Physical Education Major

Overview

Note: Effective Fall 2015, the School of Kinesiology will no longer offer the undergraduate major or minors in Physical Education (PE) OR Health Education. All current students pursuing the PE major or PE/Health Education minors will be able to complete their degree(s) and certification(s). Please consult the Bulletin and/or Record Sheet (refer to the PHYSED Record Sheet from the appropriate year for detailed requirements and procedures) on the Policies and Procedures page of the Kinesiology website (http://www.kines.umich.edu/student-life/policies-procedures). Search for “Health and Fitness” and the PHYSED documents will also appear.

Additionally, in order for a current Physical Education student to be considered for the option to graduate without student teaching, a student must:

● Be a student in good academic standing (2.5 GPA or above)
● Provide a written petition to the Associate Dean for Academic Programs. The petition should:
  1. State the reason(s) for the request
  2. Indicate how a positive response to the request will impact the expected date of graduation
  3. Include a list of appropriate classes for faculty to reference, to select the classes the student will need to reach both the career goal and 130 credits
● Earn 130 credits to graduate
● If a student has not taken EDUC 392 or 402, the student may request to waive those classes and substitute classes approved by the faculty
● Students who return to U of M in the future to obtain teaching certification may be required to take additional classes that have been added to the major or the certification requirements

Health and Fitness Major

Overview

The Health and Fitness program provides a science-based curriculum, focusing on physical activity across the lifespan. Our program prepares students for careers and advanced learning in health promotion, while addressing the health and wellness need for people of all ages and abilities.

The Health and Fitness major offers students the knowledge and skills required for successfully entering the growing field of Health and Fitness. Physical activity/inactivity and obesity have become a national focus. The School of Kinesiology has adapted to better accommodate this trend in physical awareness by providing knowledge of activity across the lifespan. Students majoring in Health and Fitness learn how to communicate to members of the public of varying ages, abilities, and backgrounds, behaviors that can prevent diseases, injuries, and other health problems by encouraging healthy lifestyles and wellness. The Health and Fitness curriculum includes courses required for American College of Sports Medicine (ACSM) Certifications as well as business and legal courses necessary for those wishing to establish new businesses or work in corporate settings.
Students who complete the Health and Fitness program will receive a Bachelor of Science (B.S.) degree. Students should consult the Health and Fitness Program Chair within Kinesiology for further information about Health and Fitness Program requirements, admissions procedures, and application deadlines.

The Kinesiology Office of Undergraduate Student Affairs and the Health and Fitness Program Chair are the two main sources of information and support for Health and Fitness students.

**Curriculum Objectives/Outcomes**

1. **Exercise Prescription & Exercise Adaptation**
   - **Exercise training & Conditioning**
     - Understand the physiologic adaptations to exercise and strength conditioning.
     - Be able to apply exercise, strength training and conditioning in a safe and responsible manner.
   - **Health & Nutrition**
     - Understand the bioenergetics of food and how it applies to exercise and physical activity.
     - Understand and apply energy balance.
     - Administer assessments of physical fitness.
     - Understand and administer tests of physical health e.g. body composition.
     - Understand the effects of ergogenic aids and the concepts of pharmacokinetics.
     - Apply modern applications and trackers for activity and health behaviors.
   - **Psychology & Exercise**
     - Recognize the psychological factors which influence involvement in sport and exercise.
     - Apply this knowledge as it relates to physical activity educators.

2. **Community, Social and Corporate Health**
   - **Physical Activity & Inactivity**
     - Identify activity level behaviors by age, population and socioeconomic level.
     - Describe the pathways by which socioeconomic indicators influence health behaviors.
     - Describe the socioeconomic disparities in physical activity participation.
   - **Ethics**
     - Develop knowledge of the theoretical approaches used to address the wide range of ethical issues faced by professionals in both community and workplace wellness.
     - Apply the epidemiological information gained to evaluate and develop public health intervention programs.

3. **Exercise Research Techniques**
   - **Scientific method**
     - Study design i.e. methods, results & conclusions.
     - Qualitative and quantitative statistics.
     - Collaborative writing.

4. **Business**
   - **Identify, analyze and discuss legal aspects of sport**
     - Contracts, constitutional law, labor employment and IP rights.
     - Conduct marketing analysis.
     - Use current communication tools to enhance learning and professional development.
     - Demonstrate knowledge of laws governing individuals with physical disabilities.
o Understand the ramifications of banned substances in sport.

5. Disease prevention, Injury prevention & Special populations
   o Recognizing the contributors to heart disease.
   o Identify and manage common injuries and apply injury prevention techniques.
   o Understand the relationship between PT, OT and adapted PE.
   o Distinguish factors that contribute to atypical motor development and function.

Requirements
Students who are admitted to the School of Kinesiology as Health and Fitness (HF) will be designated Pre-Health and Fitness until they accomplish the requirements to declare.

For a student to declare HF, they must have the following at the end of Year 1:
   • Complete MATH 105 with a grade of C or higher (MATH 115 with a C- or higher will also be accepted)
   • Complete HF/AT 220 & 221 with a grade of C or higher
   • Have a Cumulative GPA of 2.5 or higher

Incoming HF freshmen must complete MATH 105 at the University of Michigan; the course cannot be transferred. AP credit for MATH 115 will be accepted.
Students who receive the Calculus Definite Math Placement recommendation are not required to take MATH 105.

Kinesiology students who wish to graduate in Health and Fitness Leadership must complete an academic plan of study (shown below).
No online courses will be accepted for transfer/petition for any required courses.

- HF 218 – Emergency Response (3 cr.) Cannot be transferred.
- HF 220 – Applied Human Anatomy and Physiology (3 cr.) (NS) –Must be taken concurrently with HF 221. Cannot be transferred.
- HF 221 – Applied Human Anatomy and Physiology Lab (1 cr.) (NS) –Must be taken concurrently with HF 220. Cannot be transferred.
- HF 240 – Introduction to Fitness and Health (3 cr.)
- MOVESCI/HF 241 – Exercise, Nutrition and Weight Control (3 cr.)
- HF 242 – Essentials of Exercise Physiology (3 cr.) (HF Prereqs: AT/HF 220, 221; C or better)
- HF 251 – Technology in Health & Fitness (3 cr.) (NS)
- HF 313 – Analytics (3 cr.) (NS)
- HF 313 – Methods in Group Fitness Instruction (3 cr.) (NS)
- HF 315 – Exercise Prescription & Testing (3 cr.) Cannot be transferred. (Prereq: HF 218), HF242 is recommended
- HF 331 – Biomechanics of Sport & Exercise (3 cr.) (Prereqs: (MATH 105 and AT/HF 220, 221 (C or better) and HF 251) SM217/MVS219 is recommended
- HF 332 – Principles of Motor Behavior (3 cr.) (Prereqs: AT/HF 220, 221; C or better)
- HF 333 – Legal Issues in Sport & Fitness (3 cr.) (Prereqs: Junior or Senior standing)
- HF 403 - Internship (3 cr.) (Prereqs: Permission, HF 218, SM 217, HF 315, Junior standing, 2.5 GPA)
- HF/MOVESCI 425 – Physical Act and Pediatric Disabilities (3 cr.) (Prereq: Junior or Senior standing)
SM/HF 434 – Managerial Ethics in the Sport & Fitness Industries (3cr.) (Prereq: Junior or Senior standing)
SM/HF 437 – Psychological Aspects of Sport & Exercise (3 cr.) (SS) (Prereq: Junior or Senior standing)
HF 451 – Physical Activity Across the Lifespan (3 cr.) (Prereqs: MOVESCI 340 or HF 242 and MOVESCI 219 or SM 217)
AT 115 – Prevent & Care – Athletic Injuries (3cr.)
AT/PHYSED 326 – Fundamentals of Strength & Conditioning (3 cr.) (HF Prereqs: AT/HF 220, 221; C or better)
AT 420 – Pharmacology for the Allied Health Professions (3 cr.) (HF Prereqs: (AT/HF 220, 221) or PHYSIOL 201; C or better)
MOVESCI 110 – Biological and Behavioral Bases of Human Movement (3 cr.)
MOVESCI/HF/KINESLGY 446 – Social Factors in PA Behavior (3 cr.) (Prereqs: MOVESCI 219 or SM 217 and MOVESCI 340 or PHYSED/HF 242)
SM 101 - Public and Small Group Communication (3 cr.) (HU)
SM 111 – Historical & Sociological Bases of Human Movement (3 cr.) (SS)
SM 217 – Business Communications (3 cr.) (HU) OR MOVESCI 219 – Scientific Writing (3 cr.) (Prereq: Sophomore standing)
SM 346 – Principles of Marketing (3 cr.) (Prereq: Junior or Senior standing)

Requirements Outside of Kinesiology
FYWR - (4 cr.) Must achieve a C or better.
MATH 105 - Data, Functions, and Graphs (4 cr.) (NS) Cannot be transferred.
PSYCH 111 or 112 - Introduction to Psychology (4 cr.) (SS or NS)

Distribution Requirements
Students must complete the Distribution Requirement of a minimum of 12 credits in Natural Science, Humanities, and Social Science. To see which required courses count toward distribution, students should refer to the [HF Record Sheet](http://www.kines.umich.edu/student-life/policies-procedures) on the Policies and Procedures page of the Kinesiology website. For general distribution information, see the LSA course guide.

Internship Requirements
Students must complete an approved internship in the field of Health and Fitness to earn their degree. To be eligible for the internship you must have junior standing, have a cumulative GPA of 2.5 or higher, completed HF 315 Exercise Prescription, HF 218, and SM 217 (if you have MVS 219 instead of SM 217 you must attend an Internship Preparation Seminar). [HF 403 Internship Policy Guidelines](http://www.kines.umich.edu/student-life/policies-procedures) can be found on the Policies and Procedures page of the Kinesiology website. Students may repeat the internship for credit if content and summary of work differs. Internships can be either paid or unpaid.

Study Abroad
Credit from Kinesiology-sponsored and non-Kinesiology-sponsored study abroad programs can be used as general credit toward graduation and to fulfill Distribution requirements. With prior approval by the HF Faculty Committee, students can use study abroad credit to fulfill certain HF requirements. For additional information, please see the Global Engagement Coordinator.
Cross Campus Transfer Requirements

Students can only transfer in 12 HF (36 credits) required courses from outside universities. This does not include approved study abroad courses. Prior program petitions will be considered on a case by case basis.

**Sophomore – Cumulative GPA of 3.0 and completion of the following:**
- MATH 105
- MOVESCI 110
- MOVESCI/HF 241
- HF/AT 220, HF/AT 221 (Winter only)
- AT 115 (Winter only)

**Junior – Cumulative GPA of 3.0 and completion of the following:**
- MATH 105
- MOVESCI 110
- MOVESCI/HF 241
- HF/AT 220, HF/AT 221 (Winter only)
- AT 115 (Winter only)
- HF 313 Analytics (Fall only)
- HF 332 (Winter only)
- HF 242 (Winter only)

**Seniors** need to petition HF faculty to begin program. Petitions will be considered on a case by case basis.

**Movement Science Major**

The Movement Science (MOVESCI) major strives to fully develop the intellectual abilities of each student during their learning experiences in the School of Kinesiology. The program emphasizes the study of human movement from biological and behavioral perspectives across the lifespan. The Movement Science Department achieves their mission by offering a diversified program that includes introductory and advanced course work, research, and laboratory experiences. Success is evaluated by the academic and professional placement of graduates.

**Overview**

The Movement Science major comprises coursework that emphasizes the causes and consequences of human movement from biomechanical, motor control, and development and physiological perspectives. The requirements include courses both in and outside of Kinesiology. The Movement Science curriculum emphasizes competencies in four areas:

1. Three areas of Movement Science: Biomechanics, Motor Control, and Exercise Physiology
2. Research
3. Scientific communication, including written and graphic skills
4. Computer literacy