Each year, mentors and students are asked to provide an evaluation of the student and self-evaluation, annually. The evaluations represent an overall measure of the program and progress towards learning goals. The data to the right represent an average of scores from 11 total students and 11 total mentor evaluations. The scores are based on a 4 point scale where 4=Exceeds expectations, 3=Meets Expectations, 2=Needs Improvement and 1=Unsatisfactory. The error bars represent the deviation in the average ranking. From the Mentor Assessment, it is clear that the majority of students are "Meeting Expectations." Written and oral communication were seen as a primary area of improvement for all students. For all other learning objectives, the scores were distributed between Needs Improvement and Exceeds Expectations. Since no students were ranked “Unsatisfactory” with regards to any of the five learning objectives, all GPMIB students are at a place of reasonable proficiency with a positive trajectory expected. From the student self-assessment, written communication is the area students identify as needing the most improvement, although this response is not statistically different from that of oral communication, design and execution or scientific knowledge and concepts. This is appropriate for the majority of students in the program whom are at least a year from graduation.

The following section represents assessment data obtained through Student Milestone Assessments (Comprehensive Exam, Committee Meetings and Dissertation Defenses)

Note: In all cases the horizontal axis indicates the number of students ranked in each category.
Learning Objective 1: Apply Written Communication
This objective has been assessed in comprehensive exams and in dissertation defenses (in addition to the Annual Evaluations discussed above). The compiled data is represented below. The majority of students are meeting or exceeding expectations. This is improved from the 2015/2016 assessment.

Apply Written Communication:
Please rate the student's ability to propose research, evaluate findings and discuss findings in the context of the broader literature in a written form.

1 = Unsatisfactory
2 = Needs Improvement
3 = Meets Expectations
4 = Exceeds Expectations

Learning Objective 2: Apply Oral Communication
This objective has been assessed in committee meetings and in dissertation defenses (in addition to the Annual Evaluations discussed above). The compiled data is represented below. The majority of students are meeting or exceeding expectations.

Apply Oral Communication

1 = Unsatisfactory
2 = Needs Improvement
3 = Meets Expectations
4 = Exceeds Expectations

Please rate the student's ability to express in lay terms the potential impact of his/her work on society.
Please rate the student's ability to communicate his/her research (importance, approaches taken, summary and interpretation of results) effectively through oral presentation.
**Learning Objective 3: Design and Execute Scientific Research**
This objective has been assessed in comprehensive exams, committee meetings, and dissertation defenses (in addition to the Annual Evaluations discussed above). The compiled data is represented below. All students are meet or exceed expectations. Therefore, this is an area where significant improvement has been made in the past year.

![Bar Chart: Design and Execute Scientific Research](image1)

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**Learning Objective 4: Demonstrate Scientific Knowledge and Concepts**
This objective has been assessed by comprehensive exam, committee meetings and in dissertation defenses (in addition to the Annual Evaluations discussed above). The compiled data is represented below. The majority of students are meeting or exceeding expectations.

![Bar Chart: Demonstrate Scientific Knowledge and Concepts](image2)

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- Please rate the student's ability to design, conduct, analyze and interpret original research on a significant biological problem in Immunobiology, infection, or disease.

- Please rate the student's ability to demonstrate he/she can evaluate the scientific literature essential for his/her research area and articulate how his/her research fits into and/or advances the discipline.

- Please rate the student's ability to demonstrate a solid foundation in key scientific knowledge and concepts (i.e. immunology, microbiology, virology,
Learning Objective 5: Demonstrate Research Integrity and Ethics
This objective has been assessed in committee meetings and in dissertation defenses (in addition to the Annual Evaluations discussed above). The compiled data is represented below. All students are meeting or exceeding expectations.
The following section represents assessment data obtained through Annual Seminar Assessment. Each Learning Objective evaluated is broken down into a number of specific points.

**Learning Objective 2: Apply Oral Communication**

The majority of the students are ranked as meeting or exceeding expectations in all categories with a few students needing improvement. A majority of students are exceeding expectations with regard to professionalism and their ability to answer questions. No students were ranked as unsatisfactory.
Learning Objective 3: Design and Execute Scientific Research
This represents an area improved over the last year where most students are now meeting or exceeding expectations.