appropriate for the course content.
- Send heated messages even if you are provoked. Likewise, if you happen to receive a heated message, do not respond to it.

**Evaluation:**

Evaluation will be done via pre- and post-test facilitated via an external evaluator. Participation in these evaluations is required for program participation but will not be used for external purposes without research consent forms. These self-report assessments help the program improve in future offerings.