

Graduate Curriculum

Each student must demonstrate proficiency in the four core areas of **Endocrinology, Physiology, Molecular Biology and Biochemistry**, and **Statistics and Experimental Design**. To establish proficiency in each area, students can select courses offered by the EAB Graduate Program and other programs at Rutgers. Students should consult with their advisor prior to selecting courses each semester. Consult the current [University Schedule of Classes](#) for course availability.

Students must maintain a grade point average of B or better. A maximum of two courses with grades of C can be counted toward the degree. Twelve undergraduate credits at the 300 and 400 level may be taken and applied toward the degree. Be sure to register with a G prefix if you want an undergraduate course to count toward degree credits.

A. Core-Area Courses

I. Endocrinology

[11:067:450 Endocrinology](#) (4) Zama

[16:340:510 Neuroendocrinology](#) (3) Sarkar (Fall, even years)

[16:340:612 Recent Advances in Endocrinology](#) (2) (Spring, odd years)

16:137:520 *Exercise Endocrinology* (3)

II. Physiology

[16:340:508 Equine Exercise Physiology](#) (3) McKeever (Spring; odd years)

[16:340:591 Reproductive and Developmental Toxicology](#) (4) Roepke (Fall, odd years)

16:709:552,553 *Nutrition: A Biochemical and Physiological Basis* (4,4) Watford et al.

16:963:512 Integrative Organ Physiology, School of Pharmacy (4) Stapleton, (every Spring)

III. Molecular Biology and Biochemistry

[16:340:592 Molecular and Cellular Physiology](#) (3) TBD (Spring)

16:115:503,504 *General Biochemistry* (4,4)

16:115:511,512 *Molecular Biology and Biochemistry* (3,3)

IV. Statistics and Experimental Design

01:960:401 *Basic Statistics for Research* (3) (recommended if you did not have stats as an UG)

16:115:557 *Statistics in Biomedical Science* (3) (Fall)

16:125:578 *Interdisciplinary Biostatistics Research Training for Molecular and Cellular Sciences: Enhancing Rigor and Reproducibility* (3) (Spring)

16:960:501 *Statistical Theory for Research Workers* (3) (Spring)

16:960:590 *Design of Experiments* (3)

PHCO 0504 *Introduction to Biostatistics* (3) (offered through the Rutgers Biomedical and Health Sciences School of Public Health; special registration may be required)

Additional Courses of Interest

01:146:474 *Immunology* (3)
16:681:502 *Molecular Genetics* (3)
16:681:585 *Cancer Molecular Biology* (3)
16:709:506 *Nutritional Aspects of Disease* (3)
16:963:603 *Advanced Problems in Toxicology* (1) Fall
16:963:631 *Toxicological Pathology* (3) Spring

B. Other Requirements

Seminar – 16:340:693,694 *Seminar in Endocrinology and Animal Biosciences* (1) Pass/Fail

All EAB graduate students are required to attend this weekly seminar, which is held on Fridays at 9:15 AM in Foran-138A. Students should register once for fall (693) and once for spring (694) during the first 2-3 years of their program.

Ethics Course – 16:115:556 *Ethical Scientific Conduct* (1) (Spring)

Required for all students joining the graduate program starting Fall 2018 and for students competing for federal fellowship and training programs

Research – 16:340:701,702 *Research in Endocrinology and Animal Biosciences* (BA, BA)

Required; see [Graduate Program Requirements](#) and [Registration Information](#)

Updated July 2021