

PHYSICAL EDUCATION/ MAJOR (PEMJ)

PEMJ 111 - Lifeguard Training 1 Credit

Prerequisite(s): Must meet current American Red Cross requirements. This course is concerned with developing individual skill and confidence in the execution of lifesaving and water safety skill. Open to men and women.

PEMJ 112 - Water Safety Instruction/Lifeguard Training Instruction 2 Credits

Prerequisite(s): Must meet current American Red Cross requirements. This course follows the standards and procedures for certification by the American Red Cross as currently revised, 1989.

PEMJ 117 - Aquatics and Outdoor Education 2 Credits

Prerequisite(s): Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching or departmental approval. This course provides an overview of the theory, instruction and performance in the fundamentals of aquatics and selected outdoor education skills. 3 credits other.

PEMJ 131 - Fitness Activities 3 Credits

A comprehensive course to provide the student with knowledge needed for developmental programming of personalized fitness activities utilizing all modes of fitness training. Meets Gen Ed - Physical Education. 1 hour lecture, 3 hours lab.

PEMJ 135 - Sports Module I: Football, Basketball, Team Handball 2 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w approval. This course provides an overview of the theory, instruction and performance in the fundamentals of football, basketball and team handball.

PEMJ 136 - Sports Module II: Soccer, Speedball, Volleyball 2 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the theory, instruction and performance in the fundamentals of soccer, speedball and volleyball. 3.0 credits other.

PEMJ 137 - Sports Module III: Softball, Lacrosse, and Hockey 2 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the theory, instruction and performance in the fundamentals of softball, lacrosse, and hockey. 3.0 credits other.

PEMJ 138 - Sports Module IV: Tennis, Badminton, and Fencing 2 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the theory, instruction and performance in the fundamentals of tennis, badminton, and fencing. 3.0 credits other.

PEMJ 139 - Sports Module V: Archery, Golf, and Track Field 2 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the theory, instruction and performance in the fundamentals of archery, golf, and track & field. 3.0 credits other.

PEMJ 145 - Dance in the Schools 2 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the theory, instruction and performance in the fundamentals of folk, square, and social dance forms. 3 credits other.

PEMJ 152 - Introduction to Fielding and Target Games 3 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the history, theory, pedagogical strategies, performance and assessment of fielding and target games such as baseball and archery. Student have opportunities to perform in fielding and target games and to develop basic knowledge of skills, pedagogical strategies, officiating techniques, tournament knowledge, and skill assessment in those types of games. Students will be prepared to develop, implement and assess units of activities in these types of games. As part of the course they develop a comprehensive sport portfolio. Open only to physical education majors. 1.25 hours lecture, 2.25 hours lab.

PEMJ 153 - Introduction to Invasion and Net Games 3 Credits

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides an overview of the history, theory, pedagogical strategies, performance, and assessment of invasion and net games such as basketball and tennis. Students have opportunities to perform in invasion and net games and to develop basic knowledge of skills, pedagogical strategies, officiating techniques, tournament knowledge, and skill assessment in those types of games. Students will be prepared to develop, implement and assess units of activities in these types of games. As part of the course they will develop a comprehensive sport portfolio. Open only to physical education majors. 1.25 hours lecture, 2.25 hours lab.

PEMJ 200 - Human Motor Development 1 Credit

Prerequisite(s): BIOL 110 and Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This class provides students with an overview of changes to human motor skill that occur over the lifespan, with a focus on the development of fundamental motor patterns and skills that are relevant to school-aged children. Students also study concurrent changes that interact with motor development, such as cognitive, social, and physical changes. 1 hour lecture.

PEMJ 226 - Coaching Principles and Problems 3 Credits

Prerequisite(s): HPEM 199 or GNED 199 or WRIT 105 or HONP 100. This course is designed to present an overview of the principles and problems pertaining to coaching on the high school and college levels. 3 hours lecture.

PEMJ 227 - Social Problems in Sports**3 Credits**

Prerequisite(s): HPEM 199 or GNED 199 or WRIT 105 or HONP 100. This course is designed to analyze a number of important and controversial issues in sports in American society. Through the use of an issues-oriented approach, students will become aware of the relationship between sports in American society and social problems in a number of areas including economics, education, ethics and politics. Meets Gen Ed - Social Science Perspectives. 3 hours lecture.

PEMJ 232 - Exercise Leadership**2 Credits**

Prerequisite(s): PEMJ 131. This course provides an introduction to exercise leadership concepts covering theories and techniques of the physiological bases of strength training/conditioning and aerobic fitness activities.

PEMJ 235 - Movement Experiences in the Elementary School**2 Credits**

Prerequisite(s): Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education, majors only or departmental approval. A comprehensive activity course designed to present theory and practical application of movement experiences and non- sport activities in physical education in the elementary school.

PEMJ 248 - Teaching Educational Gymnastics**1-2 Credits**

Prerequisite(s): PEMJ 131; and Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides knowledge and understanding of the techniques of educational gymnastics in a physical education program in a school setting. 1.0 to 2.0 credit lab.

PEMJ 320 - Physiology of Exercise**4 Credits**

Prerequisite(s): BIOL 244 and BIOL 245 for Athletic Training and Exercise Science majors only. BIOL 110 and PEMJ 200 for Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. The physiological effects of physical activity upon the human organism. The reaction of exercises of speed, strength, and endurance upon the muscular and circulo-respiratory systems. 3.0 hours lecture, 1.5 hours lab.

PEMJ 321 - Kinesiology**3 Credits**

Prerequisite(s): BIOL 244 and BIOL 245 for Athletic Training and Exercise Science majors only. BIOL 110 and PEMJ 200 for Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. An overview of the integrated functioning of the skeletal, muscular, and nervous systems and the biomechanical principles governing efficient movement, in order to effectively analyze the performance of motor skills. 3 hours lecture.

PEMJ 324 - Basic Motor Learning**3 Credits**

Prerequisite(s): BIOL 244 and BIOL 245 for Athletic Training and Exercise Science majors only. BIOL 110 and PEMJ 200 for Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This course provides students with knowledge of the theoretical basis of human learning and performance in motor activity. 3 hours lecture.

PEMJ 332 - Coaching Wrestling**2 Credits**

Prerequisite(s): Departmental approval. Techniques and methods of coaching wrestling. Emphasis on developing programs, mat tactics and strategy. 2 hours lecture.

PEMJ 335 - Teaching of Elementary Physical Education**3 Credits**

Prerequisite(s): PEMJ 200; and Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. An introduction to movement education, elementary physical education teaching methods and activities, and various techniques appropriate for teaching physical education at the elementary level. Topics include basic movement skills, manipulative and non-manipulative skills, lead-up games to team and individual and dual sport skills, and tumbling activities. 2 hours lecture, 1.5 hours lab.

PEMJ 340 - Fitness and the Aging Process**3 Credits**

Prerequisite(s): PEMJ 320 or departmental approval. The anatomic, physiologic and social changes experienced by the older adult as he/she ages. The students will learn the bases for selection of appropriate activities and techniques for communicating with this specialized population. Field experiences involving older adults in fitness settings will be included in this course. 3 hours lecture.

PEMJ 351 - Adapted Physical Education**3 Credits**

Prerequisite(s): PEMJ 200; and Physical Education, Health and Physical Education, Teaching, Physical Science, Physical Education w/ conc: Phys Actvty in Ed Setting, Physical Education w/ conc: Coaching, Physical Education majors only or departmental approval. This is a lecture and practicum course covering the introductory techniques for conducting a physical education program to meet the needs of the developmentally disabled. Each student is required to spend a minimum of 15 hours of laboratory experience in schools, agencies, and/or institutions. 3 hours lecture.

PEMJ 353 - Psychology of Sport**3 Credits**

Prerequisite(s): Junior standing. PEMJ 200 or EXSC 231 or ATTR 201 or departmental approval. Psychology related to physical activity on emotional, attitudinal and personality aspects, motivation, cultural and sociological problems of athletes, spectator response and deportment. 3 hours lecture.

PEMJ 381 - Cooperative Education in Physical Education**4-8 Credits**

Prerequisite(s): Departmental permission. Integrates academic study with supervised employment outside the formal classroom environment. The co-op term is a semester off-campus during which a student, while supervised by a department faculty coordinator is responsible for completing the terms of a predetermined learning contract. Available to students not completing the student-teacher sequence only.

PEMJ 399 - Independent Study in Physical Education**1-6 Credits**

Prerequisite(s): Departmental permission. Provides an opportunity to pursue independent study in one of the specialized areas of physical education. With department approval, may be repeated without limit as long as the topic is different.

PEMJ 410 - Legal Aspects of Sport, Fitness and Physical Education**3 Credits**

Prerequisite(s): HPEM 356. In this course students examine current legal aspects impacting athletic administration, fitness, and physical education. Students study and apply concepts related to liability, risk management, gender equity, performance enhancing drugs, compliance to governing organizations, and code of conduct in sport, fitness and educational settings. 3 hours lecture.

PEMJ 412 - Facility Management in Sport, Fitness and Physical Education 3 Credits

Prerequisite(s): HPEM 356 may be taken as prerequisite or corequisite. In this course students examine management functions in the operation of a variety of sport, fitness and physical education facilities. The students demonstrate the ability to apply appropriate methods for planning, designing, managing, and financing private and public sport organizations. Furthermore, students explore concepts related to human resources, financial and risk management, programming and special event planning. 3 hours lecture.

PEMJ 414 - Sport Marketing and Public Relations 3 Credits

Prerequisite(s): HPEM 356. A course in the application of marketing principles and public relations strategies within the context of a sport setting. Analysis of consumer trends will be employed to enhance development, sales and promotion of sport products. In addition, approaches to establishing and maintaining a positive public image will be examined including communication through the media, partnerships with local community and website construction. 3 hours lecture.

PEMJ 421 - Technology Integration in Exercise Science and Physical Education 3 Credits

Prerequisite(s): HPEM 355 may be taken as prerequisite or corequisite. This course provides the fundamentals of current technologies in the three following areas: (a) integrating technology in the classroom to introduce teachers to those aspects of educational technology that are designed to facilitate teaching and learning; (b) integrating technology in the fitness lab to introduce teachers and fitness specialists to computer-based health-management systems that allow for exercise evaluation, nutrition evaluation and health-risk assessments; and (c) using technology to manage the professional office including document processing, spreadsheet applications, database management, graphic construction, and communications. 3 hours lecture.

PEMJ 444 - Seminar in Physical Education 1 Credit

Prerequisite(s): SASE 305 or EDFD 305 or READ 305; and SASE 312 or EDFD 312 or READ 312; and Physical Science majors only. Corequisite(s): SASE 452 and SASE 453; or SASE 414. This course permits physical education student teachers an opportunity to discuss and evaluate the experiences they have in a physical education setting while student teaching. 1 hour seminar.

PEMJ 447 - Advanced Coaching Techniques 3 Credits

Prerequisite(s): PEMJ 324 and PEMJ 320. Advanced methods for assessing and improving athletes' performances. Includes principles of coaching, talent development, the organization of practice, effective instruction for skill acquisition, biomechanical principles of performance and match analysis. Permits students to use advanced technological methods as well as practical, hands-on approaches in coaching. 3 hours lecture.

PEMJ 457 - Teaching of Secondary Physical Education 3 Credits

Prerequisite(s): PEMJ 335; acceptance to Teacher Education Program and departmental approval. This course will prepare teacher candidates to teach physical education in secondary schools. The course is comprised of both on-campus learning activities and field-based practicum experiences. During the on-campus portion of the course students will engage in learning activities and complete assignments (including unit, block and lesson plans and assessment portfolio) necessary to teach physical education effectively in middle, and high school. This course requires candidates to acquire knowledge and teaching behaviors necessary to develop and effectively implement lesson plans for middle, and high school students. The three specific foci include (a) curriculum development and implementation, (b) teacher effectiveness, and (c) behavior management. Topics discussed in this course include curriculum content, effective teaching strategies, creating unit and lesson plans, styles of teaching, classroom management techniques, describing and analyzing student and teacher behaviors, and cooperative learning activities. 2 hours lecture, 1.5 hours lab.

PEMJ 492 - Selected Topics in Physical Education 1-3 Credits

Prerequisite(s): Departmental approval. A theoretical and practical in-depth study in a current aspect of physical education. Topics will be determined prior to course offering and publicized. With department approval, may be repeated without limit as long as the topic is different.

PEMJ 502 - Methods of Inquiry and Analysis 3 Credits

An introduction to the theory and design of historical, descriptive and experimental methods of research in physical education, sport and exercise science. Descriptive and inferential statistics will be applied to various methods of inquiry, including qualitative and quantitative approaches to research. 3 hours lecture.

PEMJ 505 - Research Design 3 Credits

Prerequisite(s): PEMJ 502. Provides for the examination of current research topics in physical education, sport, and exercise sciences. Each student will conduct an in-depth review and analysis of literature related to a specific research topic, and develop a formal research proposal. 3 hours seminar.

PEMJ 508 - Management and Supervision in Sport and Fitness 3 Credits

In this course, students engage in an in-depth analysis of a variety of approaches used in the management and supervision of athletic and fitness programs in both public and private sectors. They examine administrative/manager functions for facility management, budgeting, personnel evaluation, technology-based scheduling, and fundraising. 3 hours lecture.

PEMJ 510 - Legal Aspects of Sport, Fitness and Physical Education 3 Credits

In this course students examine current legal aspects impacting athletic administration, fitness, and physical education. Students study and apply concepts related to liability, risk management, gender equity, performance enhancing drugs, compliance to governing organizations, and code of conduct in sport, fitness and educational settings. 3 hours lecture.

PEMJ 512 - Facility Management in Sport, Fitness and Physical Education 3 Credits

In this course students examine management functions in the operation of a variety of sport, fitness and physical education facilities. They demonstrate the ability to apply appropriate methods for planning, designing, managing, and financing at educational institutions and private and public sport organizations. Furthermore, students explore concepts related to human resources, financial and risk management, programming and special event planning. 3 hours lecture.

PEMJ 514 - Sport Marketing and Public Relations 3 Credits

A course in the application of marketing principles and public relations strategies within the context of a sport setting. Analysis of consumer trends will be employed to enhance development, sales, and promotions of sports products. In addition, approaches to establishing and maintaining a positive public image will be examined, including communication through the media, partnerships with the local community and website construction. 3 hours lecture.

PEMJ 521 - Technology Integration in Exercise Science and Physical Education 3 Credits

This course provides the fundamentals of current technologies in the three following areas: (a) integrating technology in the classroom to introduce teachers to those aspects of educational technology that are designed to facilitate teaching and learning; (b) integrating technology in the fitness lab to introduce teachers and fitness specialists to computer-based health-management systems that allow for exercise evaluation, nutrition evaluation and health-risk assessments; and (c) using technology to manage the professional office including document processing, spreadsheet applications, database management, graphic construction, and communications. 3 hours lecture.

PEMJ 530 - Exercise for Special Populations 3 Credits

Prerequisite(s): BIOL 240, BIOL 241, PEMJ 320 and departmental approval. In this course, students learn and apply principles of personalized fitness to individuals in special populations. Students examine responses to exercise and special considerations for individuals of varying age (children, older adults) and clinical conditions other than heart disease (arthritis, diabetes, dyslipidemia, hypertension, metabolic syndrome, obesity, osteoporosis, pregnancy, pulmonary disease). Furthermore, students demonstrate the ability to assess exercise capacity using modified protocols and develop safe and effective exercise programs for individuals with special needs. 3 hours lecture.

PEMJ 531 - Advanced Adapted Physical Education 3 Credits

Prerequisite(s): PEMJ 351 or departmental approval. Students examine and discuss how psychosocial implications of disabilities relate to the classroom, what appropriate program planning should be implemented to help all students be successful, and how to assess students with disabilities in all domains. Students also explore current issues related to adapted physical education, inclusive physical education, and disability sport. Furthermore, students participate in a practicum component where they work with people with disabilities in a school or agency setting.

PEMJ 539 - Advanced Exercise Physiology 3 Credits

Prerequisite(s): An undergraduate course in Exercise Physiology. An advanced course in exercise physiology. Topics include muscular contraction; bioenergetics; energy expenditure; acid-base balance; gas exchange; and the cardiovascular, pulmonary, endocrine, and nervous system responses to acute exercise. 3 hours lecture.

PEMJ 540 - Applied Sport Physiology 3 Credits

Prerequisite(s): PEMJ 320 or departmental approval. Students learn and apply knowledge and skills necessary to design a comprehensive training program for athletes and active individuals, while taking into account variations in environment and dietary intake. Additionally, students study the physiological aspects of fatigue, practice techniques for assessment of human performance and body composition, and analyze the effects of ergogenic aids on athletic performance and health. 3 hours lecture.

PEMJ 541 - Aerobic Testing and Programming 3 Credits

Prerequisite(s): PEMJ 320 or departmental approval. In this course students learn and apply knowledge and skills necessary to carry out aerobic fitness testing and develop aerobic exercise programs for healthy and special populations. Students also become skilled in implementing comprehensive health appraisal protocols, minimizing legal liability associated with fitness testing and programming, and applying sociological theories to optimize adherence to the exercise program. 3 hours lecture.

PEMJ 542 - Applied Cardiac Rehabilitation 3 Credits

Prerequisite(s): An undergraduate course in exercise physiology. The course is designed to provide the student with current information regarding the application of scientific and programming principles of cardiac rehabilitation in a variety of settings. Students are also given the opportunity to work with actual cardiac rehabilitation patients in an appropriate hospital setting. 3 hours lecture.

PEMJ 543 - Theoretical Foundations for Strength and Conditioning 3 Credits

Prerequisite(s): PEMJ 320 or departmental approval. In this course, students critically examine the theoretical foundations for strength and conditioning training. Students develop proficiency in the assessment of anaerobic fitness, apply key factors and principles in the development of anaerobic programming, and discuss physiological adaptations to chronic training. 3 hours lecture.

PEMJ 544 - Administration of Specialized Exercise Programs 3 Credits

This course provides information concerning principles of administration, staffing, facilities, equipment, and finance to prepare the student to administer specialized exercise programs in a variety of settings. 3 hours lecture.

PEMJ 546 - Principles of Sports Conditioning 3 Credits

A course in scientific principles of sports conditioning. Training principles and exercise programming will be applied for developing strength, speed, power, agility, endurance, and flexibility. Additional topics include sports nutrition, ergogenic aids, body composition, environmental considerations, fitness testing, overtraining, and sports conditioning management. 3 hours lecture.

PEMJ 547 - Advanced Coaching Techniques 3 Credits

This course is designed to present practitioners with several advanced methods for improving sports and motor performance. Topics include principles of coaching, talent development, the organization of practice, effective instruction for skill acquisition, biomechanical principles of performance, and match analysis. The course provides students with the opportunity to use advanced technological methods as well as practical, hands-on approaches that they can use in their professions. 3 hours lecture.

PEMJ 548 - Practicum in Individualized Exercise Programs 3-6 Credits

Prerequisite(s): Completion of required courses within area of specialization in exercise sciences (12 s.h.) or permission of instructor. This course provides the student the opportunity for practical experience in the application of individualized exercise prescriptions for asymptomatic and/or symptomatic individuals in a variety of nonschool settings. 3 hours lecture.

- PEMJ 552 - Seminar in Current Challenges in Athletics** **3 Credits**
In this course students learn and apply knowledge and skills to successfully navigate current challenges in athletics as a coach or athletic administrator. Students explore a variety of topics including, but not limited to, the role of athletics in education and the larger community, administration of facility scheduling and personnel matters, effective management of issues concerning diversity, student athlete behavior, performance enhancing drugs, and sports medicine. 3 hours seminar.
- PEMJ 554 - Orientation to Sports Medicine** **3 Credits**
Students investigate issues related to prevention and basic care of selected injuries and sudden illness in athletes. They also receive training in emergency cardiovascular care including cardiopulmonary resuscitation, first aid, and use of an automated external defibrillation device and will be eligible for certification. By the end of the course students demonstrate ability to apply strategies for minimizing injury risk of athletes in a sport setting. 3 hours lecture.
- PEMJ 557 - Motor Behavior in Youth** **3 Credits**
In this course, students learn about the developmental changes in human motor skill that occur from early childhood to adulthood. Students focus attention on the motor development of school-aged children, and the way in which teaching and coaching methods must be tailored to each developmental period. 3 hours lecture.
- PEMJ 558 - Teaching of Secondary Physical Education** **3 Credits**
Prerequisite(s): PEMJ 335 and acceptance to the Graduate School. Teaching Secondary Physical Education is a comprehensive methods course that prepares teacher candidates to teach physical education in secondary schools. Students engage in both on-campus learning activities and field-based practicum experiences. The course focuses on (a) curriculum development and implementation, (b) teacher effectiveness, and (c) behavior management. Topics addressed include curriculum content, effective teaching strategies, creating unit and lesson plans, styles of teaching, classroom management techniques, describing and analyzing student and teacher behaviors, and cooperative learning activities. Students create unit, block, and lesson plans and an assessment portfolio for physical education in middle and high school. 2 hours lecture, 1.5 hours lab.
- PEMJ 559 - Applied Sport Psychology** **3 Credits**
This course provides an in-depth analysis of the theories and techniques of sport psychology. Student will learn how to apply these skills to the teaching and coaching situations in order to optimize the performance of students and athletes. 3 hours lecture.
- PEMJ 560 - Curriculum in Physical Education** **3 Credits**
This course provides an analysis of current curricular models for physical education programs grades K-12. Strategies for curriculum change are also examined, and students have opportunities to apply theories of curriculum development to actual school settings. 3 hours lecture.
- PEMJ 561 - Advanced Biomechanics: Understanding Performance and Injuries** **3 Credits**
Prerequisite(s): BIOL 240, BIOL 241, PEMJ 321 or readings assigned by instructor. In this course students explore the role of advanced biomechanical concepts in the evaluation and optimization of movement efficiency, athletic performance, and risk for injury. Students examine the science of human motion, mechanics of body tissues, methods of biomechanical data collection, and analysis and application of biomechanical data. Furthermore, students gain experience in employing advanced technological methods and practical approaches to evidence based training program design that they can use in their professional lives. 2 hours lecture and 1 hour lab.
- PEMJ 562 - Concepts in Physical Activity** **3 Credits**
Students examine strategies to promote adoption of a physically active lifestyle in education, community, and health fitness settings. Specifically, students explore factors predictive of an active lifestyle, assessment of engagement in physical activity, application of age appropriate programming designed to maximize daily activity, and development of effective physical activity interventions for youth and adults. 3 hours lecture.
- PEMJ 565 - Reflective Teaching in Physical Education** **3 Credits**
Students examine reflective practice in teaching physical education, applying strategies and pedagogical skills rooted in theory and effective practice. Furthermore, students explore various teaching behaviors and teacher effectiveness with the aim of maximizing student learning in physical education. 3 hours lecture.
- PEMJ 575 - Sociological Foundations of Sport and Physical Education** **3 Credits**
In this course students conduct an in-depth analysis of the different societal constructs that play a role in sport and physical education. Students examine how constructs such as race, gender, and social class affect sport and physical education. In addition, students discuss different philosophies regarding sports and physical education, and evaluate their own personal philosophy. 3 hours lecture.
- PEMJ 577 - Supervision in Physical Education** **3 Credits**
An analysis of theory and research related to supervision in facilitating effective teaching to provide pupils with appropriate learning experiences in Physical Education programs. 3 hours lecture.
- PEMJ 580 - Independent Study in Physical Education** **1-3 Credits**
Prerequisite(s): Departmental approval. An experience in the pursuit of study of topics which may be outside the scope of regular curricular offerings or may be an extension of a course or courses. May be repeated for a maximum of 3.0 credits. Completion and approval of independent study application form required prior to registration.
- PEMJ 592 - Selected Topics in Exercise Science and Physical Education** **3 Credits**
In this course, students engage in an in-depth theoretical and practical study of a current aspect of exercise science, sport or physical education. Topics will be determined prior to the course offering and will be publicized. This course may be repeated once for a maximum of 6.0 credits as long as the topic is different. 3 hours lecture.
- PEMJ 594 - Internship in Sport and Exercise Science** **3 Credits**
Prerequisite(s): Completion of a minimum of 21 credits in the program, including PEMJ 502. A supervised field experience in the application of knowledge and skills related to an area of specialization in sport of exercise science. A formal written report of the completed internship outcomes is to be submitted to the faculty of the Department of Exercise Science and Physical Education.
- PEMJ 598 - Applied Project** **3 Credits**
Prerequisite(s): Completion of a minimum of 21 credits in the program, including PEMJ 502. Guidance in conducting an applied project in physical education, sport or exercise science. Each student is required to develop a tangible product such as position paper, journal article, action research investigation, instructional videotape/CD ROM, review of curriculum, policy manual, etc. A formal written report of the completed project is to be submitted to the faculty of the Department of Exercise Science and Physical Education.

PEMJ 603 - Research Project **3 Credits**

Prerequisite(s): PEMJ 502 and PEMJ 505. Guidance is provided in developing and conducting a research project in physical education. Each student is required to conduct an investigation of a specific problem and to submit a written report of the completed project to the faculty of the department of physical education. Full year course. Register fall only.

PEMJ 698 - Master's Thesis **4 Credits**

Prerequisite(s): Departmental approval. Independent research project done under faculty advisement. Students must follow the MSU Thesis Guidelines, which may be obtained from the Graduate School. Students should take PEMJ 699 if they don't complete PEMJ 698 within the semester.

PEMJ 699 - Master's Thesis Extension **1 Credit**

Prerequisite(s): PEMJ 698. Continuation of Master's Thesis Project. Thesis Extension will be graded as IP (in Progress) until thesis is completed, at which time a grade of Pass or Fail will be given.