

Biomedical Sciences Graduate Program

Strategic Goals

Mission Statement

The mission of the Biomedical Sciences Graduate Program at Utah State University's College of Veterinary Medicine is to train skilled and adaptable biomedical scientists prepared to advance health and medicine across species and systems. Through research training, intentional mentorship, coursework, and opportunities to develop as both independent investigators and effective collaborators, graduates will be equipped to address complex scientific challenges with integrity and a commitment to meaningful contributions.

Vision Statement

The Biomedical Sciences Graduate Program at Utah State University's College of Veterinary Medicine aspires to foster a welcoming and respectful environment that prepares biomedical researchers to advance health across species, ecosystems, and communities through innovative, ethical, and impactful science. This will be accomplished through a graduate program that emphasizes intentional mentorship, scientific rigor, professional development, and collaboration. Through meaningful contributions to foundational, translational, clinical, and population health research, our graduates will become trusted partners and valued contributors to biomedical innovation, education, and public service in Utah, the Intermountain West, and beyond.

Guiding Principles

In alignment with our mission and vision, the following guiding principles articulate the core values and commitments that shape the development, operation, and culture of our graduate program. They provide a foundation for decision-making, program growth, and student support, ensuring the program remains responsive, equitable, and impactful for students, faculty, and the broader biomedical research community.

1. Graduate Success and Career Readiness

The faculty are committed to preparing graduate students for success in a variety of biomedical science career paths. Our curriculum will provide opportunities for students to acquire the skills and knowledge necessary to engage in cutting-edge biomedical research, while also preparing students to meet the professional expectations of diverse employers. We will emphasize both academic rigor and the development of transferable skills to equip students for their future roles.

2. Welcoming and Respectful Environment

The faculty are dedicated to fostering a welcoming and respectful environment for all students, faculty, and staff, where every individual is valued, supported, and encouraged to reach their full potential. We will prioritize transparent and fair access to opportunities and

resources, ensuring that all students can thrive academically, professionally, and personally. This culture will promote open, constructive dialogue, strong collegial relationships, and a spirit of collaboration, creating a foundation for meaningful academic engagement and professional connections.

3. Clear Expectations and Academic Integrity

The faculty will establish and uphold clear, transparent, and consistent guidelines for program requirements, academic expectations, student and advisor responsibilities, and evaluation processes. These standards will promote the highest levels of ethical conduct, academic rigor, and professionalism. Clear expectations will guide students in their academic journey and professional development while ensuring they meet the ethical and scholarly standards expected of biomedical researchers.

4. Intentional Mentorship and Support

Mentorship is a core component of our program. The faculty will ensure that mentors are supported and equipped to foster the academic and professional growth of their students. We will create an environment that promotes intentional and supportive mentoring relationships, which are essential to both student success and well-being.

5. Community Engagement and Communication

The program will provide students with opportunities to engage with both the scientific community and the broader public, supporting students in communicating their research effectively and connecting it to real-world applications. Through these experiences, students will develop their scientific communication skills and deepen their understanding of how their research can benefit society.

6. Sustainability and Long-Term Growth

The college is committed to building a sustainable graduate program that responds to the evolving needs of the biomedical research community and our students. Through continual evaluation and improvement, the college will ensure the graduate program’s long-term success and growth, supporting both student and faculty advancement. The program will actively seek opportunities to secure resources that facilitate growth and embrace emerging advancements in research and graduate training.

Program Learning Outcomes

Upon completion of the graduate program, students will be able to:

	MS Learning Outcomes	PhD Learning Outcomes
1. Discipline-specific conceptual knowledge	Demonstrate a foundational understanding of concepts within a chosen discipline and familiarity with emerging concepts in their	Demonstrate a broad-based and cross-disciplinary understanding of foundational and emerging knowledge within their field, along with detailed

	<p>area of study. With guidance, apply this knowledge to identify key questions and address research problems within their field.</p>	<p>expertise in a specific research area. Critically assess knowledge gaps, conflicts, limitations, and challenges within their research area to develop and refine testable hypotheses.</p>
<p>2. Research skills</p> 	<p>With guidance, execute and interpret research projects using established methodologies and techniques relevant to their discipline. Apply appropriate data analysis skills and adhere to research ethics and safety standards to contribute to the understanding of a defined research question.</p>	<p>Demonstrate expertise in designing, conducting and critically interpreting hypothesis-driven research using appropriate established and advanced methodologies and techniques relevant to their field. Further, demonstrate expertise in troubleshooting, and technical execution to contribute original knowledge to their field, while adhering to research ethics and safety standards.</p>
<p>3. Ethics and Integrity</p> 	<p>Apply, model, and uphold ethics, and integrity in all aspects of research practice, professional conduct, and mentorship, including data management, publication, peer review, authorship, and the ethical treatment of human and animal subjects. Identify, evaluate, and address ethical challenges in research and academic environments.</p>	
<p>4. Communication skills</p> 	<p>Effectively communicate scientific ideas, research findings, and their implications through oral, written (reports and publications), and visual formats. Adapt communication style for varied audiences, including scientific peers and non-expert groups. Demonstrate effective listening skills and engage in constructive scientific dialogue.</p>	<p>Effectively communicate complex scientific concepts, research findings, and their implications through oral, written (including publications and grant proposals), and visual formats. Tailor communication for a range of audiences, including the scientific community, interdisciplinary collaborators, and the public. Demonstrate strong listening skills and engage</p>

		in constructive, critical scientific dialogue.
<p>5. Professionalism</p> 	<p>Demonstrate professionalism by adhering to accepted standards within the workplace and relevant professional contexts. Understand applicable rules, manage conflicts of interest, and collaborate effectively with others. Engage respectfully with peers, mentors, and collaborators in professional settings, fostering a positive, supportive environment.</p>	<p>Demonstrate professionalism by adhering to accepted standards within the workplace and relevant professional contexts. Manage conflicts of interest, uphold ethical principles, and contribute to the advancement of the field through public service, peer review, and interdisciplinary collaborations. Engage respectfully with peers, mentors, and collaborators, and foster a positive and supportive professional environment through leadership and mentorship.</p>
<p>6. Leadership, management, and collaboration</p> 	<p>Demonstrate foundational leadership and collaboration skills by contributing to team-based efforts, managing responsibilities effectively, and supporting shared research objectives. Understand how to set expectations and goals within a team, give and receive constructive feedback, engage in collaborative problem-solving, and apply basic conflict management strategies. Foster a positive, team environment that values varied perspectives.</p>	<p>Demonstrate leadership, management, and collaboration skills by leading research projects, setting expectations and goals, managing project resources, and facilitating effective teamwork. Demonstrate competencies in conflict resolution, mentoring, giving and receiving constructive feedback, and building resilient teams. Pursue leadership opportunities within institutional, regional, and national professional communities to contribute to the advancement of their field.</p>
<p>7. Professional development</p>	<p>Demonstrate awareness of a range of career pathways and engage in continuous learning and skill</p>	<p>Demonstrate awareness of varied career pathways and actively engage in strategic, ongoing professional</p>



development through professional development activities such as workshops, training, and networking. Identify personal strengths, interests, and areas for growth. Build a professional network and demonstrate the ability to explore career options, research potential employers, and effectively communicate qualifications for numerous professional roles.

development. Maintain a commitment to continuous learning and skill acquisition aligned with long-term professional goals. Identify and reflect on personal strengths, values, and areas for growth. Build and maintain a broad professional network and pursue opportunities that enhance career readiness. Articulate a professional identity and career plan informed by an understanding of career options, employer expectations, and personal aspirations.

8. Personal development



Value personal well-being and self-confidence while effectively managing time and stress. Exhibit positive thinking styles, resilience, and the ability to seek support when needed. Engage with the community to enhance personal and professional growth.

Exhibit emotional resilience and self-awareness in balancing career aspirations with personal well-being. Effectively manage time, stress, and work-life balance while seeking support when needed. Demonstrate positive thinking styles, confidence, and perseverance in achieving long-term goals. Engage with the community to enhance personal and professional growth.