INTEGRATIVE AND
BIOMEDICAL PHYSIOLOGY

Graduate Program Head  Gregory Shearer
Program Code          PHSIO
Campus(es)             University Park (Ph.D., M.S.)
Degrees Conferred     Doctor of Philosophy (Ph.D.)
                      Master of Science (M.S.)
                      Dual-title Ph.D. in Integrative and
                      Biomedical Physiology and Clinical
                      and Translational Sciences

The Intercollege Graduate Degree Program (IGDP) in Integrative and
Biomedical Physiology will enable students to obtain interdisciplinary
training encompassing both the fundamentals of biomedical physiology
and advanced training in a specialized area, in preparation for varied
biomedical careers in academia or industry. This IGDP is uniquely
focused on the study of integrative mechanisms of mammalian body
systems at the molecular, cellular, tissue, and organ levels, and the
application of that knowledge to study a number of human diseases
and conditions. A broad range of research is conducted by faculty, all of
whom are widely regarded in their respective fields. Subspecialization
areas include aging, exercise and muscle biology, biophysics, cancer,
cardiovascular regulation and disease, energy and nutrient regulation,
immunology and inflammation, obesity and diabetes, and reproductive
biology. The master’s program, including courses, laboratory experience,
and original research, is designed for completion in approximately two
years, while the doctoral degree requires approximately five years.

Graduate instruction in integrative and biomedical physiology is under
the direction of graduate faculty from multiple colleges and departments
at University Park—including animal science, biochemistry, biology,
bioengineering, biomedical engineering, kinesiology, and nutrition, as well
as veterinary and biomedical sciences.