Brigham Young University
College of Life Sciences  ❖  Department of Exercise Sciences

PhD Degree in Exercise Sciences

Effective Fall 2020 – Last Updated: Sep 2020  ❖  Application Deadline: FEBRUARY 1

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 conduct independent research.

ADMISSION REQUIREMENTS
A. Fulfill requirements for BYU Graduate School admission
B. Bachelor’s or master’s degree in Exercise Sciences or a related field with competencies in a majority of the following areas:
   1. College Human Physiology
   2. College Chemistry
   3. College Physics
   4. College Algebra
   5. Kinesiology/Biomechanics (graduate level)
   6. Exercise Physiology / Ex Phys Lab (graduate level)
   7. Human Anatomy (graduate level)
   8. Statistics (graduate level)
C. GPA of 3.5 for last 60 semester hours of academics
D. Satisfactory scores on the GRE – minimum 300 and a 4.0 on the analytical writing portion. GRE scores must be within 5 years.
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 first-author research manuscript.

Note: A student who has not completed a master’s thesis is required to complete a publishable first-author research manuscript before beginning work on a dissertation (these hours are in addition to the 4-hour EXSC 797R requirement for the 60-hour program).

COURSE WORK
Minimum of 60 hours beyond bachelor’s degree in addition to all undergraduate prerequisites. No 100 through 400 level classes apply. All doctoral students are expected to engage 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 curriculum.

EXERCISE SCIENCES SKILL REQUIRED CLASSES – 7 credit hours:
STAT 512 Statistical Methods for Research (2)
EXSC 797R Individual Research and Study (4)

EXERCISE SCIENCES REQUIRED SEMINARS – 3 credit hours:
EXSC 693R Graduate Seminar Readings (1)
EXSC 751 Doctoral Seminar: Prof & Scholarly Writing (1)
EXSC 753 Doctoral Seminar: Res & Grantsmanship (1)

DISSERTATION – 18 credit hours:
EXSC 799R Dissertation (18)

PRIMARY CURRICULUM – Enroll in enough hours to complete your 60-hour program that add depth and breadth to your program of study from: 1) one or more of the following Primary Curriculum and Supporting Areas, or 2) any additional grad classes approved by your dissertation committee and graduate coordinator.

Exercise Physiology:
EXSC 666 Exercise Physiology (3)
EXSC 667 Exercise Physiology Laboratory Methods (2)
EXSC 766 Advanced Exercise Physiology: Cardiopulmonary (3)
EXSC 769 Advanced Exercise Physiology: Skeletal Muscle (3)

Health Promotion:
EXSC 640 Physical Activity and Health (3)
EXSC 661 Advanced Worksite Wellness (3)
EXSC 669 Exercise, Testing, and Prescription (2)
EXSC 671 Advanced Lifestyle and Chronic Disease Prevention (3)
EXSC 673 Advanced Obesity and Weight Management (3)

Physical Med & Rehab:
EXSC 501 Pathophysiology for AT (3)
EXSC 668 Orthopaedic Anatomy (4)
EXSC 625R Adv Topics in P M & Rehab (20)
- Clinical & Educational Admin (TC 011)
- Electrotherapy, US, & Diathermy (TC 013)
- Functional Testing & Exercise (TC 014)
- Joint Mobilization & Manual Therapy (TC 015)
- Neuroci (TC 016)
- Diagnostic Testing (TC 020)
- Mechanical Spinal Impairment & Mobilization (TC 023)

SUPPORTING AREAS

Biomechanics:
EXSC 662 Kinematics (2)
EXSC 663 Neuromechanical Signal Collection and Processing (2)
EXSC 664 Biomechanical Modeling (3)
EXSC 665 Computer Programming for Kinesiology (3)

Physiology and Developmental Biology (Prerequisites: PDBio 362 or PDBio 363)
PDBio 561 Physiology of Drug Mechanisms (3)
PDBio 562 Reproductive Physiology (3)
PDBio 565 Endocrinology (3)
PDBio 601 Cellular & Molecular Physiology (3)
PDBio 664 Cardiovascular and Respiratory Physiology (2)

Chemistry & Biochemistry and Microbiology & Molecular Biology
(Prerequisites: Chem 481, Chem 482)
Chem 581 Advanced Biochemical Methodology 1 (3)
Chem 583 Advanced Biochemical Methodology 2 (3)
Chem 584 Advanced Biochemistry Methods 1 (2)

Health/Wellness
HLTH 602 Principles of Epidemiology (3)
HLTH 604 Principles of Biostatistics (3)
HLTH 608 Determinants of Health Behavior (3)
HLTH 612 Program Planning and Evaluation (3)
HLTH 618 Survey and Research Methods (3)
HLTH 630 Small-Group Health Promotion Interventions (3)

Nutrition (Prerequisites: NDFS 300, 356, 435, 466, 601, 602 or instructor’s consent)
NDFS 601 Advanced Human Nutrition 1 (3)
NDFS 602 Advanced Human Nutrition 2 (3)
NDFS 631R Selected Topics in FSN (0.5–3)
NDFS 632 Diet & Cancer (2)