NUTRITION & WELLNESS

Marsh Hall, Room 301
269-471-3370
Fax: 269-471-3485
deptnutr@andrews.edu
www.andrews.edu/nutrition/

Johnson Gym, Lower Level
269-471-3254
Fax: 269-471-3485
www.andrews.edu/cas/fitness

Faculty
Winston Craig, *Chair*
Magaly Hernandez, *Director of Dietetic Internship*
Gretchen Krivak
Peter Pribis, *Graduate Program Director*
Dominique Wakefield, *Director of Fitness & Exercise Studies*
Alice Williams

Staff
Christian Lighthall, *Gymnics Coach*
Greggory Morrow, *Aquatics Program Director*

Academic Programs	Credits
BS in Dietetics (DPD Program)	72
BS: Nutrition Science	62
BS: Health & Fitness	68
BHS in Wellness	64
Minor in Fitness Education	20
Minor in Nutrition & Wellness	20
Minor in Health	20
MS: Nutrition & Wellness	32

Mission

The mission of the Andrews University Department of Nutrition & Wellness is to prepare dietetic, nutrition, wellness and fitness professionals for service in their church, society and the world, and to influence the community-at-large to affirm the Adventist lifestyle, including the vegetarian diet and the benefits of regular exercise and physical fitness.

Undergraduate Programs

BS in Dietetics (DPD Program) (72)

Prerequisite Courses—34
ACCT121; BCHM120; BIOL221, 222, 260; CHEM110; FDNT118, 124, 230; PSYC101; and SOCI119.
Cognate Requirements—6
BSAD355, 384
DPD Requirements—32
FDNT310, 351, 352, 421, 422, 431, 432, 448, 460, 485, 490, 498.

The Didactic Program in Dietetics (DPD) at Andrews University is currently accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 120 S Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 312/899-5400.

General Education Requirements—43
See professional program requirements, p. 43, and note the following **specific** requirements:
Religion: professional degree requirements
Language/Communication: professional degree requirements
History: professional degree requirements
Fine Arts/Humanities: professional degree requirements
Life/Physical Sciences: BIOL221, 222, 260; CHEM110, BCHM120
Mathematics: professional degree requirements
Computer Literacy: INFS120, or pass competency exam
Service: FTES305
Social Sciences: PSYC101, SOCI119
Fitness Education: HLED120 and three additional courses from personal fitness, outdoor skills or team activity

Preparation for the Registration Exam

Andrews University offers two programs to prepare the student for the registration examination given by the Commission on Dietetic Registration of the American Dietetic Association (ADA).

- The DPD program, which meets the academic requirements for registration eligibility.
- The Dietetic Internship, a post-baccalaureate program, designed to meet the supervised practice requirements for registration eligibility.

The Dietetic Internship at Andrews University is currently accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association, 120 S Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 312/899-5400.

The Didactic Program in Dietetics (DPD)

Admission Requirements
Prospective dietetics students apply to the director of the Didactic Program in Dietetics in their sophomore year for acceptance into phase 2 of the program by May 15 for the following autumn semester. Successful completion of the prerequisite courses listed below with a minimum cumulative GPA of 2.75, and a minimum overall GPA of 2.25 in the science and FDNT courses, is required for entry into phase 2 of the DPD program.

Continuation in the Dietetics Program requires a student having a cumulative GPA of at least 3.0 at the beginning of their senior year.

Transfer students who enter at the junior level will be admitted to the Dietetics Program if they have an overall GPA of 3.0 and a minimum GPA of 2.35 for their science and FDNT courses.

Degree Requirements
The DPD has two phases:
Phase 1—Pre-dietetics: Two years of introductory professional (e.g. Food Science and Nutrition), science prerequisites (such as Intro to Chemistry, Anatomy & Physiology, and Microbiology) and General Education courses which may be obtained at Andrews University or another accredited college or university, or equivalent institution for international students.
Phase 2—Dietetics: Two years of study in clinical dietetics, food-service management, and community nutrition obtained on the Andrews University campus. Students must complete requirements for the professional Bachelor of Science in Dietetics degree. Students who complete the DPD requirements will be issued a DPD verification statement.

No grade below a C- is accepted for prerequisite and cognate courses (or below a C for dietetic courses). Students planning graduate study in nutrition or medical dietetics are recommended to take the following chemistry courses: CHEM131, 132; CHEM231, 232, 241, 242; BCHM421, 422, 430.

At least 124 semester hours are recommended for graduation. For BS requirements other than those listed above, refer to the General Education requirements listed on p. 42.

Graduation is dependent upon the completion of all curriculum requirements with the maintenance of at least a minimal overall GPA of 2.75 and a minimal GPA of 2.25 in all dietetic and science courses.

Graduates are provided with a *Didactic Program in Dietetics Verification Statement*, testifying to the fact that they have successfully completed the requirements for a BS degree in Dietetics. Students must successfully pass a comprehensive review exam in their senior year before they are eligible to receive a DPD verification form. Dietetics graduates are eligible to apply for an accredited Dietetic Internship program.

Students are expected to complete a professional development portfolio during the DPD program outlining their goals and accomplishments, including 200 hours of professional dietetic experience (125 hours for students transferring into Andrews University in the junior or senior year). A verification form for completion of the DPD program will not be issued until the professional development portfolio has been satisfactorily completed by the student.

After completion of the BS course work for the DPD, an eight month Dietetic Internship must be completed by a dietetic student for registration eligibility.

Dietetic Internship

Students need to apply for the dietetic internship program. A minimum cumulative GPA of 3.0 and DPD (Didactic program of Dietetics) GPA of 3.2 is recommended for admission into the program.

This supervised practice provides experiences in three main areas of dietetics—community nutrition, clinical nutrition, and food-service management. The Dietetic Internship is available at several hospitals affiliated with Andrews University. Successful completion of this intensive eight-month supervised practice permits a student to write the national registration exam in dietetics. Students who successfully complete the internship will be issued a Dietetic Internship verification statement.

Upon passing the registry exam, graduates receive formal recognition as Registered Dietitians (RD). This status is maintained by participating in continuing professional education activities approved by the ADA. With advanced study or experience, the dietitian may qualify as a specialist in clinical dietetics, food-service management, nutrition education, or research.

BS: Health & Fitness (68)

Required Courses—43

FDNT230, 448, 460 (1), 498, HLED120, 210, 380, 445, 480, FTES116, 210, 214, 305, 355, 465, two additional FTES activity courses (1 credit each) selected in consultation with your advisor, PSYC210, FTES495 (4)

Required Cognates—25

BIOL221, 222, 223, BSAD355, COMM320, MKTG310, PSYC319, 471, SOCI415

For students planning to do the MS in Nutrition & Wellness, it is recommended that they also take CHEM110 and BCHM120.

A minimum grade of C is required in all major and cognate courses.

ACE Certification

This degree offers the option for certification from the American Council on Exercise (ACE) in the following areas: Certified Personal Trainer, Group Fitness Instructor, Lifestyle & Weight Management Consultant, and Advanced Health & Fitness Specialist. The exams for these certifications will be held on the Andrews University campus.

Bachelor of Health Science: Wellness (64)

Required Courses—30

FDNT230, 310, 448, 460 (1), HLED120, 210, 380, 445, 480, FTES210, 214, 305, 355

Required Cognates—34

BIOL221, 222, CHEM110, BCHM120, PHYS141, 142, MLSC110, FTES465, STAT285, PSYC301

A minimum grade of C is required in all major and cognate courses.

General Education Requirements

See professional program requirements, p. 43, and note the following **specific** requirements:

Religion: one religion course per academic year of attendance in a Seventh-day Adventist college or university. Maximum of three courses prior to entering program.

Language/Communication: professional degree requirements

History: professional degree requirements

Fine Arts/Humanities: professional degree requirements

Life/Physical Sciences:

Life Science:

- A full sequence of anatomy and physiology or general biology with labs.
- An upper division science course(s) related to human physiology or human biology.

Physical Science:

Option 1: A full sequence of general physics with labs as required for physics majors or pre-med students plus any two chemistry courses with labs; **or**

Option 2: A full sequence of general chemistry with labs as required for chemistry majors or pre-med students plus any two physics courses with labs.

Mathematics: A basic statistics or research methods course

Service: FTES355

Social Sciences:

Psychology—An introductory psychology course.

Human Development—A course which covers physical, social, and psychological development beginning with conception

Fitness Education: recommend Andrews freshmen take HLED120 and one additional course from personal fitness, outdoor skills or team activity. Non-Andrews students take two from the three categories above.

Medical Terminology: A course in basic medical terminology. May be taken by distance learning.

Electives: To fulfill the 124 credits needed to graduate *at least 15 in upper division courses* required, some suggestions include business courses, ethics, cultural and diversity courses, arts and humanities, nutrition and fitness courses.

ACE Certification

This degree offers the option for certification from the American Council on Exercise (ACE) in the following areas: Certified Personal Trainer, Group Fitness Instructor, Lifestyle & Weight Management Consultant, and Advanced Health & Fitness Specialist. The exams for these certifications will be held on-campus.

BS: Nutrition Science (62)

BCHM421; BIOL165, 166; CHEM131, 132, 231, 232, 241, 242; FDNT230, 310, 448, 460, 485, 495; ZOOL465; 6 credits chosen from FDNT124, 421, 422, 431, 469, 476; and 8 elective credits selected from chemistry, biology, nutrition, and physics in consultation with the program advisor.

The BS in Nutrition Science is recommended for pre-medical students wishing to have a nutrition and health promotion emphasis as they prepare for medical school. However, this BS does not prepare students for dietetics registration eligibility.

Minor in Health (20)

FDNT230, 240, HLED120, 210, 445, FTES214, plus 9 credits selected from HLED, FDNT, FTES or other health-related courses approved by the program director.

Minor in Nutrition and Wellness (20)

Must include FDNT124, 230, 310, 448, 460, HLED120 plus 6 credits selected from the Department of Nutrition and Wellness approved by the director of the Dietetics program.

Minor in Fitness Education (20)

BIOL221, 223, FTES210, 214, 305, 355, 465, FDNT230
This minor is not approved for Michigan elementary or secondary teaching certification.

Fitness & Exercise Courses

Each class includes both a fitness component as well as skills instruction. The goals of the fitness & exercise courses are:

1. To aid individuals in the development of Christlike attitudes and conduct in recreational activities, and to promote learning opportunities for cooperative teamwork.
2. To promote the development of physical fitness and physical skills that will continue throughout life and enhance the quality of one's life.
3. To provide a variety of physical activities designed to meet the needs and desires of a diverse student population.

ACE Certification

Students taking the Minor in Fitness Education have the option of sitting for the Personal Trainer or Group Fitness Instructor Certification that is offered through the American Council on Exercise (ACE). The tests will be offered on-campus.

Graduate Program

MS: Nutrition & Wellness (32)

Admission Requirements

Applicants for the MS: Nutrition & Wellness must have completed undergraduate credits in nutrition, and approved cognates as follows.

1. Two nutrition courses (equivalent to FDNT230 and one advanced course).
2. Survey courses in chemistry with labs, including inorganic, organic, and biological (equivalent to CHEM110 and BCHM120).
3. Human physiology (equivalent to BIOL222).
4. Statistics (equivalent to STAT285).

- Applicants with deficiencies may be admitted provisionally, but they must take courses in addition to those in the degree program to meet deficiencies.

Degree Requirements

In addition to the general academic requirements for graduate degrees outlined on p. 48, the following departmental requirements should be noted:

- A minimum of 32 semester credits
- The core of 20 nutrition credits including FDNT448, 498, 2 credits of FDNT545, 565, 2 credits of FDNT586 and 2 credits of FDNT680, MKTG500, FTES465.
- FDNT670
- CHMN567 Health Ministry (2) or any other graduate religion course approved by the department.
- Students electing to do a thesis must complete 6 credits of FDNT699; students electing a non-thesis option must complete 3 credits of FDNT698.
- Students who present a signed verification statement outlining their successful completion of an undergraduate dietetics program may apply to do a Dietetic Internship as part of their MS in Nutrition and Wellness. Students accepted into this non-thesis program must register for 4 credits of FDNT594 in the fall semester and 4 credits in the spring semester, in the place of FDNT698. The Dietetic Internship is available only to students seeking registration eligibility, not to students with an RD. Successful completion of this intensive 8-month supervised practice qualifies students to write the national registration exam in dietetics.
- Electives are to be selected in consultation with the graduate advisor from graduate course offerings in nutrition, health, education, communication, behavioral science, business, and marketing.

Courses (Credits)

See inside front cover for symbol code.

FDNT118 **(1)**
The Profession of Dietetics
A discussion of the dietetics profession and the role of the dietitian within the health-care team. Ethical concerns in the practice of dietetics. *Spring*

FDNT124 **$ (3)**
Food Science
Chemical and physical properties of foods that affect food

handling, preparation, and preservation. Lab procedures apply the principles studied to the preparation of foods. Weekly: two lectures and a 3-hour lab. *Fall*

FDNT230 **$ (3)**
Nutrition
A study of the basic principles of nutrition science, the biochemical functions of various nutrients, the changes in physiological needs with age, and the relationship between nutrition and health. Students needing life science general education credit must also register for the lab, FDNT240. Three lectures per week. *Fall, Spring*

FDNT230 **V (3)**
Nutrition
AU/GU course—see content above.

FDNT240 **$ (1)**
Nutrition Laboratory
Discovering principles of nutrition science in the laboratory. A weekly 3-hour lab. Required for those students needing life science general education credit. *Fall, Spring*

FDNT310 **(3)**
Nutrition in the Life Cycle
Study of the nutritional needs of the healthy person throughout the life cycle. The influence of socioeconomic, cultural, and psychological factors on food and nutritional behavior. Prerequisites: FDNT230. *Fall*

FDNT351 **$ (3)**
Food Service Management I
Introduction to the systems approach and application of the functions of management to foodservice systems. Principles of menu development, food production, service, delivery, procurement, sanitation, safety, and equipment selection in food service organizations. Weekly: 3 hours lecture and up to 4 hours lab. Prerequisites: FDNT124; BIOL260; MATH145 or equivalent. *Fall—Offered alternate years*

FDNT352 **$ (3)**
Food Service Management II
Application of management functions and principles to foodservice organizations. Specific attention to marketing processes, CQI, and integration of foodservice subsystems. Includes the management of human, material, spatial, and financial resources in environmentally responsible ways. Weekly: 2 hours lecture and up to 4 hours lab. Prerequisites: FDNT351; BSAD355. *Spring—Offered alternate years*

FDNT415 **(1–4)**
Professional Experience
A supervised lab experience introducing the student to the role of a professional in the workplace. Repeatable to 8 credits. *Fall, Spring*

FDNT421 **S ♦ $ (2)**
Community Nutrition I
Principles for presenting nutrition information to individuals and groups. Community assessment and planning a community nutrition program. Weekly: 1-hour lecture and a 3-hour lab. Prerequisite: FDNT310. *Fall—Offered alternate years*

FDNT422 **♦ $ (2)**
Community Nutrition II
Analysis of local and national nutrition programs and services. Impact of nutrition policies on community health. Implementing and evaluating a community nutrition program. Weekly: 1-hour lecture and a 3-hour lab. Prerequisite: FDNT421. *Spring—Offered alternate years*

FDNT431 **♦ $ (4)**
Medical Nutrition Therapy I
Introduction to medical nutrition therapy. Medical terminology for healthcare professionals. Assessment of nutritional status by various methods. Development of nutritional care plans. Theory and techniques of counseling in various settings. Weekly: 3 hours lecture and 4 hours lab. Prerequisites: FDNT310, 485. *Fall*

FDNT432 **♦ $ (4)**
Medical Nutrition Therapy II
Implement medical nutrition therapy through the assessment of nutritional status and development of care plans for a variety of clinical conditions, such as chronic diseases, oncology, nutrition support, and renal disease. Weekly: 3 hours lecture and 4 hours lab. Prerequisite: FDNT431. *Spring*

FDNT440 **(1–3)**
Topics in___
Selected topics in nutrition. Repeatable with different topics.

FDNT448 **♦ (3)**
Nutrition and Wellness
The dietary factors associated with the major chronic diseases of Western society. The use of plant-based diets in health promotion and disease prevention. Discussion of herbal therapies. Prerequisite: FDNT230. *Fall*

FDNT460 **(1–2)**
Seminar
Review of contemporary issues and/or current literature in nutrition. Repeatable to 3 credits. *Spring*

FDNT469 **♦ (2–3)**
International Nutrition
A study of world food production, supply, storage, and marketing. Causes and symptoms of nutritional deficiencies in the developing world. Diseases of the affluent. Effects of nutritional deprivation on health and productivity. Effects of social and cultural factors in nutrition. *Fall*

FDNT476 **♦ (2)**
Nutrition and Aging
Physiological changes in aging. Food-selection patterns, nutritional needs, nutritional disorders, and chronic diseases. Prerequisite: FDNT230. *Fall*

FDNT478 **♦ $ (0)**
Study Tour:
Travel to destinations relevant to individual programs of study. Classes will be selected from department(s) offerings. Fee may be required.

FDNT485 **♦ (3)**
Nutrition and Metabolism
Study of the nutrients and their functions within the living cell and the complex organism. Discussion of the major metabolic pathways. Prerequisites: BCHM120, FDNT230. *Spring*

FDNT490 **(1)**
Dietetic Program Review
A comprehensive review of the major elements of the undergraduate dietetics program (DPD). The senior comprehensive exam will be given at the end of the semester.

FDNT495 **(1–3)**
Independent Study/Readings
Repeatable to 4 credits in independent study and 4 credits in readings on nutrition and dietetics. Consent of instructor required.

FDNT497 **(2)**
Internship
Supervised field experience in an approved health institution or health promotion program for a total of 200 hours. Application of knowledge and competencies learned in the health program.

FDNT498 **♦ (2)**
Research Methods
A study of research methodology, survey methods, and applied statistics as they relate to dietetics. *Fall*

FDNT540 **(2)**
Maternal and Child Nutrition
Role of nutrition in human growth and development, with emphasis on prenatal period, infancy, childhood, and adolescence.

FDNT545 **$ (2–4)**
Nutrition and Wellness Programs
Development of nutrition and wellness programs for community groups emphasizing health promotion. Includes participation in community assessment, program planning, implementation, and evaluation of a program. Prerequisite: FDNT448.

FDNT555 **(3)**
Advanced Human Nutrition I
Functions and nutritional metabolism of simple and complex carbohydrates, lipids, amino acids, and proteins. Public health applications. Prerequisite: A course in biochemistry. *Fall*

FDNT556 **(3)**
Advanced Human Nutrition II
Functions and nutritional metabolism and interactions of fat-soluble and water-soluble vitamins, minerals, and trace minerals. Public health applications. Prerequisite: A course in biochemistry. *Spring*

FDNT565 **(3)**
Current Issues in Nutrition and Wellness
Discussion of current issues in nutrition, food safety, public health, and wellness. Prerequisite: FDNT230. *Spring*

FDNT570 **(3)**
Maternal and Child Health
Preventive health care and conditions necessary for mother and child well-being in developing countries. Community-based interventions for child survival. Management of maternal and child health programs.

FDNT585 **(1–4)**
Topics in _____
Selected topics in the areas of nutrition and wellness. Repeatable to 6 credits.

FDNT586 **(1–4)**
Professional Experience
Opportunities for unique supervised practical experiences in various organizations to introduce the student to the role of a professional. A maximum of 4 credits per semester can be taken. Repeatable to 8 credits.

FDNT594 **$ (0, 4)**
Dietetic Internship
The internship is equivalent to a full-time load. It involves 35-40 hours per week of supervised practice. Open only to students seeking registration eligibility with the Commission on Dietetic Registration of the American Dietetic Association. *Fall, Spring*

FDNT600 **(1)**
Research Design
Criteria for the organization, analysis, and reporting of research in nutrition. Preparation of a proposal for a master's thesis or project. Prerequisite: FDNT498 or equivalent. *Spring*

FDNT648 **(1–4)**
Workshop

FDNT650 **$ (0)**
Project Continuation
Student may register for this title while clearing deferred grade (DG) and/or incomplete (I) courses with advisor approval only. Registration for this title indicates full-time status.

FDNT655 **$ (0)**
Program Continuation
Students may register for this non-credit continuation course to maintain active status. For additional information on active status, please refer to p. 49 in the bulletin. Registration does not indicate full-time status.

FDNT660 **$ (0)**
Thesis Continuation
Student may register for this title while clearing deferred grade (DG) and/or incomplete (I) courses with advisor approval only. Registration for this title indicates full-time status.

FDNT665 **$ (0)**
Preparation for Comprehensive Exams
Advisor approval required. Registration for this title indicates full-time status.

FDNT670 **(0)**
Comprehensive Exam

FDNT680 **(1–4)**
Research Seminar
Individual reports and discussion of recent research data. Repeatable to 4 credits. Consent of instructor required.

FDNT690 **(1–6)**
Independent Study
Individual study and/or research. Consent of instructor required. Repeatable to 6 credits.

FDNT698 **(3)**
Research Project

FDNT699 **(3–6)**
Master's Thesis
Repeatable to 6 credits.

Health Education Courses

HLED120 **$ (1)**
Fit for Life
A balanced up-to-date coverage of all critical areas of wellness including physical fitness, nutrition, weight management and stress, as well as the principles of health according to the Bible and Ellen G. White will be studied. Practical tools will be given to help adopt and model healthier lifestyles.

HLED210 **(3)**
Philosophy of Health
The Biblical basis of health. A study of the historical development and basis of the health message in the Seventh-day Adventist Church. The role of health promotion in current society.

HLED380 **(3)**
Natural Therapies
The study of simple natural therapeutic remedies, including massage, hydrotherapy and herbal therapies

HLED445 **(2)**
Consumer Health
An analysis of the various fads in society today, and the methods and techniques used by promoters of healthcare products and services. A study of ways in which consumers are vulnerable to certain health claims and scams, and the protection provided to the consumer by governmental agencies.

HLED480 **(3)**
Wellness Programs
Learning the steps of needs assessment of a community, planning a program, conducting a health promotion program while utilizing the resources of the community, and the program evaluation. Two lectures per week and a third hour each week.

Fitness & Exercise Courses

Personal Fitness Courses

FTES116 **$ (1)**
Weight Control
Study of the factors involved in weight loss and health improvement using a combination of concepts and applications in physical fitness, healthy nutrition and self-control. Cardiovascular, strength and flexibility exercises will be introduced and practiced throughout this course.

FTES131 **$ (1)**
Pilates
The student will learn the Pilates fundamentals and essential mat work exercises, then work towards mastery of these basic skills. Pilates exercises help to strengthen core muscles and increase flexibility, endurance, posture and body awareness.

FTES132 **$ (1)**
Cardio Kick
The student will participate in a high-intensity, cardio workout utilizing kickboxing techniques and aerobic movements. In addition, the student will learn abdominal exercises and whole body strengthening exercises.

FTES135 **$ (1)**
Self-Defense
The purpose of this class is to provide the student with the appropriate level of knowledge and skills in self-defense. As a result of the class the student will improve his/her general physical fitness and skill performance. Principles, techniques and safe practices of self-defense will be taught.

FTES140 **$ (1)**
Aqua Aerobics
This course is designed to use water resistance and rhythmic movements for both low and non-weight bearing improvements in cardiovascular fitness, muscle strength and endurance as well as flexibility.

FTES150 **$ (1)**
Swimming
Designed for multilevel instruction. Three basic levels are incorporated into the class based on a swimming pretest: beginners, intermediate and advanced. No swimming ability necessary. Repeatable.

FTES210 **$ (1)**
Personal Fitness Plan
A study of basic-fitness concepts and principles in conjunction with a personalized exercise program for physical fitness. Weekly independent workouts are required.

FTES214-001 **$ (1)**
Men's Weight Training and Conditioning
A study of the basic principles in strength training and conditioning for men and women as well as the application of different methods of muscular strength and endurance training.

FTES214-002 **$ (1)**
Women's Strength Training and Toning
A study of the basic principles in strength training and conditioning for men and women as well as the application of different methods of muscular strength and endurance training.

FTES300 **(1)**
Lifeguarding
Instruction in accident prevention, aquatic facility supervision, and water-rescue techniques. Successful completion results in American Red Cross Lifeguard Training certification. Current first aid and CPR certification included. Prerequisite: Ability to swim 500 yards in 10 minutes or less.

FTES350 **(1)**
Water Safety Instructor
Instruction in techniques for teaching American Red Cross swimming courses. Current CPR certification required. Swimming pretest required.

FTES389 **(1)**
WSI Internship
Students who have a current American Red Cross Water Safety Instructor's Certification or equivalent can take advantage of this opportunity. Participants will teach and organize a class of students for the Learn-To-Swim program. Teachers will be expected to provide lesson plans and teach all the required lessons. S/U.

Outdoor Skills Courses

FTES120 **$ (1)**
Scuba
An entry-level course in scuba diving. Includes instruction in the buddy system, dive planning, donning and removing equipment in the water, alternate air sources, buddy breathing, entries, communication and navigation. Swimming pretest required. Students will earn scuba license upon completion. Additional fees apply. *Spring*

FTES124 **$ (1)**
Backpacking
Students will gain knowledge of outdoor elements like one match and friction fires, orienteering, lightweight backpacking, and many other necessary skills. The class also uses and applies the current leave no trace principles and how they affect everyday life. The class culminates with a four-day backpacking trip that occurs over a long weekend where the skills and adventure of living outdoors are put into practice. The student will be responsible for providing their own backpack. The department will supply all necessary additional gear.

FTES125 **$ (1)**
Canoeing
Emphasis on precise canoe handling through paddle control. Based on traditional strokes. Practice conducted on local lakes and rivers. One all-day canoe trip or two half-day canoe trips are required. *Fall*

FTES126 **$ (1)**
Cycling
A study of the various types of cycling, cycling techniques and the proper maintenance of a bicycle.

FTES127 **$ (1)**
Rock Climbing
A safe introductory course that includes learning climbing skills, essential climbing knots, proper equipment and safety, and self-rescue.

FTES174 **$ (1)**
Cross-Country Skiing
Instruction in cross-country skiing technique, conditioning, equipment and winter safety.

FTES275 **$ (1)**
Outdoor Trips-N-Treks:
One- to two-week trips beyond the normally offered activity courses: Biking, Backpacking, Skiing. Repeatable in different areas. Instructor's permission required. Consult the current class schedule for activities offered each year. Normally involves out-of-state destinations when school is not in regular session.

FTES278 **$ (0)**
Study Tour:
Travel to destinations relevant to individual programs of study. Classes will be selected from department(s) offerings. Fee may be required.

FTES330 **$ (1)**
Outdoor Adventure
Instruction in camping and outdoor techniques, open fire cooking, orienteering, backpacking, wilderness first aid and edible wild plants. Department supplies all necessary equipment except backpack. One weekend trip required where students will day hike and live outdoors.

Team Activity Courses

FTES106 **$ (1)**
Beginning Basketball
Instruction in the fundamental skills of shooting, passing, ball-handling, man-to-man defensive play, basic rules, offensive strategy, basic rules and team play.

FTES107 **$ (1)**
Beginning Volleyball
Instruction in the basic skills of serving, setting, passing and spiking, and the basic instruction on rules, and 2-, 3-, 4-, and 6-person team play.

FTES109 **$ (1)**
Beginning Softball
Instruction in the fundamental skills of throwing, catching, base running, batting and fielding of ground and fly balls. Position play, game situation drills, scrimmages and rules are covered. Student must supply own glove.

FTES114 **$ (1)**
Soccer
Learning the fundamental skills of ball control, passing, blocking and shooting goals. Indoor or outdoor games depending upon the season and weather.

FTES115 **$ (1)**
Disc Sports
Development of basic skills for "Disc Sports" like disc golf and ultimate frisbee. Students will learn the basic strokes, rules and techniques to allow them to be proficient in these lifetime activities.

FTES118 **$ (1)**
Badminton
Analysis and practice of basic strokes, singles and doubles play, strategy and rule interpretations.

FTES119 **$ (1)**
Tennis
Instruction in the fundamental skills of ground strokes, serving, volleying, team play, basic strategy and rules. Students must supply their own racquet and balls. *Spring*

FTES128 **$ (1)**
Golf
Study of the basic techniques of the golf swing. An introduction to the game, rules and etiquette of golf. Students must supply their own equipment. Additional lab fees required. *Spring*

FTES129 **$ (1)**
Beginning Racquetball
Introduction to basic strokes, singles and doubles play, strategy and rule interpretations. Students must supply their own racquet, balls and eyeguards.

FTES130 **$ (1)**
Special Activities
Special areas beyond normally offered courses: Cardinal Athletics,

personalized fitness activities, horseback riding. Repeatable in different areas. Consult the current class schedule for activities offered each year.

FTES144 **$ (1)**
Floor Hockey
Introduction to the game, including team composition, rules and fundamental skills.

FTES206 **$ (1)**
Intermediate Basketball
Analysis of and drills in fundamental skills, offensive and defensive strategies. Emphasis is given to team play.

FTES207 **$ (1)**
Intermediate Volleyball
Instruction in advanced team play, offensive and defensive strategies. Game scrimmages will help to perfect fundamental skills.

FTES209 **$ (1)**
Intermediate Softball
Instruction in team play, cutoffs, relays, and offensive and defensive strategies. Game scrimmages use the pitching machine. Students supply own glove.

FTES229 **$ (1)**
Intermediate Racquetball
Perfection of fundamental skills and strategy.

FTES240 **$ (0, 1)**
Gymnics
The student will be a part of a demonstration acrobatic team that will perform for various audiences both spiritual and secular in nature. Students will learn to perform various acrobatics, increase their physical fitness level and learn teamwork. Students will develop tolerance both for others and for themselves as they become a part of the team and will have an opportunity to share what God has done and what He is ready to do again in their lives. Class meets four nights a week for 2 hours throughout the fall and spring semesters of the school year. Registration for this class is contingent upon being selected for the team following tryouts. All students on the team must register each semester. Course can be taken for credit one semester per academic year. Repeatable.

FTES266 **(1)**
Officiating
Practical field experience in officiating. Rules, officiating mechanics and signals, learned and practiced. MHSAA certification available. Certified officials have opportunities to earn up to $50.00 a game for officiating elementary school, middle school and high school athletic contests. Prerequisite: Previous knowledge of the game and/or experience playing the game.

Specialized Fitness Courses

(These classes do not fulfill the GE Fitness Education requirement.)

FTES305 **$ (3)**
Current Concepts and Applications in Physical Fitness
A foundational course surveying the current trends and practices in the area of physical fitness. Understanding and critically analyzing the concepts, principles, and guidelines for fitness exercise and related activities.

FTES355 **$ (3)**
Methods of Fitness Instruction
A course providing knowledge and practical application for instructing safe and effective exercise programming for apparently healthy individuals. Teaching and evaluating of a variety of individual and group exercise sessions including several different types of physical activities. Prerequisite: FTES305. *Fall*

FTES465 **♦ $ (4)**
Exercise Physiology
Study of the body's physiological response to exercise. Prerequisites: BIOL221, 222 or equivalent. Must be a junior or senior to register for this course. Three lectures per week plus a 3-hour lab. *Spring*

FTES495 **(1–4)**
Independent Study/Reading/Research/Project
Independent Study: Directed study in an area of interest resulting in a formal term paper.
Independent Readings: Weekly meetings with the instructor for individual assignments and reports.
Independent Research: Design and execution of an experiment or causal-comparative research.
Independent Project: Practical or creative experience or project in consultation with instructor. Permission required from the instructor and department chair. Thirty hours of involvement required for each credit. Contract of proposed activity required. Repeatable to 4 credits in each area. *Fall, Spring*