

PhD Program Learning Objectives and Outcomes by Year

Program Learning Objectives/Competencies

Biomedical Scientific Knowledge

1. Demonstrates advanced knowledge of biomedical sciences concepts.
2. Demonstrates advanced knowledge of discipline-specific concepts.
3. Critically evaluates biomedical sciences literature.

Research and Analytic Skills

1. Develops testable hypotheses.
2. Selects and utilizes appropriate technical and conceptual approaches to design experiments.
3. Uses scientific rigor and reproducibility to ensure accurate data analysis and interpretation.

Communication Skills

1. Demonstrates effective written communication.
2. Demonstrates effective oral communication.
3. Demonstrates effective teaching and mentoring.

Professionalism, Collegiality and Career Development

1. Demonstrates ethical behavior in alignment with professional codes of conduct, including institutional compliance.
2. Establishes rapport with others that encourages a team-based, goal-oriented environment.
3. Engages in independent learning and networking.

Assessment Outcomes

Direct Assessment: Course Exams and Milestones	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Direct Assessment Targets (Biomedical Scientific Knowledge)							
Greater than 80% of PhD students will achieve >80% on exams in BMSC 6201, BMSC 6202, BMSC 6203, and BMSC 6204.	6201: 83% 6202: 85% 6203: 69% 6204: 77%	6201: 53% 6202: 100% 6203: 76% 6204: 94%	6201: 88% 6202: 85% 6203: 75% 6204: 75%				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations"	100% of the students	86% of the students met	89% of the students				

on their Oral Qualifying Exam for the Biomedical Scientific Knowledge competency.	met the stated goal	the stated goal	met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their research proposal for the Biomedical Scientific Knowledge competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their annual progress report for the Biomedical Scientific Knowledge competency.	98.4% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their final thesis defense for the Biomedical Scientific Knowledge competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Direct Assessment Targets (Research and Analytic Skills)							
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their Oral Qualifying Exam for the Research and Analytic Skills competency.	83.3% of the students met the stated goal	86% of the students met the stated goal	89% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their research proposal for the Research and Analytic Skills competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their annual progress report for the Research and Analytic Skills competency.	96.8% of the students	98% of the students met	100% of the students				

	met the stated goal	the stated goal	met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their final thesis defense for the Research and Analytic Skills competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Direct Assessment Targets (Communication Skills)							
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their Oral Qualifying Exam for the Communication Skills competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their research proposal for the Communication Skills competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their annual progress report for the Communication Skills competency.	98.4% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their final thesis defense for the Communication Skills competency.	100% of the students met the stated goal	100% of the students met the stated goal	100% of the students met the stated goal				
Direct Assessment Targets (Professionalism, Collegiality and Career Development)							
Greater than 90% of PhD students will achieve "meets expectations" or "exceeds expectations" on their annual progress report for the	96.8% of the students	100% of the students met	100% of the students				

Professionalism, Collegiality and Career Development competency.	met the stated goal	the stated goal	met the stated goal				
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