

Protocol 1022 Rotation Presentations

Protocol Number: 1022

Effective Date: 8/1/2019

Revised Dates: 12/10/2019; 08/25/2022; 01/18/2024; 07/29/2025

Protocol

At the end of the third rotation, each standard admission student makes a brief presentation to the Rotation Committee on what they performed and accomplished in the lab they selected for their thesis research. Standard admission students will use the first week of thesis research lab time in the summer term to acclimate to the lab, to prepare and refine the rotation presentation, and participate in orientation activities hosted by the lab. Students may not have access to lab drives the first week.

Rotation Committee presentations should be about what the students performed and accomplished in the lab they selected for their thesis research and be a shortened version of the presentation made to the rotating lab, with edits to meet the specifications below. Presentations should be 10 minutes long, followed by 5 minutes of Q&A with the audience.

1. Students should learn how to give a short (~10-minute) talk to a general audience, and the rotation presentation is one of the first opportunities to do this. The most effective talks are prepared in advance, approved by the rotation advisor, and practiced in front of peers.
2. Rotation talks should:
 - Start with an open question in the field
 - Provide brief background about the question to be asked
 - Explain experimental approach(es) to address the question
 - Present results and their analysis
 - End with a brief summary and future plans
3. Each slide should have a title. Plots should be labeled, and statistical analysis should be included, where possible, including error bars and tests for significance. Since data from other lab members is often part of the background and even the results, students should acknowledge the work of others by placing names/citations on the lower right corner of the slide and acknowledging fellow lab members at the end of the presentation.

Each presentation is video recorded and made available to the individual student after the day of presentations. The purpose of the video recording is to provide students with an additional tool for learning and for improving future presentations.

Evaluation Criteria: The Rotation Committee evaluates the comprehension of the project, including the background of the field and justification for pursuing the course of investigation; the understanding of the methods used and of alternative methods that can address the

questions posed by the project; the explanation and interpretation of project results both methodologically and as it relates to the questions/hypothesis of the project; and the overall clarity of the presentation. Evaluation is done both in watching the presentation and in asking questions of the speaker. The Rotation Committee assigns grades for the presentations and provides those to the Dean.

Learning Objectives for Laboratory Rotation Presentations to Rotation Committee:

1. Students will deliver a brief presentation on their research project including a suitable introduction of the problem for a general audience, results and conclusions, and answer questions from the audience.
2. Students will assemble and present research figures with title and labels, understand what each element of the figure means, use readable and distinguishable colors and provide attribution, when needed.
3. Students will demonstrate that they have based their experiments on hypothesis driven research.
4. Students will understand and communicate the purpose of a specific experimental approach and alternative approaches to answer the same question.
5. Students will analyze whether experiments have worked or failed and begin to interpret results.

Evaluation Scale:

- 1 – Far below standards/expectations
- 2 – Below standards/expectations
- 3 – Meets standards/expectations
- 4 – Above standards/expectations
- 5 – Far above standards/expectations

Student: _____

Evaluation of Learning Objectives

The Learning Objectives for Laboratory Rotation Presentations to the Rotation Committee are listed in the left-hand column of the table below. The Rotation Committee evaluates each learning objective for each student and records the evaluations in the table, using the 1-5 scale.

Evaluation Scale:

- 1 – Far below standards/expectations
- 2 – Below standards/expectations
- 3 – Meets standards/expectations
- 4 – Above standards/expectations
- 5 – Far above standards/expectations

LEARNING OBJECTIVE	EVALUATION
1. Student delivered a brief presentation on their research project including a suitable introduction of the problem for a general audience, results and conclusions, and answered questions from the audience.	
2. Student assembled and presented research figures with title and labels, understood what each element of the figure meant, used readable and distinguishable colors and provided attribution, when needed.	
3. Student demonstrated that they based their experiments on hypothesis driven research.	
4. Student understood and communicated the purpose of a specific experimental approach and alternative approaches to answer the same question.	
5. Student analyzed whether experiments worked or failed and began to interpret results.	

Comments and Grades

The Rotation Committee evaluates each presentation according to the Evaluation Criteria, assigns a grade for the presentation, and provides the evaluations and grade to the Dean.

Rotation Committee's evaluation and comments:
Grade (Pass or Fail):