

Directed Reading Program - Mentor guidelines

This is meant to be a helpful guide for mentoring your students throughout your DRP experience. It's not necessary to follow these guidelines, but, when in doubt, we hope you'll check them out.

Contact

The DRP committee consists of Beth Branman, Eleftherios Chatzitheodoridis, Miika Tuominen, and Jiajun Yan. The DRP is overseen by You Qi. If you have questions, please email any one of us.

Selecting a project

- Most projects will focus on reading a text or a paper.
- Students often state very specific, but somewhat arbitrary, interests. You should bear in mind their interests, but not hesitate to nudge them to a project for which you have materials or experience.
- To select a project, you can get inspired by our list of books in our DRP library: <https://docs.google.com/spreadsheets/d/12pzmWLf9tELBtu9kk5RfCKwROOCUdwznQUX6dgyyPus/edit#gid=809773674>, or you could look at our past projects: <https://math.virginia.edu/drp/projects/>.
- The list of preferred books students provide is a starting point. Some may be too advanced. Those suggestions are there to make the students go through some math books and get them excited. The introduction may serve to help students think about what area of math they are interested in.
- You can assign a book or a paper for the student to read and work through, or you can curate a collection of sources. Remember: the DRP is not a research project. It should be focused on providing students with the skills to read math independently.
- It is a good idea to have a plan for the project, but, if the student becomes interested in a specific topic as they go, you can decide to be flexible and adapt the material throughout the semester. Take student interests into account, and don't be afraid to change trajectories mid-term if the student becomes interested in something tangential.
- If the mentee really seems a poor match, then contact us as soon as possible.

Meeting with your student

- You should schedule weekly 1-hour meetings with your student.
- The student is expected to do around 4 hours of study each week between the meetings.
- Here is a suggestion for structuring the meeting:
 - For the first part of the meeting, the student should talk about what they read.
 - Discussions should place emphasis on learning to read math and to talk about math.
 - Towards the end, you may discuss a plan for the following week: what could be a good idea to read and understand. This can help the student develop the skill of understanding how the next part they will be studying fits into the bigger scheme of things.

Expectations from students

- Students are expected to put 4 hours per week into the project outside of meetings.
- Sometimes students become overwhelmed and cannot make the time commitment.
 - If this happens once or twice ever, that's no big deal.
 - If this happens frequently or two weeks in a row, that's a bigger deal.
 - Please contact us every time it happens; we like to be up to date on how things are going.
- Students shouldn't miss meetings without rescheduling in advance. If they do, please let us know.
 - Reassure the student that you should still meet even if they did not manage to cover all the material you or they have planned out for the week. Rescheduling should be done in case of external commitments, not because the student does not feel ready.
- Reach out if you have any other doubt or cause of concern.

Final presentation

- The DRP program concludes with the student making a presentation about what they learned.
- Giving a talk is not optional.
- Presentations will be given starting from the first or second week of the following semester, and will either be given in several days, back-to-back, or in the arc of a few weeks
- The presentation should be around 20 minutes long.
- The reading portion of the program stops at the end of the semester. Students and you are not expected to continue during the break. If the student is motivated and you are willing, go for it. This is a decision to be made at the end of the semester. Do not plan on this from the start.
- If there is a significant need for an exception, e.g. the student needs to give the talk before the coming semester, then please reach out.

Talk preparation

- 3 weeks before the end of the semester
 - Discuss several possible talk topics with your student.
 - Your student will have learned more material than what fits into a 20-minute presentation.
 - Ask your student to decide on the topic and write an outline for the next week.
- 2 weeks before the end of the semester
 - Review talk outline.
 - Clear up misunderstandings.
 - Adjust level of technicality.
 - Discuss how to structure the presentation, and whether to use PowerPoint or Beamer.
 - Assign to your student to write the presentation and the full talk, and practice it.
- 1 week before the end of the semester or before the talk
 - Ask the student to present their talk to you.
 - Time them.
 - Give constructive feedback.
 - Assign them to rehearse 1-2 more times before talks.

To-do list

- [the week you get assigned a mentee] Reach out to your student and schedule your first meeting.
- [first meeting] Schedule a weekly meeting time.
- [first meeting] Clarify doubts about the structure of the DRP.
- [before add/drop deadline] Remind students to reach out to us if they take the DRP for credit.
- [first meeting] Suggest a topic or several topics, and ask your student to decide on the topic and start reading by the following week's meeting.
- [mid-semester] Fill out our mid-semester mentor our mid-semester mentee form.
- [towards the end of the semester] Fill out our DRP dinner form.
- [end of semester / beginning of following semester] Schedule the final talk.