

NUTRITION & HEALTH SCIENCES: NUTRITION & BIOMEDICAL SCIENCES OPTION

Description

The nutrition and biomedical sciences option is designed for students who wish to combine an emphasis in nutrition with a strong science background. This major provides an appropriate vehicle for premedical, pre-dental, nursing, physical therapy, and laboratory technology majors who may be able to obtain a degree in nutrition and simultaneously meet entrance requirements for a professional program. It is also a suitable avenue for students interested in nutrition research and graduate study since it provides an opportunity to emphasize the basic sciences.

Admission

The admission requirements for pre-professional programs vary and may change from year to year. Admission to professional programs is competitive. Students need to be aware of not only specific course requirements but also entrance exams, admission deadlines, research and volunteer opportunities, and other activities that enhance the application. In order to receive the most timely information on requirements and preparation, students should visit the Explore Center, 127 Love (Library) South, 402-472-3605.

College Requirements

College Admission

Students accepted by the University must have an ACT of 20 or SAT of 950, a 3.0 cumulative high school grade point average, or rank in the upper half of their high school graduating class and have the following high school preparation to be eligible for guaranteed admission to the College of Education and Human Sciences:

- Four years of English that include intensive reading and writing experience.
- Two years of one foreign language.
- Four years of mathematics that include Algebra I, II, geometry, and one year that builds on a knowledge of algebra.
- Three years of natural sciences that include at least two years selected from biology, physics, chemistry, and earth science and one year of laboratory instruction.
- Three years of social studies that include at least one year of American and/or world history and one year of history, American government, and/or geography.

Transfer and Readmitted Students

Transfer students from universities or colleges outside of the University of Nebraska–Lincoln and readmitted students seeking admission to the College of Education and Human Sciences must have an accumulated average of 2.0 on a 4.0 scale or above and no high school deficiencies. Students who do not meet these requirements must enroll as deciding students in the Exploratory and Pre-Professional Advising Center or in another college. Once they have completed 12 graded hours at Nebraska with a minimum 2.0 grade point average and have removed any high

school deficiencies, University of Nebraska–Lincoln students may apply for admission to the College.

Transfer and readmitted students must meet the graduation requirements for the College of Education and Human Sciences as stated in the current catalog in effect at the time they enter or reenter the College.

Students who left the College on academic warning, or who were dismissed, may seek readmission to the College after two semesters by applying to the university's Admissions Office. Readmission is not assured. However, the admissions committee is receptive to giving students a second opportunity to be successful. The committee is interested in knowing what the student has done in the intervening period that would suggest the student will be successful when readmitted. Successfully completing correspondence courses and/or community college courses is an effective way to demonstrate one's commitment to academic success.

Transferring from Other Colleges within the University of Nebraska–Lincoln

Students transferring to the College of Education and Human Sciences from another University of Nebraska–Lincoln college or from the Exploratory and Pre-Professional Advising Center must have a minimum cumulative GPA of 2.0, be in good academic standing, and meet the freshman entrance requirements that exist at the time of their admission to the College of Education and Human Sciences. **Students must fulfill degree requirements that exist at the time of their admission to the college, not at the time they enter the University of Nebraska–Lincoln.**

To remain current, College of Education and Human Sciences students must enroll in, and complete, at least one university course that will apply toward degree requirements during a 12-month period. Students who readmit following an absence of one year or more must meet all requirements in the Undergraduate Catalog in effect at the time of readmission and enrollment. Students who transfer to another University of Nebraska–Lincoln college and later return to the College of Education and Human Sciences will be considered readmitted students. Students who transfer out of a teacher education program, but continue their certification program while seeking a degree in another University of Nebraska–Lincoln college, are exempt from this policy.

International Students

The College of Education and Human Sciences welcomes undergraduate international students. As a part of admission to the College, international students must present a TOEFL score of 550 or higher and TSE score of 230 or higher.

Students seeking teacher education and state certification must meet the same requirements as any other undergraduate students. Students who have received a degree outside of the United States and are interested in teacher certification are required to have a transcript review completed by an approved agency not directly associated with the University of Nebraska. For more information, please contact the Student Services Center.

Removal of Deficiencies

Students admitted to the University with core deficiencies are expected to remove those deficiencies in a timely manner. Students with deficiencies are not eligible for graduation. The courses that students use to clear core deficiencies may also be used to meet ACE requirements or other graduation requirements. The Dean of the College of Education and Human Sciences will make the final decision concerning any problems

or questions that may arise in satisfying requirements to remove deficiencies.

College Degree Requirements

Grade Rules

Minimum Grade Requirements

Grade requirements vary from major to major. Please see the appropriate major listing or check with your advisor regarding minimum grade requirements.

Pass/No Pass Option

CEHS students are allowed to take up to 12 hours of Pass/No Pass (P/N) credit. The college departments vary on P/N policies. Students should check with their advisor to be certain they qualify for the Pass/No Pass option.

Grade Appeals

Any student enrolled in a course in the College of Education and Human Sciences who wishes to appeal alleged unfair and prejudicial treatment by a faculty member shall present their appeal in writing to the Dean's Office no later than 30 days after notice of the student's final course grade has been mailed from campus.

Students may use and are encouraged to use the following sequential procedures to appeal the grade. The problem may be solved at any of the levels of the appeal procedure.

1. Contact the instructor. Frequently, the problems can be solved at this point.
2. Submit a request to the chair of the department.
3. Take the case to the departmental Grading Appeals Committee. The Committee is contacted by the department chair.
4. Take the case to the College Appeals, Retention and Certification Committee by contacting the Dean's Office.

The complaint will be forwarded to a committee consisting of faculty and student representatives. After a hearing, the Committee will make a written recommendation regarding the appeal. The Committee's recommendation is binding on the appealing student and faculty member.

Transfer Credit Rules

Acceptance of Transfer Grades

- Grades earned at the University of Nebraska–Lincoln, UNO, UNK
- Grades of D-, D, D+, and C- satisfy requirements in all programs in the College unless specified otherwise. Students who receive a grade of D-, D, D+, C-, however, are encouraged to retake the course.
- Grades earned outside the University of Nebraska system

The college will accept no more than 9 credit hours of grades less than a C from any program outside the University of Nebraska system. Grades below a C can only be applied to general education requirements and elective classes.

Maximum Number of Hours for Transfer

Transfer courses are evaluated by the University and by the College to determine University of Nebraska–Lincoln and College course equivalencies. The College determines which courses will be accepted and how they will apply toward degree requirements. Sixty (60) is the maximum number of hours that will be accepted on transfer from a two-

year college. Ninety (90) is the maximum number of hours that will be accepted on transfer from accredited four-year colleges and universities.

Courses taken 10 years before admission or readmission to the College will be evaluated by the major department to determine if it is appropriate to accept those courses for transfer credit and for application to degree requirements. Specific courses will be reviewed in keeping with the guidelines specified by each department.

Transfer Credit from Technical, Non-Accredited and Foreign Institutions

Students who desire to transfer from these institutions must have each course evaluated by the appropriate departmental representative. All rules stated above in reference to grades and maximum credit hours apply. For additional information and guidance in this process, contact the Dean's Office.

Transfer Agreements with UNO and UNK

Transfer agreements between the three institutions within the University System allow for a smooth transition for students interested in taking courses from UNO, UNK, and/or the University of Nebraska–Lincoln. Although restrictions noted above on grades and maximum transfer hours still apply, there are some exceptions. For purposes of residency, courses from UNO and UNK fulfill these requirements. Students planning to major in a program in the college should read the specific requirements noted with individual programs. Questions about academic transfer should be addressed to the Advising Office.

Transfer Agreements with Community Colleges

Articulation agreements and "Transfer with Ease Programs" with Nebraska community colleges indicate how courses and programs will transfer to the University of Nebraska–Lincoln and the College of Education and Human Sciences. The same guidelines noted above on the acceptance of courses, grades, and hours also apply to these institutions. Students interested in transferring from a community college should consult with their school or the Student Services Center to determine which courses will transfer to fulfill specific College of Education and Human Sciences requirements.

Courses from accredited two-year institutions will generally not be substituted for 400-level human sciences classes in the College. The 300-level courses will be considered on an individual basis by the respective departments in the College of Education and Human Sciences.

Courses taken prior to course articulation agreements will be accepted contingent upon departmental validation of the credit.

Residency Rules

Students must earn a minimum of 120 credit hours to earn a degree.

All students are expected to complete at least 30 of their final 36 hours of credit at the University of Nebraska–Lincoln, University of Nebraska Omaha, or University of Nebraska at Kearney.

Degree Application Process

Graduation Requirements

Students are expected to develop a clear understanding of degree requirements and to plan their course of study with a College advisor. Students requiring clarification of outstanding degree requirements should visit with a College advisor promptly.

Students should access their Degree Audit via MyRED at least once each term to review degree requirements and progress toward graduation. It

is the student’s responsibility to make sure their Degree Audit accurately reflects their current College and program of study.

Students who believe their Degree Audit has errors or omissions should visit with a College advisor promptly. It is important that you resolve these matters as soon as practicable to avoid a delay in graduation.

Each student with MyRED access must submit an online Application for Graduation via MyRED for each degree to be received by:

- The fourth Friday in January for May graduation
- The second Friday in June for August graduation
- The second Friday in September for December graduation

Students submitting an electronic Application for Graduation via MyRED will be billed a \$25.00 per degree fee on their student account. Students without MyRED access may apply for graduation **in person at Husker Hub in the Canfield Administration Building**, or by mail. Applications for graduation submitted in person or by mail must be accompanied by a check or money order in the amount of \$25.00 payable to the University of Nebraska–Lincoln. Failure to submit a timely Application for Graduation may preclude the awarding of a degree in the intended term.

Your Application for Graduation and required \$25.00 fee are good only for the term marked on your application. Neither your application nor your fee are transferrable to another term. If you submit an Application for Graduation and pay the \$25.00 fee for a specified term but do not complete your degree requirements in that term, you will need to reapply to graduate in a future term and incur another \$25.00 fee.

Commencement ceremony information will be emailed to all degree applicants approximately one month before graduation. Each student who has applied for graduation must submit an online Commencement Attendance Form via MyRED, which will be available when the informational email is distributed.

Only those students who have applied for graduation, had the application accepted, and fulfilled all degree requirements as of the last day of the academic term may participate in the commencement ceremony for that term. Because the University of Nebraska–Lincoln has a commencement for each term, ceremony participation is allowed only in the term during which the student has properly and timely applied for graduation and fulfilled degree requirements.

Catalog Rule

Students are responsible for following the rules, policies, and requirements found in the University of Nebraska–Lincoln Undergraduate Catalog for the academic year in which they were last admitted to a program in the College of Education and Human Sciences. Students must complete all program requirements from a single catalog year. In consultation with their advisor, a student may choose to move to and follow a subsequent catalog if it is in their best interest.

Learning Outcomes

Graduates of nutrition and biomedical sciences will be able to:

1. Understand human physiological and metabolic concepts.
2. Apply how nutrients, food choices, and eating patterns influence health and disease.
3. Understand biomedical concepts in the development and treatment of various disease states.

4. Apply and communicate nutrition science concepts to diverse populations.
5. Identify and interpret evidence-based literature.
6. Demonstrate knowledge and skills needed for success in health profession programs and graduate schools.

Major Requirements

ACE Requirements

ACE 1		3
ACE 2		3
ACE 3		
Select one of the following:		3
EDPS 459	Statistical Methods (Supporting Course)	
STAT 218	Introduction to Statistics (Supporting Course)	
ACE 4		
CHEM 109A & CHEM 109L	General Chemistry I and General Chemistry I Laboratory (Supporting Course)	4
ACE 5		3
ACE 6		
PSYC 181	Introduction to Psychology (Supporting Course)	4
ACE 7		3
ACE 8		3
ACE 9		3
ACE 10 ¹		
NUTR 455	Advanced Nutrition (Professional Requirement)	3
Credit Hours Subtotal:		32
Professional Requirements ¹		
NUTR 250	Human Nutrition and Metabolism	3
NUTR 350 or NUTR 453	Nutrition Through the Life Cycle or Nutrition and Fitness Communication Strategies	3
NUTR 302	Health Information: Science, Media, and the Consumer	3
NUTR 450	Medical Nutrition Therapy I	3
NUTR 452	Medical Nutrition Therapy II	3
NUTR 455	Advanced Nutrition ¹	3
Credit Hours Subtotal:		15

Supporting Courses

BIOC 431 / BIOS 431 / CHEM 431	Biochemistry I: Structure and Metabolism	3
BIOS 213 & 213L	Human Physiology and Human Physiology Laboratory	4
BIOS 214	Human Anatomy	5
BIOS 312 & BIOS 314	Microbiology and Microbiology Laboratory	4
CHEM 109A & CHEM 109L	General Chemistry I and General Chemistry I Laboratory	4
CHEM 110A & CHEM 110L	General Chemistry II and General Chemistry II Laboratory	4

CHEM 251 & CHEM 252 & CHEM 253	Organic Chemistry I and Organic Chemistry II and Organic Chemistry I Laboratory	7
EDPS 459 or STAT 218	Statistical Methods Introduction to Statistics	3
LIFE 120 & 120L	Fundamentals of Biology I and Fundamentals of Biology I laboratory ¹	4
LIFE 121 & 121L	Fundamentals of Biology II and Fundamentals of Biology II Laboratory	4
MATH 102	Trigonometry (or MATH 103 or a placement score of MATH 106)	3-5
PHYS 141 & PHYS 142 or PHYS 211 & PHYS 212	Physics for Life Sciences I and Physics for Life Sciences II General Physics I and General Physics II	8-10
PSYC 181	Introduction to Psychology	4
Credit Hours Subtotal:		46
Selectives		
Select 5-8 hours of the following:		5-8
BIOC 432	Biochemistry II: Metabolism and Biological Information	
Any course 200 or above in BIOS, PHYS, CHEM		
CHEM 254	Organic Chemistry II Laboratory	
Any FDST 400 or above		
MATH 102	Trigonometry (or higher; may not double- count with MATH 102 requirement above)	
NUTR 420	Molecular Nutrition	
NUTR 440	Research Critiques in Extracellular Vesicles	
NUTR 445	Obesity Diseases and Human Health	
NUTR 484	Physiology of Exercise	
PHIL 213	Medical Ethics	
PSYC 380	Psychopathology and Mental Health	
Any VBMS 300 or above		
Credit Hours Subtotal:		8
Electives		
Select 15-23 hours of Electives		16-23
Credit Hours Subtotal:		19
Total Credit Hours		120

¹ A grade of C or above is required.

ACE Requirements

All University of Nebraska—Lincoln students will be required to complete a minimum of 3 hours of approved coursework in each of the 10 designated Achievement Centered Education (ACE) student learning outcome areas. These can be viewed at <http://ace.unl.edu>. Students will be provided a list of classes they can select from to meet each of the 10 ACE Student Learning Outcomes (SLO). There may be required courses within an education endorsement program that will also satisfy ACE requirements. Therefore, it is highly recommended that students contact their advisor prior to registering for ACE classes in order to ensure that each of the class selections are in the best interest of the students' academic program.

Additional Major Requirements

Grade Rules

C- and D Grades

Only grades of C or above will count toward graduation requirements for NUTR courses.

Pass/No Pass

All courses specified by course and number must be taken for a grade. Professional, supporting, and selective classes must be taken for a letter grade (no pass/no pass) unless only offered pass/no pass.

NUTR 100 Healthy Living

Description: Various risk factors and personal behaviors that affect health. Practical methods for self-assessments and improving and maintaining physically active and healthy eating habits designed to enhance awareness of short- and long-term risks and to achieve a higher level of wellness.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: FITN 112B; NUTR 252; NUTR 256; NUTR 356; NUTR 454
Course and Laboratory Fee: \$35

NUTR 131 The Science of Food

Crosslisted with: CHEM 131, FDST 131

Description: Covers general and food chemistry, nutrition, food microbiology, food safety and quality, standards that are enforced by regulatory agencies, and food processes applied to improve food quality, shelf life and safety.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: FDST 205

ACE: ACE 4 Science

Course and Laboratory Fee: \$5

NUTR 131H The Science of Food

Crosslisted with: FDST 131H, CHEM 131H

Prerequisites: Credit toward the degree cannot be earned in both FDST/CHEM/NUTR 131 and FDST/CHEM/NUTR 131H.

Description: Covers general and food chemistry, nutrition, food microbiology, food safety and quality, standards that are enforced by regulatory agencies, and food processes applied to improve food quality, shelf life and safety.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

ACE: ACE 4 Science

Course and Laboratory Fee: \$5

NUTR 150 Career Preparation in Nutrition and Health Sciences

Description: Process of career preparation and planning. Philosophy and goals of academic programs, curricula, certifications, career opportunities and graduate programs in the Department of Nutrition and Health Sciences.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Pass No Pass

NUTR 213 Meat Specifications and Procurement

Crosslisted with: ASCI 213

Notes: For those students who have an interest in a career in Culinary Science, Meat Science, and/or Dietetics.

Description: Selecting and purchasing meat for the hotel, restaurant, institutional industry, and the retail markets.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 230 Peer Health Education

Prerequisites: Permission

Notes: Requires serving as a Wellness Advocate in the University living units to gain experience in utilizing the information learned.

Description: The role of Wellness Advocate in the promotion of the health and wellness needs of college students. Techniques for promoting the adoption of lifestyle choices for lifelong health and well being.

Credit Hours: 1-2

Min credits per semester: 1

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded with Option

NUTR 244 Scientific Principles of Food Preparation

Prerequisites: Sophomore standing; FACS or HRTM or NUTR major

Description: Chemical, physical, sensory, and nutritional principles of food preparation.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: NUTR 371

NUTR 245 Scientific Principles of Food Preparation Laboratory

Prerequisites: Must enroll in both NUTR 244 (lecture) and NUTR 245 (lab)

Description: Application of chemical, physical, sensory, and nutritional principles of food preparation.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded with Option

Prerequisite for: NUTR 371

Course and Laboratory Fee: \$45

NUTR 246 Anatomical Foundations of Human Movement

Prerequisites: 3 hours of Human Anatomy or a combined Human Anatomy/Physiology course with a grade of C or higher.

Description: Will provide knowledge of structure, function, and position of fibrous, skeletal, muscular, and nervous tissue of the human body for the application of analyzing human movement in exercise and sport.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 250 Human Nutrition and Metabolism

Prerequisites: 4 hours chemistry or biological sciences

Description: Introduction to nutrient function in the body, nutrient chemistry and energy metabolism. Role of nutrients in health and disease.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: NUTR 302; NUTR 344; NUTR 350; NUTR 355; NUTR 356; NUTR 400; NUTR 453

NUTR 252 Nutrient and Fitness Assessment

Prerequisites: NUTR 100, NUTR majors only

Description: Introduction to and practical application of tools frequently used to estimate fitness levels and dietary intake; association among physical activity, nutrition, and health; health screening and risk classification; principles of assessment and various assessment strategies.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 253 Cultural Aspects of Food and Nutrition

Description: The influences of culture on food and nutrition practices.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

ACE: ACE 9 Global/Diversity

Course and Laboratory Fee: \$10

NUTR 255 Special Topics in Health

Prerequisites: NUTR 201.

Description: Series of minicourses devoted to specific content areas of health.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded with Option

NUTR 256 Addressing Health Disparities through Health Literacy

Prerequisites: NUTR 100

Description: Understanding of health disparities existing at national and local levels through a social justice lens and the role of health literate communication in reducing health disparities, as well as its limitations.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Prerequisite for: NUTR 408

NUTR 298 Special Topics in Nutritional Science and Dietetics

Prerequisites: As announced by department.

Description: Topics vary.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Graded with Option

NUTR 299 Independent Study

Prerequisites: 6 hrs in major department or closely related areas and permission.

Notes: Work supervised and evaluated by departmental faculty members.

Description: Individual projects in research, literature review, or creative production.

Credit Hours: 1-5

Min credits per semester: 1

Max credits per semester: 5

Max credits per degree: 5

Grading Option: Graded with Option

NUTR 302 Health Information: Science, Media, and the Consumer

Prerequisites: NUTR 250 and NUTR major

Description: Critical evaluation, interpretation and communication of consumer health messages.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: FALL/SPR

ACE: ACE 2 Communication Competence

NUTR 330 Environmental Health

Crosslisted with: NRES 330

Prerequisites: Class standing of sophomore or above with at least one semester of chemistry and biology.

Description: Provides a comprehensive understanding of how environmental exposures to physical, chemical and biological hazards influence human health. Offers basic knowledge in the core concepts of toxicology, exposure and risk, vulnerable populations and the interrelationship between human, animal and environmental health.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: FALL/SPR

ACE: ACE 8 Civic/Ethics/Stewardship

NUTR 344 Nutrition and Food for Optimal Health

Prerequisites: NUTR 250; NUTR majors only; or permission

Description: Implementation of dietary guidelines and recommendations, nutrient assessment methodologies, concepts of healthy menu planning, and scientific principles of food preparation in promotion of optimal health.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: FALL/SPR

Course and Laboratory Fee: \$140

NUTR 350 Nutrition Through the Life Cycle

Prerequisites: NUTR 250.

Description: Influence of normal physiological stress on nutritional requirements throughout the life cycle: pregnancy, lactation, growth, and aging.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 351 School Health Issues

Description: Prevalence and etiology of health behaviors among children and teens. Organization, development, and legal aspects of school health programming.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 352 Social Marketing in Health Communication

Prerequisites: Junior standing. NUTR majors only.

Description: Application of the social marketing framework to analyze public health problems and design program solutions.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 355 Introduction to Sports Nutrition

Prerequisites: BIOS 213; NUTR 250

Description: Understanding of fundamental principles of sports nutrition. Tools and knowledge to evaluate scientific literature and to develop evidence-based diet and supplementation strategies aimed at maximizing athletic performance.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 356 Nutrition Education in the Community

Prerequisites: NUTR 100 and 250.

Description: Overview of community nutrition. Assessment of community needs and services; policy formation; techniques for developing and delivering theory-based nutrition education.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: SPRING

NUTR 370 Food Production Management

Description: Application of food production and purchasing principles in foodservice management.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 371 Applied Food Production Laboratory

Prerequisites: NUTR 244 and 245.

Description: Application of theoretical knowledge and quality assessment is provided in university or community laboratory setting.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded with Option

Course and Laboratory Fee: \$20

**NUTR 372 Food Safety and Sanitation**

Prerequisites: 4 hours chemistry or biological sciences.

Description: Various factors that result in food illness: food allergy, natural toxins, parasites, microbial and viral food borne infections and food borne intoxications. Assess hazards, identify critical control points and establish monitoring and system verification procedures.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: FALL

NUTR 384 Biomechanics of Human Movement

Prerequisites: Junior standing; BIOS 214

Description: Anatomical and mechanical principles as related to human movement.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Course and Laboratory Fee: \$20

NUTR 399 Independent Study

Prerequisites: Permission.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Pass No Pass

NUTR 400 Planning and Implementation of Health Promotion Programs

Prerequisites: NUTR 250 and junior standing

Description: Theory-based process of developing health promotion/education programs. Principles of planning, implementing and evaluating health education interventions will be taught using evidence-based research.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: FALL/SPR

Prerequisite for: NUTR 404; NUTR 487

Experiential Learning: Case/Project-Based Learning

NUTR 401 Health Behavior

Prerequisites: Junior standing.

Description: Social, psychological, and cultural factors that influence the adoption, maintenance, and modification of health behaviors in communities.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 404 Evaluation and Research Related to Health Promotion

Prerequisites: NUTR 400

Description: Introduction to research, study designs, and data collection methods in health and behavior-change related studies, including exercise, nutrition, and health education. Emphasis on understanding research literature and development of research/grant proposals.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Prerequisite for: NUTR 406

ACE: ACE 10 Integrated Product

Experiential Learning: Research

NUTR 406 Management and Administration of Health Promotion Programs

Prerequisites: NUTR 404

Description: Overview of systems approach to the management of resources needed to plan, implement, and evaluate a health education/promotion program including financial, human, curricula, and physical resources. Qualities of effective leadership will be explored and evaluated.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 407 Principles of Epidemiology for Nutrition and Public Health

Crosslisted with: NUTR 807

Prerequisites: NUTR 250 and 3 cr hrs Statistics

Description: Application of basic concepts of epidemiology to nutrition and public health to include epidemiological research design, estimating outcome measures and determining cause and effect and effectiveness of interventions to prevent and treat disease.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 408 Community Health Advocacy

Prerequisites: NUTR 256

Description: Will provide knowledge of health policy development in the United States and with opportunities to apply health advocacy skills through learning, reflection, and engagement with local organizations.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 420 Molecular Nutrition

Crosslisted with: NUTR 820

Prerequisites: For NUTR 420: BIOS 201 and BIOC 431, or parallel. For NUTR 820: None

Notes: A neuroscience course is a plus, although not required.

Description: The mechanisms of nutrient sensing and transport, and how nutrients regulate physiological processes at the molecular level.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Experiential Learning: Case/Project-Based Learning

NUTR 429A Food Security: A Global Perspective

Crosslisted with: PLAS 429A, AGRO 829A, HORT 829A, NRES 429A, NRES 829A, NUTR 829A

Prerequisites: Junior standing

Description: Overview of the technical and sociocultural dimensions of global food insecurity.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 430 Nutritional Anthropology

Crosslisted with: ANTH 430, ANTH 830, NUTR 830

Prerequisites: ANTH 242 or equivalent.

Description: Anthropological approaches to the study of nutrition.

Background to nutrition science; bio-cultural aspects of obesity, fertility, lactose intolerance, and infant feeding practices; biological differences in nutritional requirements, fertility, and mortality; interpretation of nutritional deficiencies in skeletal remains; reconstructing prehistoric diets from archaeological evidence; and evaluation of relationships between dietary patterns and dental remains in fossil record.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 440 Research Critiques in Extracellular Vesicles

Crosslisted with: NUTR 840

Prerequisites: NUTR 440: BIOS 213 & BIOS 213L, and BIOC 431 or parallel with prior knowledge of biochemistry, physiology, or its equivalent. For NUTR 840: None

Description: Physiological and pathological adaptations of Extracellular vesicles (EV). By reading, discussing, and presenting reviewed scientific manuscripts, learning about the current limitations in the EV biology field, how to critically review a scientific manuscript, and how to provide scientific presentations are emphasized in a journal-club format.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Experiential Learning: Case/Project-Based Learning

NUTR 445 Obesity Diseases and Human Health

Crosslisted with: NUTR 845

Prerequisites: NUTR250, BIOS 213 & BIOS 213L or parallel

Notes: Prior knowledge of biochemistry, physiology or advanced nutrition and metabolism or its equivalent needed

Description: Introduction to the prevalence of over nutrition, which results in the development of obesity, maternal obesity and metabolic syndrome. Current research topics will include complications of obesity and obesity-during pregnancy.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Experiential Learning: Case/Project-Based Learning

NUTR 450 Medical Nutrition Therapy I

Prerequisites: BIOC 401 or BIOC/BIOS/CHEM 431; BIOS 213 or ASCI 240.

Description: Nutrition assessment, nutrition support, documentation of nutrition services and medical terminology.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: NUTR 452

Course and Laboratory Fee: \$60

NUTR 452 Medical Nutrition Therapy II

Prerequisites: NUTR 450

Description: Nutrition in the disease state. Physiological and biochemical basis of medical nutrition therapy.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 453 Nutrition and Fitness Communication Strategies

Prerequisites: NUTR 250 with NHS Major only

Description: Application of behavior change and counseling theories to individual clients. Data assessment and interpretation, and developing goals and/or outcomes to facilitate health behavior changes.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 454 Peer Nutrition Education

Prerequisites: Junior standing; NUTR 100.

Description: Practical experience in developing skills in nutrition for health promotion and nutrition education.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded with Option

Course and Laboratory Fee: \$60

NUTR 455 Advanced Nutrition

Prerequisites: BIOC 401 or BIOC/BIOS/CHEM 431; BIOS 213 or ASCI 240, or parallel.

Description: Biochemical and physiological aspects of human nutrition. Nutrient transport, storage and utilization under various metabolic states and relationships to the development of chronic diseases.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: NUTR 492

ACE: ACE 10 Integrated Product

NUTR 456 Clinical Exercise Physiology

Crosslisted with: NUTR 856

Prerequisites: NUTR 486/886 or equivalent.

Description: Cardiovascular, pulmonary, metabolic, pharmacologic, endocrinologic, renal, neurologic, inflammatory, and orthopedic aspects of clinical exercise physiology as they relate to exercise testing and programming.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Offered: FALL/SPR

NUTR 457 Classroom and Outreach Experiences in Food and Nutrition

Description: Supervised classroom or outreach experiences in educational or community settings.

Credit Hours: 1-3

Min credits per semester: 1

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 470 Cost Control for Foodservice

Crosslisted with: NUTR 870

Prerequisites: NUTR 370.

Description: Principles of cost control for foodservice. Integration of cost control and foodservice/restaurant management principles which influence financial integrity. Utilization of the computer as a tool to enhance decision making capabilities.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded with Option

NUTR 471 Vines, Wines and You

Crosslisted with: PLAS 471, HORT 871, NUTR 871, HRTM 471, HRTM 871

Prerequisites: 6 hrs science or equivalent experience; 21 years of age or older

Notes: Proof of age is required.

Description: Origin, botany, historical and cultural significance of the grapevine and related species. Principles and practices of vineyard establishment, management and processing of grape products, importance and/or scope of grape and wine industry; global and local significance. Culinary applications, health, environmental and safety-related issues, business and industry relations and experience.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Course and Laboratory Fee: \$95

NUTR 473 Organization and Administration of Foodservice

Crosslisted with: NUTR 873

Prerequisites: NUTR 370.

Description: Organizational, administrative, and human relations concepts to foodservice. Utilization of computer applications in administration of a foodservice facility.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

Prerequisite for: NUTR 973

NUTR 480 Introduction to Functional Electrocardiography

Crosslisted with: NUTR 880

Prerequisites: NUTR 486; NUTR 484

Description: Theory and application of electrocardiography in graded exercise testing.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 484 Physiology of Exercise

Crosslisted with: NUTR 884

Prerequisites: BIOS 213 or equivalent.

Description: Effects of physical activity on the circulatory, respiratory, and other physiological processes.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Prerequisite for: NUTR 486, NUTR 886; NUTR 488; NUTR 858

Course and Laboratory Fee: \$110

NUTR 486 Exercise Testing and Exercise Programming in Adult Fitness and Cardiac Rehabilitation

Crosslisted with: NUTR 886

Prerequisites: NUTR 484; EDPS 459 or STAT 218

Description: In-depth analysis and development of the techniques and knowledge prerequisite for certification in adult fitness and cardiac rehabilitation as prescribed by the American College of Sports Medicine.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

Prerequisite for: NUTR 456, NUTR 856

Course and Laboratory Fee: \$110

Experiential Learning: Case/Project-Based Learning

NUTR 487 Community Health and Wellness Practicum

Prerequisites: NUTR 400. Community Health and Wellness majors only.

Notes: Background check will be required.

Description: Application of health education concepts and skills in a practical setting while serving as a health education resource person.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

NUTR 488 Practicum in Exercise and Health Behavior Planning

Prerequisites: NUTR 484

Description: Practical experience in exercise testing and analysis and planning of health and fitness programs for individuals.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded with Option

NUTR 492 Nutrition Problems

Prerequisites: NUTR 455 or equivalent, and permission.

Description: Individual problems may be selected from diet therapy, animal feeding, metabolism studies, or surveys.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Graded with Option

NUTR 493 Workshop Seminar

Credit Hours: 1-12

Min credits per semester: 1

Max credits per semester: 12

Max credits per degree: 12

Grading Option: Graded with Option

NUTR 494 Essentials of Strength Training & Conditioning

Crosslisted with: NUTR 894

Prerequisites: Junior Standing

Description: Overview of the scientific principles and practical applications of strength and conditioning that integrate physiological responses, adaptations, testing, exercise techniques, program design, and periodization for athletic performance.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

NUTR 496 Independent Study

Crosslisted with: NUTR 896

Prerequisites: 12 hrs in major related areas; permission.

Notes: Supervised and evaluated by departmental faculty members.

Description: Individual projects in research, literature review, or creative production.

Credit Hours: 1-5

Min credits per semester: 1

Max credits per semester: 5

Max credits per degree: 5

Grading Option: Graded with Option

NUTR 497Z Student Teaching Multicultural

Crosslisted with: TEAC 497Z, SPED 497Z

Description: Supervised teaching experiences in schools. Accompanying seminar focuses on: teacher certification, teacher and student rights and responsibilities, proper conduct of teachers, selected legal aspects of education, methods of communicating with parents and community members, and current issues which impact education.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Pass No Pass

Course and Laboratory Fee: \$25

Experiential Learning: Student Teaching/Education Practicum

NUTR 498 Research Experiences

Prerequisites: Senior standing and permission.

Description: Participation in an ongoing research project. Select from foods, human nutrition education, small animal, or survey research areas.

Credit Hours: 1-5

Min credits per semester: 1

Max credits per semester: 5

Max credits per degree: 5

Grading Option: Graded with Option

Experiential Learning: Research

NUTR 498B Global Research Experiences in Nutrition and Health

Crosslisted with: GLST 498B

Notes: Self-paced course. Can result in publication. Suitable for domestic and international research experiences.

Description: Structuring a global research experience while strengthening research and science communication skills and enhancing global competency and awareness.

Credit Hours: 1-6

Min credits per semester: 1

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Graded

Experiential Learning: Research

NUTR 499H Honors Thesis

Prerequisites: Good standing in the University Honors Program or by invitation.

Description: Conduct a scholarly research project and write a University Honors Program or undergraduate thesis.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Experiential Learning: Research

Career Information

The following represents a sample of the internships, jobs and graduate school programs that current students and recent graduates have reported.

Jobs of Recent Graduates

- Strength Trainer, Husker Power - Lincoln, NE
- Pharmacy Technician, U-Save Pharmacy - Grand Island, NE
- Community Support Professional, Region V Services - Crete, NE