

BCB MS Student Learning Outcomes

By the end of the program, students will be able to:	OHSU core comp alignment
1. Apply knowledge of bioinformatics and computational biomedicine, and related disciplines, to solve problems in research, clinical and/or educational settings.	1. PROFESSIONAL KNOWLEDGE AND SKILLS: Demonstrate competence in the core knowledge, skills, and practices as defined by degree programs and relevant professional licensing and credentialing boards.
2. Identify and apply appropriate research and methods to analyze, contextualize, interpret results, and evaluate their internal and external validity.	2. REASONING AND JUDGMENT: Demonstrate the ability to identify and define problems, critically compare options, make timely decisions or recommendations, identify uncertainties, and use findings to improve outcomes in light of evolving evidence.
3. Given a problem, formulate a plan, critically compare options, make timely decisions or recommendations, identify, and improve outcomes in light of evolving evidence.	3. EVIDENCE-BASED PRACTICE AND RESEARCH: Demonstrate the ability to access, evaluate, and apply relevant science knowledge to support evidence-based health care, disease prevention, health promotion, and discovery.
4. Engage in lifelong learning through: finding, interpreting and critically appraising professional literature in order to stay informed of advances in their chosen field; and connecting with the larger professional community through participating in conferences and societies.	4. LIFELONG LEARNING: Demonstrate the ability to recognize gaps in knowledge and experience through informed self-assessment and reflective practices, and take actions to address those gaps.
5. Effectively communicate in written and verbal form to both peers and non-experts. 6. Communicate professionally, including during interactions with others, and while giving and receiving feedback.	5. COMMUNICATION: Demonstrate active listening and oral and written communication skills with diverse individuals, communities, and colleagues to ensure effective, culturally appropriate exchange of information.
7. Apply fundamental knowledge of ethics and implement solutions that assure confidentiality, security and integrity while maximizing the availability of data, information, and knowledge.	6. PROFESSIONALISM AND ETHICS: Demonstrate integrity, honesty, knowledge of ethical principles and the standards of professional conduct, and the ability to apply ethical principles in clinical care, research, education, or community service.
8. Function as a productive member of a multidisciplinary collaborative team of biological or other scientists, informatics, information technology, clinical, administrative, and other experts.	7. INTERPROFESSIONAL TEAMWORK: Demonstrate knowledge of team-based professional skills, roles, and responsibilities in order to ensure an environment for safe, efficient, effective, and equitable care and innovative research.
9. Demonstrate and promote informatics solutions that help to ensure patient safety within relevant clinical settings.	8. SAFETY AND QUALITY IMPROVEMENT: Demonstrate the ability to identify situations that compromise safety, and participate in risk reduction and continuous quality improvement.
10. Apply the principles of team science to solve complex information problems. 11. Appraise applicable bioinformatics concepts, methods, and tools to solve challenging problems in their focus area.	9. SYSTEMS: Demonstrate an appropriate understanding of evolving health care systems, health and science policy, and resource allocation in order to optimize human health and scientific discovery.
12. Integrate the culture and diversity of a population when carrying out research and/or professional practice in informatics.	10. SOCIAL JUSTICE (working title): Integrate the culture and diversity of a population when carrying out research and/or professional practice in informatics.