

# HEALTH, PHYSICAL EDUCATION AND RECREATION

## DEPARTMENT OFFICE

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201 Physical Education Instructional Facility

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## Health, Physical Education and Recreation at NMU

The department offers programs leading to a bachelor's degree in either liberal arts or education, with specializations in athletic training, health education, outdoor recreation, physical education or sports science. There are eight majors and 11 minors. A master of science degree is also available for students wishing to pursue advanced study in exercise science. The department's programs are designed to build on a student's liberal studies foundation, give a broad overview of the health and fitness fields and offer a focused preparation in the student's choice of profession.

The health education and management of health and fitness programs include an internship, field experience or student teaching experience. These programs also help students prepare to earn certifications such as the American College of Sports Medicine (ACSM) Health and Fitness Instructor Certification, the Certified Health Education Specialist (CHES) Accreditation, and relevant Michigan teacher certifications.

The athletic training program prepares students to take the National Athletic Trainers Association Board of Certification Examination.

Northern's HPER Department is accredited by the American Alliance for Health, Physical Education, Recreation and Dance, Commission on the Accreditation of Allied Health Education Program (CAAHEP), and Wilderness Education Association.

## Student Organizations

- Health Promotion Society
- Organization for Outdoor Recreation Professionals
- Student Athletic Training Organization
- Student Michigan Education Association

## Department Facilities

The department has one of the finest physical education buildings of its kind: the Physical Education Instructional Facility (PEIF). This facility includes four gymnasiums, several classrooms, a pool and dive tank, an exercise physiology and biomechanics lab, athletic training labs, a high ropes course and an instructional dance studio.

The Student Recreation Center is also located in the PEIF and features aerobic and weight training equipment, basketball courts, a student lounge and an indoor climbing wall.

The Outdoor Recreation Center provides programs and equipment rental.

Additional facilities include the Superior Dome (the world's largest wooden dome) and Berry Events Center. The Superior Dome seats 8,000 for football, soccer and softball. When the turf is retracted, basketball, tennis, volleyball and track and field are available. The Berry Events Center, which seats 3,675, has an Olympic-sized ice surface and is the home for Wildcat hockey and basketball and United States Olympic Education Center (USOEC) speedskating.

## Department/Program Policies

### General Information

Student placement and/or employment in public school systems, athletic training agencies and outdoor recreation leadership management agencies generally stipulate that applicants possess good moral character and strong judgment. The ability to successfully pass the rigors of Northern Michigan University's HPER Department helps to validate or ensure these prerequisite qualities in our majors. Each student is therefore advised that school systems and agencies will perform a background investigation on potential employees. The nature and scope of the background investigation is the prerogative of the specific

school system or agency and is ordinarily subject to the consent of the applicant. Lack of consent would ordinarily remove an individual from placement and/or employment consideration. Additional information in this regard is available to you by speaking with your academic adviser, department head or the director of teacher education student services.

### **Admission to the Baccalaureate Athletic Training Program**

Before applying for admission to the athletic training program, applicants must fulfill the following requirements:

1. Be admitted to Northern Michigan University.
2. Have completed, or be in the process of completing the following courses: ATR 110 Introduction to Athletic Training, HL 101 Medical Terminology for Health Educators and HL 242 Emergency Health Care.
3. Achieve a cumulative NMU grade point average of 2.75 or better in their first semester, with a minimum grade of "B" in ATR 110 Introduction to Athletic Training.
4. Complete required athletic training observation hours under the guidance of a member of the NMU certified staff during the first year of enrollment.
5. File an application with current transcript of grades and three letters of recommendation with the Health, Physical Education and Recreation Department by February 1 for the succeeding fall semester.
6. Sit for a formal interview with the director of the athletic training education program and additional certified athletic training staff members after application has been filed.
7. Meet technical standards for admission.

### **Technical Standards for Admission to the Athletic Training Program**

The technical standards set forth by the Northern Michigan University athletic training educational program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills and competencies of an entry-level athletic trainer, as well as meet the expectations of CAAHEP. The following abilities and expectations must be met by students admitted to the athletic training education program. Failing to fulfill these technical standards with or without reasonable accommodations will result in a student not being admitted into the program. Compliance with the technical standards does not guarantee a student's eligibility for the National Athletic Trainers Association Board of Certification (NATABOC) examination.

Candidates for selection into the NMU athletic training major must demonstrate the following:

1. The mental capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm.
2. Sufficient postural and neuromuscular control, sensory function and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients.
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds. This includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice.
4. The ability to record the physical examination results and a treatment plan clearly and accurately.
5. The capacity to maintain composure and continue to function well during periods of high stress.
6. The perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced.
7. Flexibility and the ability to adjust to changing situations and uncertainty within the clinical situation.
8. Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Once accepted into the athletic training education program, students will be required to have a brief physical exam to ensure he or she meets all program technical standards. The physical exam is conducted by the contracted medical director of the athletic training education program and is of no charge to the student.

The Health, Physical Education and Recreation Department admits a limited number of students to the athletic training program each year. If the number of eligible applicants exceeds the number of placements available, the faculty reserves the right to select the applicants who shall be admitted. The remaining eligible applicants may apply for admission the following year. Ordinarily, students may expect to complete the entire program in approximately three academic years after being admitted to the athletic training program, assuming that they complete all of their courses satisfactorily and in sequence.

Students are responsible for their own transportation to and from off-campus clinical assignments.

### Retention in the Athletic Training Program

1. Maintain a minimum cumulative NMU grade point average of 2.50.
2. Successfully complete an athletic training (ATR) course on the first or second attempt (i.e., student may repeat an athletic training course only once).
3. Complete all courses in the major with a minimum grade of "C", except courses with the ATR prefix must be completed with a minimum grade of "B-".
4. Adhere to the Northern Michigan University Student Code.
5. Demonstrate a pattern of safe clinical practice commensurate with the student's educational experiences.

Students who withdraw from the program and wish to re-enter must follow the same application and admission procedures as all pre-athletic training students.

### Department Grade Point Average Requirements

Community health education majors and management of health and fitness majors must achieve a grade of "C" (2.00) or higher in all major courses. In addition, students are expected to follow a lifestyle commensurate with their professional aspirations. Sports science majors must achieve a grade of "C" (2.00) or higher in all major courses.

See Retention in the Athletic Training Program (above) for information on this major.

Students majoring in secondary education health education or secondary education physical education or minoring in health education secondary education or physical education secondary education must maintain a grade point average of 2.70 or higher with no grade below a "C" in the professional education sequence, the major and/or minors and required cognates combined.

Students majoring in outdoor recreation leadership and management must achieve a grade of "C" (2.00) or higher in all major core courses.

## BACHELOR DEGREE PROGRAMS

**Liberal Studies:** Complete information on the liberal studies requirements and additional graduation requirements, including the health promotion requirement, is in the "Liberal Studies Program and Graduation Requirements" section of this bulletin (38-44).

Courses within each major that can be used to satisfy liberal studies requirements are listed with the Roman numeral (in brackets) that coincides with the liberal studies division the course falls under.

### Athletic Training Major

This major is designed to prepare and qualify students to take the National Athletic Trainers Association Board of Certification Examination. Upon obtaining certification, students will be qualified athletic trainers for positions in settings such as high schools, colleges, sports medicine clinics, rehabilitation centers or private industry. The program provides solid didactic and clinical education and boasts a fully equipped, 1044-square foot athletic training laboratory facility, campus athletic training rooms and a staff of 17 approved clinical instructors. The program is CAAHEP accredited.

Note: See Admissions Standards, Technical Standards and Retention Standards specific to this program as outlined above.

Total Credits Required for Degree	124
<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>2</b>
<b>Required Courses in Major</b>	<b>60</b>
BI 201 Human Anatomy	3
BI 202 Human Physiology	5
HL 101 Medical Terminology for Health Educators	1
HL 242 Emergency Health Care	2
HN 301 Nutrition for Health Professionals	4
PE 315 Physiology of Exercise	4
PE 317 Anatomical Kinesiology	2
PE 417 Biomechanics	2
PE 421 Physiological Aspects of Conditioning	3
PE 470 Psychological Aspects of Athletic Performance	2
ATR 110 Introduction to Athletic Training	1
ATR 201 Pathology and Pharmacology for the Athletic Trainer	2
ATR 241 Prevention and Care of Injuries	3
ATR 292A Introduction to Practicum I	1
ATR 292B Introduction to Practicum II	1
ATR 320 Advanced Assessment Techniques in Athletic Training I (Lower Quarter)	3
ATR 321 Advanced Assessment Techniques in Athletic Training II (Upper Quarter)	3
ATR 360 Therapeutic Exercise and Rehabilitation Techniques	4
ATR 380 Therapeutic Modalities	2
ATR 392A Intermediate Practicum I	2
ATR 392B Intermediate Practicum II	2
ATR 410 Athletic Training Policies and Procedures	2
ATR 490 Seminar in Athletic Training	2

ATR 492A Advanced Practicum I	2
ATR 292B Advanced Practicum II	2

<b>Other Required Courses</b>	<b>12-13</b>
HL 460 Human Disease	4
CH 105 Chemical Principles (4 cr.) [III] <i>or</i> CH 107 Introductory Chemistry I (4 cr.) [III] <i>or</i> CH 111 General Chemistry I (5 cr.) [III]	4-5
PY 100S, L, or H, Psychology as a Natural Science [III] <i>or</i> PY 100G Psychology as a Social Science (4 cr.) [IV]	4

### Community Health Education Major

This major is designed to promote the development of health literacy and prepare students for entry-level community health education positions in line with appropriate professional standards. It teaches students to use health promotion and disease prevention interventions in ethical ways to affect the health knowledge, attitudes and behaviors of various target populations in a variety of settings (worksites, schools, hospitals/clinics, public health agencies, health clubs, geriatric centers and others).

<b>Total Credits Required for Degree</b>	<b>124</b>
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<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>2</b>

<b>Required Courses in Major</b>	<b>40</b>
HL 101 Medical Terminology for Health Educators	1
HL 110 Introduction to Health and Fitness	2
HL 111 Personal Wellness	4
HL 240 Community Health	2
HL 242 Emergency Health Care	2
HL 250 Applied Health Theory	2
HL 311 Health Communication	2
HL 367 Program Planning and Evaluation	4
HL 430 Grant Writing for Health Educators	2
HL 440 Critical Issues in Health Education	3
HL 460 Human Disease Education	4
HN 210 Nutrition for Humans	4

<b>Health Electives</b>	<b>8</b>
<i>Choose any HL and/or HN courses with the exception of HL 246.</i>	

<b>Other Required Courses</b>	<b>8-9</b>
BI 104 Human Anatomy and Physiology (4 cr.) [III]	4
CH 105 Chemical Principles (4 cr.) [III] <i>or</i> CH 107 Introductory Chemistry I (4 cr.) [III] <i>or</i> CH 111 General Chemistry I (5 cr.) [III]	4-5

<b>Minor</b>	<b>20</b>
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### Management of Health and Fitness Major

This major focuses on health and fitness promotion and disease prevention interventions. Completion of this program prepares students for entry-level jobs at worksites, hospitals/clinics, public health agencies, health clubs, geriatric centers and other places where health and fitness are promoted.

<b>Total Credits Required for Degree</b>	<b>124</b>
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<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>2</b>
HP 200 Physical Well Being	1
HP 245 Weight Training and Conditioning	1

<b>Required Courses in Major</b>	<b>55</b>
HL 101 Medical Terminology for Health Educators	1
HL 110 Introduction to Health and Fitness	2
HL 111 Personal Wellness	4
HN 210 Nutrition for Humans	4
HL 215 Cardiovascular Risk Factors	1
HL 240 Community Health	2
HL 242 Emergency Health Care	2
HL 311 Health Communication	2
PE 230 Fitness Leadership	2
PE 315 Physiology of Exercise	4
PE 317 Anatomical Kinesiology	2
HL 367 Program Planning and Evaluation	4
HL 368 Programming in Health and Fitness	2
HN 415 Obesity and Weight Management	4
HL 440 Critical Issues in Health Education	3
HL 460 Human Disease Education	4
PE 471 Exercise Specialization	2
PE 472 Health and Exercise Leadership Skills	2
HL 491 Internship in Health and Fitness	2-4
HL/HN/PE/RE elective	0-2

<b>Activities</b>	<b>4</b>
<i>Select PE, HP, and/or RE activity courses. One must be an HP outdoor activity.</i>	

<b>Other Required Courses</b>	<b>18-19</b>
BI 104 Human Anatomy and Physiology [III]	4
MGT 240 Organizational Behavior and Management	3
MKT 230 Introduction to Marketing	3
PY 100S, L, or H, Psychology as a Natural Science [III] <i>or</i> PY 100G Psychology as a Social Science [IV]	4
CH 105 Chemical Principles (4 cr.) [III] <i>or</i> CH 107 Introductory Chemistry I (4 cr.) [III] <i>or</i> CH 111 General Chemistry I (5 cr.) [III]	4-5

## Outdoor Recreation Leadership and Management Major

This major is for students who expect to pursue a career or graduate work in leisure services, outdoor recreation, protected area management or related fields. The program provides an academic foundation that meets professional standards in leisure studies, in general, and outdoor recreation, in particular. It also provides varied opportunities to develop additional competencies for more specialized entry-level positions in leisure and outdoor recreation settings. The learning environment uses both traditional and experiential learning strategies in a small-scale setting. Graduates may be self-employed or find employment in interpretive or outdoor education centers, organized camps, resorts, outfitters and guide services, colleges, adventure programs, county and city recreation and parks departments, state and federal land and water resource management agencies, and a variety of nonprofit organizations and businesses related to the field of outdoor recreation.

<b>Total Credits Required for Degree</b>	<b>130</b>
<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>2</b>
HP 200 Physical Well Being	1
HP 239 or HP 239A, B, C, D or E Swimming	1
<b>Required Courses in Major</b>	<b>56.5-57</b>
<b>Major Core</b>	<b>40</b>
RE 110 Introduction to Leisure and Recreation	2
RE 155 Outdoor Living Skills	2
RE 250 Education in Outdoor Settings	3
RE 251 Adventure Activities, Facilitation and Group Behavior	3
RE 261 Leadership and Pedagogy in Leisure Services	3
RE 270 Outdoor Recreation Resources, Behavior and Values	3
RE 356 Wilderness Education Association Wilderness Stewardship	2
RE 362 Program Design in Leisure Services	3
RE 371 Protected Area Management*	3
RE 381 Interpretation I: Foundations and Guided Services*	4
RE 382 Interpretation II: Self-Guided Media*	3
RE 410 Leisure Through the Ages	2
RE 461 Management and Supervision of Leisure Services	4
RE 467 Evaluation/Research in Leisure Services	3
<b>Professional Development Seminars</b>	<b>1-1.5</b>
RE 191 Professional Development Seminar I (.5 cr.)	
RE 291 Professional Development Seminar II (.5 cr.)	
RE 391 Professional Development Seminar III (.5 cr.)	
<i>Students must enroll in one of the above every two semesters until graduation; RE 391 may be repeated.</i>	
<b>Field Work/Internship/Plan of Study</b>	<b>15</b>
RE 294 Field Work	3
RE 494 Internship	12
<i>Or approved program of study; courses can be any prefix but must be 300 level or higher.</i>	
<b>Professional Assessment Seminar</b>	<b>0.5</b>
RE 491 Professional Assessment Seminar	

<b>Other Required Courses</b>	<b>12-13</b>
AIS 101 Introduction to Information Resources	1
MKT 230 Introduction to Marketing	3
PY 305 Psychological Statistics [V] (or equivalent)	4
HL 242 Emergency Health Care (2 cr.) or <i>Certification Required</i>	2-3
RE 352 Wilderness First Responder (3 cr.) <i>Certification Required</i>	
RE 357 Teaching of Canoeing or RE 358 Teaching of Rock Climbing or Two outdoor recreation HP courses.	2

*\*See the "Course Descriptions" section of this bulletin for major and minor course prerequisites, particularly RE 371, RE 381 and RE 382, before selecting liberal studies and world cultures courses.*

## Physical Education Major

The primary aim of this program is to prepare majors through the acquisition of knowledge, the development of skills and the development of a positive attitude toward activity and fitness that will enable them to perform effectively in a teaching role. Students will obtain knowledge about human movement, such as the physiology of muscular activity, the neural and kinesiological basis of movement, measurement and evaluation of motor performance and methodology of teaching motor skills; develop personal skills in a variety of activities in addition to teaching skills; and acquire sensitivity to, and understanding of, human relations in the learning environment by participating in a variety of laboratory and field experiences.

<b>Total Credits Required for Degree</b>	<b>124</b>
<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>4</b>
HP 200 Physical Well Being	1
Health Promotion Elective	1
<b>Health Promotion Electives</b>	<b>2</b>
<i>Choose from the following:</i>	
HP 206 Backpacking (1 cr.)	
HP 209 Bicycling/Mt. Biking (1 cr.)	
HP 216 Skating-Beginning (1 cr.) or HP 216A Skating-Figure (1 cr.) or HP 216B Skating-Intermediate Figure (1 cr.)	
HP 217 Fly and Bait Casting (1 cr.)	
HP 222 Hiking (1 cr.)	
HP 228 Power Skating and Hockey (1 cr.)	
HP 230 Rock Climbing (1 cr.)	
HP 231 Skiing-Alpine (1 cr.)	
HP 231A Skiing-Intermediate Alpine (1 cr.)	
HP 231B Skiing-Cross Country (1 cr.)	
HP 233 Snowshoeing (1 cr.)	
HP 238 Winter Camping (1 cr.)	
HP 253 Adventure Based Learning (1 cr.)	

<b>Required Courses in Major</b>	<b>32</b>
<b>Theory Courses</b>	<b>27</b>
PE 110 Introduction to Physical Education	2
PE 217 Motor Development and Elementary School Physical Education	3
PE 230 Fitness Leadership	2
PE 241 Prevention and Care of Injuries	2
PE 310 Measurement and Evaluation in Physical Education	3
PE 315 Physiology of Exercise	4
PE 317 Anatomical Kinesiology	2
PE 318 Motor Learning and Secondary School Physical Education	3
PE 346 Adapted Physical Education	2
PE 411 Organization and Administration of Physical Education and Athletics	2
Physical Education Elective (300 level or above)	2
<b>Activity Courses</b>	<b>5</b>
PE 100 Rhythmic Movement Fundamentals (.5 cr.)	
PE 101 Volleyball (.5 cr.)	
PE 103 Tumbling Activities (.5 cr.)	
PE 199 Team Sports (.5 cr.)	
PE 200 Track and Field (.5 cr.)	
PE 201 Strength Training and Conditioning (.5 cr.)	
PE 205 Tennis (.5 cr.)	
PE 207 Badminton (.5 cr.)	
PE 211 Dance Survey (1 cr.)	
<b>Other Required Courses</b>	<b>16</b>
PY 100S, L, or H, Psychology as a Natural Science [III] or PY 100G Psychology as a Social Science [IV]	4
HL 111 Personal Wellness	4
HL 242 Emergency Health Care	2
<b>HPER Electives</b>	<b>6</b>
<i>Any six credits at the 200 level or above offered in academic majors in the department. And HL 110 and RE 110. Choose in consultation with adviser.</i>	
<b>Minor</b>	<b>20</b>

**Secondary Education Health Education Major**

Completion of this major's required health courses and the professional education sequence leads to certification as a secondary school teacher in health education. Students learn how to promote the development of health literacy and teach health promotion/health education courses in line with appropriate professional standards.

<b>Total Credits Required for Degree</b>	<b>130</b>
<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>2</b>
<b>Required Courses in Major</b>	<b>32</b>
HL 110 Introduction to Health and Fitness	2
HL 111 Personal Wellness	4
HL 240 Community Health	2
HL 242 Emergency Health Care	2
HL 315 Consumer Health and Quackery	3
HL 340 School Health Program	3

HL 367 Planning and Evaluation for Health Education	4
HL 450 Human Sexuality: Educational Issues	3
HL 485 Drug Use and Abuse	3
HN 210 Nutrition for Humans	4
Health Electives	2
<i>Choose any HL or HN courses with the exception of HL 245 and HL 246.</i>	
<b>Teaching Minor, minimum</b>	<b>24</b>
<b>Professional Education</b>	<b>32</b>
ED 201 Introduction to Education	2
ED 231 Teaching and Learning in the Secondary Classroom	4
ED 301 Dimensions of American Education	2
ED 319 Teaching of Reading for Secondary Teachers	3
ED 349 Teaching for Diversity, Equity and Social Justice in the Secondary School Community	2
HL 350 Methods and Materials in Teaching Health Education	3
ED 361 Special Education and the General Classroom Teacher	2
ED 483 Educational Media Technology	2
ED 430 Teaching in the Secondary School	11
ED 450 Seminar in Teaching	1

**Secondary Education Physical Education Major**

Completion of this major's required health and fitness courses and the professional education sequence leads to certification as a secondary school teacher in physical education. Students learn about human movement, such as the physiology of muscular activity, the neural and kinesiological basis of movement, measurement and evaluation of motor performance and methodology of teaching motor skills; how to develop personal skills in a variety of activities in addition to teaching skills; and acquire sensitivity to, and understanding of, human relations in the learning environment by participating in a variety of laboratory and field experiences.

<b>Total Credits Required for Degree</b>	<b>133</b>
<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>4</b>
HP 200 Physical Well Being	1
Health Promotion Elective	1
<b>Health Promotion Electives</b>	<b>2</b>
<i>Choose from the following:</i>	
HP 206 Backpacking (1 cr.)	
HP 209 Bicycling/Mountain Biking (1 cr.)	
HP 216 Skating-Beginning (1 cr.) or HP 216A Skating-Figure (1 cr.) or HP 216B Skating-Intermediate Figure (1 cr.)	
HP 217 Fly and Bait Casting (1 cr.)	
HP 222 Hiking (1 cr.)	
HP 228 Power Skating and Hockey (1 cr.)	
HP 230 Rock Climbing (1 cr.)	
HP 231 Skiing-Alpine (1 cr.)	
HP 231A Skiing-Intermediate Alpine (1 cr.)	
HP 231B Skiing-Cross Country (1 cr.)	
HP 233 Snowshoeing (1 cr.)	
HP 238 Winter Camping (1 cr.)	
HP 253 Adventure-Based Learning (1 cr.)	

**Required Courses in Major**

**Theory Courses**

PE 110 Introduction to Physical Education	27
PE 217 Motor Development and Elementary School Physical Education	2
PE 230 Fitness Leadership	3
HL 242 Emergency Health Care or PE 241 Prevention and Care of Injuries	2
PE 310 Measurement and Evaluation in Physical Education	3
PE 315 Physiology of Exercise	4
PE 317 Anatomical Kinesiology	2
PE 318 Motor Learning and Secondary School Physical Education	3
PE 346 Adapted Physical Education	2
PE 411 Organization and Administration of Physical Education and Athletics	2
Physical Education Electives (300 level or above)	2

**Activity Courses**

PE 100 Rhythmic Movement Fundamentals	5
PE 101 Volleyball	.5
PE 103 Tumbling Activities	.5
PE 199 Team Sports	.5
PE 200 Track and Field	.5
PE 201 Strength Training and Conditioning	.5
PE 205 Tennis	.5
PE 207 Badminton	.5
PE 211 Dance Survey	1

**Practicum**

PE 407 Apprentice Teaching	1
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**Teaching Minor, minimum**

	24
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**Professional Education**

ED 201 Introduction to Education	32
ED 231 Teaching and Learning in the Secondary Classroom	2
ED 301 Dimensions in American Education	4
ED 319 Teaching of Reading for Secondary Teachers	2
ED 349 Teaching for Diversity, Equity and Social Justice in the Secondary School Community	3
PE 350 Methods and Materials in Teaching Physical Education	2
ED 361 Special Education and the General Classroom Teacher	2
ED 483 Educational Media and Technology	2
ED 430 Teaching in the Secondary School	11
ED 450 Seminar in Teaching	1

**33 Sports Science Major**

This is a graduate school preparation program for students who have focused interests in sport and exercise science. The curriculum provides a strong foundation in the basic sciences of human biology, chemistry and physics and introductory-level study in the applied areas of exercise physiology, kinesiology/ biomechanics and sport nutrition. Successful graduates will have completed prerequisites for graduate study in more specific exercise science disciplines.

**Total Credits Required for Degree 124**

<b>Liberal Studies</b>	<b>30-40</b>
<b>Health Promotion</b>	<b>4</b>

**Required Courses in Major 53**

PE 111 Introduction to Sports Science	1
CH 111 General Chemistry I [III]	5
CH 112 General Chemistry II [III]	5
BI 201 Human Anatomy	3
BI 202 Human Physiology	5
PH 201 College Physics I [III]	5
CIS 110 Principles of Computer Information Systems [V]	4
HL 242 Emergency Health Care	2
HN 210 Nutrition for Humans	4
MA 171 Introduction to Probability and Statistics [V] or PY 305 Psychological Statistics [V]	4
PE 315 Physiology of Exercise	4
PE 317 Anatomical Kinesiology	2
PE 417 Biomechanics	2
PE 421 Physiological Training for Sport	3
PE 422 Sport Biomechanics	2
PE 470 Psychological Aspects of Athletic Performance	2

**Sports Science Electives 20**

*Choose from the following: (or substituted electives approved by a sport science adviser).*

BI 206 Human Genetics (3 cr.)	
BI 313 Cell Biology (4 cr.)	
BI 425 Endocrinology (3 cr.)	
BI 426 Human Histology (4 cr.)	
CH 220 Introduction to Organic Chemistry (5 cr.)	
CH 450 Introduction to Biochemistry (4 cr.)	
CH 452 Intermediary Metabolism (4 cr.)	
HL 485 Drug Use and Abuse (3 cr.)	
HN 415 Obesity and Weight Management (4 cr.)	
PE 241 Prevention and Care of Injuries (2 cr.)	
PE 498 Directed Study (1-4 cr.)	
PH 393 Experimental Instrumentation and Analysis (4 cr.)	
PY 204 Physiological Psychology (4 cr.)	

## MINOR PROGRAMS

### Emergency Medical Services Minor

This minor is designed to give students an opportunity to apply for a license in the State of Michigan as a basic-emergency medical technician. Students in this minor should choose BI 104 Human Anatomy and Physiology as their liberal studies laboratory course.

**Total Credits Required for Minor** 20

HL 101 Medical Terminology for Health Educators	1
HL 111 Personal Wellness	4
HL 245 Basic-EMT I	4
HL 246 Basic-EMT II	4
ATR 241 Prevention and Care of Athletic Injuries	3
Electives (HL, ATR, or RE 352)	4

### Health and Nutrition Minor

**Total Credits Required for Minor** 20

*Only courses with an HL or HN prefix are allowed in the minor. Students should develop their program of minor studies during their sophomore year. After the minor program is developed and approved by a health education adviser, a statement is sent to the Degree Audits Office. Modifications in the program may be made only with the approval of both major and minor advisers. At least six credits must be in courses numbered 300 or above.*

### Health Education Cluster Minor

For health education and management of health and fitness majors only.

**Total Credits Required for Minor** 24

*Students with departmental approval may select a cluster of cognate courses from two or more departments totaling 24 credit hours. A list of courses comprising the cluster must be submitted to the Degree Audits Office before the second semester of the student's junior year. This option is not available to those in secondary education. At least six credits must be in courses numbered 300 or above.*

### Interpretation and Outdoor Education Minor

**Total Credits Required for Minor** 23.5

RE 110 Introduction to Leisure and Recreation	2
RE 155 Outdoor Living Skills	2
RE 191 Professional Development Seminar I	0.5
RE 250 Education in Outdoor Settings	3
RE 261 Leadership and Pedagogy in Leisure Services	3
RE 270 Outdoor Recreation Resources, Behavior and Values	3
RE 371 Protected Area Management*	3
RE 381 Interpretation I: Foundations and Guided Services*	4
RE 382 Interpretation II: Self-Guided Media*	3

\*Check course descriptions for prerequisites and consult an ORLM adviser.

### Outdoor Leadership Minor

**Total Credits Required for Minor** 26.5-27.5

RE 110 Introduction to Leisure and Recreation	2
RE 155 Outdoor Living Skills	2
RE 191 Professional Development Seminar I	0.5
RE 250 Education in Outdoor Settings	3
RE 251 Adventure Activities, Facilitation and Group Behavior	3
RE 261 Leadership and Pedagogy in Leisure Services	3
RE 270 Outdoor Recreation Resources, Behavior and Values	3
RE 356 Wilderness Education Association Wilderness Stewardship	2
RE 455 Wilderness Education Association National Standard Program I	2
RE 456 Wilderness Education Association National Standard Program II	2
RE 457 Wilderness Education Association National Standard Program III	2
HL 242 Emergency Health Care (2 cr.)	2-3
<i>Certification Required or</i>	
RE 352 Wilderness First Responder (3 cr.)	
<i>Certification Required</i>	

### Outdoor Recreation Minor

**Total Credits Required for Minor** 20.5

RE 110 Introduction to Leisure and Recreation	2
RE 155 Outdoor Living Skills	2
RE 191 Professional Development Seminar I	0.5
RE 250 Education in Outdoor Settings	3
RE 270 Outdoor Recreation Resources, Behavior and Values	3

**Recreation Electives** 10

*All courses must have an RE prefix. At least one course must be at the 300-400 level.*

### Outdoor Recreation Leadership Management Cluster Minor

For outdoor recreation leadership and management majors only.

**Total Credits Required for Minor** 20-24

*Students may elect a cluster of courses from two or more departments, one of which may be the HPER Department, in lieu of a regular minor or electives. Courses must be approved by the department's outdoor recreation division faculty. A list of courses in the cluster must be submitted by the student to the Degree Audits Office before the first semester of the student's senior year. An appropriate representative of any department contributing eight or more credits to the cluster must sign off on the list.*



### Physical Education Coaching Emphasis Minor

This minor is open only to non-teaching degree students.

**Total Credits Required for Minor** **25-26**

**Health Promotion Electives** **2**

- Choose from the following:*
- HP 206 Backpacking (1 cr.)
  - HP 209 Bicycling/Mountain Biking (1 cr.)
  - HP 216 Skating-Beginning (1 cr.) *or*  
 HP 216A Skating-Figure (1 cr.) *or*  
 HP 216B Skating-Intermediate Figure (1 cr.)
  - HP 217 Fly and Bait Casting (1 cr.)
  - HP 222 Hiking (1 cr.)
  - HP 228 Power Skating and Hockey (1 cr.)
  - HP 230 Rock Climbing (1 cr.)
  - HP 231 Skiing-Alpine (1 cr.)
  - HP 231A Skiing-Intermediate Alpine (1 cr.)
  - HP 231B Skiing-Cross Country (1 cr.)
  - HP 233 Snowshoeing (1 cr.)
  - HP 238 Winter Camping (1 cr.)
  - HP 253 Adventure-Based Learning (1 cr.)

**Theory Courses** **20-21**

- PE 110 Introduction to Physical Education 2
- PE 241 Prevention and Care of Injuries 2
- PE 315 Physiology of Exercise 4
- PE 317 Anatomical Kinesiology 2
- PE 340 Principles of Coaching 2
- PE 411 Organization and Administration of Physical Education and Athletics 2
- HL 242 Emergency Health Care 2
- PE 322 Theory of Basketball *or* 2  
 PE 323 Theory of Football *or*  
 PE 325 Theory of Swimming *or*  
 PE 335 Theory of Volleyball
- PE 230 Fitness Leadership (2 cr.) *or* 2-3  
 PE 217 Motor Development and Elementary School Physical Education (3 cr.) *or*  
 PE 310 Measurement and Evaluation in PE (3 cr.) *or*  
 PE 318 Motor Learning and Secondary School PE (3 cr.) *or*  
 PE 321 Athletic-Officiating (2 cr.) *or*  
 PE 346 Adapted Physical Education (2 cr.) *or*  
 PE 470 Psychology Aspects of Athletic Performance (2 cr.) *or*  
 PE 417 Biomechanics (2 cr.)

**Activity Courses** **3**

- Choose from the following:*
- PE 101 Volleyball (.5 cr.)
  - PE 103 Tumbling Activities (.5 cr.)
  - PE 199 Team Sports (.5 cr.)
  - PE 200 Track and Field (.5 cr.)
  - PE 201 Strength Training and Conditioning (.5 cr.)
  - PE 205 Tennis (.5 cr.)
  - HP 245 Weight Training and Conditioning (1 cr.)
  - HP 245A Weight Training-Intermediate (1 cr.)
  - HP 247 Yoga (1 cr.)
  - HP 226C Aerobic Dance (1 cr.)
  - HP 231 Skiing-Alpine (1 cr.)
  - HP 231A Skiing-Intermediate Alpine (1 cr.)
  - HP 231B Skiing-Cross Country (1 cr.)

*Note: This is not a coaching minor, but physical education minor with a coaching emphasis. Students who select this minor may count up to 10 credits of HP courses toward graduation.*

*\*Noncredit Practicum Requirement: Students pursuing this minor are required to complete one of the following practicum options:*

1. Assist a head coach in a sport during the student teaching assignment.
2. Participate on a college varsity athletic team for a minimum of two competitive seasons.
3. Assist a Northern Michigan University head coach for a minimum of one competitive season.
4. Perform as a coach in a public/private school or summer camp.

### Physical Education Minor Secondary Education Physical Education Minor

This minor is available to students in both secondary education and non-teaching programs.

**Total Credits Required for Minor** **25-26**

**Health Promotion Electives** **2**

- Choose from the following:*
- HP 206 Backpacking (1 cr.)
  - HP 209 Bicycling/Mountain Biking (1 cr.)
  - HP 212 Flatwater Canoeing (1 cr.)
  - HP 216 Skating-Beginning (1 cr.) *or*  
 HP 216A Skating-Figure (1 cr.) *or*  
 HP 216B Skating-Intermediate Figure (1 cr.)
  - HP 217 Fly and Bait Casting (1 cr.)
  - HP 222 Hiking (1 cr.)
  - HP 228 Power Skating and Hockey (1 cr.)
  - HP 230 Rock Climbing (1 cr.)
  - HP 231 Skiing-Alpine (1 cr.)
  - HP 231A Skiing-Intermediate Alpine (1 cr.)
  - HP 231B Skiing-Cross Country (1 cr.)
  - HP 233 Snowshoeing (1 cr.)
  - HP 238 Winter Camping (1 cr.)
  - HP 253 Adventure-Based Learning (1 cr.)

**Theory Courses** **12**

- PE 110 Introduction to Physical Education 2
- PE 217 Motor Development and Elementary School Physical Education *or* 3  
 PE 318 Motor Learning and Secondary School Physical Education
- PE 310 Measurement and Evaluation in Physical Education 3
- PE 315 Physiology of Exercise 4

**Health/Physical Education Electives** **4-5**

- Choose from the following:*
- HL 242 Emergency Health Care (2 cr.)
  - PE 217 Motor Development and Elementary School Physical Education (3 cr.)
  - PE 230 Fitness Leadership (2 cr.)
  - PE 241 Prevention and Care of Injuries (2 cr.)
  - PE 317 Anatomical Kinesiology (2 cr.)
  - PE 318 Motor Learning and Secondary School Physical Education (3 cr.)
  - PE 346 Adapted Physical Education (2 cr.)
  - PE 411 Organization and Administration in Physical Education (2 cr.)

**Physical Education Electives** **2**

- 300-400 level

**Activity Courses****5***Choose from the following:*

- PE 101 Volleyball (.5 cr.)
- PE 103 Tumbling Activities (.5 cr.)
- PE 199 Team Sports (.5 cr.)
- PE 200 Track and Field (.5 cr.)
- PE 201 Strength Training and Conditioning (.5 cr.)
- PE 205 Tennis (.5 cr.)
- HP 226C Aerobic Dance (1 cr.)
- HP 231 Skiing-Alpine (1 cr.)
- HP 231A Skiing-Intermediate Alpine (1 cr.)
- HP 231B Skiing-Cross Country (1 cr.)
- HP 245 Weight Training and Conditioning (1 cr.)
- HP 245A Weight Training-Intermediate (1 cr.)
- HP 247 Yoga (1 cr.)

*Note: Students who minor in this minor may count up to 10 credits of HP courses toward graduation.*

**Secondary Education Health Education Minor**

This option is available only to students in secondary education.

**Total Credits Required for Minor****27**

HL 110 Introduction to Health and Fitness Education	2
HL 111 Personal Wellness	4
HL 242 Emergency Health Care	2
HL 315 Consumer Health and Quackery	3
HL 340 School Health Program	3
HL 350 Methods and Materials in Teaching Health Education	3
HL 367 Planning and Evaluation For Health Education	4
HL 450 Human Sexuality	3
HL 485 Drug Use and Abuse	3