

# Kinesiology

## DIVISION



Dr. Alfred Bransdorfer, Division Chair

The mission of the core requirement program is to equip students who choose to realize, respect, and respond to a balanced lifestyle of whole person wellness for the honor of God. Since the Bible teaches that the body is the temple of God and is also the vehicle through which ministry is offered, responsible self-care becomes a matter of obedient Christian stewardship.

The mission of the professional program is to prepare qualified students who have demonstrated personal and professional proficiency in the discipline of human movement for the honor of God. The professional program includes a major and minor in physical education with teaching certification, an Exercise Science major and a Coaching Minor.

### Degrees

Bachelor of Arts  
Bachelor of Science

### Majors

Exercise Science  
Physical Education

### Minors

Coaching  
Physical Education

## Faculty

Bransdorfer, Alfred. Associate Professor of Kinesiology (1996) (Chair) B.A.A. (1984), Central Michigan University; M.A. (1986); Ph.D. (1998), Michigan State University

Baker, Gloria. Associate Professor of Kinesiology (1973) B.S. (1960), Wheaton College; B.R.E. (1976), Grand Rapids Baptist College; M.A. (1965), Michigan State University; Ed.S. (1985), Central Michigan University

Elders, Kim. Instructor of Kinesiology (1994) B.A. (1977), Grand Valley University; M.A. (1993), Western Michigan University

Fordyce, Kimberly. Assistant Professor of Kinesiology (1990) B.A. (1988), Cedarville College; M.A. (1990), University of Dayton; Ph.D. program, University of West Virginia

Fortosis, Robertson. Instructor of Kinesiology (1995) B.A. (1980), Wheaton College; M.A. (1988), Azusa Pacific University; Ed.D. (A.B.D.), Nova Southeastern University

Klingensmith, Dionne. Assistant Professor of Kinesiology (2000) B.A. (1991), Adrian College; M.S. (1993), University of Arkansas; Ph.D. (2000), University of Arkansas

Criteria for Graduation as a Division Major: See the Academic Information section under Graduation Requirements on page 51.

Degree information for the Bachelor of Science and Bachelor of Arts degrees along with major and minor listings by division can be found in the catalog section entitled Degree Information. (See page 65.)

### EXERCISE SCIENCE MAJOR (Bachelor of Science)

General Education Core requirements for the Bachelor of Science degree are listed in the Degree Information section. (See page 65.)

#### Program Specific Core:

Required Courses	Credit Hours
Philosophy Course . . . . .	3
Social Science Course . . . . .	3
One physical science course from the following: . . . . .	4
SCI 111      Physical Science	
CHM 111     Principles of General Chemistry	
PHY 211     General Physics I	
One of the following: . . . . .	3
MAT 110     College Math	
MAT 123     College Algebra/Trigonometry	
MAT 124     Pre-Calculus (4)	
MAT 131     Calculus I (4)	
BIO 241      Anatomy and Physiology I . . . . .	4

BIO 242	Anatomy and Physiology II . . . . .	4
KIN 341	Anatomical Kinesiology (Prerequisite: BIO 241) . . . . .	3
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	Total . . . . .	24

**Major:**

Required Courses		Credit Hours
MAT151	Statistics . . . . .	3
KIN 211	History and Principles of Physical Ed. . . . .	3
KIN 251	Motor Development and Learning . . . . .	3
KIN 342	Exercise Physiology . . . . .	4
	(Prerequisite: BIO 241 & 242)	
	(Recommended: CHM 111)	
KIN 343	Biomechanics . . . . .	4
	(Prerequisite: BIO 241 & 242, KIN 341)	
	(Recommended: PHY 211 - General Physics I)	
KIN 347	Introduction to Nutrition (Prerequisite: BIO 242) . . . . .	3
KIN 362	First Aid and Injury Prevention . . . . .	3
KIN 380	Internship . . . . .	6
KIN 400	Capstone . . . . .	2
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	Total . . . . .	31

**PHYSICAL EDUCATION MAJOR FOR K-12 CERTIFICATION** (Bachelor of Arts)

General Education Core requirements for the Bachelor of Arts degree are listed in the Degree Information section. (See page 65.)

Education students majoring in Physical Education must complete their biology core requirement with BIO 241, must complete MAT 110, 123, 124 or 131 and must meet the core activity program course requirements in Physical Education. Such students should follow the professional education program required for secondary education and will have an elementary and secondary student teaching experience.

Required Courses		Credit Hours
KIN 211	History and Principles of Physical Education . . . . .	3
KIN 243	Strategies for Teaching Physical Education K-12 . . . . .	3
KIN 251	Motor Development and Learning . . . . .	3
KIN 342	Exercise Physiology . . . . .	3
	(Prerequisite: BIO 241 and 242)	
KIN 357	Physical Education in Preschools & Elem. Schools 2	
KIN 359	Physical Education in Secondary Schools . . . . .	2
KIN 362	First Aid, Injury Prevention and Treatment . . . . .	3
KIN 422	Safety and the Law in Physical Education and Sport or	
KIN 441	Organization and Administration . . . . .	3
KIN 442	Measurement and Evaluation . . . . .	3
KIN 461	Skill and Performance Competencies . . . . .	1
BIO 242	Anatomy and Physiology II . . . . .	4
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	Total . . . . .	31

\*Students must sign up with the instructor for KIN 461 at the time they decide to major in Physical Education.

## PHYSICAL EDUCATION MINOR

General Education Core requirements for the Bachelor of Arts degree are listed in the Degree Information section. (See page 65.)

Students minoring in Physical Education must complete their biology core requirements with BIO 241.

Required Courses	Credit Hours
KIN 211 History and Principles of Physical Education . . . . .	3
KIN 251 Motor Development and Learning . . . . .	3
KIN 341 Anatomical Kinesiology (Prerequisite: BIO 241) . . . . .	3
KIN 362 First Aid, Injury Prevention and Treatment . . . . .	3
KIN 461 Skill and Performance Competencies* . . . . .	1
Electives from the following: . . . . .	3
KIN 231 Principles of Coaching	
KIN 243 Strategies for Teaching Phy. Ed. K-12	
KIN 331 - 337 Coaching Courses (2 credits each)**	
KIN 342 Exercise Physiology (4)	
KIN 343 Biomechanics (4)	
KIN 441 Organization and Administration	
KIN 442 Measurement and Evaluation	
KIN 443 Strategies for Teaching Phy. Ed. K-12	
BIO 242 Anatomy and Physiology II . . . . .	4
<hr style="width: 20%; margin-left: auto; margin-right: 0;"/>	
Total . . . . .	20

\*Students must sign up with the instructor for KIN 461 at the time they decide to minor in Physical Education. \*\*Prerequisite: KIN 231 Principles of Coaching or permission of the instructor.

## PHYSICAL EDUCATION MINOR FOR ELEM. AND SEC. TEACHERS

Students enrolled in the Physical Education minor must complete their biology core requirement with BIO 241, Anatomy and Physiology I, and must meet the core activity program course requirements in Physical Education. Elementary education students in the triple minor program must also complete BIO 111, Introduction to Biological Sciences.

Required Courses	Credit Hours
KIN 211 History and Principles of Physical Education . . . . .	3
BIO 241 Anatomy and Physiology II . . . . .	4
KIN 243 Strategies for Teaching Phy. Ed. Activities K-12 . . . . .	3
One of the following: . . . . .	3
KIN 357 Phy. Ed. in Preschools/Elem. Schools	
KIN 359 Phy. Ed. in Secondary Schools	
KIN 251 Motor Development and Learning . . . . .	3
KIN 362 First Aid, Injury Prevention, and Treatment . . . . .	3
KIN 461 Skill and Performance Competencies* . . . . .	1
Electives from the following: . . . . .	3
KIN 231 Principles of Coaching (2)	
KIN 357 Physical Ed. in Preschools & Elem. Schools (2)	
KIN 359 Physical Ed. in Secondary Schools (2)	
KIN 342 Exercise Physiology (4)	

KIN 343	Biomechanics (4)	
KIN 441	Organization and Administration (3)	
KIN 442	Measurement and Evaluation (3)	
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Total		.22

\*Students must sign up with the instructor for KIN 461 at the time they decide to minor in Physical Education.

### COACHING MINOR

Students enrolled in the Coaching minor must complete their biology core requirement with BIO 241.

Required Courses		Credit Hours
KIN 341	Anatomical Kinesiology	.3
KIN 231	Principles of Coaching	.3
KIN 342	Exercise Physiology	.4
KIN 362	First Aid and Injury Prevention	.3
BIO 242	Anatomy and Physiology II	.4
Complete four credits from the following courses:		.4
KIN 332	Coaching of Basketball	
KIN 334	Coaching of Soccer	
KIN 335	Coaching of Softball	
KIN 336	Coaching of Track and Field	
KIN 337	Coaching of Volleyball	
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Total		.21

### Course Descriptions

#### Course Frequency Key

- 1 = Every Semester
- 2 = Alternate Semesters
- 3 = Every Third Semester
- 4 = Alternate Years
- 5 = Every Three Years
- 6 = As Needed

#### KIN 111      Badminton      1/1

The study and practice of basic techniques in the game of badminton. This course includes topics such as ready position, grip, strokes, serve, rules of the game, and strategy. Opportunities are given to test skills against other class members through tournament play.

#### KIN 113      Golf      1/6

An introduction for the beginner to golf encompassing basic techniques of the stance, grip, swing, rules of the game and etiquette. This course is designed to offer opportunity to test and improve skills on a regulation eighteen-hole golf course. It is desired that this activity leads to the appreciation of golf and becomes a lifelong enjoyment for the Christian steward.

- KIN 115 Tennis 1/2**  
Instruction in basic techniques of the sport including the history and rules. This course focuses on the forehand, backhand, serve and volley. Strategy for singles and doubles is included along with opportunity for game play.
- KIN 116 Racquetball 1/1**  
An introduction for the beginner to racquetball encompassing rules, basic skills, terminology, strategy and safety. This course is designed to offer game play with class members and is desired that this activity leads to the appreciation of racquetball and becomes a lifelong enjoyment for the Christian steward.
- KIN 117 Tumbling 1/1**  
Instruction to basic tumbling skills. Partner and group stunts and activities, will also be covered.
- KIN 119 Downhill Skiing 1/2**  
Instruction in techniques for all levels of skiers. Cannonsburg staff will divide the students into various groups (beginners to advanced) and teach techniques and etiquette appropriate for each group.
- KIN 121 Outdoor Skills 1/4**  
Instruction in the basic skills and equipment needed for participation in outdoor activities. This course includes opportunity to utilize the cooperation method of problem-solving. Activities selected from the following list will depend on the season the course is offered: hiking, backpacking, map and compass, and rockclimbing.
- KIN 124 Pickleball 1/1**  
The study and practice of basic techniques in the game of Pickleball (the newest and fastest racquet sport). The course includes topics such as ready position, grip, strokes, serve, rules of game, and strategy. Opportunities are given to test skills against other class members through tournament play.
- KIN 125 Rockclimbing 1/4**  
Instruction in basic techniques of bouldering and rockclimbing. This course offers the opportunity to receive instruction and practice at Inside Moves Rockclimbing Gym. Integration and application to the Christian life will be a vital component of the course.
- KIN 132 Coed Soccer 1/2**  
The study and practice of rules, basic fundamentals, strategy, team play, and game etiquette. Opportunities will be given to the student to test skills against other players through tournament play.
- KIN 133 Volleyball 1/1**  
The study and practice of the basic techniques in the game of volleyball. The course includes topics such as ready position, serve, set, forearm pass, rules of the game, and strategy. Opportunities are given to test skills against other class members through tournament play.

- KIN 134 Ice Skating/Hockey Skills** 1/2  
 Instruction in basic ice-skating, and hockey skills will be presented in this course. Basic skills and terminology will be presented. This course is designed to familiarize students with this selected winter activity. A lab fee will be charged to cover ice time at a local ice arena.
- KIN 143 Jogging** 1/2  
 To provide students with a thorough understanding of aerobic activity and its application to physical conditioning. The content of this course also includes general Biomechanics of jogging, flexibility, nutrition, a proper Christian viewpoint of jogging as a lifetime fitness activity.
- KIN 146 Physical Conditioning** 1/1  
 The study and practice of basic physical fitness techniques. The American College of Sports Medicine guidelines to physical fitness are taught. Aside from various conditioning opportunities, the student will learn principles regarding nutrition and stress management.
- KIN 147 Physical and Health Education for Classroom Teachers** 2/1  
 The study and practice of physical and health education activities is designed to enhance the elementary education major in basic theory, methods and activities for providing motor development through movement experiences. Knowledge of various health related topics such as disease control and prevention of, sex and drug education will be taught. The course will also provide a kaleidoscope of activities to use for integrating movement and fitness along with health related topics with classroom subjects. Prerequisite: EDU 282.
- KIN 148 Weight Training** 1/1  
 An introduction for the beginner to basic techniques and instruction in weight training for both muscular strength and endurance. This course is designed for the development of a personalized weight training program and is desired that this activity leads to lifelong enjoyment for the Christian steward.
- KIN 149 Principles of Wellness** 2/1  
 Instruction in personal wellness as a responsibility of biblical stewardship. This course will address whole person wellness in the context of biblical principles. Topics included are: attitudes, exercise, fitness, nutrition, sexuality and sexually transmitted diseases, stress management and water safety. Participation in an out-of-class exercise program will be a vital component of the course.
- Varsity Sports** 1  
 A maximum of two credits will be awarded for participation in two different varsity sports. Students must register for credit at the beginning of the semester their sport is in season. These credits will count as elective credit only, and do not apply toward core physical education requirements or the Physical Education major or minor. Sports included are:

KIN 162	Softball	KIN 165	Soccer
KIN 163	Basketball	KIN 166	Tennis
KIN 164	Volleyball	KIN 171	Golf
KIN 167	Track	KIN 168	Cross Country

### PROFESSIONAL PROGRAM COURSES

**KIN 211 History and Principles of Sport & Physical Education 3/2**  
 A study of physical education, sport, and fitness in the context of their historical development and how they have been an integral part of culture. The psychological, sociological, and philosophical factors that have affected these topics. This course includes learning techniques such as class debates, readings, and presentation.

**KIN 215 Introduction to Sports Management 3/2**  
 An overview of the diverse field of Sport Management. This course includes an in depth examination of various careers, training and necessary courses of study. Additionally, management skills along with related speaking and writing competencies are emphasized.

**KIN 231 Principles of Coaching 3/2**  
 The study of the nature and responsibilities of the profession of coaching. Topics include philosophy of coaching, the coach and his/her personality, the athlete and his/her personality, communication, team cohesion, motivation, discipline, teaching techniques, and scouting.

**KIN 243 Strategies for Teaching Physical Activities K-12 3/2**  
 The study and practice of the process of teaching physical education activities appropriate for students K-12. This course is designed to help teachers develop the instructional skills necessary to teach physical education effectively. The physical education major will be equipped to select, develop and implement units of instruction. Lesson planning and actual teaching experience (with K-12 students) will provide the practical experience needed for professional growth.

**KIN 251 Motor Development and Learning 3/2**  
 A study of childhood growth and development patterns as it relates to motor learning and motor skill acquisition. This course is designed to enhance the understanding of growth and motor behavior/development of children from conception through adulthood. Principles of motor development and learning are explored along with an opportunity to apply them in a lab setting.

**KIN 324 Sports in Literature 3/4**  
 A survey of literature related to sports, from fine arts to popular culture. Beginning with classical literature and moving to contemporary. This course will analyze how sports are represented in various eras, and consider the place of sports as symbol, myth, and allegory in various societies. Prerequisite: ENG 113, ENG 223.

**KIN 332 Coaching of Basketball 2/4**  
 To provide students with basic concepts, fundamentals, techniques and theories of coaching basketball. This course will also cover topics such as scouting, conditioning, practice organization, and motivation. Prerequisite: KIN 231 or permission of instructor.

- KIN 333 Coaching of Cross Country and Track** 2/4  
This course will provide students with basic concept, fundamentals, techniques and theories of coaching cross-country and track and field. Conditioning, meet organization, and team management will also be covered. Prerequisite: KIN 231 or permission of instructor.
- KIN 334 Coaching of Soccer** 2/4  
To provide students with fundamental skills, tactics, conditioning methods, and team management. This course will also cover topics such as scouting, recruiting, and motivation. Prerequisite: KIN 231 or permission of instructor.
- KIN 335 Coaching of Softball** 2/4  
The study of theories of offensive and defensive systems of play integrated with the teaching techniques of the fundamentals of softball. The student will also cover topics such as conditioning, recruiting, and team management. Prerequisite: KIN 231 or permission of instructor.
- KIN 337 Coaching of Volleyball** 2/4  
The study of the theories of offensive and defensive systems of play integrated with the teaching techniques of the fundamentals of volleyball. Conditioning, skill progression, management, organization and scouting are included. Prerequisite: KIN 231 or permission of instructor.
- KIN 341 Anatomical Kinesiology (BIO 341)** 3/2  
This course is designed as a functionally specific approach to the musculoskeletal system. Emphasis will be placed on the qualitative analysis and description of human movement. Prerequisite: BIO 241
- KIN 342 Exercise Physiology (BIO 342)** 4/2  
A study of the physiological responses of the healthy human body to exercise. This course includes topics such as energy systems, nutrition, conditioning, exercise testing, and exercise prescriptions. Prerequisites: BIO 241 and 242. Recommend: CHM 111
- KIN 343 Biomechanics (BIO 343)** 4/2  
The study of the internal and external forces that act upon a human body during movement and the effects produced by these forces. Special emphasis will be given to sport-related movements. Prerequisite: BIO 241, 242 & KIN 341. Recommend: PHY 211 - Gen. Physics I
- KIN 347 Introduction to Nutrition (BIO 347)** 3/2  
This course is designed to study foods and their effects upon health, development, and performance of the human. Students will develop an understanding of healthful and performance nutrition as it relates to optimal health and physical performance. Also, students will study energy pathways in the body and the six basic nutrients related to performance. Additionally, the students will investigate body composition and weight control. Prerequisite: BIO 242

- KIN 357 Physical Education in Preschools and Elem. Schools 2/4**  
 This course is designed to provide methods of instruction for teaching preschool and elementary physical education programs. The course will include basic movement education emphasizing Laban's concept of movement analysis, fundamental motor skills, manipulative skills, educational and traditional gymnastic skills, fundamental rhythms, physical fitness activities, and introduction to sports related skills. Development of teaching sequences will be utilized. Clinical experiences will be involved in teaching children and peers. Prerequisite: KIN 243
- KIN 359 Physical Education in Secondary Schools 2/4**  
 This course is designed to provide methods of instruction for teaching team and individual sport activities in the middle and secondary school environments. Development of teaching sequences will be utilized. Clinical experiences will be involved in teaching students an peers. Prerequisite: KIN 243
- KIN 362 First Aid, Injury Prevention, and Treatment 3/2**  
 Basic principles of injury prevention and care, first aid principles of prevention, injury evaluation and current rehabilitation methods are taught. The student will have active participation in caring for various injuries. Prerequisite: BIO 241 and 242 or permission of instructor.
- KIN 380 Internship 2/1**  
 An opportunity to gain practical experience in settings appropriate for exercise science and coaching. Prerequisite: Junior status and approval of divisional chair.
- KIN 400 Professional Capstone Seminar 6/1**  
 The seminar will examine from a Christian worldview perspective the ethical and professional issues associated with the major. As a capstone course, the seminar will devote time to Christian worldview reflection in regard to a senior's prior academic preparation and future vocational opportunities. The seminar will include significant evaluation instruments including a portfolio, philosophy thesis, skill and performance competencies (KIN 461) and completion of the senior assessment exam for Kinesiology. Students must sign up with the professor at the time they decide to major in exercise science so they can begin work towards meeting competencies in the areas required. Registration to receive credit will be delayed until the seminar year. Prerequisite: Senior status and approval of divisional chair.
- KIN 422 Safety and the Law 3/4**  
 A comprehensive study of the five relevant areas of sport and the law: facilities immunity, physical education, athletic associations, workman's compensation, and Title IX.
- KIN 441 Organization and Administration 3/4**  
 The study of organization, administration, planning, implementation, interscholastic activities, and sports/fitness clinics. The students will gain a closer look at the administrative roles at these various settings. Topics will include budget creation and control, program development, leadership techniques, and program evaluation.



