

# NUTRITION, DIETETICS AND EXERCISE SCIENCE

## Nutrition and Dietetics Faculty

Meredith G. Wagner, chair and graduate program director  
 Ashley T. Roseno, didactic program in dietetics director & internship coordinator  
 Betsy R. Cogan, assistant professor

## Exercise Science Faculty

Emily C. Huber-Johnson, program director  
 Jeremiah Moen, clinical coordinator

## Wellness Faculty

Stefanie Meyer, program director

## Department Mission

It is the mission of the department of nutrition, dietetics and exercise science to prepare our students to lead purposeful and fulfilling lives as nutrition and exercise science professionals in a diverse and global society through experiential, collaborative, and discovery-based learning.

## Food, Nutrition and Dietetics (Didactic Program in Dietetics)

The mission of the Didactic Program in Dietetics is to provide an educational environment consistent with the mission of Concordia College that will prepare students:

- for supervised practice and completion of a graduate degree leading to eligibility for the Commission on Dietetic Registration credentialing exam to become a registered dietitian nutritionist
- for Commission on Dietetic Registration credentialing exam to become a nutrition and dietetics technician, registered
- to become responsibly engaged in the world

Concordia's Didactic Program in Dietetics provides learning experiences that prepare students to achieve the following outcomes:

- Perform nutritional assessment and develop appropriate care plans for individuals across the lifespan, and for diverse health conditions
- Apply knowledge of food science and management principles to the function of the food service system, and describe laws, regulations and policies that impact both food service and community health
- Analyze and interpret data relevant to the dietetics practice
- Use oral and written communication skills along with appropriate technology to effectively convey nutrition information to both professional and lay audiences

Yearly outcome data are available on request from the program director at [aroseno@cord.edu](mailto:aroseno@cord.edu)

The Didactic Program in Dietetics at Concordia College is currently granted accreditation by the

Accreditation Council for Education In Nutrition and Dietetics (ACEND)  
 (<https://www.eatrightpro.org/acend/>)  
 120 South Riverside Plaza, Suite 2190

Chicago IL 60606-6995  
 (800) 877-1600 ext. 5400

After graduation, food/nutrition/dietetics majors may enter dietetic internships, graduate school, or employment in food/nutrition/dietetics-related careers. Those completing a dietetic internship and a graduate degree are eligible to sit for the examination to become a registered dietitian nutritionist.

Food/nutrition/dietetics majors who plan to apply for a dietetic internship upon graduation to become a registered dietitian nutritionist are required to obtain a verification statement. In order to obtain the verification statement, students must graduate with a cumulative GPA of 2.75 or above. Successful completion of a DPD and obtaining a verification statement does not guarantee acceptance into a dietetic internship.

Students who graduate with less than a GPA of 2.75 can pursue graduate school or employment in food/nutrition/dietetics-related careers. Transfer courses are not accepted for FND courses.

## Exercise Science

The exercise science program is a science-based degree path that prepares health and exercise professionals with a strong understanding in the knowledge, skills, and abilities to assist others in adopting and promoting healthy, active lifestyles. Exercise science, a growing field that will provide the foundational knowledge for students to pursue a variety of allied health careers, such as: cardiac and pulmonary rehabilitation, corporate fitness management, community wellness programming, and strength and conditioning. For students looking to continue their education, the exercise science program prepares students for graduate studies in exercise physiology, public health, and exercise science research and professional programs in athletic training, occupational therapy, physical therapy, and chiropractic.

Students completing the exercise science major or minor will be able to:

- Conduct health and fitness assessments
- Prescribe and implement health- and performance-related exercise programs
- Apply effective counseling and behavioral strategies to optimize adoption and adherence to exercise programs
- Effectively manage fitness and wellness facilities

Exercise science majors and minors are immersed in hands-on learning and direct application of skills; develop connections and collaborate with other allied health professionals; create campus-wide exercise initiatives through Exercise is Medicine-On Campus and the Exercise Science Club, and are provided opportunities to attend workshops and conferences.

## Programs Offered

### Major

- Exercise Science Major (<https://catalog.concordiacollege.edu/health-professions/nutrition-dietetics-exercise-science/exercise-science-major/>)
- Food/Nutrition/Dietetics Major (<https://catalog.concordiacollege.edu/health-professions/nutrition-dietetics-exercise-science/food-nutrition-dietetics-major/>)

## Minors

- Exercise Science Minor (<https://catalog.concordiacollege.edu/health-professions/nutrition-dietetics-exercise-science/exercise-science-minor/>)
- Food/Nutrition/Dietetics Minor (<https://catalog.concordiacollege.edu/health-professions/nutrition-dietetics-exercise-science/food-nutrition-dietetics-minor/>)

## Undergraduate Certificate

- Nutrition for Health Professionals Undergraduate Academic Certificate (<https://catalog.concordiacollege.edu/health-professions/nutrition-dietetics-exercise-science/nutrition-health-professionals-undergraduate-academic-certificate/>)

## Courses

### EXS 245 - Introduction to Exercise Science, 2 credits.

Designed to educate undergraduate students about the important aspects of exercise science including history, areas of study, technology, career opportunities, certifications, professional organizations and future trends.

**Frequency:** 1st or 2nd Half - 1st Semester, 1st or 2nd Half - 2nd Semester

### EXS 260 / FND 260 - Sport Nutrition, 2 credits.

This course is an in-depth study of the science behind nutrition as it relates to sport and influence on performance, training, and recovery. Topics covered will include energy expenditure and the role of nutrients during resistance, endurance, and intermittent exercise, hydration recommendations, and use of nutritional supplements for various athletic groups.

**Prerequisites:** FND 160 or FND 321

### EXS 350 - Physiology of Exercise, 4 credits.

This course examines physiological principles related to human activity, including acute and chronic adaptations to exercise, the role and functioning of major physiological systems of the body, physiological adaptations at rest and during exercise, and key principles in exercise testing and program design.

**Frequency:** Every Year - First Semester

**Prerequisites:** BIOL 121 and EXS 245

### EXS 360 - Health Promotion Programming and Evaluation, 4 credits.

This course provides an introduction to health promotion and the foundational concepts for planning, implementing and evaluating health promotion programs in a variety of settings, including hospitals, clinics, schools, and corporations.

**Frequency:** Every Year - First Semester

**Prerequisites:** EXS 245

### EXS 365 - Testing and Prescription in Exercise Science, 4 credits.

This course is designed to provide the student with the knowledge, skills, and abilities to assess health-related physical fitness components and prescribe individual exercise programs for apparently healthy populations based on these objective measures. This course will provide hands-on experience in the laboratory to supplement the classroom discussion. Three lecture sessions and four hours of laboratory per week.

**Frequency:** Every Year - Second Semester

**Prerequisites:** EXS 350 or EXS 272

### EXS 370 - Strength and Conditioning Programming & Management, 2 credits.

This course provides an overview of strength and conditioning with an emphasis is placed on testing and evaluation, program design, and organization and administration. Additionally, this course is designed to help prepare students for the nationally accredited Certified Strength and Conditioning Specialist (CSCS) certification exam. This course is open only to Exercise Science majors and minors.

**Frequency:** 1st or 2nd Half - 1st Semester

**Prerequisites:** EXS 365

**Corequisites:** EXS 371

### EXS 371 - Resistance Training Techniques, 2 credits.

This course provides instruction on a variety of resistance training techniques, proper progressions when teaching exercises, common movement deficiencies, and ways to correct these deficiencies. Included are hands-on activities to stress the proper techniques and safety considerations in various resistance training exercises. This course is open only to exercise science majors and minors.

**Frequency:** 1st or 2nd Half - 1st Semester

**Prerequisites:** EXS 365

**Corequisites:** EXS 370

### EXS 380 - Special Topics, 0-4 credits.

Courses covering various topics of interest in this particular discipline are offered regularly. Contact department or program chair for more information.

**Frequency:** Not offered on a Regular Basis

**Repeatable:** Yes

### EXS 390 - Academic Internship, 1-8 credits.

**Frequency:** Every Semester

**Repeatable:** Yes

### EXS 410 - Exercise Counseling & Behavioral Strategies, 4 credits.

In this course students will demonstrate methods to facilitate adoption of and optimize adherence to exercise programs and other healthy behaviors by using motivational interviewing, behavior change models and theories, and advanced exercise counseling and education principles.

**Frequency:** Every Year - Second Semester

**Prerequisites:** EXS 365

### EXS 460 - Exercise and Chronic Disease, 4 credits.

This course exposes students to underlying pathophysiology of clinical diseases, the effects of clinical diseases on physiological responses during and after exercise, and adaptations to exercise assessment and prescription techniques appropriate to special populations.

**Frequency:** Every Year - Second Semester

**Prerequisites:** EXS 365

### EXS 465 - Research Methods and Testing in Exercise Science, 4 credits.

This course provides an overview of research methods, reviews of the evidence on the role of physical activity/exercise in the development and treatment of chronic disease, and expands on exercise research and testing protocols for both healthy and special populations.

**Frequency:** Every Year - Second Semester

**Prerequisites:** PED 365 or EXS 365

### EXS 467 - Biomechanics of Human Motion, 4 credits.

This course is a study of the anatomical, kinesiological, and biomechanical aspects of sport and exercise. This course emphasizes the mechanical principles of human movement including muscular and skeletal principles and human movement analysis.

**Frequency:** Every Year - First Semester

**Prerequisites:** BIOL 306 and (EXS 350 or EXS 272)

**EXS 480 - Independent Study, 1-4 credits.**

This course provides an opportunity for individual students to conduct in-depth study of a particular topic under the supervision of a faculty member. Contact the department or program chair for more information.

**Frequency:** *Not offered on a Regular Basis*

**Repeatable:** Yes

**EXS 487 - Directed Research, 1-4 credits.**

This course provides an opportunity for individual students to conduct research in a specific area of study, completed under the direction of a faculty mentor. Specific expectations of the research experience to be determined by the faculty. Repeatable for credit. Prerequisite: consent of instructor.

**Frequency:** *Not offered on a Regular Basis*

**Repeatable:** Yes

**EXS 489 - Pre-Practicum Seminar, 0 credits.**

This course is designed for students to learn about the practicum requirements and complete the steps necessary to begin their practicum experience. Students will enroll in this course the semester prior to their practicum course, EXS 490. Must have junior or senior status. This course is open only to exercise science majors.

**Frequency:** *Every Semester*

**Prerequisites:** EXS 365 (may be taken concurrently) or PED 365 (may be taken concurrently)

**EXS 490 - Practicum in Exercise Science, 4 credits.**

The application in a practical work experience of theory and skills learned in the classroom. Under approved supervision, the student will pursue the health-fitness area in an applicable setting.

**Frequency:** *Every Semester, Summer Session*

**Prerequisites:** EXS 489

**Corequisites:** PEAK 400

This course is PEAK Required

**FND 112 - Food Science, 4 credits.**

A study of basic fundamental principles of food selection and preparation. Physical and chemical principles are applied to food preparation, evaluation of products and recipe modifications. Two lectures and two laboratory periods per week.

**Frequency:** *Every Year - First Semester*

**Core designations:** Natural Science N

**FND 160 - Practical Nutrition, 2 credits.**

A course introducing the science of nutrition, fundamental knowledge of nutrients, and practical application to properly nourish the body. The course also introduces evidence-based nutritional tools and resources to become informed consumers. This course is designed as an introductory course not requiring an extensive science background.

**FND 199 - Exploration Seminar, 0 credits.**

**Repeatable:** Yes

**FND 239 - Nutrition for the Lifecycle, 4 credits.**

An exploration into the nutrient requirements and dietary problems for each stage of the lifecycle with an emphasis on infants, children and elderly. A special focus will be placed on teaching techniques and motivation of clients at specific stages of the lifecycle. Case studies will be completed to apply strategies for behavior change to meet unique needs of individuals in specific stages.

**Frequency:** *Every Year - First Semester*

**Prerequisites:** FND 321

**Corequisites:** PEAK 400

This course is PEAK Required

**FND 250 - Pre-May Seminar, 2 credits.**

Academic and cultural preparation for students participating in a departmental May Seminar Abroad.

**Frequency:** *Not offered on a Regular Basis*

**FND 260 / EXS 260 - Sport Nutrition, 2 credits.**

This course is an in-depth study of the science behind nutrition as it relates to sport and influence on performance, training, and recovery. Topics covered will include energy expenditure and the role of nutrients during resistance, endurance, and intermittent exercise, hydration recommendations, and use of nutritional supplements for various athletic groups.

**Prerequisites:** FND 160 or FND 321

**FND 300 - May Seminar, 4 credits.**

**Frequency:** *May Seminar*

**Prerequisites:** FND 250

**FND 321 - Nutrition, 4 credits.**

A study of chemical properties, function, metabolism, dietary allowances, effects of deficiencies and sources of nutrients. Decision-making relative to contemporary issues in nutrition as related to health, wellness and the lifecycle. Three lectures per week.

**Frequency:** *Every Semester*

**Prerequisites:** BIOL 121 or BIOL 101 or CHEM 127

**Core designations:** Social Science S

**FND 336 - Environmental Nutrition, 4 credits.**

A study of local, national, and global environmental nutrition topics, including food production, agriculture, access to food, safety of food and water, and food policy. The connections between nutrition and health, food choices, and a sustainable food system will be explored. This course can also count toward the global studies program and the environmental and sustainability studies program.

**Frequency:** *Not offered on a Regular Basis*

**Corequisites:** PEAK 400

**Core designations:** International-Global Prspct G

This course is PEAK Required

**FND 346 - Quantity Food Production, 4 credits.**

A study of the principles of production planning, food preparation, and marketing activities in a food service, including strengths and challenges. This course will provide food safety and food service management certifications. Two lectures and two laboratories per week. This course is associated with an approved PEAK in conjunction with FND 424 and FND 426.

**Frequency:** *Alternate Years - 2nd Semester*

**Prerequisites:** FND 112

**FND 360 - Advanced Nutrition, 4 credits.**

Exploration of nutrition as the science that integrates life processes from the cellular level on through the multi-system operation of the whole organism. Study of pathophysiology as a foundation for medical nutrition therapy.

**Frequency:** *Every Year - First Semester*

**Prerequisites:** (BIOL 306 or (BIOL 411 and BIOL 412)) and FND 321

**FND 362 - Medical Nutrition Therapy, 4 credits.**

Application of the nutrition care process of assessment, diagnosis and dietary intervention to both acute and chronic diseases.

**Frequency:** *Every Year - Second Semester*

**Prerequisites:** (CHEM 142 or (CHEM 342 and CHEM 373)) and (BIOL 306 or (BIOL 411 and BIOL 412)) and FND 360 and FND 239

**FND 380 - Special Topics, 0-4 credits.**

Courses covering various topics of interest in this particular discipline.  
Contact department chair for more information.

**Frequency:** *Not offered on a Regular Basis*

**Repeatable:** Yes

**FND 390 - Academic Internship, 1-8 credits.**

**Frequency:** *Not offered on a Regular Basis*

**Repeatable:** Yes

**FND 424 - Clinical Experience, 4 credits.**

Advanced clinical nutrition. Includes a practical experience in a professional setting under the supervision of a registered dietitian. Two lectures per week are scheduled.

**Frequency:** *Every Year - First Semester*

**Prerequisites:** FND 362 and FND 321

**Corequisites:** PEAK 400

This course is PEAK Required

**FND 425 - Current Issues- Food/Nutrition, 2 credits.**

An examination of current issues in food and nutrition through individual research projects. Current issues will include topics such as economics, cultural and consumer trends, and technology that will be explored with laboratory projects, library research and field trips.

**Frequency:** *Alternate Years - 1st Semester*

**Prerequisites:** FND 321

**FND 426 - Community Nutrition, 4 credits.**

An exploration of community nutrition problems and the role of the community nutritionist within public health. Emphasis on assessment, planning, implementation and evaluation of nutrition interventions, and the development of nutrition policy within the political system. Includes experiences in community settings. This course is associated with an approved PEAK in conjunction with FN 346 and FND 424.

**Frequency:** *Every Year - Second Semester*

**Prerequisites:** FND 321

**Core designations:** U.S. Cultural Diversity U

**FND 446 - Management in Nutrition and Dietetics, 2 credits.**

A study of the types of management positions that nutrition professionals hold, the functions they perform, the roles they play, and the skills required to manage successfully. Students will develop a basic understanding of the structure of organizations along with knowledge of organizational dynamics and the differences between managing and leading.

**Frequency:** *Alternate Years - 1st Semester*

**FND 480 - Independent Study, 1-4 credits.**

This course provides an opportunity for individual students to conduct in-depth study of a particular topic under the supervision of a faculty member. Contact the department chair for more information.

**Frequency:** *Not offered on a Regular Basis*

**Repeatable:** Yes

**FND 487 - Directed Research, 1-4 credits.**

This course provides an opportunity for individual students to conduct research in a specific area of study, completed under the direction of a faculty mentor. Specific expectations of the research experience to be determined by the faculty. Repeatable for credit. Prerequisite: consent of instructor.

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