Nutritional Sciences 2017-2018

The requirements listed below pertain to all students matriculating in August 2017 and January 2018.

I. Distribution Requirements 35–43

A. Natural Sciences: Introductory Chemistry 8
CHEM 2070 and 2080 General Chemistry

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

Anthropology
ANTHR 1400 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 1100 Lifespan Development OR
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
Recommended: Ethics, Philosophy.
Choose any course with the Course Distribution HA, LA, or CA

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 4 or 5 on AP Calculus BC.
b. Once the above requirement is met other AP credit from Calculus AB (a score of 4 or 5) 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:
STSCI 2150 (recommended), PAM 2100, AEM 2100, BTRY 3010, ILRST/STSCI 2100, MATH 1710, PSYCH 3500

F. Additional credits 5-12
Organic Chemistry Lecture (6-credit minimum for pre-health students)
CHEM 1570 Intro Organic & Biological Chemistry (Only for Spring, not for pre-health)
CHEM 3530 Principles of Organic Chemistry (Only for Fall)
CHEM 3570 and 3580 Organic Chemistry for the Life Sciences (must take both, CHEM 3570 alone will not fulfill the requirement.)
CHEM 3590 and 3600 Organic Chemistry (must take both, CHEM 3590 alone will not fulfill the requirement.)

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

Students interested in pre-health tracks 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 \[40-44\]  

A. Introductory Biology Lecture and Lab \[8-10\]  

<table>
<thead>
<tr>
<th>Course</th>
<th>credits</th>
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<tbody>
<tr>
<td>BIOG 1500 Investigative Biology Lab (F/S, 2 cr) <strong>OR</strong> BIOSM 1500 (Su, 3 cr) <strong>AND</strong></td>
<td>8</td>
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<tr>
<td>Choose <strong>two out of three</strong> from the following lecture options:</td>
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<tr>
<td>(a) BIOMG 1350 Introductory Biology: Cell and Development (F/S, 3 cr)</td>
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<td>(b) BIOG 1440 Introductory Biology: Comparative Physiology (F/S, 3 cr) <strong>OR</strong></td>
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<tr>
<td>BIOG 1445 Comparative Physiology (autotutorial) (F/S, 4 cr)</td>
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<td>(c) BIOEE 1610 Introductory Biology: Ecology &amp; the Environment (F/S, 3 cr) <strong>OR</strong></td>
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<tr>
<td>BIOEE 1780 An Introduction to Evolutionary Biology and Diversity (F/S, 4 cr)</td>
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*Cannot take both to fulfill this requirement*

B. Nutritional Sciences Core Courses \[16\]  

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>NS 1150 Nutrition, Health and Society (F, 3 cr)</td>
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<tr>
<td>NS 2450 Social Science Perspectives on Food and Nutrition (F, 3 cr)</td>
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<tr>
<td>NS 3450 Introduction to Physicochemical and Biological Aspects of Food (F, 3 cr)</td>
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<tr>
<td>NS 3310 Nutrient Metabolism (S, 4 cr)</td>
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<td>NS 3320 Methods in Nutritional Sciences (F, 3 cr)</td>
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C. Physiology \[3-4\]  

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>NS 3410 Human Anatomy and Physiology (S, 4 cr) <strong>OR</strong></td>
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<tr>
<td>BIOAP 3110 Principles of Animal Physiology (F, 3 cr)</td>
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D. Biochemistry \[4-6\]  

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<tr>
<th>Course</th>
<th>credits</th>
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<tbody>
<tr>
<td>NS 3200 Introduction to Human Biochemistry (F, 4 cr) <strong>OR</strong></td>
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<tr>
<td>BIOMG 3300 Principles of Biochemistry (auto-tutorial) (F/S, 4 cr)</td>
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<tr>
<td>BIOMG 3310 (F, 3 cr) <strong>AND</strong> BIOMG 3320 (S, 2 cr) <strong>Principles of Biochemistry</strong> <strong>OR</strong></td>
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<tr>
<td>BIOMG 3310 Principles of Biochemistry (F, 3 cr) <strong>AND</strong> BIOMI 2900 General Microbiology (F/S, 3 cr) <strong>OR</strong></td>
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<tr>
<td>BIOMG 3330 Principles of Biochemistry (Su, 4 cr) <strong>OR</strong></td>
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<tr>
<td>BIOMG 3350 Principles of Biochemistry (S, 4 cr)</td>
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E. Advanced Electives in Nutrition \[9\]  

- 9 credits of NS courses at 3000 level or above.  
- May include NS 3410 only 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 3980, NS 4620, or NS 4030 (TA).  

Advanced electives in Nutritional Sciences, by area of interest:  

**Economic Influences on Human Nutrition**  
NS 3060 Nutrition and Global Health (odd F, 3 cr)  
NS 4450 // AEM 4450 Toward a Sustainable Global Food System: Food Policy for Developing Countries (F, 3 cr)  
NS 4480 Economics of Food and Malnutrition (S, 3 cr)  
NS 4570 Health, Poverty, and Inequality: A Global Perspective (even F, 3 cr)  

**Nutrition and Public Health**  
NS 3600 Epidemiology (F, 3 cr)  
NS 4500 Public Health Nutrition (S, 3 cr)  
NS 4600 Explorations in Global Health (F, 3 cr)  

**Food Quality and Food Service Management**  
NS 4880 Applied Dietetics in Foodservice Systems (S, 4 cr)  

**Human Health and Nutrition**  
NS 3030 Nutrition, Health and Vegetarian Diets (S, 3 cr)  
NS 3150 // PSYCH 3150 Obesity and the Regulation of Body Weight (even S, 3 cr)  
NS 3220 Maternal and Child Nutrition (odd S, 3 cr)  
NS 3420 Human Anatomy and Physiology Laboratory (S, 2 cr)  
NS 4410 Nutrition and Disease (F, 4 cr)  
NS 4420 Implementation of Nutrition Care (F, 3 cr)  
NS 6140 Topics in Maternal and Child Nutrition (F, 3 cr)  

**Nutritional Biochemistry**  
NS 4310 Mineral Nutrition and Chronic Disease (F, 3 cr)  
NS 6310 Micronutrients: Function, Homeostasis and Assessment (F, 2-4 cr)  
NS 6320 Regulation of Macronutrient Metabolism (S, 4 cr)  

**Psychological and Social Influences on Human Nutrition**  
NS 4250 Nutrition Communications and Counseling (S, 3 cr)  

III. Electives \[Variable\]  

IV. Physical Education \[2\]  
Physical Education must be completed in order to graduate. However, physical education does not count toward college and university minimum credit requirements for full-time status, nor does it count towards the 120 credits required for graduation.  

Total Credits (exclusive of PE) \[120\]
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).

- **HE non-departmental courses** at the 2000-level and below do not count toward the 43 HE credits.

- **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 the 57th calendar day of the semester, the same as the “drop” 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.**