

**Doctor of Philosophy, Exercise Science  
with Exercise Physiology Specialization  
Department of Exercise Sciences**

Application Deadline: FEBRUARY 1  
Last Update: October 2006

- 60 Credits; Residence Requirement
- Comprehensive Exam and Dissertation required

This program prepares students for leadership at the highest level of their profession. Most students become university or college faculty. Students are prepared in the scientific bases of exercise science, well acquainted with the scientific literature, able to teach college courses, and able to do independent research.

**ADMISSION REQUIREMENTS**

- A. Fulfill requirements for BYU Graduate School admission
- B. Bachelor's or master's degree in Exercise Science or a related field with competencies in:
  - 1. Measurement and Evaluation/Elementary Statistics (EXSC 360 or STAT 221)
  - 2. Motor Learning (EXSC 361)
  - 3. Kinesiology/Biomechanics (EXSC 362)
  - 4. Physiology of Activity (EXSC 363)
  - 5. Problems in Conditioning (EXSC 468)
  - 6. Philosophical and Ethical Issues in Exercise Sciences (EXSC 302)
  - 7. Anatomy and Physiology (PDBIO 220, 362)
  - 8. College Chemistry (CHEM 105, 106)
  - 9. College Algebra (MATH 110)
  - 10. Research Methods (EXSC 630)
  - 11. Statistics (equivalent to EXSC 631 or STAT 510, and STAT 511 and 512)
- C. GPA of 3.5 for last 60 semester hours of academics.
- D. Satisfactory scores on the GRE.
- E. A letter of intent that includes:
  - 1. Preparation and background for the program
  - 2. Areas of interest and professional goals
  - 3. Reasons for career choice
  - 4. Special qualities and talents that enhance success
  - 5. Particular reasons for applying at BYU
  - 6. Statement of research interests
- F. Master's thesis or a publishable research manuscript.  
**Note:** A student who has not completed a master's thesis is required to complete a publishable research manuscript before beginning work on a dissertation. These 4 hours are in addition to the 4 hours required (EXSC 797R, 4 hrs) and do not count toward the required 60 hours.

**COURSE WORK**

Minimum of 60 hours beyond bachelor's degree in addition to all prerequisites. No 100 through 400 level classes apply. All doctoral students are expected to be engaged in a continual program of research during their studies, either original or collaborative, and to present at a regional, national, or international conference or submit a manuscript to a refereed journal. This is in addition to the thesis (or manuscript described above in lieu of a thesis) and dissertation.

PhD students are also required to gain teaching experience by teaching or team-teaching appropriate courses in the undergraduate major or minor curriculum.

**RESEARCH CORE** (27–31 hours)

EXSC 691	Graduate Seminar (1)
EXSC 693R	Graduate Seminar Readings (2–6)
EXSC 751	Doctoral Seminar: Professional and Scholarly Writing (1)
EXSC 753	Doctoral Seminar: Research and Grantsmanship (1)
EXSC 797R	Individual Research and Study (4)
EXSC 799R	Dissertation (18)

**EXERCISE PHYSIOLOGY SPECIALIZATION** (16 hours)

EXSC 666	Exercise Physiology (3)
EXSC 667	Exercise Physiology Laboratory Methods (2)
EXSC 669	Exercise Testing and Prescription (2)
EXSC 766	Advanced Exercise Physiology—Cardiopulmonary (3)
EXSC 769	Advanced Exercise Physiology—Skeletal Muscle (3)
PDBIO 565	Endocrinology (3)

**SUPPORTING AREAS** Complete a minimum of 17 hours in one or more of the following suggested supporting areas (approved by your committee) that add depth or breadth to your studies.

**Physiology and Developmental Biology** (Prerequisites: PDBIO 305 or PDBIO 362)

PDBIO 561	Physiology and Drug Mechanisms (3)
PDBIO 562	Neurophysiology (3)
PDBIO 662	Renal and Gastrointestinal Physiology (2)
PDBIO 664	Cardiovascular and Respiratory Physiology (2)
PDBIO 601	Cellular & Molecular Physiology (3)

**Biology** (Prerequisites: CHEM 481, MMBIO 430 and 441)

CHEM 581	Advanced Biochemical Methodology 1 (3)
CHEM 583	Advanced Biochemical Methodology 2 (3)
MMBIO 601	Molecular Biology of the Cell (3)

**Health/Wellness**

EXSC 661	Fitness/Wellness in the Workplace (3)
EXSC 671	Health Risk Management (3)
EXSC 673	Obesity and Weight Management (3)
HLTH 608	Determinants of Health Behavior (3)
HLTH 612	Program Planning and Evaluation (3)
HLTH 615	Health Promotion Interventions 2 (3)
HLTH 668	Health and Aging Process (2)

**Nutrition** (Prerequisites: CHEM 351, 352, 481, NDFS 410, 435, 459, 470)

NDFS 601	Advanced Human Nutrition 1 (3)
NDFS 602	Advanced Human Nutrition 2 (3)
NDFS 631	Selected Topics in FSN (0.5–3)
NDFS 632	Diet & Cancer (2)
NDFS 638	Advanced Clinical Nutrition (4)

**Biomechanics** (Prerequisites: MATH 112–113, 343, PHSCS 121, 321)

EXSC 662	Mechanical Analysis of Activity (3)
EXSC 663	Research Techniques in Biomechanics of Sport (2)