

OHSU Core Competencies	BCB-MS Student Learning Outcomes	BCB-PhD Student Learning Outcomes
<p>1. PROFESSIONAL KNOWLEDGE AND SKILLS:</p> <p>Demonstrate competence in the core knowledge, skills, and practices as defined by degree programs and relevant professional licensing and credentialing boards.</p>	<p>1. Apply knowledge of bioinformatics and computational biomedicine, and related disciplines, to solve problems in research, clinical and/or educational settings.</p>	<p>1. Apply a broad knowledge of bioinformatics and computational medicine, and related disciplines, to solve problems in research, clinical and educational settings.</p>
<p>2. REASONING AND JUDGMENT:</p> <p>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.</p>	<p>2. Identify and apply appropriate research and methods to analyze, contextualize, interpret results, and evaluate their internal and external validity.</p>	<p>2. Identify gaps in scientific knowledge; formulate a research question; design a research study; employ and apply appropriate methods or develop new methods as necessary; analyze, contextualize, and interpret results; and evaluate the internal and external validity of the research findings.</p>
<p>3. EVIDENCE-BASED PRACTICE AND RESEARCH:</p> <p>Demonstrate the ability to access, evaluate, and apply relevant science knowledge to support evidence-based health care, disease prevention, health promotion, and discovery.</p>	<p>3. Given a problem, formulate a plan, critically compare options, make timely decisions or recommendations, identify, and improve outcomes in light of evolving evidence.</p>	<p>3. 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.</p>
<p>4. LIFELONG LEARNING:</p> <p>Demonstrate the ability to recognize gaps in knowledge and experience through informed self-assessment and reflective practices, and take actions to address those gaps.</p>	<p>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.</p>	<p>4. Engage in lifelong learning through: finding, interpreting and critically appraising scientific literature in order to fill knowledge gaps and stay informed of scientific advances; synthesizing and applying new knowledge to their own research; and connecting with the larger scientific community through participating in scientific conferences and societies.</p>
<p>5. COMMUNICATION:</p> <p>Demonstrate active listening and oral and written communication skills with diverse individuals, communities, and colleagues to ensure effective, culturally appropriate exchange of information.</p>	<p>5. Effectively communicate in written and verbal form to both peers and non-experts.</p> <p>6. Communicate professionally, including during interactions with others, and while giving and receiving feedback.</p>	<p>5. Effectively communicate and disseminate scientific research in written and verbal form to both peers and non-experts.</p> <p>6. Communicate professionally, including during interactions with others, and while giving and receiving feedback.</p>

<p>6. PROFESSIONALISM AND ETHICS:</p> <p>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.</p>	<p>7. Apply fundamental knowledge of ethics and implement solutions that assure confidentiality, security and integrity while maximizing the availability of data, information, and knowledge.</p>	<p>7. Apply fundamental knowledge of ethics in research and implement solutions that assure confidentiality, security and integrity while maximizing the availability of data, information, and knowledge.</p>
<p>7. INTERPROFESSIONAL TEAMWORK:</p> <p>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.</p>	<p>8. Function as a productive member of a multidisciplinary collaborative team of biological or other scientists, informatics, information technology, clinical, administrative, and other experts.</p>	<p>8. Function as a productive member of a multidisciplinary collaborative team of biological and related scientists, informatics, information technology, clinical, administrative, and other experts.</p>
<p>8. SAFETY AND QUALITY IMPROVEMENT:</p> <p>Demonstrate the ability to identify situations that compromise safety, and participate in risk reduction and continuous quality improvement.</p>	<p>9. Demonstrate and promote informatics solutions that help to ensure patient safety within relevant clinical settings.</p>	<p>9. Demonstrate and promote informatics solutions that help to ensure patient safety within relevant clinical settings</p>
<p>9. SYSTEMS:</p> <p>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.</p>	<p>10. Apply the principles of team science to solve complex information problems.</p> <p>11. Appraise applicable bioinformatics concepts, methods, and tools to solve challenging problems in their focus area.</p>	<p>10. Appraise applicable bioinformatics concepts, methods, and tools to solve challenging problems in their focus area.</p> <p>11. Apply the principles of team science to solve complex information problems.</p> <p>12. Have experience and training utilizing modern frameworks for rapid prototyping, and how to extract information from a wide variety of databases.</p>
	<p>12. Integrate the culture and diversity of a population when carrying out research and/or professional practice in informatics.</p>	<p>13. Integrate the culture and diversity of a population when developing research ideas, conducting research, evaluating implementation, and/or interpreting research findings.</p>