

# CLINICAL AND TRANSLATIONAL SCIENCES

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## Learning Outcomes

1. **Know:** Students will demonstrate knowledge of the core concepts of clinical and translational science, including an understanding of study design, methods, results, and significance in their major program area, integrating this comprehension/understanding in a translational context, and relating it to problems in biology, medicine, and public health.
2. **Apply/Create:** Students will be able to synthesize the research findings in their specialty area and generate ideas for a novel research project that includes one or more translational elements. They will be able to articulate the rationale for the proposed research project, clearly describe a specific hypothesis to be tested, apply best-practices in research design, test the hypothesis and complete the project successfully.
3. **Communicate:** Students will be able to convey ideas or arguments in clear, concise, well-organized papers and proposals as well as in formal, oral presentations. They will be able to discuss clinical and translational research findings with scientists from diverse disciplines, health professionals, and the lay public.
4. **Critical thinking:** Students will master the ability to critique the primary literature in their major program area and place it in a translational context. They will successfully identify research questions, experimental design and conclusions in scientific articles in the field. They will be able to recognize and summarize the strengths and weaknesses of relevant literature from multiple disciplines and to apply their knowledge of bioinformatics, epidemiology, statistics and experimental design to critique methodology and conclusions.
5. **Professional practice:** Students will demonstrate knowledge and comprehension of research integrity which are relevant to the field of clinical and translational science, including working with animals, humans, and communities; ethical principles related to authorship; plagiarism; and conflicts of interest. They will be able to work effectively in multidisciplinary teams. They will expand their understanding of the profession through internship(s) and contribute to the profession through service.