



EDUCATION MAJORS

Physical Education: K-12

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The Westminster College Teacher Education Program is administered by the Department of Elementary and Secondary Education (DESE). The program is designed to promote the life-long learning dispositions the teaching profession demands, as well to provide the depth and breadth of academic and practical knowledge needed for successful beginning teaching. The conceptual framework emphasizes the idea of "the teacher as a reflective practitioner." The faculty draws on research and extensive experience to make course work meaningful and strives to demonstrate attitudes and practice, which serve as examples for students' future classrooms. Students receive personal attention within a learning community that encourages them to develop critical thinking, creative sensibility, and communication arts to share ideas and to understand others as they teach and learn in a global, technological society.

Those who wish to teach will earn a Bachelor of Arts with majors offered in Early Childhood (birth-Grade 3), Elementary (grades 1-6), Middle School (grades 5-9) and Secondary Education (grades 9-12). Secondary content emphasis areas are: Business, Mathematics, Social Studies, Biology, Chemistry, General Science, and English. Two majors cover K-12: Spanish and Physical Education. Middle school majors are encouraged to complete two areas of content concentration selected from English, Science, Social Studies, and Mathematics. Each concentration area consists of at least 24 hours chosen from Mathematics, Social Studies, Science, or English.

The Teacher Education Program is designed so that majors complete a course of study approved by the Department of Elementary and Secondary Education (DESE), which will lead to recommendation for certification in the chosen major and concentration areas. Teacher education preparation experience includes research, observation, demonstration, and participation in local school settings. Students who prepare for a teaching career must meet professional education requirements specified by DESE, as well as the program requirements of Westminster College. Teacher education majors must demonstrate competencies in reading, writing, mathematics, science, and social science.

Students must be accepted into the Teacher Education Program before taking upper level (300+) professional education courses.

Admission criteria are:

1. Passing scores in all subsets of the Missouri General Education Assessment (MOGEA), if required; required to take while in EDU 290 if ACT score is below 21, if ACT score is below 18, students must get permission to test and enter TEP; send results to Barri Bumgarner.
2. Resume, to be done in EDU 290; send to Barri Bumgarner.
3. Written Teaching Philosophy Document, to be done in EDU 290; send to Barri Bumgarner.
4. Maintain an annual student membership with the Missouri State Teacher Association (MSTA) OR National Education Association (NEA); joined during Practicum 1 (EDU 291); send results to Barri Bumgarner.
5. Register with the Family Care Safety Registry at: www.health.mo.gov/safety/fcsr during Practicum 1 (EDU 291); must keep this current throughout college career; send results to Barri Bumgarner.
6. Satisfactory Dispositions Checklist from Cooperating Teacher and Professor of Practicum I (EDU 291). (Continues on following page)
7. Letter of Recommendation from an Education Faculty Member.
8. Letter of Recommendation from an Outside Faculty Member.
9. 4-year Plan signed by advisor and sent to Barri Bumgarner.
10. Grade Point Average: 2.75 Overall; 3.00 Education Coursework; 3.0 Content Coursework at the end of sophomore year; for transfer students, GPA will be calculated after one semester of Westminster coursework.
11. Have declared a major in Education.

After entry into the program and before graduation, it is required that students pass a nationally criterion referenced entrance exam to the profession, established by DESE. Completing the national test is part of the certification application process. Students must also obtain a Missouri substitute certificate prior to the student teaching experience.

Note: Students must obtain a final grade of C+ or higher in each professional education course and maintain a GPA of 3.0 in all professional education courses. Students are not allowed to have grades below C in their content area concentrations and they must have a 3.0 in their chosen concentration to be recommended for certification. No more than two (2) grades of D in the general education courses required for graduation are acceptable and students are encouraged to retake courses in which they receive grades of D.

Prior to student teaching, the pre-service teacher must:

1. Previously been admitted into the Teacher Education Program (TEP).
2. Pass the content exam within the first three attempts relative to the pre-service teacher's certification area.
3. Hold a valid Missouri substitute-teaching certificate (renewable).
4. Maintain a 3.0 education GPA, 3.0 Content GPA, and an overall 2.75 GPA.
5. Maintain a student membership in the Missouri State Teacher's Association or National Education Association.
6. Provide a formal request to student teach at least one semester prior to the intended student teaching experience sent to Barri Bumgarner. The request must be received one full semester prior to the intended student teaching experience. The request should indicate a school or a teacher if applicable. NOTE: Student teaching is required for certification.

It is important to contact faculty in the Teacher Education Program for guidance in scheduling courses. Course advising is also available in MyWC.

Policy regarding student teaching: Students enrolling in EDU 492 Student Teaching: Elementary; EDU 495 Student Teaching: Middle School; and EDU 497 Student Teaching: Secondary who are members of collegiate sports teams should a) plan to student teach during a semester in which their sport is not played, b) after their eligibility has expired, or c) during a semester in which they choose not to play.

You can find the course descriptions for all courses required for this major by clicking on the following links:

- [Biology Course Descriptions](#)
- [Education Course Descriptions](#)
- [Health and Exercise Science Course Descriptions](#)
- [Physical Education Course Descriptions](#)

Major: PHYSICAL EDUCATION K-12

Student's Last Name

First Name

Middle Initial

Advisor

Date Major Declared

Course #	Title of Course	Hours Completed	Semester Completed	Grade
Core Physical Education Courses:				
EDU 101	Introduction to Teaching	1		
EDU 221	Education Psychology	3		
EDU 230	Child and Adolescent Growth & Development	3		
EDU 231	Education of Exceptional Individuals	3		
EDU 290	Foundations of Education	3		
EDU 291	Education Practicum I	2		
EDU 385	Diversity in Education	3		
EDU 392	Reading and Writing in Content Area	3		
EDU 393	Education Practicum II	2		
EDU 453	Classroom Organization & Management	3		
EDU 490	Education Seminar	3		
EDU 492	Student Teaching 1 st – 5 th	12		
or EDU 495	Student Teaching 5 th – 9 th	12		
or EDU 497	Student Teaching 9 th – 12 th	12		
	Total Core Hours	41 hrs		
Methods of Teaching Courses:				
HES/EDU 206	Elementary Methods of PE	3		
HES/EDU 434	Middle School/Secondary PE Methods Technology Integration in Methods Courses	3		
Physical Education Content Area:				
NSC 210	Anatomy and Physiology I	4		
HES 104	First Aid/CPR	1		
HES 204	Fitness and Wellness Concepts	3		
HES/EDU 207	Health, Nutrition & Safety	3		
HES 215	Motor Learning	2		
HES 220	Social Science in Sport	2		
HES 231	Sports Psychology	3		
HES 251	Intro to Nutrition	3		
HES 309	History and Philosophy of P.E.	2		
HES 321	Kinesiology	3		
HES 340	Exercise Physiology	3		
HES 350	Adapted Physical Education	3		
HES 405	Measurement & Evaluation in PE	2		

PED Axx	Fitness Activity (1 Course) Options: A10 Weight Training, A12 Walk/Jog, A87 Aquatic Fitness	1		
PED Axx	Lifetime Activities and Dance (3 Activity Courses) Options: A9 Bowling, A11 Recreational Swimming, A15 Yoga, A16 Aerobics	3		
PED Axx	Team and Individual Sports (3 Activity Courses) Options: A19 Golf, A21 Tumbling, A37 Tennis, A44 Team Sports, A45 Individual Sports	3		
PED 208	Creative Movement, Games & Rhythm	3		
	TOTAL HOURS FOR MAJOR	91 hrs		

If any substitutions or waivers of requirements are allowed, please list below and initial.

BIO – Biology

BIO 114 Biological Processes (3 hrs.). An introduction for the beginning student to fundamental organism and cellular processes such as molecular and Mendelian genetics and photosynthesis. Students must take this course in conjunction with BIO 115. This course is typically offered once per academic year in the fall semester. BIO 114/115 will satisfy the Scientific Inquiry (lab) Context in Tier II of New Foundations and the Natural Science Inquiry Theme of Breakthrough general education programs.

BIO 115 Biological Processes Laboratory (1 hr.). Students conduct laboratory exercises selected to reinforce and augment lecture topics in BIO 114. Students are involved in setting up and management of experiments and in analysis of collected data. Students must take this course in conjunction with BIO 114. This course is typically offered once per academic year in the fall semester. BIO 114/115 will satisfy the Scientific Inquiry (lab) Context in Tier II of New Foundations and the Natural Science Inquiry Theme of Breakthrough general education programs.

BIO 124 Biodiversity (3 hrs.). This course acquaints students with the major subdivisions of the living world. Anatomical, morphological and life cycle characteristics of representatives of the various phyla and classes are introduced and phyletic and functional interrelationships are stressed wherever feasible. Students must take this course in conjunction with BIO 125. This course is typically offered once per academic year in the spring semester. BIO 124/125 will satisfy the Scientific Inquiry (lab) Context in Tier II of New Foundations and the Natural Science Inquiry Theme of Breakthrough general education programs.

BIO 125 Biodiversity Laboratory (1 hr.) This is a survey laboratory and is intended to demonstrate the changes in complexity of form and structure in both plants and animals as evolutionary processes have shaped organisms through geological time. Students must take this course in conjunction with BIO 124. This course is typically offered once per academic year in the spring semester. BIO 124/125 will satisfy the Scientific Inquiry (lab) Context in Tier II of New Foundations and the Natural Science Inquiry Theme of Breakthrough general education programs.

BIO 204 Animal Behavior (4 hrs.) This course will introduce students to the field of animal behavior focusing on an evolutionary approach. We will examine both proximate and ultimate causes for why animals behave as they do. Topics range from how neural mechanisms control behavior to why different types of mating systems have developed. This course focuses on how scientists study these areas. Students design and conduct experiments in animal behavior as part of the learning process. This course is typically offered every other academic year. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 205 Ecology and Field Biology (4 hrs.) This course is designed to familiarize the student with the concepts and principles of ecology as a science. A wide variety of organisms and groups of organisms are studied in relation to various environmental conditions. Short local field trips are used to acquaint students with collecting, census, and ecological measurement techniques and devices. This course is typically offered every academic year in the fall semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 206 Laboratory Instruction Techniques (1 hr.) This course is open to students who are qualified to serve as laboratory assistants in various biology courses. Students assist instructor in the laboratory and serve as mentors for students in course. This course is typically offered every semester during the academic year. Prerequisites: open by invitation to students who have earned an A or B average in NSC 108, BIO 124/125 (or BIO 100 General Biology I), or BIO 114/115.

BIO 208 Functional Plant Morphology (4 hrs.) This course is designed as an integrated study of the gross morphology, internal anatomy and physiology of vascular plants. Laboratory studies emphasize the interrelationships between plant form and function. This course is typically offered every other academic year in the spring semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 210 Biogeography (3 hrs.) Biogeography is the study of the distribution of biodiversity over space and time. It aims to reveal where organisms live and at what abundance. It addresses the questions of which species, where and why (or why not). Biodiversity is viewed in light of historical factors, such as speciation and extinction, plate tectonics and glaciations, as well as in the light of current and future threats, including but not limited to climate change. This course is typically offered every other academic year. Prerequisites: BIO 124/125 and 114/115 for Biology and Environmental Science majors; NSC 108 and ENV 105 for non-majors.

BIO 212 Research Methods in Biology and Environmental Sciences (3 hrs.) Research methods will introduce you to tools and techniques used in the scientific research laboratory by offering a hands-on research experience allowing data collection, storage, and analysis. Topics include an examination of research types, design, and methodology, scientific communication, and data analysis. Prerequisites: BIO 114/115 and BIO 124/125 or CHM 114/115 and CHM 124/125. MAT 114 is recommended.

BIO 301 Genetics (4 hrs.) This course will be an introduction to and a survey of the science of genetics. Topics covered will include classical “Mendelian” genetics, population genetics, and modern molecular genetics. The laboratory will augment these approaches with traditional studies in fly genetics and current practices in molecular genetics. This course is typically offered once per academic year. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 302 Human Anatomy (4 hrs.) This class is designed for students who are preparing for careers in health-related clinical or research professions or have a deep interest in understanding how the human body works. You will learn about the human form at the gross anatomical level delivered as a regional approach typical of professional schools. In the laboratory, we will be using anatomical models, skeletons, radiographs, and dissection to enhance your understanding of anatomy. This course will challenge you to apply this information to real world clinical and pathological problems. This course is typically offered every academic year in the fall semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 303 Microbiology (4 hrs.) This course serves as an introduction to the structure, physiology, pathogenicity and ecology of microorganisms, particularly the bacteria and viruses. Laboratory work involves effective use of the microscope, staining procedures, handling of pure cultures, analysis of bacterial physiology and identification of unknown bacteria. This course is typically offered once each academic year in the fall semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I), BIO 114/115.

BIO 310 Environmental Toxicology (3 hrs.) In this course, you will be introduced to the field of environmental toxicology from a biological perspective. We will discuss uptake of chemicals from the environment, biotransformation, and toxicity. We will examine a wide array of endpoints from cellular biomarkers to population-level effects in invertebrates and vertebrates, including humans. Prerequisites: BIO 124/125 and BIO 114/115.

BIO 314 Vertebrate Histology (2-4 hrs.) The aim of this course is to introduce students to the microscopic anatomy and histophysiology of vertebrates. Particular emphasis will be placed on the interrelation between structure and function. In addition, this course will teach students to become proficient in using the microscope to interpret fine structure. This course is typically offered as independent study. Prerequisite: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 315 Entomology (4 hrs.) This course focuses on the biology of insects with the following three objectives: (1) An introduction to common methods used in the field of entomology. (2) The ability to identify many common insect orders and families, since it is impossible to understand something if you do not know what it is. Finally, (3) an introduction to the evolution, behavior, and ecology of this fascinating group. This course is typically offered every other academic year in the fall semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 318 Ornithology (4 hrs.) Ornithology is the study of avian biology (birds). The broad goals of this course will be to (1) introduce you to the evolution, behavior, and ecology of birds; and (2) provide you with the ability to identify many common bird species in the wild by sight, sound, behavior, and habitat. This course meets twice a week in a lecture/laboratory class setting. Several trips will be taken into the field to identify birds. Please note that on rare occasions, the class period may run 10-20 minutes longer to accommodate longer trips afield. This course typically is offered every other academic year in the spring semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 320 & 321: Biology in Belize (4 hrs.) This course serves as an introduction to the natural history, geography, pre- and post-Columbian history, land-use patterns, and current political climate of Belize, Central America. Following a preparatory spring semester seminar (BIO 320), a three-week Summer Session course (BIO 321) will be taught in Belize where students will study the biota of the offshore caves, coral reefs, grassland savannas and neo-tropical jungles. Special attention will be paid to local land use and conservation issues and the effects of ecotourism on the local economy and relevant ecosystems. Prerequisites: Completion of at least two courses in biology or permission of the instructor.

BIO 322 Vertebrate Biology (4 hrs.) Vertebrate Biology takes a comparative approach to the study of the diversity of vertebrate life both extinct and extant. Anatomy, ecology, behavior, and evolutionary history will all be discussed as part of a broad introduction to the vertebrates. The dissection of representative species of the major vertebrate groups is the focus of the weekly laboratory. This course is typically offered every other academic year. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 325 Molecular Cell Biology (4 hrs.) This course is a study of eukaryotic cells at the molecular level. Topics include protein biosynthesis and trafficking, membrane structure and function, cellular, subcellular, and extracellular structure, and the cell cycle. The course correlates the cellular structures to their function within the cell. The laboratory is designed to complement these topics, with an emphasis on student self-design. This course is typically offered once every one-two academic years. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115. BIO 301 Recommended.

BIO 328 Insects and Human Affairs (3 hrs.) This course provides an introduction to insects and their interactions with humans. Human beings and insects will be compared with respect to both form and function, and students will learn to distinguish the major groups of insects. The course will examine the effects of insects on agriculture (both harmful and helpful), the impact of insects on the course of human history, and their representation in art, music, and literature. This course is typically offered every other academic year in the spring semester. BIO 328 will satisfy the Scientific Inquiry (non-lab) Context in Tier II of the General Education Program and the STEM and Society Explorative Cluster of Breakthrough general education program.

BIO 330 Virology (3 hrs.) This course will introduce students to the basic biology of viruses and then look at some contemporary issues that involve viruses. Topics covered will include the cellular and molecular mechanisms of virus reproduction including virus structure, virus-cell interactions, virus infection, oncogenes, and viral transformation of cells to cancer. We will also consider the evolution and ecology of viruses and the epidemiology of viral infections. Examples will be taken from bacterial, plant, and animal viruses, including newly emerging viruses. Contemporary topics will include the AIDS epidemic, emerging pathogens such as West Nile virus, bird flu, or Ebola virus, the renewed threat of smallpox, etc. Portions of the course will include student-led discussions of specialized topics of their choice. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115. BIO 301 recommended.

BIO 335 Medical Terminology (1 hr.) The course is designed to help students develop a vocabulary for accurately describing the human body and associated components, conditions, processes. This systematic approach to word building and term comprehension is based on the concept of: (1) word roots, (2) prefixes, and (3) suffixes primarily derived from Latin and Greek origins. This course is typically offered every academic year. Prerequisites: BIO 124/125 (or BIO 100 General Biology I), BIO 114/115, and permission of instructor required.

BIO 372 Developmental Biology (4 hrs.) How does the fertilized egg transform into an organism? What changes over time lead to the specialized tissues and organs of animals? Developmental Biology is a survey of animal development, from sperm and unfertilized egg through embryonic development. Molecular, cellular, genetic, and organismal topics will be included. This course will complement your studies of genetics, cellular, animal, and human biology as we discuss how genotype becomes phenotype. The laboratory will include descriptive and experimental approaches. Typically offered every other year. Prerequisites: BIO 124/125 (or BIO 100 General Biology I), BIO 114/115 and BIO 301 (Or with permission).

BIO 398 Independent Research Projects (1-4 hrs.) Students interested in independent reading or developing individual research projects may enroll in BIO 398 for variable credit. The faculty in the department strongly encourages students majoring in biology to develop and pursue at least one research project. This course is typically offered every semester during the academic year. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115, as well as permission of the department chair.

BIO 404 Biochemistry (4 hrs.) This course is an advanced survey course for students who expect to continue graduate study in biology or continue on to a professional career in a health-related field. Topics include a detailed study of the structure of biological molecules and the function of enzymes, followed by a survey of basic intermediary metabolism. The laboratory is a project-based laboratory incorporating many of the principles covered in lecture. This course is typically offered once each academic year in the spring semester. Prerequisites: CHM 314, 315, 324, and 325 (CHM 324 & 325 can be taken concurrently with BIO 404), BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115.

BIO 415 Human Gross Anatomy (4 hrs.) Students will complete a human dissection, as a team, with a minimum of 6 hours of contact per week. The dissection will be completed as it would in a medical school gross anatomy course, to include a complete regional dissection. Additionally, an assessment of the health of the donor will be completed. The students will be required to share their findings with the community and in other courses as appropriate. This course is typically offered once each academic year in the fall semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I), BIO 114/115, and BIO 302 (Must have been taken at Westminster). The course is by application and consideration of faculty in the department, and requires instructor permission.

BIO 420 Physiology (4 hrs.) This class is designed for students who have a deep interest in understanding how the human body works. Physiological principles and examples will be geared towards humans, but in many instances are also applicable to other vertebrates. You will learn about how the human body functions at molecular, cellular and systems levels. This course will challenge you to apply this information to real world clinical and pathological problems. You will be expected to critically evaluate current scientific literature and discuss recent scientific findings with your fellow classmates. You will learn how to use physiological lab equipment and then conduct an independent research project. This course is typically offered once each academic year in the spring semester. Prerequisites: BIO 114/115, BIO 124/125 (or BIO 100 General Biology I) and BIO 302 or BIO 322 with a grade of C- or better.

BIO 450 Evolution (3 hrs.) Evolution is the unifying theory of biology. This course will examine Charles Darwin's theory of evolution by means of natural selection looking at the development of this theory and its modern applications. Topics will include the fundamental mechanisms for evolution, including those that are both adaptive and neutral with respect to the process of adaptation; human evolution; the origin and definition of a species; molecular evolution; the relationship between evolution and religion; and modern challenges, modifications, and support for this far-reaching theory. This course is typically offered every academic year in the fall semester. Prerequisites: BIO 124/125 (or BIO 100 General Biology I) and BIO 114/115, junior or senior status.

EDU – Education

EDU 101 Introduction to Teaching (1 hr.) Open to all students. This course serves as an introduction to those considering a major in any area of education. Basic terminology and theories of teaching and learning are team taught by Education Department faculty. A series of field trips to local schools provides information about K-12 school organization and characteristics of each level. This course serves as a prerequisite to EDU 290.

EDU/HES 206 Growth and Development through Elementary Physical Education (3 hrs.) This course is meant to prepare students to teach physical education and movement activities to elementary school children. By identifying patterns of growth and development, students will be able to develop methods to successfully teach fundamental movement skill and physical education concepts through quality instruction, games, dance, health-related fitness and perceptual-motor activities. This course is for K-9, K-12 physical education majors. Offered in even numbered fall semesters.

EDU/HES 207 School Health, PE, & Safety in Elementary (3 hrs.) This course examines the principles of teaching health, physical fitness, and safety for wellness and optimal development with an emphasis on the needs of children. Offered in fall semesters.

EDU 210 Literature for Children and Youth (3 hrs.) Students explore a variety of genre and multicultural literature for children and adolescents. Extensive reading is required to develop experience in selecting appropriate texts for classroom use. Classroom strategies are presented for using literature in curriculum design. A literature portfolio is an integral part of the course. Offered every spring semester. Prerequisites: ENG 103.

EDU/PSY 221 Educational Psychology (3 hrs.) The application of psychological principles of learning, cognition, and child and adolescent development to the educational process in elementary and secondary schools. Topics include the impact of psychological knowledge on student learning, teaching, motivation, management of the classroom, and assessment of student learning.

EDU 225 Human Experiences Across the Years (3 hrs.) The course explores scientific theory and practice in the field of human growth and development with an emphasis on experiences of the individual through the course of the lifespan. From pre-birth through end of life, humans are defined by momentous occasions and changes, and they grow accordingly. The emphasis of the course is on socio-emotional life events, but will also address both cognitive and physical development. The course is targeted to non-Education majors as a course intended to meet the Human Behavior Theme. Some topics include: infertility issues, childhood obesity, adolescent issues in the 21st century, concerns of young adults and career, the family, middle-age adjustment, and senior living arrangements.

EDU 230 Child and Adolescent Growth and Development (3 hrs.) This course explores current theory and knowledge in the field of childhood growth, cognitive and psychosocial development from ages pre-birth through adolescence. Major learning theories will be interrelated with information on physical, psychosocial, cognitive and language development. The goals and methods of childhood education will be studied and important contributions from social and behavioral scientists will be analyzed and evaluated for those planning to work with children and/or adolescents. Offered each semester.

EDU 231 Education of Exceptional Individuals (3 hrs.) This course is a study of the special needs and characteristics of individuals who are classified as exceptional. Students focus on the unique characteristics associated with giftedness, sensory impairments, learning disabilities, attention disorders, mental impairments, behavioral and emotional problems, physical disabilities and chronic health problems, and other at-risk factors. Legal aspects of schooling and curricular adaptations are explored. Offered in fall semester. Prerequisites: EDU 101 For Education Majors.

EDU 260 Emergent Literacy (3 hrs.) Students will develop knowledge and skills necessary to promote early literacy development, including the components of emergent literacy, oral language acquisition, phonological and phonemic awareness, alphabetic principle, high frequency vocabulary development, decoding and spelling strategies, and reading fluency. A variety of teaching techniques will be examined including creative dramatics, storytelling and a wide range of children's literature. Commercial reading programs and series used in many school districts will also be compared and evaluated. Offered in alternating spring semesters.

EDU 280 Programs in Early Childhood (3 hrs.) This course applies relationship of theory and practice in early childhood education programs, explores issues of family structures, systems and dynamics within the context of culture and examines firsthand a variety of state and federal programs available for young children. The course includes a practicum component in an approved childcare setting. Students will also examine current issues in child advocacy at the state or federal level, and develop a plan to support chosen legislation designed to help young children through an action plan. Offered every third spring semester as needed.

EDU 288 Assessment in Early Childhood (2 hrs.) This course will introduce students to a variety of assessment procedures and instruments that can be used to evaluate learning and the developmental achievements of young children. Students will have a chance to observe young children and various assessment testing first hand. The official position papers of ACEI (Association of Childhood Educators International) and NAEYC (National Association of Educators of Young Children) will be examined also. Offered in even-year fall semesters.

EDU 290 Foundations of Education (3 hrs.) This course provides a framework for understanding educational issues from historical, philosophical and societal perspectives. On-site observations are an integral part of the course so that students may gain understanding of the purpose of education, forces shaping it, and the individual responsibility required in becoming a teacher. Required for all education majors. Prerequisites: EDU 101 For Education Majors.

EDU 291 Education Practicum I (2 hrs.) This initial practicum experience is designed to acquaint students with the life of one classroom as students spend thirty clock hours observing and assisting in an assigned school classroom. Students should plan to take this course concurrently with EDU 290, Foundations of Education. A reflective learning log is required to record observations, comments, questions, and insights. Prerequisites: EDU 101 For Education Majors.

EDU 295 Place-Based and Service Learning: Education in the Community & the Classroom (4 hrs.) Today's future teachers must embrace current trends in education. One of those is understanding the importance of place-based and service learning. This community outreach work connects the college with area businesses and schools. Through place-based experiences, pre-service teachers develop the skills to work with community businesses and classrooms that will hopefully carry over into their own future classrooms. Prerequisites: EDU 101 recommended.

EDU 306 Teaching Reading (3 hrs.) Students will learn about the nature of reading and language development in the context of the whole school curriculum for elementary and middle grades. Topics include the examination of reading as a meaning construction process, the development of appropriate instructional strategies, and the assessment and evaluation issues related to social and cultural diversity. Instructional content and strategies are aligned with state and national guidelines and standards. Offered every fall. Prerequisites: EDU 290, 291 and admission to teacher education program.

EDU 307 Teaching STEAM in 21st Century Classrooms (4 hrs.) Today's future teachers must embrace current trends in education. One of those is understanding the importance of cross-collaboration between Science, Technology, Engineering, Arts, and Mathematics (STEAM). In this class, students will learn not only how to integrate these subjects in their early childhood or elementary classroom, but they will also experience it as students. Prerequisites: EDU101, EDU231, EDU290, EDU291, and declaration of major in education. Must be admitted into TEP (Previously offered as EDU310/EDU203).

EDU 308 Methods of Teaching Social Studies in Elementary and Middle Schools (3 hrs.) Social studies is content focused as students explore concepts, teaching methods, materials, related literature and integrated curriculum design for elementary and middle school grades. Inquiry projects emphasize theme cycles and demonstration lessons. Curricular and instructional objectives using the standards and guidelines of state and national professional organizations such as the National Council for Social Studies are included. Offered every fall semester. Prerequisites: EDU 290, 291, and admission to teacher education program.

EDU 309 Teaching of Writing in Middle and Secondary Schools (3 hrs.) Students will experience the essentials of process writing for transactional, expressive, and poetic writing. Writing in content areas and evaluating and assessing writing are stressed. This course is required for middle school majors and secondary majors with an English language arts concentration. Offered in even year fall semesters. Prerequisites: ENG 103, at least one writing intensive course, and admission to the teacher education program.

EDU 320 Teaching Middle School: Curriculum & Philosophy of Teaching the Middle Years (4 hrs.) This course examines the philosophy and curriculum development in the middle school, including school and classroom design, teaching methodology, curriculum strategies, and organizational structures. Teaching and learning theory and strategies for middle school students are explored along with curriculum design based on the developmental characteristics of children in grades 5-9. Students will spend 3 hours in class and 1 hour in field. Prerequisites: EDU 101, EDU 230, EDU 231, EDU, 290, 291, Education Major/Minor declared, and admission to teacher education program (TEP); or by permission. Offered odd year spring semesters or as needed. (Previously offered as EDU311/314)

EDU/PED 345 Methods of Teaching Middle School Physical Education (3 hrs.) This course is designed for students planning to teach middle school age physical education programs. Topics include program development, selecting and implementing instructional units, integrating physical education with other disciplines, professional development, and teaching assessment.

EDU 350 Digital Literacy (3 hrs.) This course is geared towards today's digital citizens who plan to teach in the current technology-infused classrooms. Future educators are entering schools that are 1:1, so students must be prepared to work in a technology-rich environment. The class will integrate digital literacy across the curriculum, motivate students to embrace technology as both a consumer and a producer, and require that they participate in the course as both student and an educator. This will be a hands-on, interactive, seminar-type course. Acceptance to the Teacher Education Program and EDU 231.

EDU 351 Methods of Teaching Elementary/Middle School Mathematics (3 hrs.) This course is the second part of an integrated methods and content course for elementary and middle school teachers. Topics include fractions, decimals, geometry, probability and statistics, measurement and other appropriate topics. Offered every spring semester. Prerequisites: C or better in MAT 231.

EDU 370 Business Programs Implementation (3 hrs.) This course seeks to prepare future Secondary Business Teachers with information about various programs, comparisons and evaluations of ideal instruction as well as familiarizing the student with professional career and vocational organizations related to Business Education. Students will directly observe in secondary business classes Grades 7-12, and interview teachers, administrators, sponsors of organizations and community partnership leaders from the business community. After several written assignments, students will present a Power Point presentation to other business education students. Prerequisites: EDU 290, 291 and 425, and admission to the teacher education program.

EDU 380 Integrated Curriculum in Early Childhood (3 hrs.) This course seeks to integrate the disciplines of language arts, math, social studies, music, art and science in preparation of curriculum content for early childhood and kindergarten classrooms. Students prepare detailed long-term lesson plans and collect resources to implement the plans. Plans developed will meet the MO Pre K and Show-Me Standards as well as the ACEI and NAEYC Standards for Early Childhood Classrooms. Offered every third spring semester or as needed. Prerequisites: EDU 290 or permission of the instructor.

EDU 385 Diversity in Education (3 hrs.) This course will introduce both education and non-education majors to the role of the 21st century school in a diverse society. Students in this course will study important issues, approaches, and strategies in working with and forming connections with a population that is ethnically and culturally diverse. In addition, an emphasis of this course is to promote teaching tolerance and anti-bias in a land where discrimination and sexism still exist. To live as an informed and tolerant adult in an increasingly pluralistic America is a major focus of this course. Specific topics to be explored include: understanding ourselves and others' values and belief systems, learning the language of prejudice, and creating unity in a diverse America. Offered every fall semester. Prerequisites: One of the following: EDU 290, PSY 113, SOC 111, POL 211 or PHL/REL 102, or permission of the instructor.

EDU 392 Reading & Writing in the Content Area (3 hrs.) This course helps pre-service teachers explore methods to facilitate students' reading comprehension of content area materials (texts, non-fiction trade books, and other supplements). It is based on the recognition that reading in the content areas (non-fiction/informational) requires explicit strategies that are best taught in the context of the content area. It is also recognized that the most effective teacher of content area reading strategies is the teacher of the content area. Prerequisites: EDU 290, 291 and admission to teacher education program.

EDU 393 Education Practicum II (2 hrs.) This practicum is an intensely supervised pre-student teaching experience, which includes forty-five actual clock hours in a K-12 classroom. Action research is conducted in the assigned classroom and presented to an audience such as the Undergraduate Research Forum. Offered each semester. Prerequisites: EDU 291 and admission to the teacher education program.

EDU 398 Independent Study (1-3 hrs.) An individual study or research topic not covered in regular course offerings is done with the supervision of faculty. Students need permission of the instructor and the program director. It is the responsibility of the student to provide a rationale and an outline of the proposed study. Open only to education majors.

EDU 417 Advanced Practicum (1-6 hrs.) The principal objective of this course is to provide a student the opportunity to spend time in different age group classrooms (preK-12). Students can take this course multiple times for varied credit hours based on their own schedule. For example, an elementary major may take 1 credit hour to spend 15 hours in a 5th grade classroom one semester and then for 2 credit hours another semester in a 2nd grade classroom. These practicums give them a broader range of experience and helps inform them for what age they want to student teach. Secondary folks also need to gain experience in all grade levels to be best prepared not only for student teaching but for their career in general. Prerequisites: EDU 231, EDU 291, and EDU 393 (can be concurrent with EDU 393).

EDU 425 Secondary School Teaching (3 hrs.) Students explore the general principles, activities, schedules, and interactions of teachers and students in secondary schools. Course content includes teaching-learning process emphasizing methods of instruction and evaluation. Offered in fall semester. Prerequisites: Admission to teacher education program.

EDU 431 Teaching English in Middle and Secondary Schools (3 hrs.) This course is designed for those students who plan to teach English in high school settings. Along with an examination of issues, attitudes, and trends in teaching English/language arts, students develop materials and strategies for teaching and evaluating writing, speaking, listening, reading and viewing competencies. State and national standards and guidelines are used for content orientation. Offered every other fall semester. Prerequisites: EDU 425, completion of appropriate English courses, and admission to the teacher education program.

EDU 433 Teaching Mathematics in Middle and Secondary Schools (3 hrs.) This course is offered for those who plan to teach mathematics in high schools. Students explore curriculum development and instructional methods and gain experience with multimedia materials and resources that are appropriate for classroom use. State and national standards are used as guidelines for content orientation. Offered every other fall semester or as needed. Prerequisites: EDU 425, completion of appropriate math courses, and admission to the teacher education program.

EDU 434 Methods of Teaching Middle School and Secondary Physical Education (3 hrs.) This course is designed for students planning to teach middle school and secondary physical education programs. Topics include program development, selecting and implementing instructional units, class organization and management, assessment, integrating physical education with other disciplines, and professional development. Prerequisite: EDU 290.

EDU 435 Teaching Social Studies in Middle and Secondary Schools (3 hrs.) The content of this course includes recommendations of state and national groups, which have approved standards for teaching social studies. Students explore issues, trends and methods in social studies instruction for secondary school students. Students plan lessons and themes and engage in the kinds of projects, e.g., writing, research, and audio-visual, which they will present in their own classrooms in secondary schools. Offered every other fall semester. Prerequisites: EDU 425, completion of appropriate social science courses, and admission to the teacher education program.

EDU 436 Teaching Science in Middle and Secondary Schools (3 hrs.) Students study issues, trends, and methods in teaching science for secondary school students. Curriculum projects are based on objectives and concepts that are included in state and national standards for science teaching. Offered in even year fall semesters. Prerequisites: EDU 425, completion of appropriate science courses, and admission to teacher education program.

EDU/FLG 437 Methods of Teaching a Foreign Language (3 hrs.) Students study issues, trends and methods in teaching a foreign language to students in elementary, middle and secondary students. Projects involve lesson planning development and unit planning. Offered as needed.

EDU 441 Reading Assessment and Advancement (3 hrs.) This is a study of multiple formal and informal assessments that includes miscue analysis. Students prepare a reader profile that includes assessment procedures, identification of reading strengths and needs, and recommendations for strategies to promote advancement toward reading proficiency. Students work with at least one reader. Offered in spring semesters. Prerequisites: EDU 306 and admission to the teacher education program.

EDU 453 Classroom Management and Organization (3 hrs.) This course focuses on multiple factors that affect student learning and behavior. Students study effective classroom and behavioral management techniques, dealing with specific issues and practices and developing their own plans for their own classrooms. A series of management plans are designed and brought together in a comprehensive management plan, which becomes part of the state mandated portfolio. Students deal with everything from room arrangement, rules of general conduct and classroom procedures, to teaching tolerance, dealing with bullying and violence, and grading and assessment. Offered every semester. Prerequisites: EDU/PSY 221, EDU 291, admission to the teacher education program.

EDU 490 Educational Seminar (3 hrs.) This course is taken concurrently with student teaching. It serves as an orientation to student teaching and functions as a formative structure for the experience. This seminar meets regularly throughout the student teaching semester allowing students to share experiences, strengthen competencies and address topics of concern. Completion of the state mandated portfolio and completion of the application for certification process are integral to the course. Preparation for employment interviews and how to fill out teaching applications to districts are covered as well. Offered each semester.

EDU 492 Student Teaching: Early Childhood Education or Elementary School (6-12 hrs.) This course is for students seeking certification in early childhood, Pre-K-Grade 3 or elementary education, grades 1-6. Concurrent enrollment in EDU 490 is required. Students gradually assume full responsibility for classroom instruction during the experience. Students are required to engage in all professional activities, which their cooperating school provides. Intense supervision and feedback are provided by a cooperating classroom teacher and a college supervisor. Special fee required. Prerequisites: Admission to student teaching, passing score for the national certification exam, and substitute certificate. Offered each semester.

EDU 495 Student Teaching: Middle School (6-12 hrs.) This course is for students seeking certification in middle school education, grades 5-9. Concurrent enrollment in EDU 490 is required. Students gradually assume full responsibility for classroom instruction during the experience. Students are required to engage in all professional activities, which their cooperating school provides. Intense supervision and feedback are provided by a cooperating classroom teacher and a college supervisor. Special fee required. Prerequisites: Admission to student teaching, passing score for the national certification exam, and substitute certificate. Offered each semester.

EDU 497 Student Teaching: Secondary School (6-12 hrs.) This course is for students seeking certification in secondary education, grades 9-12. Concurrent enrollment in EDU 490 is required. Students gradually assume full responsibility for classroom instruction during the experience. Students are required to engage in all professional activities, which their cooperating school provides. Intense supervision and feedback are provided by a cooperating classroom teacher and a college supervisor. Special fee required. Prerequisites: Admission to student teaching, passing score for the national certification exam, and substitute certificate. Offered each semester.

HES – Health and Exercise Science

HES 101 Intro to Exercise Science (1 hrs.) This class will provide an opportunity for students to understand the scope of health professions related to Exercise Science as they begin their studies in the major and explore professions: e.g. medicine, nursing, physician assistant, physical therapy, occupational therapy, personal training, dietetics, chiropractic, strength and conditioning coaching. Students will also meet with WC Career Services, learn about major requirements/ advising, how to write professionally, and how to track and reflect on their progress in the major through major's portfolio (in Canvas).

HES 104 First Aid and Cardiopulmonary Resuscitation (Fee) (1 hr.) Designed around the National American Red Cross modules, this course will provide students with the knowledge and skills necessary in an emergency. The content and activities will prepare students to recognize emergencies and make appropriate decisions regarding care. It will also provide information on the prevention of injury and illness, with a focus on personal safety. Offered fall and spring semesters.

HES 132 Wellness Concepts (2 hrs., second block, Spring semester) Students identify their current wellness status, acquire accurate wellness information, and develop skills to analyze health claims, and work toward personal wellness objectives. Physical Education Majors will take this course concurrently with Physical Fitness (PED A22) to meet state requirements for health-related fitness and wellness. Offered spring semester.

HES 204 Fitness and Wellness Concepts (3 hrs.) Students' baseline fitness values are assessed, fitness principles are learned, and training and behavioral strategies are developed through in-class activities. Students identify their current wellness status, acquire wellness information, develop skills to analyze health claims, and work toward personal wellness objectives. Offered spring semester.

HES 205 Stress Management (3 hrs.) This course introduces students to basic principles and theories of stress and techniques to effectively manage stress. Based on holistic health perspective, student will identify the various causes of stress and be introduced to a variety of stress management techniques and stress-reducing behaviors. Ultimately, students will develop and practice approaches that will contribute to optimal lifelong health.

HES/EDU 206 Elementary Physical Education Methods (3 hrs.) This course is meant to prepare students to teach physical education and movement activities to elementary school children. By identifying patterns of growth and development, students will be able to develop methods to successfully teach fundamental movement skill and physical education concepts through quality instruction, games, dance, health-related fitness and perceptual-motor activities. This course is for K-9, K-12 physical education majors. Offered in spring odd semesters.

HES/EDU 207 School Health, Physical Education and Safety in Elementary (3 hrs.) This course examines the principles of teaching health, physical fitness, and safety for wellness and optimal development with an emphasis on the needs of children. Offered in fall semesters.

HES 208 Creative Movement and Rhythms (3 hrs.) An introduction to the elements of creative movement and dance. Through a variety of learning experiences, students will examine movement forms as more than just physical activity, but as a means of self-expression and a vital aspect of culture. This course will give students practice in designing movement-learning experiences for persons of all ages. Offered in fall semester.

HES 215 Principles of Motor Learning (3 hrs.) The class will include lecture and laboratory experiences to study the principles and factors that influence motor skill acquisition and development. With an understanding of the theoretical bases, students will learn methods and teaching approaches that improve motor skill development and retention. Offered in odd numbered spring semesters.

HES 220 Social Science in Sport (2 hrs.) An analysis of the significance of physical activity in society and culture. Motivation and self-concept as applied to play, game, sport, and athletics are examined. Offered in fall semester.

HES/PSY 231 Sports Psychology (3 hrs.) An examination of the psychological factors influencing participants and, to a lesser extent, spectators in sport. Topics include the use of behavioristic principles to develop skills, and the effects of causal attribution, attention, anxiety, coaching strategy, and imagery on athletic performance. Additional special topics include audience effects, children in sports, and the psychological benefits of exercise. Offered in fall semester.

HES 232 Care and Prevention of Athletic Injuries (3 hrs.) This course is designed to provide students with introductory information concerning primary injury care and management, with a special emphasis on the preventative aspects of athletic injuries. Students will learn the practical techniques for applying terminology and anatomy for evaluation and care of various injuries as they pertain to the knee, ankle, shoulder, elbow, spine, and head/face. Students will also be introduced to basic modalities used in the field of athletic training, basic training and conditioning guidelines, and how to deal with environmental issues as they pertain to athletics as well as apply those skills in the practical setting. Additional information regarding legal and organizational issues will also be addressed. (Previously offered as HES 230/235).

HES/GTS 240 Introduction to Global Public Health (3 hrs.) The course will study foundational public health concepts in a global context, using an evidence-based approach. Students will understand the complexities inherent in improving health on a global scale, the impact of poverty and inequality, the role of institutions and major players in global health, and the link between global and local health problems and solutions. General Education credit is earned through class activities in which students explore aspects of various cultures (history and tradition, institutions such as family and faith communities, economy, politics and law) and their impact on health status and strategies for prevention and treatment of disease. Offered in fall semester.

HES 251 Introduction to Nutrition (3 hrs.) This is an introductory nutrition class covering the major nutrients (carbohydrates, lipids, proteins, vitamins, minerals, and water) and their role in energy balance, weight management, the digestive process, and overall health. Students will learn the basics of healthy eating through the life cycle along with the basic nutritional science concepts of metabolism and digestion. Students will also learn about nutrition misinformation, fad diets, and food politics. This course will give students the fundamental knowledge they will need to make informed decisions about foods. Course fee required. Offered in fall semester.

HES 261 Introduction to Epidemiology (3 hrs.) This course will introduce basic principles and concepts of epidemiology by describing the various ways that disease (and other health-related conditions and events) occurs in populations. The course will emphasize the practical use of epidemiology and lectures will be complemented by case studies and readings of contemporary issues in disease and public health. Offered online spring semester.

HES 309 History and Philosophy of Physical Education (2 hrs.) Designed to assist students to develop an historical perspective and viable personal philosophy of physical education. Offered in fall odd semesters.

HES 321 Kinesiology (3 hrs.) The study of human motion through the application of anatomical and physiological fundamentals, as well as basic biomechanical principles. Information will be presented in a lecture/ laboratory format. Prerequisites: BIO 107 or BIO 114/115 or BIO 124/125.

HES 340 Exercise Physiology (3 hrs.) This course is designed to study the responses and adaptations of the functions of the human body to physical exercise, and the contribution of exercise to optimal health. This course integrates the knowledge of biological processes and applies it to sport and exercise. The material covered is pertinent to teaching, coaching, and appropriate for students interested in health and exercise. Prerequisites: BIO 114/115 and BIO 124/125 (with a grade of B- or higher) or BIO 107. Offered fall semester.

HES 342 Exercise Prescription (3 hrs.) The class will cover general principles of exercise prescription for healthy persons and individuals with special needs. Particular emphasis will be on training to improve fitness and performance. Fitness testing and risk factor assessment will be the basis of developing a safe effective exercise program. Course Prerequisite: HES/PED 340 Exercise Physiology. Offered spring semester.

HES 350 Theories of Adapted Physical Education (3 hrs.) Designed to identify exceptional children and to provide a learning environment suitable to their needs and capabilities. Offered in spring of odd numbered years, even fall semesters. Requires two hours of lecture and one hour of activity.

HES/WGS 355 Women's Health Issues (3 hrs.) This course will explore the topic from three perspectives: holistic health perspective, a developmental perspective, and sociocultural or global perspective. Readings, discussion, lecture, writings, research, and presentations will consider these perspectives in better understanding women's health issues. Prerequisite: One course from the following: PSY 112, PSY 113, NSC 108, BIO 114/115, SOC 111, WGS 210, REL 102. Offered spring odd semesters.

HES 357 Community Nutrition (3 hrs.) Student will explore the interrelationships between nutrition and health in community settings (local and global communities). The effect of socio-economic, environmental, cultural, and political factors on health and nutritional status will be examined. Food and nutrition policies and interventions designed to enhance the well-being of populations groups will be discussed. Each student will complete a culminating service learning project based on interest area derived from class readings, discussion and experiences. Prerequisites: One course from the following: PSY 112 or 113; BIO 107, 108, 114, or 124; SOC 111; ECN 212; POL 112; or PHL 101. Course fee required. Offered spring semester.

HES 398 Independent Study Advanced study in health and/or physical education not covered in regular course offerings. Students work on a subject selected in conference with the instructor.

HES 399 Internship Supervised experience in a cooperative program with business, government, community, or related establishment in the areas of health and/or physical education.

HES 405 Measurement and Evaluation in Physical Education (2 hrs.) An examination of various tools of measurement and an analysis of the purposes, values and limitations of measurement tools in relation to objectives. Field experience is included. Offered in spring of odd numbered years. Prerequisites: MAT 114. Offered spring semester.

HES 406 Management in Physical Education and Athletics (2 hrs.) A study in the development and promotion of educationally sound programs. Offered in spring of odd numbered years. Offered spring semester.

PED – Physical Education

PED A9 Racquet Sports (1 hr.) Students will learn the skills, rules, terms, scoring, and etiquette involved in a variety of racquet sports. Badminton, paddleball, racquetball, and table tennis included.

PED A10 Weight Training & Body Building (1 hr.) In this course the student will learn proper weight training techniques for a lifetime goal of health and wellness.

PED A12 Walking and Jogging for Fitness (1 hr.) This activity class is designed to provide students an understanding and working knowledge of the role of walking and jogging as a fitness alternative and health aid.

PED A13 Restrictive/Adaptive PE (1 hr.) Students with special needs will develop and practice a physical education and activity program that is individualized to their specific needs.

PED A15 Yoga (1 hr.) Students will learn some basic poses of Hatha Yoga for relieving stress, increasing flexibility, improving posture and breathing, and increasing strength. This is an introductory course, although students with previous yoga experience will also benefit.

PED A19 Golf Instruction (Fee) (1 hr.) Students will learn proper golf techniques, which will provide a foundation for a lifetime enjoyment of the sport. Course fee required.

PED A22 Physical Fitness Concepts (1 hr.) Student's baseline fitness values are assessed, fitness principles are learned, and training and behavioral strategies are developed through in-class activities. Physical Education Majors will take this course concurrently with Wellness Concepts (HES 132) to meet state requirements for 2 hrs. of health-related fitness and wellness. Majors cannot use this course for Activity Competency in Physical Fitness too.

PED A37 Tennis (1 hr.) This course will provide students with the opportunity to review basic tennis skills through participation in drills, actual game play and mini tournaments. Individual stroke analysis will also be given. For students that have the basics down, higher level instruction on singles and doubles.

PED A44 Recreational Games I: Team Sports (1 hr.) Students learn fundamental skills and techniques of basketball, field hockey, soccer, softball and volleyball. Course emphasis is on demonstration in teaching/coaching situations.

PED A45 Recreational Games II: Individual Sports (1 hr.) Students learn fundamental techniques and skills for individual sports with emphasis on demonstration for teaching and coaching.

PED A53 Bowling (1 hr.) In this course the students will learn the rules of the game, including score keeping, the foul line, and the equipment restrictions, will learn the basic motor skills necessary to bowl, and learn the basic bowling etiquette. Course fee required.

PED 208 Creative Movement and Rhythms (3 hrs.) An introduction to the elements of creative movement and dance. Through a variety of learning experiences, students will examine movement forms as more than just physical activity, but as a means of self-expression and a vital aspect of culture. This course will give students practice in designing movement-learning experiences for persons of all ages. Offered in fall semester.

PED 311 Coaching Theory of Football (2 hrs.) The analysis of football strategies and coaching techniques applied with variation. Prerequisites: knowledge and skill in the sport.

PED 312 Coaching Theory of Soccer (2 hrs.) The analysis of soccer strategies and coaching techniques applied with variation. Prerequisites: knowledge and skill in the sport.

PED 313 Coaching Theory of Baseball (2 hrs.) The analysis of baseball strategies and coaching techniques applied with variation. Prerequisites: knowledge and skill in the sport.

PED 314 Coaching Theory of Basketball (2 hrs.) The analysis of basketball strategies and coaching techniques applied with variation. Offered in fall semesters of odd numbered years. Prerequisites: knowledge and skill in the sport.

PED 317 Coaching Theory of Volleyball (2 hrs.) The analysis of volleyball strategies and coaching techniques applied with variation. Offered fall semesters of even numbered years. Prerequisites: knowledge and skill in the sport.

PED 318 Coaching Theory of Softball (2 hrs.) The analysis of softball strategies and coaching techniques applied with variation. Offered in spring semester of odd numbered years. Prerequisites: knowledge and skill in the sport.

PED 319 Coaching Theory of Tennis (2 hrs.) The analysis of tennis strategies and coaching techniques applied with variation. Offered in spring semester of even numbered years. Prerequisites: knowledge and skill in the sport.

PED 331 Sports Officiating: Football (1 hr.) Designed for the development of expertise in officiating. Certification optional to student. Laboratory required.

PED 332 Sports Officiating: Soccer (1 hr.) Designed for the development of expertise in officiating. Certification optional to student. Laboratory required.

PED 333 Sports Officiating: Baseball (1 hr.) Designed for the development of expertise in officiating. Certification optional to student. Laboratory required.

PED 334 Sports Officiating: Basketball (1 hr.) Designed for the development of expertise in officiating. Certification optional to student. Laboratory required.

PED 337 Sports Officiating: Volleyball (1 hr.) Designed for the development of expertise in officiating. Certification optional to student. Laboratory required.

PED 338 Sports Officiating: Softball (1 hr.) Designed for the development of expertise in officiating. Certification optional to student. Laboratory required.

PED 434 Methods of Teaching Middle School and Secondary Physical Education (3 hrs.) This course is designed for students planning to teach middle school and secondary physical education programs. Topics include program development, selecting and implementing instructional units, class organization and management, assessment, integrating physical education with other disciplines, and professional development. Prerequisite: EDU 290.