Nutritional Sciences  2011-2012

The requirements listed below pertain to all students matriculating in August 2011 and January 2012.

I. Distribution Requirements  35–43

A. Natural Sciences: Introductory Chemistry  8
Choose one of the following sequences:
CHEM 1560 and 2080 Introduction to General Chemistry
CHEM 2070 and 2080 General Chemistry (recommended)
CHEM 2150 and 2160 General and Inorganic Chemistry

B. Social Sciences  6
An introductory course in two different social sciences. Choose one course in any two of the following areas:

Anthropology
ANTHR 1400 Introduction to Anthropology: The Comparison of Cultures

Economics
ECON 1110 Introductory Microeconomics OR ECON 1120 Introductory Macroeconomics

Sociology
DSOC 1101 Introduction to Sociology OR SOC 1101 Introduction to Sociology

Psychology
HD 1150 Human Development: Infancy and Childhood OR HD 1170 Human Development: Adolescence and Emerging Adulthood OR PSYCH 1101 Introduction to Psychology

C. Humanities  3
Language credit may not be counted here.
Includes literature, history (including art and design history), philosophy, religion, and archaeology. Critical, historical, and theoretical studies of the arts and design are considered humanities. Languages and creative or performing arts such as the writing of fiction or poetry, painting, sculpting, designing, composing or performing music, acting, directing, and dance are not considered humanities.

D. Written Communications  6
Must be First-Year Writing Seminars. MUST BE COMPLETED DURING FIRST 2 SEMESTERS

E. Quantitative and Analytical  7-8
a. Either Statistics or Calculus must be taken at Cornell unless you have earned a score of 3 or higher on AP Calculus BC.
b. Once the above requirement is met other AP credit from Calculus AB (a score of 3 or higher) or Statistics (a score of 4 or 5) may be applied to the Quantitative and Analytical requirement if the content is not overlapping.

1. Calculus/Advanced Math
Choose one of the following:
MATH 1105, MATH 1106, MATH 1110, MATH 1120
*Calculus or higher level math is generally needed for premed or grad study.

2. Statistics
Choose one of the following:
PAM 2100, AEM 2100, BTRY 3010, ILRST 2100, MATH 1710, PSYCH 3500

F. Additional credits  5-12

Organic Chemistry Lecture (6-credit minimum for premeds)
Choose one of the following:
CHEM 1570 Elementary Organic Chemistry (not for premeds)
CHEM 3570 and 3580 Introductory Organic Chemistry
CHEM 3590 and 3600 Organic Chemistry

Organic Chemistry Lab
Choose one of the following:
CHEM 2510 Introduction to Experimental Organic Chemistry
CHEM 3010 Experimental Chemistry

Students interested in premed or graduate study in biological/medical/exercise sciences should take:
PHYS 1101 and 1102 General Physics (auto-tutorial) OR PHYS 2207 and 2208 Fundamentals of Physics

II. Requirements in the Major  40-42

A. Introductory Biology Lecture and Lab  8
Choose one of the following two sequences (A.1. OR A.2.):

A.1. BIOG 1500 Investigative Lab (F/S, 2 cr) AND
Choose two out of three from the following lecture options:
(a) BIOG 1350 Cell and Development (F/S, 3 cr)
(b) BIOG 1440 Comparative Physiology (F/S, 3 cr)
(c) BIOG 1610 Ecology and the Environment (F/S, 3cr) OR*
BIOG 1780 Evolution and Diversity (F/S, 3cr)

*Cannot take both BIOG 1610 and BIOG 1780 to fulfill this requirement

A.2. BIOG 1105 (F, 4 cr) and 1106 (S, 4 cr) Introductory Biology (auto-tutorial)
**B. Nutritional Sciences Core Courses**

- NS 1150 Nutrition, Health and Society (F, 3 cr)
- NS 2450 Social Science Perspectives on Food and Nutrition (F, 3 cr)
- NS 3450 Introduction to Physicochemical and Biological Aspects of Food (F, 3 cr)
- NS 3310 Physiological and Biochemical Bases of Nutrition (S, 4 cr)
- NS 3320 Methods in Nutritional Sciences (F, 3 cr)

**C. Physiology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NS 3410 Human Anatomy and Physiology</td>
<td>3 cr</td>
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<tr>
<td>BIOAP 3110 Animal Physiology</td>
<td>3 cr</td>
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**D. Biochemistry**

Choose one of the following:

- NS 3200 Introduction to Human Biochemistry (F, 4 cr)
- BIOMG 3300 Principles of Biochemistry (auto-tutorial) (F/S, 4 cr)
- BIOMG 3310 (F, 3 cr) and BIOMG 3320 (S, 2 cr) Principles of Biochemistry
- BIOMG 3310 Principles of Biochemistry (F, 3 cr) and BIOMI 2900 General Microbiology (F/S, 3 cr)
- BIOMG 3330 Principles of Biochemistry (Su, 4 cr)
- BIOMG 3350 Principles of Biochemistry (S, 4 cr)

**E. Advanced Electives in Nutrition**

- 3 credits of NS courses at 3000 level or above.
- May include NS 3410 if BIOAP 3110 is used to fulfill the physiology requirement.
- May include no more than a total of 3 credits from NS 4000–4020 and NS 4990.
- May not include NS 3200, NS 3500, NS 4600.

**Economic Influences on Human Nutrition**

- NS 3060 Nutritional Problems of Developing Nations
- NS 4450 Food Policy for Developing Nations (also AEM 4450)
- NS 4570 Economics of Hunger & Malnutrition

**Nutritional Biochemistry**

- NS 4130 Nutritional Genomics-Evolution and Environment
- NS 4310 Mineral Nutrition and Chronic Disease
- NS 4750 Mechanisms Underlying Mammalian Developmental Defects
- NS 6310 Micronutrients: Function, Homeostasis and Assessment
- NS 6320 Regulation of Macronutrient Metabolism

**Psychological and Social Influences on Human Nutrition**

- NS 3470 Human Growth and Development: Biological and Behavioral Interactions (also HD 3470 and BSOC 3471)
- NS 4250 Nutrition Communications and Counseling

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**III. Electives**

**Variable**

**IV. Physical Education**

- 2 credits

Physical education does not count toward college and university minimum credit requirements for full-time status.

**Total Credits (exclusive of PE)**

- 120 credits
College Requirements:

- Students must complete a minimum of 9 HUMEC credits outside of NS. These credits are given for any Human Ecology course outside your major from Category I, II, or III. These can be taken S/U only if course is NOT used to fulfill a curriculum requirement.

- Students must complete a minimum of 43 HUMEC credits. Hum Ec credits are given in Category I (distribution), Category II (in your major) and Category III (electives).

- Biology & Society (BSOC) courses do not count as Human Ecology credit or towards the 9 HE credits outside the major.

- Pass/Fail Courses [S/U]
  - S/U grading option may NOT be used for any required course [i.e., distribution requirements in Category I or major courses in Category II] unless it is the only grade option offered for those courses.
  - S/Us MAY be used for the 9 credits of Human Ecology coursework outside of the major and for electives in Category III.
  - Students may apply no more than 12 credits of S/U towards graduation requirements. If a required course is only offered S/U, it will not count towards this limit. Students may take more S/Us if they choose, but the additional credit will not be applied towards graduation.
  - The deadline for changing grade options is 3 weeks after the start of classes, the same as the “add” deadline.

- Special Study Courses [4000, 4010, 4020, 4030]
  - A total of 12 credits of special study course work from Human Ecology or other colleges will count towards the 120 graduation credit requirement. [Additional credits can be taken but will not be applied.]
  - A maximum of three credits of 4000-4020 (not including 4030) may count towards the “credit outside the major” category as long as the special study is in a department outside the student’s major.
  - Students cannot TA (4030) the same course for credit more than once or take and TA the same course simultaneously. 4030 does not fulfill any requirements towards the major. Registration for 4030 may not exceed 5 credit hours per semester.

- Students must complete 120 credits overall, exclusive of physical education and “00” courses.

- Elective credits can be earned in Human Ecology or elsewhere.