DNS Survival Guide

Nutritional Sciences – CHE
Human Biology, Health & Society
Nutritional Sciences – CALS

2013 - 2014

Division of Nutritional Sciences
Cornell University
# Division of Nutritional Sciences Survival Guide

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Directory for Undergraduate Students

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Applied Exercise Science Program:
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College Offices for Human Ecology Students

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Student and Career Development: 172 MVR Hall (607) 255-2532
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Admissions: 177 Roberts Hall (607) 255-2036
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CALS Student Services: http://www.cals.cornell.edu/students/ 140 Roberts Hall (607) 255-2257
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Nutrition at Cornell: An Option for You?
Nutritional Sciences (NS-CHE and NS-CALS)

What is Nutritional Sciences?
Nutritional Sciences is a broad, problem-solving field that draws upon biology, chemistry, and the social sciences to answer questions such as:

- How do dietary patterns influence the health and well-being of individuals, communities, and populations?
- What are the biological mechanisms through which nutrients affect metabolism?
- What are recommended dietary patterns for people of different activity levels and medical conditions?
- How can people be encouraged to adopt and maintain healthy eating patterns?
- What are the roles of governments and businesses in providing accessible, healthy food supplies and in promoting healthy eating practices?

Where will a Nutrition major lead me?
The Nutrition major is excellent preparation for several different career interests:

- **Medicine** and other health careers such as physical therapy, physician’s assistant, or pharmacy
- **Dietetics** including nutrition counseling, clinical nutrition, community nutrition, and management of food and nutrition services in business and the health industry
- **Fitness and Wellness** including corporate wellness, sports nutrition, exercise science, and athletic training
- **Nutrition Communications** including nutrition education and outreach programs for businesses, governments, and community organizations
- **International Nutrition & Global Health** including programs concerned with hunger, health, and food supply issues in non-industrialized countries
- **Research** including careers that use biochemical, physiological, genomic, clinical, and social science methods to understand how food, diet, and health are related

Following graduation most nutrition majors pursue their career interests through programs of advanced study including graduate school, dietetic internships, and medical school.

I’m Unsure About My Interests!
During the first two years the curriculum allows you to explore the general field of Nutritional Sciences while you complete courses in chemistry, biology, and the social sciences that provide the foundation for the nutrition major and many other majors as well.

Expect your career interests to develop and possibly change while you are at Cornell. You may take advantage of the different speakers and seminars offered throughout the year to learn about various career options. You can discuss your career interests with your faculty advisor and with college counselors specializing in career planning. If you want to explore other majors, your advisor will suggest some people to contact.

How Does Faculty Advising Work?
Every Nutrition major has a faculty advisor from the Division of Nutritional Sciences. New students meet with their advisors at a scheduled time during the orientation period. You will then meet with your advisor at least twice a year -- during conferences scheduled in October and April to plan your schedule for the next term.

During the first meeting with your advisor, you will find out how to contact him/her when you need to consult with him/her in the future. Most faculty members prefer that students make an appointment through a sign-up sheet, e-mail, or phone call. Some faculty members have scheduled office hours as well.
Your advisor will help you plan courses to meet your academic interests and suggest special opportunities for individual study or experiences outside the classroom. Advisors approve course enrollment schedules.

Keeping in touch with your faculty advisor is very important. Contact him or her whenever you have questions about your academic program or if you are having academic difficulties of any kind. Academic problems are more easily managed when you contact your advisor early!

If you have questions about your faculty advisor or are unable to contact your advisor, you can come to or call the Academic Affairs Office (B21 Savage, 255-4410, aadns@cornell.edu). If you wish to change your advisor, contact Terry Mingle (B21 Savage, 255-4410, tpm2@cornell.edu). See the information sheet, "Working with Your Faculty Advisor", in the TAN pages, for tips about how you can develop a good relationship with this important person.

What Courses Will I Be Taking?
The core curriculum includes introductory chemistry and biology, organic chemistry, biochemistry, physiology and math as well as introductory courses in the social sciences. Students complete five core courses in nutritional sciences:

- **NS 1150**: Nutrition, Health and Society (fresh yr, fall)
- **NS 2450**: Social Science Perspectives on Food and Nutrition (soph yr, fall)
- **NS 3450**: Introduction to Physicochemical and Biological Aspects of Foods (soph or junior yr, fall)
- **NS 3310**: Nutrient Metabolism (junior yr, spring)
- **NS 3320**: Methods in Nutritional Sciences (senior yr, fall)

In addition, you will select at least three advanced courses in nutritional sciences from a wide variety of choices such as:

- **NS 3060**: Nutrition and Global Health
- **NS 3150**: Obesity and the Regulation of Body Weight
- **NS 3220**: Maternal and Child Nutrition
- **NS 3470**: Human Growth and Development: Biological and Behavioral Interactions
- **NS 4130**: Nutritional Genomics-Evolution and Environment
- **NS 4250**: Nutrition Communications
- **NS 4310**: Mineral Nutrition and Chronic Disease
- **NS 4315**: Nutrient Requirements and Recommendations: Biological Aspects
- **NS 4370**: Nutritional Immunology and Infectious Diseases
- **NS 4410**: Nutrition and Disease
- **NS 4444**: Sports Nutrition and Supplements: Concepts and Evidence
- **NS 4450**: Food Policy for Developing Nations
- **NS 4500**: Public Health Nutrition
- **NS 4570**: Health, Poverty, and Inequality: A Global Perspective
- **NS 4750**: Mechanisms Underlying Mammalian Developmental Defects

You will also take courses to meet general education requirements for your college. Detailed advising notes in the BLUE pages outline the course requirements and give sample schedules for the four-year program of study. A strong foundation in chemistry and biology is required for the nutrition major. The sequencing of chemistry and biology courses is very important because of the prerequisites for advanced courses and the fact that some chemistry and biology courses are offered (or begin) in the fall semester only. New majors, including transfer students, should plan chemistry courses and biology courses carefully to assure an appropriate sequencing of courses. For details, see “Core Biology and Chemistry” in the BLUE pages.
Can Undergraduates Do Research?
Yes! The Honors Research Program is designed to challenge academically talented students who have a strong interest in research. In the junior year, each student in the Research Honors Program participates in a seminar course and plans an independent research project which s/he develops and conducts in the junior/senior year under the direction of a faculty member. Each student in the Honors Research Program completes a thesis and presents a seminar on the research problem at the end of the senior year. See the information sheet, Honors Research Program (GOLD pages) for more information.

You can also become involved in research through independent study and employment. The information sheet, Undergraduate Research, (GOLD pages) lists the names of faculty members who work with undergraduate students in research and explains how students can find research opportunities.

Field Experience
Field experience helps you put theory into practice and lets you explore different career opportunities. You can earn credit for field experience in Ithaca or another location. Some examples of field placements include: counseling clients in a wellness or fitness program, developing nutrition education materials for children and teaching children in a school-age child care program about nutrition. The information sheet, Field Experiences in Food, Nutrition, and Health for Undergraduates, (GOLD pages) tells you more about field study opportunities.

The Urban Semester or Study Abroad
The Urban Semester in New York City or a semester abroad offers learning experiences that may be career related or simply broadening. The college and university offices will help you find and arrange these experiences. If you are interested in the Urban Semester or Study Abroad, speak with your advisor. You must plan your course schedule well in advance in order to complete the courses required by your college, major, and career interests by graduation. For more details see the information sheet Study Abroad or an Urban Semester (GOLD pages).

Nutrition Majors in Action
You can become a member or leader in the Health and Nutrition Society (HealthNutS), the undergraduate student organization. With the goals of promoting healthy eating practices in the Cornell and Ithaca communities and encouraging interaction among DNS students and faculty members, HealthNutS has a busy agenda including faculty-student activities, food drives, and nutrition education for day care programs, local elementary schools, and programs for residents of adult care homes.

Undergraduate Teaching Assistant:
Qualified juniors/seniors have the opportunity to apply to be undergraduate teaching assistants for some introductory level courses. Undergraduate teaching assistants work with faculty members and graduate teaching assistants and learn about college teaching and various instructional methods. Students receive academic credit for this learning experience through NS 4030. Interested students should contact the faculty member who teaches the course for which they would like to assist.

How Can I Prepare for My Career Interests?
Students are encouraged to explore different career interests through their courses and special seminars offered throughout the year. Faculty advisors and college counselors who specialize in career planning can help students think through their interests. In a one credit course, NS 1200, Nutrition and Health: Issues, Outlooks and Opportunities (spring term), students can meet experts working in different fields and learn about critical issues and trends in these fields as well as the requisite knowledge and skills to work in the following areas:
1. Medicine and Other Health Careers:
The course recommendations for all Cornell students who plan to apply to medical and/or dental school include: 8 credits of general or inorganic chemistry, 8 credits of organic chemistry, 8 credits of introductory biology, at least one advanced course in biology, 8 credits of physics, one year of college mathematics, and 6 credits of English composition. With the exception of physics and one year of math, these courses are included in the core curriculum for the nutritional sciences majors.

More information about medical school course requirements is available from the University’s Health Careers Office, 203 Barnes Hall (5-5044). They have excellent resource materials and advising services for students who wish to pursue careers in medicine. Review the Cornell Health Careers web site:

http://www.career.cornell.edu/paths/health/index.cfm

For more information, see the handout Pre-Med Planning (CHERRY pages).

2. Dietetics, Nutrition Counseling, Clinical Nutrition, Community Nutrition, and Management:
Students who wish to pursue careers in managing food and nutrition services or providing nutrition advice to promote health and/or manage disease states should complete the academic requirements for The American Dietetic Association (ADA). In addition to courses required for the major, students complete:

- Nutrition and the Life Cycle (NS 1220)
- Food for Contemporary Living (NS 2470)
- Food Service Management (HADM 1360)
- Nutrition Communications (NS 4250)
- Nutrition and Disease (NS 4410)
- Implementation of Nutrition Care (NS 4420)
- Public Health Nutrition (NS 4500)
- Applied Dietetics in Foodservice Systems (NS 4880)

AND
- Human Anatomy and Physiology-laboratory (NS 3420)

AND
- Microbiology

Faculty in the Division’s dietetic program provides career advice and also help students compile their applications to the post-baccalaureate supervised practice component (dietetic internship), which is the next step in pursuing a career as a registered dietitian (R.D.). Additional information about the requirements of The Academy of Nutrition and Dietetics can be obtained from Emily Gier, eg47@cornell.edu, in 416 Savage Hall and from the advising handout, Who Should Consider the Dietetics Program (CHERRY pages).

Additional Career Interests....

3. Fitness, Sports Nutrition, and Physical Therapy:
Undergraduate nutrition majors can complete the Applied Exercise Science Concentration at Ithaca College. This program involves 3 courses at Ithaca College: Kinesiology, Exercise Physiology, and Biomechanics of Human Movement. These courses usually begin in the junior year and are taken as part of an exchange program between Cornell and Ithaca College. This program requires careful course schedule planning. Students who wish to apply to graduate schools in physical therapy add courses in physics, anatomy, math and psychology to the requirements for the nutrition major. Detailed information sheets about the Applied Exercise Science Concentration (BLUE pages) and Physical Therapy Career Options (CHERRY pages) are available.
4. **Nutritional Biochemistry and Genomics:**
Students interested in careers in nutritional biochemistry and genomics should complete the more rigorous chemistry and biology course sequences required for the major. In addition, two semesters of calculus and physics are recommended. Electives of particular interest may include advanced biology and chemistry courses and nutritional science courses related to the physiology, biochemistry, genomics and metabolism of different nutrients and disease states. Students are encouraged to participate in a laboratory research program during their undergraduate program.

5. **International Nutrition & Global Health:**
For students interested in preparing for work in international settings, various departments throughout Cornell University offer courses of potential interest including, but not limited to, courses in language, international agriculture, education, agricultural economics, anthropology, and rural sociology.

6. **Nutrition and Agriculture:**
Students interested in human nutrition and its relationship to food production, food processing, and farm and food policy should consider electives in the following areas: food science, animal science, horticultural sciences, agricultural economics, natural resources, international agriculture, and plant sciences.

7. **Graduate Study:**
Students who want to apply to graduate school should select courses appropriate for admission to their programs of choice. Admission to many graduate programs in the biological and medical sciences may require a year of college mathematics, two semesters of organic chemistry, and physics. For more information see the DNS information sheet on **Applying to Graduate School** (CHERRY pages).

**Advanced Placement Credit:**
Students with Advanced Placement (AP) Credit may apply credits toward graduation requirements. See the introductory pages of the **Cornell University Courses of Study** for a summary of the AP test scores required for placing out of specific Cornell courses. Check with individual colleges for specific rules concerning the use of AP credit.

Applying AP credits toward requirements gives students more flexibility in planning courses. Nutrition majors with AP credit in biology and chemistry may wish to take some introductory courses in these subjects at Cornell in preparation for advanced courses. Pre-med students should see the materials from the Health Careers Advising Center and at the website: http://www.cahttp://www.career.cornell.edu/paths/health/index.cfm

Freshman choosing to use AP credits towards biology or chemistry should enroll in courses to meet college distribution requirements. **Entrance into second level courses at Cornell in chemistry (organic) and biology (e.g., physiology) as a freshman is not recommended.**

Students are responsible for providing the Registrar of their college with the appropriate documentation to have AP credit applied toward graduation requirements. For details, please read the information sheet, **Using AP Credit to Meet Requirements** (BLUE pages).

**A Division in Two Colleges**
The Division of Nutritional Sciences (DNS) at Cornell is a unit of both the College of Human Ecology and the College of Agriculture and Life Sciences.
It’s a “Division” instead of a department because it is part of two colleges. Cornell undergraduates may study nutrition in two ways:

- **Nutritional Sciences – CHE** through the **College of Human Ecology**
- **Nutritional Sciences – CALS** through the **College of Agriculture and Life Sciences**

Students in both programs complete the same biology, chemistry, and nutrition courses, but they develop their majors in different ways through their use of elective courses in the respective colleges. **Biology** majors in the
College of Arts and Sciences and the College of Agriculture and Life Sciences can concentrate in nutrition through the Human Nutrition program of study in the biology major. For more information about which program is best for you, contact the Academic Affairs Office in B21 Savage Hall.

For College admission information, contact:

- **Office of Admissions, College of Human Ecology**, 170 MVR Hall, (607) 255-5471
  http://www.human.cornell.edu/admissions/index.cfm
- **Office of Admissions, College of Agriculture and Life Sciences**, 177 Roberts Hall, (607) 255-2036
  http://cals.cornell.edu/admissions/

Read about our “other” major, Human Biology, Health and Society, on the following pages.

**Faculty and Facilities**

The Division of Nutritional Science’s about 50 faculty members are involved in undergraduate teaching, graduate teaching, research, and nutrition outreach to the public through Cornell Cooperative Extension. Most of the DNS faculty members work in MVR, Savage and Kinzelberg Halls. In addition to housing offices and classrooms, these buildings also contain specialized research facilities.
Human Biology, Health & Society (HBHS): An Introduction

A MAJOR FOR YOUR GOALS?
Promoting health and reducing the risk of disease in the United States and other countries requires that practitioners, researchers, and policy makers consider not only the biological and physical aspects of health and illness but also the social, psychological, economic, cultural, and political dimensions.

Many health problems are complex in origin and require that experts with different talents and perspectives work together and with the affected individuals and communities to understand the problems, propose solutions, and take steps to reduce health risks. Advances in the understanding of health risks and the dramatic changes in the management of health problems in the U.S. have caused the roles and responsibilities of health professionals to change dramatically. Those wishing to pursue a health-related career must be prepared to work in this new and ever-changing environment.

The Human Biology, Health, and Society (HBHS) undergraduate program in the Division of Nutritional Sciences helps students view human health issues from a broad and multidisciplinary perspective. Students are required to develop a strong background in human biology so that they can understand the physiological and biochemical aspects of health issues. The program also requires students to use perspectives from both the biological sciences and the social sciences to examine health issues. Students can select the issues they wish to investigate through the wide array of courses related to human health and well-being in the different departments of the College of Human Ecology.

ISSUES TO EXPLORE: Some examples . . .
- What physiological and biochemical processes are involved in health and necessary for resistance to disease?
- What is normal growth of children and what biological, social, cultural and environmental factors are involved?
- How do biological processes explain normal and abnormal behavior?
- How do diet and other lifestyle factors influence the risk of chronic disease?
- What social, political, economic, and cultural factors explain the differential access to health care in the US and how can this situation be changed?
- How can communities, organizations, and practitioners work to promote health in the US and other countries?
- What can be done to reduce disease and promote quality of life for older Americans?

CAREER PATHS
The HBHS major is one step toward a career in the health field. Most students will need to pursue advanced study to attain the academic and experiential credentials to work in their chosen profession. The HBHS major is excellent preparation for graduate and professional schools leading to careers in:

1. **Medical practice**: physician, physician assistant, dentist, nurse, nurse practitioner
2. **Allied health professions**: physical therapist, genetic counselor, occupational therapist, gerontologist, pharmacist, athletic trainer, strength and conditioning specialist
3. **Health education and promotion**: health educator, health communicator, fitness and wellness educator; community action specialist
4. **Biomedical research**: epidemiologist, toxicologist, pharmacologist, biochemist, exercise physiologist, physiologist
5. **Health administration and policy**: hospital administrator, public health administrator, legislative assistant, program evaluator, policy analyst
6. **Dietetics**: including nutrition counseling, clinical nutrition, community nutrition, and management of food and nutrition services in business and the health industry
IT’S OK TO BE UNSURE ABOUT YOUR INTERESTS

The HBHS program gives students time to consider different career interests while they get started completing introductory courses in chemistry, biology, math, writing, and the social sciences. The first-year course, NS 1150, Nutrition, Health and Society, introduces students to some important health issues and helps students develop their critical thinking and writing skills.

Students are encouraged to explore different career interests through their courses and special seminars offered throughout the year. Faculty advisors and college counselors who specialize in career planning can help students think through their interests. In a one credit course, NS 1200, Nutrition and Health: Issues, Outlooks and Opportunities (spring term), students can meet experts working in different fields and learn about critical issues and trends in these fields as well as the requisite knowledge and skills to work in these areas.

PROGRAM REQUIREMENTS

Students in the HBHS program must complete the graduation requirements for the College of Human Ecology as well as the requirements for the major. The curriculum requires strong preparation in biology and chemistry. After a year of introductory chemistry and biology, students complete a sequence of courses in organic chemistry, physiology, and biochemistry. Students also choose advanced electives in biology selecting from courses in areas such as genetics, evolution, neurobiology, cell biology, microbiology and nutrition. A term of physics and a term of calculus also are required.

All students complete NS 1150, Nutrition, Health and Society and one introductory course in each of two areas of social science chosen from anthropology, economics, psychology and sociology. Students must also complete the Human Ecology distribution requirements including courses in writing, statistics, and humanities.

To explore issues related to human biology, health and society, students choose from a wide array of selected courses available in all departments in the College of Human Ecology. Students must complete a minimum of two courses that integrate biology and social sciences perspectives and nine credits of advanced electives related to human biology, health and society.

PREPARING FOR SPECIFIC CAREERS

1. **Medicine and Dentistry:** Resources at Cornell for students wishing to pursue admission to medical school or dental school are extensive. Students should consult the college’s pre-med advisors and the resources of the university’s Health Careers Program office in 103 Barnes Hall (255-5221) or on the web at [http://www.career.cornell.edu/paths/health/exploring/index.cfm](http://www.career.cornell.edu/paths/health/exploring/index.cfm) (click on expand all, and scroll to Human Medicine section) or recommendations about course requirements and application processes. HBHS majors who wish to complete the pre-med requirements should complete the eight credit organic chemistry sequence, two terms of physics, and a year of college mathematics.

2. **Exercise Science and Physical Therapy:** Students should complete Human Anatomy and Physiology of both lecture (NS 3410) and lab (NS 3420) before taking any course at Ithaca College. Then students can complete the Applied Exercise Science Concentration at Ithaca College, which includes courses in exercise physiology, kinesiology, and biomechanics of human movement. Preparation for graduate school in physical therapy requires courses in physics, psychology and ethics. Detailed information sheets about the [Applied Exercise Science](#) concentration (BLUE pages) and [Physical Therapy Career Options](#) (PINK pages) are available.

3. **Biomedical Research, Genomics and Toxicology:** Recommended courses include calculus, two terms of physics, and genetics. Other courses in advanced biology and chemistry should be selected based on the student’s particular interest.

4. **Policy and Administration:** Recommended courses include introductory courses in economics, government, sociology, management as well as courses offered in the college’s department of Policy Analysis and Management.

5. **Community Health:** Recommended courses include introductory and advanced courses in human development, psychology, sociology, economics, anthropology, communications, and health policy.
6. **Dietetics, Nutrition Counseling, Clinical Nutrition, Community Nutrition, and Management**: Students who wish to pursue careers in managing food and nutrition services or providing nutrition advice to promote health and/or manage disease states should complete the academic requirements for The Academy of Nutrition and Dietetics (see page 29 for additional information). Faculty in the Division’s dietetics program provides career advice and also help students compile their applications to the post-baccalaureate supervised practice component (dietetic internship), which is the next step in pursuing a career as a registered dietitian (R.D.). Additional information about the requirements of The Academy can be obtained from the advising handout, Who Should Consider the Dietetics Program (PINK pages).

7. **Global Health**: Students can complete the Global Health Minor Program by completing their requirements. Detailed information about the program is available (BLUE pages).

**SPECIAL OPPORTUNITIES**
Students can enhance their classroom learning by participating in a variety of special opportunities including experiential learning, undergraduate research, study abroad, and teaching. In order to take advantage of these opportunities, students must plan their course schedules carefully so that all the college and major academic requirements can be met and students have the appropriate preparation to participate in these programs.

1. **Experiential Learning**: Gaining experience through summer internships, employment, and field study is a vital part of the career exploration and preparation processes for students in HBHS. It helps students explore opportunities in various fields, relate classroom learning to real world settings, and examine their own interests and strengths.

Students in search of summer internships and paid positions can use the resources offered by the college’s and university's career offices including the web pages, counselors, and library resources. Assistance in resume preparation and networking with alumni also is available from these offices.

Students who wish to participate in field-based learning for academic credit (NS 4020) should speak with their advisors or with a faculty member willing to supervise the placement. Faculty members can assist with some placements in community agencies, businesses, and health care programs, but students may need to search for their own placements. When the student and faculty member agree upon a project, they complete the Special Studies form (obtained from B21 Savage or the Registrar of the College of Human Ecology) which outlines the agreement. The form must be signed by the student, the faculty member, the student’s advisor, and the division’s Assistant Director for Undergraduate Studies before submitting to the Human Ecology Registrar. For more information about field study, read **Field Experiences in Food, Nutrition and Health for Undergraduates** in the GOLD pages.

2. **Urban Semester**: The Urban Semester is an opportunity for field-based learning in New York City. Students earn credit through placements in private, not-for-profit, or government funded programs and through special classes designed to take advantage of this urban environment. For more information about the Urban Semester see the advising sheet, **Study Abroad or an Urban Semester** in the GOLD pages.

3. **Study Abroad**: Students who wish to spend a semester abroad should discuss their interests with their faculty advisor as early as possible. A student’s academic interests and course requirements will determine how easily a semester can be arranged. For more information about Study Abroad, see the advising sheet **Study Abroad or an Urban Semester** in the GOLD pages.

4. **Undergraduate Research**: HBHS majors can become involved in research with faculty members in the division and the college. Students interested in participating in directed readings or empirical research with a faculty member should contact the faculty member. A list of research interests of faculty members in the division is included in the gold pages. When the student and faculty member agree upon a project, they complete the Special Studies form (obtained from B21 Savage or the College Registrar) which outlines the agreement. The form must be signed by the student, the faculty member, the student’s advisor, and the Assistant Director for Undergraduate Studies before submitting the form to the Human Ecology Registrar.
5. **Health and Nutrition Society**: You can become a member or leader in the Health and Nutrition Society (HealthNutS), the undergraduate student organization. With the goals of promoting healthy eating practices in the Cornell and Ithaca communities and encouraging interaction among DNS student and faculty members, HealthNutS has a busy agenda including faculty-students and faculty activities, the fall food drive, skits for nursery schools and day care programs, and programs for residents of adult care homes.

6. **Honors Program**: HBHS majors may participate in the division’s honors program which is designed to challenge academically talented students who have a substantial interest in research. A minimum GPA is required for participation in this program. Each selected student completes required seminars and conducts an independent research project under the direction of a faculty member. The experience culminates in the submission and presentation of a thesis, which must be accepted by the division’s honors committee. For more information about this program, see the information sheet *The Honors Research Program*, in the GOLD pages.

7. **Undergraduate Teaching Assistant**: Qualified juniors/seniors have the opportunity to apply to be undergraduate teaching assistants for some introductory level courses. Undergraduate teaching assistants work with faculty members and graduate teaching assistants and learn about college teaching and various instructional methods. Students receive academic credit for this learning experience through NS 4030. Interested students should contact the faculty member who teaches the course for which they would like to assist.

**FACULTY ADVISING**

Every student majoring in HBHS has a faculty advisor from the Division of Nutritional Sciences. New students meet with their advisors at a scheduled time during the orientation period. You will then meet with your advisor at least twice a year -- during conferences scheduled in October and April to plan your schedule for the next term. During the first meeting with your advisor, be sure to find out how to contact him/her when you need to consult with him/her in the future. Most faculty members prefer that students make an appointment through a sign-up sheet, e-mail, or phone call. Some faculty members also have scheduled office hours.

Your advisor will help you plan courses to meet your academic interests and suggest special opportunities for individual study or experiences outside the classroom. Advisors approve course enrollment schedules. Keeping in touch with your faculty advisor is very important. Contact them whenever you have questions about your academic program or if you are having academic difficulties of any kind. Academic problems are more easily managed when you contact your advisor early!

If you have questions about your faculty advisor or are unable to contact your advisor, you can come to or call the Academic Affairs Office. Also if you wish to change your advisor, come to this office: B21 Savage Hall.

**FACILITIES and A DIVISION IN TWO COLLEGES**

The Division of Nutritional Sciences’ 45 faculty members are involved in undergraduate teaching, graduate teaching, research, and nutrition outreach to the public through Cornell Cooperative Extension. Most of the DNS faculty members work in MVR Hall and nearby Savage Hall and Kinzelberg Hall. In addition to housing offices and classrooms, these buildings contain specialized research facilities.

The Division of Nutritional Sciences (DNS) at Cornell is a unit of both The College of Human Ecology and The College of Agriculture and Life Sciences. It is a “Division” instead of a department because it is part of two colleges.
## Choosing NS Courses

When selecting NS courses, consider your personal interests and professional goals. Focusing your selections around a specific issue can result in a more concentrated experience and greater depth of understanding of that particular issue. The clusters of NS courses below may help you begin to plan your selections:

### Global Perspectives on Human and Health
- **NS 2600** Introduction to Global Health
- **NS 3060** Nutrition and Global Health
- **NS 4450** Toward a Sustainable Global Food System: Food Policy for Developing Countries (also AEM 4450)
- **NS 4570** Health, Poverty, and Inequality: A Global Perspective (also ECON 3910)
- **NS 4600** Explorations in Global Health – restricted to students in Global Health minor

### Epidemiology and Public Health
- **NS 3500** Epidemiology in Context
- **NS 4500** Public Health Nutrition

### Food Quality
- **NS 2470** Food for Contemporary Living
- **NS 3450** Introduction to Physicochemical and Biological Aspects of Foods (also FDSC 2000)
- **NS 4880** Applied Dietetics in Food Service Systems

### Human Health and Nutrition
- **NS 1150** Nutrition, Health, and Society
- **NS 1220** Nutrition and the Life Cycle
- **NS 2750** Human Biology and Evolution (also ANTHR 2750)
- **NS 3150** Obesity and the Regulation of Body Weight (also PSYCH 3150)
- **NS 3220** Maternal and Child Nutrition
- **NS 3410** Human Anatomy and Physiology
- **NS 3420** Human Anatomy and Physiology Laboratory
- **NS 4315** Nutrient Requirements and Recommendations: Biological Aspects
- **NS 4370** Nutritional Immunology and Infectious Diseases
- **NS 4410** Nutrition and Disease
- **NS 4420** Implementation of Nutrition Care
- **NS 4444** Sports Nutrition and Supplements: Concepts and Evidence

### Nutritional Biochemistry
- **NS 3200** Introduction to Human Biochemistry
- **NS 3300** Nutrient Metabolism
- **NS 3320** Methods in Nutritional Sciences
- **NS 4130** Nutritional Genomics-Evolution and Environment
- **NS 4310** Mineral Nutrition and Chronic Disease
- **NS 4750** Mechanisms Underlying Mammalian Developmental Defects (also BIOAP and BIOMS 4750)
- **NS 4900** Manipulating the Mouse Genome

### Psychological and Social Influences on Human Nutrition
- **NS 2450** Social Science Perspectives on Food and Nutrition
- **NS 3470** Human Growth and Development: Biological and Behavioral Interactions (also HD 3470 and BSOC 3471)
- **NS 4250** Nutrition Communications and Counseling
See NS/HUMEC graduation requirements at http://www.human.cornell.edu/registrar/degree-progress/curriculum-sheets.cfm

It is the student’s responsibility to understand and to meet college and major graduation requirements.

1. **NATURAL SCIENCES**

   **Introductory biology**, 8 cr [BIOG 1500 plus two introductory biology lectures]
   **Introductory chemistry**, 8 cr [CHEM 2070-2080 or 2150-2160]
   **Organic chemistry lecture**, 3-8 cr [CHEM 1570 (not for pre-med), 3570-3580, or 3590-3600]
   **Organic chemistry lab**, 2-4 cr [CHEM 2510 or 3010]
   **Physiology**, 3 cr [NS 3410(3)] or [BIOAP 3110(3)]
   **Biochemistry**, 4-6 cr [NS 3200(4), [BIOG 3300(4)], [BIOG 3310(3) + BIOG 3320(2)], or [BIOG 3310(3) + BIOMI 2900(3)], [BIOG 3350(4)] or [BIOG 3330(4)]

   No additional credit for NS 3200 if the above biochemistry courses are taken to fulfill biochemistry requirement, and vice versa.

   **For special career interests:**
   *Premed:* CHEM 3570-3580 [6 cr] and Physics, PHYS 1101-1102 or 2207-2208 [8 cr]
   *Dietetics:* Microbiology, 3 cr, [BIOI 2900] and Human Anatomy and Physiology lab, NS 3420 [2 cr].
   *Exercise science:* Both NS 3410 [3 cr] and NS 3420 [2 cr]. Strongly recommend: Physics, 8 cr, [PHYS 1101-1102 or 2207-2208]

2. **NUTRITIONAL SCIENCES**

   **Core courses**, 16 cr:
   - NS 1150 Nutrition, Health and Society [F,3]
   - NS 2450 Social Science Perspectives on Food and Nutrition [F,3]
   - NS 3450 Nutritional and Physicochemical Aspects of Foods [F,3]
   - NS 3310 Nutrient Metabolism [S,4]
   - NS 3320 Methods in Nutritional Sciences [F,3]

   **Advanced electives in Nutritional Sciences**, 9 cr NS courses at 3000 level or above. May include only 3 cr of NS 4000, 4010, 4020, or 4990. May include NS 3410 only if BIOAP 3110 is taken to meet physiology requirement. May **not** include NS 3200, NS 3980, NS 4620, and NS 4030 (TA).

   **For dietetics:** Additional dietetics NS courses at 3000 or above will be counted toward this requirement.

3. **SOCIAL SCIENCES and HUMANITIES**

   **Social Sciences**: 6 cr. From the following four areas, choose 1 course from any 2 areas
   - Economics [ECON 1110* or ECON 1120*]
   - Psychology [HD 1150* or HD 1170* or PSYCH 1101]
   - Sociology [DSOC 1101 or SOC 1101]

   **Note:** ECON 1110 & 1120 count as HUMEC courses. For dietetics: PSYCH 1101 or HD 1150 is required. HUMEC courses taken to meet this Social Science requirement may be used toward college’s requirements of both 9 cr outside major and 43 HUMEC credits. Advanced courses in the social sciences may be used if introductory courses are taken.

   **Humanities**: 3 cr. Includes literature, history, philosophy, religion, and archaeology. Critical, historical, and theoretical studies of arts and design are included. Does not include language, creative, or performing arts (e.g. fiction or poetry writing, composing or performing music, acting, directing, or painting)

4. **WRITTEN COMMUNICATIONS**

   **First Year Writing Seminars**: 6 cr (MUST BE COMPLETED DURING FIRST 2 SEMESTERS)

5. **QUANTITATIVE & ANALYTICAL**

   **Calculus or Advanced Math**: 3 -4 cr. Select from Math 1105 [3], MATH 1106[4], MATH 1110[4], MATH 1120 [4], or AP BC score 3 or above.
   **Statistics**: 4 cr. Select from AEM 2100 [4], BTRY 3010 [4], MATH 1710 [4], SOC 3010 [4], or PSYCH 3500 [4], PAM 2100 [4], STSCI 2150, STSCI 2100/ILRST 2100 [4]

   One of them must be taken at Cornell unless you have earned a score of 3 or above on AP calculus BC.

   AP AB score 3 or higher and AP statistics can be used once the above requirement is met.

6. **HUMAN ECOLOGY (HUMEC) outside NS**

   9 cr selected from HUMEC courses not in NS as per college requirements. May not include HE 1000, 1001, 2010, or any 4030 course. Maximum 3 credits of 4000, 4010, and 4020 may be applied. 8 credits of Urban Semester and 7 credits of Capital Semester may be applied.

7. **OTHER & Elective courses to bring academic credits to 120.**

   Student must complete 43 HUMEC credits across all categories of graduation requirement. If other major and college requirements are met, up to 12 credits of NS 4000, 4010, 4020, 4030 may be applied to 43 HUMEC and 120 Cornell credits. See Human Ecology Curriculum Sheets for detail college requirements. All required courses must be taken as a letter grade.
**DNS ADVISING NOTES:**
Suggestions for 4-Year Schedule

**NUTRITIONAL SCIENCES – CHE**
College of Human Ecology

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**FALL -- FRESHMAN**

- CHEM 2070 (F only)
- BIOG 1500 and/or one lecture course; Optional
- CHEM or BIOG support courses as needed
- NS 1150 (F only)
- NS 1160 (F only, highly recommended)
- First year writing seminar
- Other requirements if bio postponed (HD 1150/PSYCH 1101, ECON 1110, ECON 1120, DEA 1110, DSOC 1101)
  (For dietetics will need PSYCH 1101 or HD 1150)

**SPRING -- FRESHMAN**

*By the end of the Spring semester, must complete a total of at least 5 CHE credits*

- CHEM 2080 (S only)
- One bio lecture and BIOG 1500 if not taken; Optional.
- CHEM or BIOG support courses as needed
- First year writing seminar
- NS 1200 (1 cr, S only); NS1220 (required for dietetics, S only but only in odd year; alt yr course); NS 2470 (F/S, required for dietetics, or in sopho)
- HE course to meet social science requirement or as elective (ECON 1110/1120, or other) or a class for math requirement.

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**FALL -- SOPHOMORE**

- BIOG 1500 and/or one lecture course if not taken.
- NS 2450 (F only; Pre-req: NS 1150)
- NS 3450 (F only; Pre-reqs: biology & chemistry & orgo (or concurrent; Or junior)
- CHEM 3570 (F only, if premed or biochem interest)
- CHEM 2510 (org lab, F/S with 3570 concurrently, or later)
- Requirements in social sciences, humanities, other HE (HD 1150, ECON 1110/1120, other)
- PHYS 1101/2207 (F only; If premed; Strongly recommended for exercise science; Or junior)
- Math or Statistics course
- Food Service Management (HADM 1360, F/S)- required for dietetics

**SPRING -- SOPHOMORE**

*By the end of Spring semester, must complete a total of at least 12 CHE credits*

- One bio lecture if not taken
- CHEM 3580 (S only) or CHEM 1570 (S only, if not 3570-3580)
- CHEM 2510 (org lab; F/S; Or later)
- NS 3410 (S only; Or junior)
- NS 3420 (required for dietetics & exercise science minor).
- Requirements in social sciences, humanities, math or statistics
- Advanced nutrition electives
- Food Service Management (HADM 1360) - required for dietetics
- BIOMG 3310, if took BIOBM 3310; Or later
- NS 1200 (S only) if desired
- PHYS 1102 or 2208 (S only: if needed and taken 1101/2207: Or junior)

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**FALL -- JUNIOR**

- NS 3200 (F), BIOMG 3310 (F), or BIOMG 3300 (F/S)
- NS 3450 if not taken (has schedule conflict with BIOM 2900)
- BIOAP 3110 (F only: If not NS 3410)
- BIOMI 2900 (F/S: Required for dietetics; Or senior)
- Food Service Management (HADM1360, if dietetics transfer)
- Advanced nutrition electives (e.g., NS 3060, 4450)
- HE electives, other requirements, or electives (see above)
- Semester abroad or urban semester (if elected)

**SPRING -- JUNIOR**

- NS 3310 (S only: Or senior: Biochem is a pre-req)
- NS 4250 and 4500 (all S only) if dietetics
- BIOMG 3320 or BIOMI 2900, if took BIOBM 3310, or BIOMG 3350
- Advanced nutrition electives (NS 3150 [alt yrs], 4370, 4250, 4315, 4444, 4500, 4570, etc.)
- HE electives, other requirements, or electives (see above)
- Semester abroad or urban semester (if elected)
- Food Service Management (HADM1360, if dietetics transfer)

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**FALL -- SENIOR**

- NS 3320 (F only), (prefer NS 3310 in prior)
- NS 4410 (F only): need biochem or instructor’s permission
- NS 4420 (F only) required for dietetics; needs 4410 or concurrently Remaining requirements (see above)
- Advanced nutrition electives (e.g., NS 4310, NS 4450, or previously listed courses or selected grad classes)
- Electives to meet personal or career interests (graduate courses with permission)

**SPRING -- SENIOR**

- NS 4880 (S only, required for dietetics)
- NS 4250 and 4500 if not taken (required for dietetics)
- Remaining requirements (see above)
- Electives to meet personal or career interests (graduate courses with permission)

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**Note!**

- Schedules vary according to individual interests and needs.
- New students should take 12-15 credits in first semester to adjust to demands of Cornell courses.
- READ ALL DNS Advising Handouts and CHE Student Guide. ASK if you have questions
- It is the student’s responsibility to understand college and major requirements for graduation!!!

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**DNS ADVISING NOTES:**
Suggestions for 4-Year Schedule

**NUTRITIONAL SCIENCES – CHE**
College of Human Ecology

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**Fall -- Freshman**

- CHEM 2070 (F only)
- BIOG 1500 (optional)
- CHEM or BIOG support courses as needed
- NS 1150 (F only)
- NS 1160 (F only, highly recommended)
- First year writing seminar
- Other requirements if bio postponed (HD 1150/PSYCH 1101, ECON 1110, ECON 1120, DEA 1110, DSOC 1101)
  (For dietetics will need PSYCH 1101 or HD 1150)

**Spring -- Freshman**

*By the end of the Spring semester, must complete a total of at least 5 CHE credits*

- CHEM 2080 (S only)
- One bio lecture and BIOG 1500 if not taken; Optional.
- CHEM or BIOG support courses as needed
- First year writing seminar
- NS 1200 (1 cr, S only); NS1220 (required for dietetics, S only but only in odd year; alt yr course); NS 2470 (F/S, required for dietetics, or in sopho)
- HE course to meet social science requirement or as elective (ECON 1110/1120, or other) or a class for math requirement.

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**Fall -- Sophomore**

- BIOG 1500 and/or one lecture course if not taken.
- NS 2450 (F only; Pre-req: NS 1150)
- NS 3450 (F only; Pre-reqs: biology & chemistry & orgo (or concurrent; Or junior)
- CHEM 3570 (F only, if premed or biochem interest)
- CHEM 2510 (org lab, F/S with 3570 concurrently, or later)
- Requirements in social sciences, humanities, other HE (HD 1150, ECON 1110/1120, other)
- PHYS 1101/2207 (F only; If premed; Strongly recommended for exercise science; Or junior)
- Math or Statistics course
- Food Service Management (HADM 1360, F/S)- required for dietetics

**Spring -- Sophomore**

*By the end of Spring semester, must complete a total of at least 12 CHE credits*

- One bio lecture if not taken
- CHEM 3580 (S only) or CHEM 1570 (S only, if not 3570-3580)
- CHEM 2510 (org lab; F/S; Or later)
- NS 3410 (S only; Or junior)
- NS 3420 (required for dietetics & exercise science minor).
- Requirements in social sciences, humanities, math or statistics
- Advanced nutrition electives
- Food Service Management (HADM 1360) - required for dietetics
- BIOMG 3310, if took BIOBM 3310; Or later
- NS 1200 (S only) if desired
- PHYS 1102 or 2208 (S only: if needed and taken 1101/2207: Or junior)

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**Fall -- Junior**

- NS 3200 (F), BIOMG 3310 (F), or BIOMG 3300 (F/S)
- NS 3450 if not taken (has schedule conflict with BIOM 2900)
- BIOAP 3110 (F only: If not NS 3410)
- BIOMI 2900 (F/S: Required for dietetics; Or senior)
- Food Service Management (HADM1360, if dietetics transfer)
- Advanced nutrition electives (e.g., NS 3060, 4450)
- HE electives, other requirements, or electives (see above)
- Semester abroad or urban semester (if elected)

**Spring -- Junior**

- NS 3310 (S only: Or senior: Biochem is a pre-req)
- NS 4250 and 4500 (all S only) if dietetics
- BIOMG 3320 or BIOMI 2900, if took BIOBM 3310, or BIOMG 3350
- Advanced nutrition electives (NS 3150 [alt yrs], 4370, 4250, 4315, 4444, 4500, 4570, etc.)
- HE electives, other requirements, or electives (see above)
- Semester abroad or urban semester (if elected)
- Food Service Management (HADM1360, if dietetics transfer)

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**Fall -- Senior**

- NS 3320 (F only), (prefer NS 3310 in prior)
- NS 4410 (F only): need biochem or instructor’s permission
- NS 4420 (F only) required for dietetics; needs 4410 or concurrently Remaining requirements (see above)
- Advanced nutrition electives (e.g., NS 4310, NS 4450, or previously listed courses or selected grad classes)
- Electives to meet personal or career interests (graduate courses with permission)

**Spring -- Senior**

- NS 4880 (S only, required for dietetics)
- NS 4250 and 4500 if not taken (required for dietetics)
- Remaining requirements (see above)
- Electives to meet personal or career interests (graduate courses with permission)
DNS ADVISING NOTES: OVERVIEW OF COURSE REQUIREMENTS FOR NUTRITIONAL SCIENCES – COLLEGE OF AGRICULTURE AND LIFE SCIENCES (CALS)
FOR STUDENTS ENTERING AUGUST 2013

See CALS graduation requirements at http://www.cals.cornell.edu/cals/current/registrar/current-students/cals-graduation/cals-graduation-requirements.cfm
It is the student’s responsibility to understand and to meet college and major requirements. All requirements must be taken as a letter grade.

1. NATURAL SCIENCES

Introductory biology, 8 cr [BIOG 1500 plus two introductory biology lectures]
Introductory chemistry, 8 cr [CHEM 2070-2080 or 2150-2160]
Organic chemistry lecture, 3-8 cr [CHEM 1570 (not for pre-med); 3570-3580, or 3590-3600]
Organic chemistry lab, 2-4 cr [CHEM 2510 or CHEM 3010]
Physiology, 3 cr [NS 3410(3)] or BIOAP 3110(3)]
Biochemistry, 4-6 cr [NS 3200(4)], [BIOMG 3300(4)], [BIOMG 3310(3) + BIOMG 3320(2)], or [BIOMG 3310(3) + BIOMI 2900(3)];
[BIOMG 3350(4)] or [BIOMG 3330(4)]
No additional credit for NS 3200 if the above biochemistry courses are taken to fulfill biochemistry requirement, and vice versa.

For special career interests:
- Premed: CHEM 3570-3580 [6 cr] and Physics 1101-1102 or 2207-2208 [8 cr]
- Dietetics: Microbiology, 3 cr, [BIOMI 2900] AND Human Anatomy and Physiology lab, NS 3420 [2 cr];
- Exercise Science: Both NS 3410 [3 cr] and NS 3420 [2 cr]. Strongly recommend: Physics, 8 cr, [PHYS 1101-1102 or 2207-2208]

2. NUTRITIONAL SCIENCES

[Count toward 55 required cr in CALS. Letter grade only]

Core courses, 16 cr:
- NS 1150 Nutrition, Health and Society [F,3]
- NS 2450 Social Science Perspectives on Food and Nutrition [F,3]
- NS 3450 Nutritional and Physicochemical Aspects of Foods [F,3]
- NS 3310 Nutrient Metabolism [S,4]
- NS 3320 Methods in Nutritional Sciences [F,3]

Advanced electives in Nutritional Sciences, 9 cr NS courses at 3000 level or above. May include only 3 cr of NS 4000, 4010, 4020, or 4990. May include NS 3410 only if BIOAP 3110 is taken to meet physiology requirement. May not include NS 3200, NS 3980, NS 4620, and NS 4030 (TA)

For dietetics: Additional dietetics NS courses at 3000 or above will be counted toward this requirement.

3. SOCIAL SCIENCES, HUMANITIES, and COMMUNICATION

Humanities and Social Sciences, 12 credits (4 courses of 3 or more credits) as per CALS college distribution requirements.
For dietetics: PSYCH 1101 is required. Check “DUST” for more information about course selection.
Written and Oral Expression (9 cr) must include at least 6 cr of written expression; select from First year Seminars, English, and Communications courses as per CALS distribution requirements.

4. QUANTITATIVE & ANALYTICAL

Calculus or Advanced Math: 3 -4 cr. Select from Math 1105 [3], MATH 1106[4], MATH 1110[4], MATH 1120 [4], BTRY 1150 (4 cr), or a score of 4 or 5 on the AP calculus exam.
Statistics: 4 cr. Select from AEM 2100 [4], BTRY 3010 [4], MATH 1710 [4], SOC 3010 [4], or PSYCH 3500 [4], PAM 2100 [4], STSCI 2150, STSCI 2100/ILRST 2120 [4]
- Calculus and higher level math is generally needed for premed or grad study.

5. ELECTIVES IN AGRICULTURE & LIFE SCIENCES

9 cr from ANY of the following areas selected with faculty advisor to support student’s interests and goals. (These courses MAY NOT also be applied to Social Science, Humanities, Communication, Math/Statistics, or other College’s distribution requirements (3-4 above)). Areas of elective study:
- Food Production and Marketing: courses in Food Science; Animal Science; Plant Science; Biological and Environmental Engineering; International Agriculture and Rural Development. (FOOD 1505 may NOT be used because it is redundant with NS 1150.)
- Food Policy: courses in Applied Economics and Management; Developmental Sociology; and International Agriculture and Rural Development, Plant Breeding.
- Life sciences: courses in Biological Sciences, Plant Sciences, Animal Science, Horticulture, Plant Breeding and Genetics, and Plant Pathology. (MAY NOT include introductory biology, physiology, or biochemistry courses used for Natural Sciences requirement. MAY include BIOAP 3110 only if NS 3410 is used for physiology requirement. MAY include BIOMI 2900 if other biochemistry courses are taken to meet biochemistry requirement.)
- Environment: courses in Natural Resources; Crop and Soil Sciences; and Applied Economics and Management

Division of Nutritional Sciences • Office of Academic Affairs • Cornell University.
B21 Savage Hall • (607) 255-4410 • adns@cornell.edu • 07/13-NS-CALSreq.
DNS ADVISING NOTES:
Suggestions for 4-Year Schedule
NUTRITIONAL SCIENCES – CALS
College of Agriculture and Life Sciences

Note!
• Schedules vary according to individual interests and needs.
• New students should take 12-15 credits in first semester to adjust to demands of Cornell courses.
• See related DNS ADVISING NOTES for recommendations about specific courses. ASK if you have questions
• It is the student’s responsibility to understand college and major requirements for graduation!!!
• Students are expected to enroll in at least one CALS course/semester until 55 CALS credits have been earned.

FALL -- FRESHMAN
• CHEM 2070 (F only)
• BIOG 1500 and/or one lecture course; Optional
• CHEM or BIOG support courses as needed
• NS 1150 (F only)
• NS 1160 (F only, recommended)
• First year writing seminar
• Other requirement if bio postponed: check “DUST” to see what courses are available for “Humanities and Social Sciences” requirement; PSYCH 1101: needed for dietetics

SPRING -- FRESHMAN
• CHEM 2080 (S only)
• One bio lecture and/or BIOG 1500 if not taken; Optional.
• CHEM or BIOG support courses as needed
• First year writing seminar
• NS 1200 (1 cr, S only); NS1220 (required for dietetics, S only but only in odd year; alt yr course); NS 2470 (F/S, required for dietetics; Or in sophomore yr)
• Other requirements (social science, humanities, math or statistics: Check DUST)

FALL -- SOPHOMORE
• BIOG 1500 and/or one lecture if not taken
• NS 2450 (F only; Pre-req: NS 1150)
• NS 3450 (F only; Pre-reqs: biology & chemistry & orgo (or concurrent; Or junior)
• CHEM 3570 (F only, if premed or biochem interest)
• CHEM 2510 (org lab, F/S with 3570 concurrently, or later)
• Requirements in communications, humanities, social sciences, math or statistics (For dietetics: statistics and PSYCH 1101 required)
• Agriculture and life sciences electives (outside major within the college)
• Physics, 1101/2207 (F only, if premed. Strongly recommended for exercise science; or may be junior yr)

SPRING -- SOPHOMORE
• One bio lecture if not taken.
• Chem 3580 (S only, if have 3570) or Chem 1570 (S only, if not 3570-3580)
• Chem 2510 (F/S, or junior yr)
• NS 3410 (S only); NS 3420 (required for dietetics & exercise science minor).
• Advanced nutrition electives
• BIOMI 2900 (F/S), if will take BIOBM 3310; may be junior yr)
• NS 1200 (S only) if desired
• Other requirements and electives (see previous suggestions)
• Food Service Management (HADM 1360, F/S)- required for dietetics
• Physics, 1102/2208 (if have 1101/2207 and need second term)

FALL -- JUNIOR
• NS 3200 (F only), BIOMG 3310 (F only) or BIOMG 3300 (F/S)
• NS 3450 if not taken (has schedule conflict with BIOMI 2900)
• BIOAP 3110 (F only, if not NS 3410)
• BIOMI 2900 (F/S, required for dietetics, or senior)
• Food Service Management (HADM 1360, if dietetics transfer)
• Advanced nutrition electives (e.g., NS 3060, 4450)
• Agriculture and life sciences electives (see above)
• Other requirements and electives (see above)

SPRING -- JUNIOR
• NS 3310 (S only, or S senior, biochem is a pre-req)
• NS 4250 and 4500 required for dietetics (all S only)
• BIOMG 3320 or BIOMI 2900, if took BIOBM 3310, or BIOMG 3350
• Advanced nutrition electives (e.g., NS 3150 [alt yrs], 4250, 4315, 4444, 4370, 4500, 4570)
• Agriculture and life sciences electives
• Food Service Management (HADM 1360, if dietetics transfer)

FALL – SENIOR
• NS 3320 (F only, prefer NS 3310 prior)
• NS 4410(F only, need biochem or instructor’s permission; required for dietetics)
• NS 4420 (F only) (required for dietetics, concurrent with 4410)
• Remaining requirements (see above)
• Electives to meet personal or career interests (graduate courses with permission)

SPRING -- SENIOR
• NS 4880 (S only, required for dietetics)
• NS 4250 and 4500 if not taken (required for dietetics)
• Remaining requirements (see above)
• Electives to meet personal or career interests (graduate courses with permission)
See HBHS/HUMEC graduation requirements at [http://www.human.cornell.edu/registrar/degree-progress/curriculum-sheets.cfm](http://www.human.cornell.edu/registrar/degree-progress/curriculum-sheets.cfm)
It is the student's responsibility to understand and to meet college and major graduation requirements.

1. **NATURAL SCIENCES**
   - **Introductory biology**: 8 cr [BIOG 1500 plus two introductory biology lectures]
   - **Introductory chemistry**: 8 cr [CHEM 2070-2080 or 2150-2160]
   - **Physics**: 4 cr [PHYS 1101 or 2207]. (PHYS 1102 or 2208 required for pre-medical and pre-physical therapy)
   - **Organic chemistry lecture**: 3-8 cr [CHEM 1570 (not for pre-med), 3570-3580, or 3590-3600]
   - **Organic chemistry lab**: 2-4 cr [CHEM 2510 or 3010]
   - **Physiology**: 3 cr [NS 3410 or BIOAP 3110 (3 cr)]
   - **Biochemistry**: 4-6 cr [NS 3200(4), [BIOMG 3300(4), [BIOMG 3310(3) + BIOMG 3320(2)], or [BIOMG 3310(3) + BIOMI 2900(3)], [BIOMG 3350(4) or [BIOMG 3330 (4)] No additional credit for NS 3200 if the above biochemistry courses are taken to fulfill biochemistry requirement, and vice versa.
   - **Biology electives**: 6 additional cr selected from any didactic courses related to human biology in the following areas with 1 year of college biology as prerequisite (NS courses listed for biology electives may be counted toward required 43 HUMEC credits.) (No special studies (e.g., NS4000, 4010, or 4020) and no independent or research credits (e.g., NS 4990) may be used.
     - Genetics, recommended (including BIOMG 2800 or 2810)
     - Microbiology (including BIOMI 2900, VETMI 4310)
     - Neurobiology (including BIONB 2210, 2220, 4280)
     - Cell Biology (including BIOMG 4320)
     - Evolution (Including NS 2750 If it's not used as one of the HBHS Selectives)
     - Physiology (may use BIOAP 3110 only if NS 3410 is also taken) (including BIOAP 4890)
     - Biochemistry (other than the courses listed above under biochemistry requirement) (e.g. NS 3310 if not used as one of HBHS Selectives)
     - Nutrition (may use NS 3220, 3420, 3470, 4130, 4315, 4370, 4410, 4444 - if these are not used as HBHS Selectives)

2. **SOCIAL SCIENCES & HUMANITIES**
   - **Social Sciences**: 6 cr. From the following four areas, choose 1 course from any 2 areas
     - Economics [ECON 1110* or ECON 1120*]
     - Anthropology [ANTHR 1400]
     - Psychology [HD 1150* or HD 1170* or PSYCH 1101]
     - Sociology [DSOC 1101 or SOC 1101]
     - Note: ECON 1101 & 1102 count as HUMEC courses. For dietetics: PSYCH 1101 or HD1150 is required. *HUMEC courses taken to meet this Social Science requirement may be used toward college’s requirements of both 9 cr outside major and 43 HUMEC credits.
   - **Humanities**: 3 cr. Recommended: Ethics, philosophy. Humanities includes literature, history, philosophy, religion, and archaeology. Critical, historical, and theoretical studies of arts and design are included. Does not include language, creative, or performing arts (e.g. fiction or poetry writing, composing or performing music, acting, dancing, directing, or painting)

3. **WRITTEN COMMUNICATIONS**
   - **FirstYear Writing Seminars**: 6 cr (MUST BE COMPLETED DURING FIRST 2 SEMESTERS.)

4. **QUANTITATIVE & ANALYTICAL**
   - **Calculus or Advanced math**: 3-4 cr, MATH 1105, 1106, 1110, any higher level calculus, BTRY 1150, or AP BC score 3 or above.
   - **Statistics**: 4 cr, AEM 2100[4cr], BTRY 3010 [4cr], MATH 1710 [4cr], SOC 3010 [4], PSYCH 3500 [4], PAM 2100 [4], STSCI 2150, STSCI/IILRST 2100 [4]
     - One of them must be taken at Cornell unless you have earned a score of 3 or above on AP calculus BC.
     - AP AB score 3 and higher and AP statistics can be used once the above requirement is met.

5. **Other Requirements in the Major**
   - **NS 1150**: Nutrition, Health and Society [3 cr] AND
   - **HBHS Selectives**: total 15 credits from the list.
     1. Social Science Perspective on Health (6 cr): See attached list of course options on next page.
     2. Natural Science Perspective on Health (6 cr): See attached list of course options on next page
     3. Additional Selectives (3 cr) See attached list of course options on next page

6. **HUMAN ECOLOGY COURSES**: 43 HUMEC cr & 9 cr outside major are required.
   - Student must complete 43 HUMEC credits across all categories of graduation requirement. If all college and major requirements are met, a maximum of 12 cr in 4000, 4010, 4020, and 4030 may be counted toward 43 HUMEC and 120 Cornell credits. See Human Ecology for limits on Advanced Placement credits. Among 43 HUMEC credits, at least 9 cr must come from outside major (non NS courses):
     - **9 cr outside major**: May not include HE 1000, 1010, 2010 or any 4030 course; maximum of 3 credits of 4000, 4010, 4020 may be applied. 8 credits of Urban Semester may be applied. 7 credits of Capital Semester may be applied.
   - **HBHS Selectives**:
     Students must take a total of 15 credits as broken down in the following categories and are encouraged to choose at least one course on development (+), policy (*), and professional problem-solving (*). In addition, three (3) of these 15 credits must be from a Nutritional Science (NS) course.
Social Science Perspective on Health       6 credits
  NS 2450 Social Science Perspectives on Food and Nutrition (F, 3 cr)
  ^ NS 4250 Nutrition Communications and Counseling (S, 3 cr)
  NS 4450/AEM 4450 Toward a Sustainable Global Food System: Food Policy for Developing Countries (F, 3 cr)
  * NS 4500 Public Health Nutrition (S, 2 cr)
  ^ NS 4570 Health, Poverty, and Inequality: A Global Perspective (alt S, 3 cr)
  NS 4600 Explorations in Global Health (S, 3 cr)

+ HD 2180 Human Development: Adulthood and Aging (S, 3 cr)
+ HD 2510 Social Gerontology: Aging and the Life Course (S, 3 cr)
HD 3300 Developmental Psychopathology (S, 3 cr)
HD 3490 Positive Psychology (F, 3 cr)
HD 3570/SOC 3670 Social Inequalities in Physical and Mental Health (alt F, 3 cr)
HD 3620 Human Bonding (S, 3 cr)
+ HD 3700/PSYCH 3250 Adult Psychopathology (S, 3 cr)
HD 4520 Culture and Human Development (alt S, 3 cr)
HD 4570 Health and Social Behavior (alt F, 3 cr)
HD 4590 Life Transitions Across the Life Span (F, 3 cr)
HD 4770 Psychopathology in Great Works of Literature (F, 3 cr)

* PAM 2350 The U.S. Health Care System (F, 3 cr)
* PAM 3240 Risk Management and Policy (F, 3 cr)
PAM 3500 Contemporary Issues in Women's Health (F, 3 or 5 cr)
PAM 3110 Pharmaceutical Management and Policy (S, 3 cr)
PAM 3280 Fundamentals of Population Health (F, 3 cr)
PAM 4280 Economics of Health Behaviors (F, 3 cr)
PAM 4370 Economics of Health Policy (S, 3 cr)
PAM 4380 Economics of Public Health (S, 3 cr)

Natural Science Perspective on Health       6 credits
  NS 2750 Human Biology and Evolution (alt F, 3 cr)
+ NS 3220 Maternal and Child Nutrition (alt S, 3 cr)
NS 3310 Nutrient Metabolism (S, 4 cr)
^ NS 3320 Methods in Nutritional Sciences (F, 3 cr)
NS 3450 Introduction to Physicochemical and Biological Aspects of Food (F, 3 cr)
NS 4130 Nutritional Genomics-Evolution and Environment (S, 2 cr)
NS 4310 Mineral Nutrition and Chronic Disease (F, 3 cr)
NS 4315 Nutrient Requirements and Recommendations: Biological Aspects (S, 3 cr)
NS 4370 Nutritional Immunology and Infectious Diseases (S, 2 cr)
NS 4410 Nutrition and Disease (F, 4 cr)
^ NS 4420 Implementation of Nutrition Care (F, 3 cr)
NS 4444 Sports Nutrition and Supplements, Concepts and Evidence (S, 3 cr)
+ NS 4750 Mechanisms Underlying Mammalian Developmental Defects (alt S, 3 cr)
NS 6140 Topics in Maternal and Child Nutrition (F, 3 cr)
NS 6310 Micronutrients: Function, Homeostasis and Assessment (F, 2-4 cr)
NS 6320 Regulation of Macronutrient Metabolism (S, 4 cr)

HD 2200 The Human Brain and Mind: Biological Issues in Human Development (S, 3 cr)
HD 3200 Human Developmental Neuropsychology (S, 3 cr)
+ HD 3440 Infant Behavior and Development (F, 3 cr)
HD 3660 Affective and Social Neuroscience (S, 3 cr)
HD 4660 Psychobiology of Temperament and Personality (F, 3 cr)
HD 4780 Attention Deficit/Hyperactivity Disorder in Children (alt S, 3 cr)

^ DEA 4700 Applied Ergonomic Methods (alt S, 3 cr)
FSAD 4390 Biomedical Materials and Devices for Human Body (S, 3 cr)
PAM 3800 Human Sexuality (S, 4 cr)

Additional Credits       3 credits
Includes courses from either of the above categories or from the following:
* NS 3060 Nutrition and Global Health (alt F, 3 cr)
NS 3150 Obesity and Regulation of Body Weight (alt S, 3 cr)
+ NS 3470/HD 3470 Human Growth and Development: Biological and Behavioral Interactions (alt S, 3 cr)
NS 3500 Epidemiology in Context (F, 3cr)
^ CHE Special Studies 4000, 4010, 4020 and 4990
DNS ADVISING NOTES:
Suggestions for 4-Year Schedule
HUMAN BIOLOGY, HEALTH & SOCIETY – CHE
College of Human Ecology

Note!
• Schedules vary according to individual interests and needs.
• New students should take 12-15 credits in first semester to adjust to demands of Cornell courses.
• READ ALL DNS advising handouts and CHE Student Guide. ASK if you have questions
• It is the student’s responsibility to understand college and major requirements for graduation!!!!!

FALL -- FRESHMAN

• CHEM 2070 (F only)
• BIOG 1500 and/or one lecture course; Optional
• CHEM and BIOG supplement courses as needed
• NS 1150 (F only)
• NS 1160 (F only, Recommended)
• First year writing seminar (S/F)
• Other requirements or electives if bio postponed (HD 1150 or PSYCH 1101, DEA 1110, ECON 1110/1120; DSOC 1101)

SPRING -- FRESHMAN By the end of the Spring semester, must complete a total of at least 5 CHE credits

• CHEM 2080 (S only)
• BIOG 1500 and/or one lecture course; Optional
• CHEM or BIOG supplement courses as needed
• First year writing seminar (S/F)
• NS 1200 (1 cr, S only)
• NS 1220 (required for dietetics, S only, alt yr)
• HE course to meet other requirements or electives (ECON 1110/1120, or others)

FALL -- SOPHOMORE

• CHEM 3570 (F only, if premed or biochem interest)
• CHEM 2510 (F/S, if 3570 taken or later)
• BIOG 1500 plus one lecture course if not taken.
• PHYS 1101 or 2207 (F only, or in junior)
• HE course to meet other requirements or as elective (HD 1150, ECON 1110/1120, HBHS Selectives [see list of options])
• Other requirements or electives (math, statistics, social sciences, humanities)
• BIOAP 3110 (F only, if will not take NS 3410 or as biology elective, may be in junior)

SPRING -- SOPHOMORE By the end of the Spring semester, must complete a total of at least 12 CHE credits

• CHEM 3580 (S only, if taken 3570)
• CHEM 1570 (S only, if not 3570-3580, non-premed)
• CHEM 2510 (F/S, or in junior)
• One bio lecture if not taken
• NS 3410 (S only, or in junior) & NS 3420 (S only, or in junior; Required for dietetics & exercise science minor)
• HBHS Selectives [see list of options]
• Other requirements (math, statistics, humanities, biology, etc.)
• NS 1200 (S only), if desired
• Physics 1102 or 2208 (S only, if premed or physical therapy and have taken 1101/2207, or junior)

FALL – JUNIOR

• NS 3200 (F only), BIOMG 3310 (F only) or BIOMG 3300 (F/S)
• HBHS Selectives [see list of options]
• Biology elective (BIOMG 2800, 2810, BIOMI 2900, BIONB 2210, BIOEE 2780, NS 2750 (alt. years), or other)
• Semester abroad or urban semester (if elected)

SPRING – JUNIOR

• BIOMG 3300 (S or F) or BIOMG 3350 (S only)
• BIOMG 3320 (S only, if took BIOBM 3310, may be senior)
• HBHS Selectives [see list]
• Biology elective (BIOMG 2810, 2820, BIOMI 2900, BIONB 2220, BIOEE 2740, 2780, or other)
• Semester abroad or urban semester (if elected)

FALL – SENIOR

• Remaining requirements (see above)
• Electives to meet personal or career interests

SPRING – SENIOR

• Remaining requirements (see above)
• Electives to meet personal or career interests
DNS ADVISING NOTES: Biology Majors
Requirements for the “Human Nutrition” Concentration

Note: Biology majors pursuing the Human Nutrition Concentration work with their advisors to develop their own packages of NS courses. These packages of courses should meet the needs and interests of the individual students while remaining true to the spirit of the program, which is to offer courses with both substantial biology and nutrition content. The decision about which NS courses are included so that the complement provides the concentration with substantial biology and nutrition content that matches the student’s interests is made by the advisor.

Nutritional Sciences draws upon several disciplines, including biology, to understand the relationships between food, nutrients, and human health. The concentration in Human Nutrition offers biology majors courses concerned with the nature and biochemical function of essential and non-essential nutrients, nutrient requirements, the role of nutrients in gene expression, and the role of diet in both risk of chronic disease and treatment of existing disease states.

Students in this concentration are encouraged to complete a diverse set of advanced courses affording a perspective on current knowledge of nutrient requirements and function and how this knowledge can be put to use. With the exception of a core course in the structure and function of nutrients, the course requirements are left unspecified. Faculty advisors work with individual students to develop a curriculum that fits the students’ interests. As part of their program, students are encouraged to obtain laboratory experience either through coursework or research. Faculty in Nutritional Sciences are engaged in a wide variety of research activities, including nutritional regulation of gene expression, nutrient function, and regulation of nutritional status, employing diverse approaches such as cell culture, animal experimentation, and human metabolic studies.

Students completing the concentration in Human Nutrition most often choose to continue their education in medical or graduate school, and pursue careers in the applied aspects of nutrition or in laboratory-based or epidemiological research.

Learning Outcomes:
1. Demonstrate core knowledge of metabolism and function of the essential nutrients.
2. Demonstrate breadth in biological aspects of nutrition beyond the core

Required classes for the Concentration in Human Nutrition (total 13 credits):

NS 3310 Nutrient Metabolism (4 cr) and at least 9 credits of additional coursework from the following list:

NS 2750 Human Biology and Evolution
NS 3060 Nutrition and Global Health
NS 3150 Obesity and the Regulation of Body Weight
NS 3220 Maternal and Child Nutrition
NS 3320 Methods in Nutritional Sciences
NS 3410 Human Anatomy and Physiology
NS 3420 Human Anatomy and Physiology-laboratory (requires concurrent registration with NS 3410)
NS 3470 Human Growth and Development
NS 4130 Nutritional Genomics-Evolution and Environment
NS 4310 Mineral Nutrition and Chronic Disease
NS 4315 Nutrient Requirements and Recommendations: Biological Aspects
NS 4370 Nutritional Immunology and Infectious Diseases
NS 4410 Nutrition and Disease
NS 4444 Sports Nutrition and Supplements: Concepts and Evidence
NS 4750 Mechanisms Underlying Mammalian Developmental Defects
NS 4900 Manipulating the Mouse Genome
NS 6080 Epigenetics
NS 6100 Proteins and Amino Acids: Nutritional Regulation of Mammalian Protein
NS 6110 Molecular Toxicology
NS 6140 Topics in Maternal and Child Nutrition.
NS 6310 Micronutrients: Function, Homeostasis and Assessment
NS 6320 Regulation of Macronutrient Metabolism

Please note:
1. For students in the College of Agriculture and Life Sciences, credits in NS courses count towards the required 55 CALS credits. For students in the College of Arts and Sciences, NS credits count towards the 100 hours required in A&S if those credits fulfill major requirements.
2. Independent study credits cannot be used toward the 13 credit minimum.
DNS ADVISING NOTES:
Core Biology and Chemistry Courses for:
Nutritional Sciences – CHE (NS-CHE)
Human Biology, Health & Society (HBHS)
Nutritional Sciences – CALS (NS-CALS)

**INTRODUCTORY CHEMISTRY**
Choose from:
* CHEM 2070-2080 (8 cr) Fall-Spring OR
* CHEM 2150-21600 (8 cr) Fall-Spring

**INTRODUCTORY BIOLOGY, 8-9 cr**
BIOG 1500 (lab, F/S, 2 cr) AND 2 lectures from the following three options:
- BIOMG 1350, F/S, 3 cr
- BIOG 1440 (F/S, 3 cr) OR 1445 (F/S, 4 cr)
- BIOEE 1610 (F/S, 3 cr) OR 1780 (F/S, 3 cr)

**ORGANIC CHEMISTRY LECTURE**
Choose from:
* CHEM 1570 (3 cr) Spring OR
* CHEM 3570-3580 (6 cr) Fall-Spring OR
* CHEM 3590-3600 (8 cr) Fall-Spring

**ORGANIC CHEMISTRY LAB**
Choose from:
* CHEM 2510 (2 cr) Fall or Spring OR
* CHEM 3010 (4 cr) Spring

**BIOCHEMISTRY**
Choose from:
* NS 3200 (4 cr) Fall OR
* BIOMG 3300 (4 cr) Fall or Spring OR
* BIOMG 3330 (4 cr) Summer OR
* BIOMG 3310 (3 cr) Fall and BIOMG 3320* (2cr) Spring OR
  * May substitute with BIOMI 2900 (3cr, Spring or Fall)
* BIOMG 3350 (4 cr) Spring

**PHYSIOLOGY**
Choose from:
* NS 3410 (3 cr) Spring OR
* BIOAP 3110 (3 cr) Fall

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GUIDELINES FOR SELECTING COURSES
The NS-CHE, NS-CALS, and HBHS programs all depend upon a strong foundation in core biology and chemistry courses. Courses must be taken in the appropriate order and carefully planned because some courses are offered only one term. The specific courses that a student will choose depend upon his/her career goals and prior experience in the subject as well as his/her preferred course format. For example, some courses are offered in an auto-tutorial format in which the student does not attend lecture, but instead works on his/her own completing units according to class requirements.

Students are urged to take the core biology and chemistry courses at Cornell. However, transfer students and students with complex schedules may need to use biology and chemistry courses at other colleges to meet requirements. Only biology and chemistry courses approved by the Assistant Director of
Undergraduate Studies (B17 Savage) may be used as substitutions. Human Ecology students must submit a “Study in Absentia” form (from the College registrar’s office) along with a course description (including credits, hours and level) and a syllabus (i.e., a list of the topics presented at each lecture). After completing the course, the student must arrange to have the transcript sent to his/her college registrar in order for the credits to be counted toward his/her degree.

The different options for completing core biology and chemistry courses are described in the following sections of this handout along with the criteria for substitute courses. Students should review the NS-CHE, NS-CALS, and HBHS requirements and sample schedules. Pre-med students should consult the Cornell Premedical Guide for the most recent advice regarding biology and chemistry courses required for applicants to medical or dental school. This guide is available from the University Career Center (103 Barnes Hall) and from CALS and CHE career offices.

**INTRODUCTORY CHEMISTRY**
Introductory chemistry should be taken in the freshman year in order to complete prerequisites for more advanced courses. CHEM 2070 is recommended for students with strong high school chemistry backgrounds and strong math preparation. CHEM 1560 is the appropriate course for students with less strong preparation. A student who has trouble in CHEM 2070 may switch to CHEM 1560 after the first preliminary exam. All students must take CHEM 2080 in the spring term. CHEM 2150-2160 is the most advanced introductory chemistry sequence and may be chosen by students with exceptionally strong preparation and interest in chemistry.

**AP Chemistry:** Students with AP credit in chemistry may apply it toward the introductory chemistry requirement. However, some students may choose to take introductory chemistry here – and not use their AP credit – to become familiar with the material covered and the pace of chemistry at Cornell. Students take CHEM 2080 or 2160. AP credit for general chemistry is rarely awarded for premedical students.

**Substitute Introductory Chemistry Courses:** Substitute courses must be at least equivalent to CHEM 2070-2080. When selecting courses at other institutions, choose the introductory chemistry sequence approved for science majors, biology majors, or pre-med majors. Chemistry courses for non-science majors will not provide sufficient preparation for advanced courses at Cornell.

**INTRODUCTORY BIOLOGY**
Biology is usually taken in the freshman year in order to complete prerequisites for advanced courses. Biology may be postponed until the sophomore year, but then it must be taken concurrently with organic chemistry. Students should take BIOG 1500, investigative lab, 2c plus two other lecture courses. For pre-med students, we recommend to take BIOG 1440 (or BIOG 1445), Comparative Physiology and BIOMG 1350, Cell and Developmental Biology as lecture courses. BIOG 1445 is a rigorous course which uses the individualized instruction format including lab contrast to BIOG 1440. BIOG 1445 may be a good choice for students who have strong high school biology backgrounds and may also be a good choice for students who work better in an individualized instructional setting than in a large lecture format.

**AP Biology Credit:** AP test scores are interpreted according to the guidelines for biology majors. Students with AP score 5 may apply AP biology credit to a part of the requirement for introductory biology: up to 4 credits. See “Using AP Credits to Meet Requirements” page for details. Pre-med students should follow the recommendations of the Cornell’s Health Career Advising Program when considering AP credit. Medical schools vary in their acceptance of AP credit for introductory biology courses. Students should check the specific requirements in medical school catalogs.

Most of students take the introductory biology sequence at Cornell to prepare for upper level courses or the medical school admissions tests.

**Substitute Introductory Biology Courses:** Courses at other colleges must be at least equivalent to the Cornell introductory biology requirement and include a year of lab. When selecting courses at other institutions, choose the introductory biology sequence approved for science majors, biology majors, or pre-med majors. Biology courses for non-science majors at other institutions may not provide adequate
preparation for advanced courses at Cornell. A key issue in selecting biology courses at other institutions is that whereas all introductory sequences generally cover the same material, they cover the material in different order. Therefore, to get exposure to the breadth of introductory biology, it is often better to complete a two-course sequence at one place than try to match a term elsewhere with a term at Cornell.

**ORGANIC CHEMISTRY**

Organic chemistry is usually taken in the second year. Cornell offers separate courses for organic chemistry lecture and laboratory.

**Organic Chemistry Lecture:** Pre-med students and students who wish to prepare for careers in research in the biomedical sciences should take the 6 cr lecture sequence, CHEM 3570 (fall only) and CHEM 3580 (spring only). Note: CHEM 3570 alone will not fulfill the requirement. Students with exceptional interest and preparation in chemistry may take the organic chemistry courses for chemistry majors, CHEM 3590-3600.

CHEM 1570 (spring only) is an appropriate organic chemistry lecture for students who are not interested in medicine or biochemistry research.

**Organic Chemistry Laboratory:** CHEM 2510 is the organic chemistry laboratory course taken by most students, and it is offered in spring, fall, and summer terms. It must be taken concurrently or after one of the lecture courses. CHEM 3010 may also be used as an organic chemistry lab course by students who have taken CHEM 2160 or CHEM 3000.

**Substitute Organic Chemistry Courses:** Pre-med students who choose to take organic chemistry at another university (generally not recommended) should take the course for premed students. At least eight credits of organic chemistry lecture and lab equivalent to CHEM 3570-3580 and CHEM 2510 are required. Such courses are often called “Organic I and II”, and the lecture and lab may be combined in the same course. Students who are not pre-med may take a one-semester course equivalent to CHEM 1570 and CHEM 2510. Some students choose only to take the lecture elsewhere and take the lab course at Cornell.

**PHYSIOLOGY**

Physiology is usually taken in the sophomore or junior years. Either NS 3410, Human Anatomy and Physiology (3 cr, Spring), or BIOAP 3110, Animal Physiology (3 cr, Fall), is required.

**NS 3410** focuses on human anatomy and physiology.

**NS 3420** is a laboratory class of human anatomy and physiology. Both NS 3410 and NS 3420 must be taken for students completing the dietetics requirements.

**BIOAP 3110** focuses on comparative animal physiology with little emphasis on humans. Pre-med students and students interested in biochemistry research may benefit from this broader examination of physiology, especially if they will be taking graduate courses in human anatomy and physiology at a later time.

Both NS 3410 and NS 3420 are taken by students who are interested in exercise science or physical therapy. In this situation, students apply one course toward the physiology requirement for the major and the other course toward another requirement for the major or the college.

**Substitute Physiology Courses:** Physiology courses at other colleges must have a full year of introductory biology as prerequisites in order for these courses to substitute for NS 3410 or BIOAP 3110. Many colleges offer two-semester anatomy and physiology courses that do not have these prerequisites. These courses are usually taught at the level of introductory biology and will not be satisfactory to meet the physiology requirement for NS and HBHS majors. Medical schools and biology departments in four-year colleges will be the best places to find the types of courses needed to substitute for NS 3410 or BIOAP 3110.
BIOCHEMISTRY

Biochemistry is usually taken in the junior year. Introductory biology, organic chemistry, and introductory chemistry (CHEM 2080) are prerequisite to biochemistry. Some students may be able to take biochemistry (BIOMG 3300) concurrently with CHEM 3580 in the spring of the sophomore year. However, this combination may not serve all students well.

The biochemistry requirement asks that students complete a course or courses that provide biochemistry instruction in three areas: (1) proteins, (2) metabolism, and (3) molecular biology.

NS 3200 (Introduction to Human Biochemistry, 4 cr, Fall, lecture) is designed to cover the three topical areas in biochemistry. This course is the only way to cover all required areas of biochemistry in a lecture format in one semester during the regular academic year at Cornell. The human focus will benefit students who plan to precede to advanced study in human health related fields such as dietetics or exercise science, and who may not be taking further study in human biochemistry in graduate or professional school.

BIOMG 3300 (Principles of Biochemistry, Individualized Instruction, 4 cr, Fall and Spring) covers all three topics in biochemistry in one semester. The auto-tutorial format of BIOBM 3300 is an excellent choice for students who are organized, self-directed, and motivated to learn biochemistry. The format gives students flexibility in their schedules.

BIOMG 3310 (Principles of Biochemistry: Proteins and Amino Acids, 3 cr, Fall, lecture) covers only two topic areas: (1) proteins and (2) metabolism. Students who take BIOMG 3310 must take an additional course that covers molecular biology. BIOMG 3320 (Principles of Biochemistry: Molecular Biology, 2 cr, Spring) is the best choice. However, students may use BIOMI 2900 (General Microbiology, Lectures, 3 cr, Spring or Fall) to meet this requirement.

BIOMG 3330 (4 cr, Summer, lecture) covers all three topical areas of biochemistry.

BIOMG 3350 (4 cr, Spring, lecture) covers all three topical areas of biochemistry.

Substitute Biochemistry Courses: Students who need to take biochemistry at another university must be sure that the course is equivalent to the courses required at Cornell. The course must have organic chemistry as a prerequisite, cover all three topical areas listed above, and involve 4 semester credit hours. The best sources of suitable courses are medical schools and the biology and chemistry departments in four-year colleges and universities.
**DNS ADVISING NOTES:**  
**Didactic Program in Dietetics**  
**Minimum Academic Requirements 2013-2014**  
Division of Nutritional Sciences  
Cornell University

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Inorganic Chemistry</strong></td>
<td>8</td>
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<tr>
<td>Chem 2070-2080(8) or 2150-2160(8)</td>
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<tr>
<td><strong>Organic Chemistry</strong></td>
<td>5-10</td>
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<tr>
<td>Chem 1570 (3) or Chem 3570-3580(6) and Chem 2510 (2) or Chem 3010(4)</td>
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<tr>
<td><strong>Microbiology</strong></td>
<td>3</td>
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<tr>
<td>BioMi 2900 General Microbiology (3)</td>
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<tr>
<td><strong>Biology (8-9) and Physiology (5)</strong></td>
<td>13-14</td>
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| Biology: BioG 1500 plus two from following 3 courses: BioMG 1350, BioG 1440/1445, or BioEE 1610/1780  
Physiology: NS 3410 (3, Spring, lecture) **AND** NS 3420 (2, Spring, Lab, concurrent registration with NS 3410) |         |
| **Biochemistry**                | 3-4     |
| NS 3200 (4, Fall) or BioMG 3300 (4, F/S) or BioMG 3310 (3, F) or BioMG 3330 (4, Sum) or BioMG 3350 (4, S) |         |
| **Psychology**                  | 3       |
| HD 1150 Human Development: Infancy and Childhood (3, Fall or Summer) **OR** HD 1170 Human Development: Adolescence and Emerging Adulthood (3, Spring) **OR** Psych 1101 Introduction to Psychology (3, Fall) |         |
| **Communication**               | 6       |
| First year Seminars (6)         |         |
| **Statistics**                  | 3-4     |
| **Nutrition Core**              | 16      |
| NS 1150 Nutrition, Health and Society (3, Fall)  
NS 2450 Social Science Perspectives on Food and Nutrition (3, Fall)  
NS 3450 Nutritional and Physicochemical Aspects of Food (3, Fall)  
NS 3310 Nutrient Metabolism (4, Spring)  
NS 3320 Methods in Nutritional Sciences (3, Fall) |         |
| **Dietetics Courses**           | 23      |
| NS 1220 Nutrition and the Life Cycle (3, Spring, alt yr)  
NS 2470 Food for Contemporary Living (2, Fall & Spring)  
HADM 1360 Food Service Management (3, Fall & Spring)  
NS 4250 Nutrition Communications (3, Spring)  
NS 4410 Nutrition and Disease (4, Fall)  
NS 4420 Implementation of Nutrition Care (3, Fall)  
NS 4500 Public Health Nutrition (2, Spring)  
NS 4880 Applied Dietetics in Food Service Management (3, Spring) |         |

For information regarding undergraduate Dietetics advising, please contact:  
Emily Gier, 416 Savage Hall, (607) 255-2638, eg47@cornell.edu

08/13 THEADA
If intending to complete the dietetic requirement, you must complete the DPD Intent form (see p. 29)
Cornell University
Division of Nutritional Sciences

**DPD Student Intent Form**

If you are intending to complete the Undergraduate Dietetics requirements, please complete this form and return to B-21 Savage Hall. Schedule a meeting as soon as possible with Emily Gier (eg47) to discuss your plans for dietetics. If at any time you decide not to complete the requirements, please notify us.

Thank you!

Student ID Number: ___________________________  Date: ___________________________

Name: ___________________________________________________________________________

Current Address: _____________________________________________________________________

_________________________________________________________________________________

College: ___________________________  Major: ___________________________

Graduation Year: ___________________________

CU E-mail: ___________________________

Phone #: ___________________________

I am aware that information about the DPD, including the program Handbook with policies, is available on the dietetics web site.

_________________________________________________________________________________

(Please sign)

FOR OFFICE USE ONLY

Notes:

DPD Completion Date: ___________________________
Applied Exercise Science

Human Biology, Health & Society (HBHS)
Nutritional Sciences (NS-CHE)
Nutritional Sciences (NS-CALS)

A minor in applied exercise science may be completed by undergraduates majoring in NS-CHE, HBHS, and NS-CALS. The minor is completed through Ithaca College’s Department of Exercise and Sport Sciences, School of Health Sciences and Human Performance. This program is helpful to students seeking positions in nutrition and physical fitness or pursuing careers in sports medicine and related fields. Students can choose to complete all the requirements for the minor or take some courses as long as they have met the course prerequisites.

Students who complete all specified courses receive a letter from Ithaca College (IC) certifying they have completed the official program requirements. The letter is a useful credential for job and school applications. Program completion is good preparation for the examination for Fitness Instructor Certification by the American College of Sports Medicine. Candidates for fitness instructor certification must have American Red Cross Cardiopulmonary Resuscitation (CPR) Certification or the equivalent. Most candidates will benefit from having a course in physical fitness programming.

Requirements

The applied exercise science minor requires 11 credit hours of specified course work beyond the requirements for the other majors. Exercise science students are required to take both NS 3410, lecture, 3cr and NS 3420, laboratory, 2cr of Human Anatomy and Physiology. The 2 credits for NS 3420 may be used towards the upper level nutrition course requirement (NS major) or biology electives (HBHS majors). The following courses are taken at Ithaca College (IC):

- **Kinesiology/Applied Anatomy** (4 cr, F or S)
- **Exercise Physiology** (4 cr, F or S), and
- **Biomechanics of Human Movement** (3 cr, F only).

Completing a physics sequence is required for advanced study in most related areas. Descriptions and required sequences for these courses are discussed below. The minor in applied exercise science is possible through a long-standing exchange agreement between IC and Cornell through which students may take up to 12 credits at IC (and/or vice versa) without additional cost during the school year. IC courses count toward elective credits. Students pay for the additional credits not covered by this agreement, and **may not take a course at IC under the exchange program if that course is offered at Cornell.**

Transfer students should note that courses completed at IC may be counted toward the 60 Cornell credits required for a Cornell degree.
Program Planning
Careful planning of course schedules is required to complete the applied exercise science minor in addition to the nutrition major. The calendars of the two colleges do not always coincide. Students are responsible for arranging their schedules, vacations, and transportation to complete the requirements of the Ithaca College courses. Travel between the campuses is possible by the city bus or by carpooling with other students.

Important Course Sequences

Freshmen
* Biology (Cornell)

Sophomore
* NS 3410 Human Anat. & Physiology, lecture (Cornell, Spring)
* NS 3420 Human Anat. & Physiology, laboratory (Cornell, Spring)

Junior/Senior: IC courses
* Kinesiology/Applied Anatomy (IC, Fall & Spring)
* Exercise Physiology (IC, Fall & Spring)
* Biomechanics of Human Movement (IC, Fall only course)

NOTE: Please plan to take the IC courses as early as possible once you complete the pre-requisites. There may be a schedule conflict between your major required courses and IC courses, so check for conflicts in advance and schedule them accordingly.

Pre-registration & Registration

Students interested in participating in this program must first indicate their intent to participate by signing up with Terry Mingle in the DNS Academic Affairs Office, B21 Savage Hall. **Then each semester during pre-registration, students request from Mrs. Mingle the course(s) they wish to take at IC so that the Division can negotiate the desired number of spaces. Spaces will be assigned based on availability/program seniority.**

**Ithaca College is very strict about prerequisites.** You must have the required prerequisites to register for a course. You need to indicate how you have met those prerequisites on the form you file at pre-registration.

During the pre-registration period students may request placement into the program by following the procedures listed below:

- Pick up the Exercise Science Minor Placement Request Form (available outside B21 Savage during pre-registration periods), and complete/return it to B21 Savage by the due date.
- You will receive notification by email (after pre-enrollment ends) of your placement status.
- Please note that spaces are limited; Not all students will be placed into the courses requested.

Once your placement request form is approved, you would register for the course by following the following procedures:
At Cornell (after being approved by Nutritional Sciences to enroll): Pick up an IC-CU Exchange petition from the CU School of Continuing Education Office in B-20 Day Hall. Complete the petition and secure all required signatures for approval. NS-CALS majors then get their college registrar's signature and then return the completed form to the Extramural Studies Office. Human Ecology students pick up the signed forms from Mrs. Mingle and return the signed form to the Extramural Studies Office. Check the following web site for more information: http://www.sce.cornell.edu/exmu/ic_cu_exchange.php#4

At the beginning of the semester:

- **At Ithaca College**: Present the approved petition to the continuing education office at Ithaca College (G72 Peggy Ryan Williams Center) during the first week of classes, before attending the first class. Note: Registration takes place during the first week of classes at Ithaca College in the continuing education office. ALSO, pick up registration/add-drop forms and take the registration form to the first class.

**Grades and Transcripts**

The academic credits earned at IC count toward the Cornell degree only if a grade of C- has been achieved. Grades in IC courses do not appear on the Cornell transcript and are not included in the Cornell GPA. Students must obtain separate transcripts from IC to reflect courses completed at this college.

Because of high demand for places in the IC courses for this minor, the Division will NOT request a place in additional courses for any student who has earned a grade of less than C- in one of the IC courses for this minor.

**Program Description/Courses**: [http://www.ithaca.edu/admission/programs/#P657_48181](http://www.ithaca.edu/admission/programs/#P657_48181)

**IC Course Catalog**: [https://homerconnect.ithaca.edu/](https://homerconnect.ithaca.edu/) (search for Exercise and Sport Sciences)

**663-32100  Exercise Physiology**

Examines physiological changes during exercise, after exercise, and during a training period. Also considers efficiency, needs, and limitations of body systems, and their interrelationships. Lecture, demonstration, and laboratory. Prerequisites: EXSS 12100; junior standing. 4 credits.

**663-22000  Kinesiology**

Examines the anatomical structures and mechanical aspects of human movement. Emphasis is placed on the functional anatomy of the musculoskeletal and articular systems. Pathologies of upper and lower extremities and trunk are examined for contributions to abnormal patterns of posture, movement, and locomotion. Basic neuromuscular and biomechanical principles are introduced. Laboratory exercises concentrate on the role of muscle and joint action during basic movements and the adaptations that can result from pathologic conditions. The focus is on individual joint function and the integrated function of several joints during complex activities such as normal human locomotion. Corequisites: EXSS 12100. 4 credits.

**663-22100  Biomechanics of Human Movement**

The study of biological and mechanical factors that affect humans as they move in exercise and sport. Kinematic and kinetic descriptions of selected motor skills receive careful consideration. Hands-on experiences through cinematographic analyses of human movements are provided. Prerequisites: EXSS 22000. Not open to students who have taken or are currently taking PHYS 10100 Introduction to Physics or PHYS 11700 Principles of Physics 3 credits.

**IMPORTANT**: It is your responsibility to find out when classes start at IC -- usually it is before Cornell classes begin. You must accommodate your schedule to fit with IC and Cornell fall/spring breaks -- you are required to be there during these times, unless you personally make other arrangements with the IC course instructors.
Applied Exercise Science Minor Intent Form

Minor may be completed by undergraduates in HBHS, NS-CHE & NS-CALS

If you are intending to complete the Exercise Science Minor requirements, please complete this form and hand in to the Academic Affairs Office B-21 Savage Hall. If at any time you decide not to complete the requirements, please be sure to notify the Academic Affairs Office. Thank you!

Indicate if you have completed the prerequisites listed below (YES or NO, plus Semester and Year completed). If you have not completed them, please supply an anticipated completion date.

NS 3410 (Human Physiology and Anatomy-lecture) ________________________________
NS 3420 (Human Physiology and Anatomy-laboratory) ________________________________

Name: ____________________________________________

Student ID Number: _________________________________ Net ID: __________________________

Current Address: __________________________________

Phone #: _________________________________________

College: ________________________________ Major: ________________________________

Date: ________________________________ Expected Graduation Yr: _____________________

Advisor’s Name: __________________________________

Advisor’s Signature: __________________________________

FOR OFFICE USE ONLY:

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<thead>
<tr>
<th>COURSE</th>
<th>SEMESTER COMPLETED</th>
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<td>Exercise Physiology</td>
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<td>Biomechanics of Human Movement</td>
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Verified Completion @ Ithaca College ________________________________

Notes: ________________________________
Global Health Minor
Open to undergraduate students in all colleges
http://www.human.cornell.edu/dns/globalhealth/undergraduate/index.cfm

The Cornell University Global Health Program offers an undergraduate minor in Global Health. The minor is intended to complement any academic major offered at the University, providing students with basic knowledge about global health as well as the necessary skills and experience to begin to build their own unique career path in global health.

The Global Health Minor is designed to achieve three educational objectives: to learn more about the problems of global health in a classroom setting; to experience the issues in global health first-hand in a field-setting; and to gain exposure to various careers in global health, as the students will learn from a diverse spectrum of graduate and medical students and faculty who are focusing on global health.

Requirements
In order to complete the minor, students must enroll in three core courses and two electives for a total of fifteen credits. Additionally, the student must complete an eight week field-experience. These requirements must be completed as follows:

1. Take the first required core course, NS 2600, Introduction to Global Health, to gain a basic understanding of global health and to prepare you for additional coursework and the field experience.
2. Complete the 2nd core course and the elective coursework. While it is recommended that you complete this additional coursework prior to embarking on your field experience, it is not required.
3. Meet with the Global Health Program Associate Director or Fellow to discuss your field experience proposal idea.
4. Attend a Health & Safety Seminar and a Culture & Diversity Seminar in the spring and submit your field experience proposal (minimum of four weeks prior to departure).
5. Submit a final report detailing your field experience and attend a mandatory post-field experience meeting in the fall.
6. Complete the capstone course for the minor, NS 4600, Explorations in Global Health.

Core Courses:

1. **NS 2600 - Introduction to Global Health** (Students must complete this course before departing for their field experience.)

2. Students choose **ONE** of the following courses below based on their interests:
   - NS 3060 - Nutrition and Global Health
   - NS 3500 – Epidemiology in Context
   - NS 4570/ECON 4740 - Health, Poverty and Inequality
   - ENTOM 2100/ B&SOC 2100 – Plagues and People
   - ANTHR 2468 – Medicine, Culture and Society
   - AEM 4450/NS4550 - Food Policy for Developing Countries
   - B&SOC 2051 – Ethical Issues in Health and Medicine
   - HE 4900 - Multicultural Practice
   - HE 4950 – Culture, Medicine and Professional Practice in a Diverse World: New York

3. **NS 4600 – Explorations in Global Health** *(Prerequisites: NS 2600, 2nd core course, two electives, and completion of field experience)*
**Elective Courses**

Students must also choose 2 elective courses distributed across departments. To see the approved list of elective courses, visit the Global Health website.

**Field Experience**

A critical element of the Global Health Minor is an approved eight-week field experience in which students live and work abroad in a resource-poor setting. The purpose of the field experience requirements is to challenge students to apply their classroom learning to a field setting and to deepen their understanding of the health problems that disproportionately affect the resource-poor. The experience may be:

- A full-time academic study abroad program
- A summer internship and/or research project
- A volunteer service project

Students may not travel to any country on the U.S. State Department Travel Warning List, with the exception of Cornell-approved Study Abroad programs and Cornell ITART-approved summer internships and volunteer programs. Students traveling internationally (graduate and undergraduate) are now required to register their travel via the Cornell Travel Registry. While registering, students will be guided towards the ITART pre-approval request process if it is required: [https://travelregistry.cornell.edu/](https://travelregistry.cornell.edu/)

Please remember that the financial aspects of completing the field experience requirement should not deter any student from pursuing the Global Health Minor. If you are worried about your ability to finance a field experience, please contact the Associate Director or Fellow.

**BEFORE embarking on the field experience, students MUST:**

- Complete NS2600, Introduction to Global Health.
- Discuss their field experience ideas with the Global Health Program Associate Director or Fellow.
- Submit a formal field experience proposal at least four weeks prior to departure.
- Attend a Health and Safety Seminar in the early spring to hear from fellow classmates about their experiences and learn about important health and safety issues.
- Attend a Culture Seminar.

**AFTER completing the field experience, students must:**

- Submit a final report detailing the field experience.
- Attend a mandatory post-field experience meeting in the fall.
- Complete NS 4600, Explorations in Global Health.

**Global Health Summer Program in Moshi, Tanzania**

The goals of the eight-week summer program in Moshi, Tanzania are to enhance the cross-cultural competence of participants and to provide students with the opportunity to gain broad knowledge about global health issues in the Tanzanian context. Participants live with a local family and, for the first four weeks of their stay, enroll in a course at Kilimanjaro Christian Medical College (KCMC). In this course, students learn about current policy issues and work in teams with Tanzanian students to develop, negotiate, write, and present a new policy case study. During the second half of the program, students contribute forty hours of service per week to a local non-governmental organization, hospital, government agency, or research project through a service project that is tailored to the student’s interests in global health.
Global Health Summer Program in Lusaka, Zambia
The Global Health program offers an eight-week global service learning summer program in Lusaka, Zambia. Students work with the Southern African Institute for Policy and Research (SAIPAR). The students work in small groups to write a research paper on an issue relevant to Southern Africa, which is then considered for publication in one of SAIPAR’s online journals. Students may also assist SAIPAR with other projects, to be determined by the Director of Research and Programs. Possible research topics in summer 2013 included:

- The stigma of epilepsy and why the training of health workers has not led to greater awareness or a more effective approach to supporting patients. What hinders patients’ rights in the workplace and in the courts?
- Environmental law and mining, specifically the lead poisoning case in Kabwe, Zambia. Data on health implications emerged in the 1990s but has had little impact on policies.
- Judges at the local courts (where most domestic cases are dealt with) are predominantly male. What are the implications for women, in cases dealing with divorce settlements, Gender-Based Violence, abortion, etc.?

In addition to working with SAIPAR, students have the opportunity to visit and volunteer at a number of different health-related organizations in Lusaka. In the past, students have had extremely rewarding experiences at the Planned Parenthood, the Mulumbo Children’s Education Center, the Mother Teresa Orphanage, and the Italian Orthopedic Hospital. In addition, students in the past have joined their Zambian colleagues on excursions both in and around Lusaka.

SVYM Global Service Learning Program in Mysore, India
In collaboration with the School of Industrial and Labor Relations, the Global Health minor program offers a Global Service Learning program in southern India with the Swami Vivekananda Youth Movement (SVYM). As a Global Service Learning program, the goals of the eight-week summer program are to enhance the cross-cultural competence of participants and to provide students with the opportunity to gain broad knowledge about health in the Indian context, by participating in service projects with SVYM. A non-profit, non-religious, non-political organization, SVYM works for the benefit of indigenous and rural populations in southern India through effective education, accessible healthcare and sustainable empowerment initiatives. During the first two weeks, students will study at SVYM’s Vivekananda Institute of Indian Studies in Mysore, India – taking classes on Indian Healthcare, Gender Roles and Culture and Civilization. During the second six-weeks of the program, students will work at one of SVYM’s project sites, doing service work tailored to the student’s interests in global health. Previous projects have included: diabetes research, public health promotion and HIV/AIDS research.

Related Coursework:
NS 4620 – Global Service Learning Pre-Departure Seminar (1 credit pre-departure seminar offered in the spring semester)

NS 4630 – Global Health and Policy Issues in Tanzania (8 week summer course and service placement program offered in Moshi, Tanzania – 4 credits)

Contact Information:
Jeanne Moseley, Associate Director (jmm298@cornell.edu), (607) 254-6228, Savage Hall B15
Jessica Sparling, Global Health Program Fellow (jes439@cornell.edu), Savage Hall B15
DNS ADVISING NOTES:
Using AP Credits to Meet Requirements

1. You may earn credit toward your college and/or major requirements by the scores you achieved on the Advanced Placement (AP) tests. The equivalency of AP scores to Cornell credits is summarized in the Cornell University Courses of Study. Having AP credits gives students flexibility in developing their Cornell programs. By meeting some basic course requirements with AP credits, students can take more electives, have more time to get involved in research, graduate early, or free up a semester to study abroad. Check college limits on the use of AP credits.

2. To receive AP credit, you must arrange to have your scores sent to your college registrar. After the registrar receives your AP scores, Just the Facts will include them. The registrar will make a preliminary decision about how your AP credits apply to your intended degree program. You may need to meet with your college registrar at some future time to adjust how the AP credits are applied to your degree requirements. You can change how you use your AP credits as your degree plans change.

3. Students vary in how they choose to apply their AP credits towards their degree requirements. You are in charge of how you use your AP credits, and you will need to meet with your faculty advisor and college registrar to discuss how you wish to apply your AP credits toward your degree requirements. Career interests, areas of interest outside your major, study abroad plans, and graduation timelines will determine the best way for you to use your AP credits. You can take some time in getting it figured out.

Once you have chosen your major and understand the course requirements, you will be in a better position to make final decisions. In general, you can use AP credits in subjects that are elective for your major (such as history or language) and for which you do not plan to pursue advanced study. For courses that are important in your major or career goal (such as chemistry, biology, and math), you may choose NOT to use your AP credits. Some students forfeit their AP credits and take the introductory course at Cornell because they want to have a thorough review at the introductory college level in preparation for advanced courses. Students who skip the introductory math and science because they have AP credits rarely take sophomore level math and science courses as freshmen. Instead they take introductory courses in other subjects that will apply to their degree requirements.

4. **Chemistry** Students with AP credit in chemistry may apply it toward the introductory chemistry requirement. However, most of our students take Introductory Chemistry to become familiar with the material covered and pace of chemistry at Cornell.

5. **Biology** Students with AP score 5 may apply AP biology credit toward a part of the introductory biology requirements.

**Exam Score 5:**
Students with AP score 5 are required to take BIOG 1500 and one lecture course. If students earn a B- or lower in those courses, we strongly recommend to continue with the second semester. A student who earns a B or higher and feels confident in second semester’s subject matter can decide to discontinue with the sequence.

- If students take second semester of introductory biology, they will forfeit all AP credits.
• If students decide not to take second semester of biology, they will receive remaining credits from AP credits.
• If BIOG 1500 plus one lecture are taken and decide not to take the second lecture, 3 advanced placement credits will be given for second semester of intro. Biology.
• **Exam Scores 4 and lower**: Students receive **no** advanced placement credits. Should take introductory biology at Cornell.

**Introductory Biology Requirement: Lecture and Lab, total 8-9 cr.**

- BLOG 1500 Investigative Lab (F/S, 2 cr) **AND**
- Choose **two** out of **three** options from the following list:
  
  i) BIOMG 1350 Cell and Development Biology (F/S, 3 cr)
  ii) BLOG 1440 Comparative Physiology (F/S, 3 cr) **OR**
      BLOG 1445 Comparative Physiology, Individualized Instruction (F/S, 4 cr)
  iii) BIOEE 1610 Ecology and the Environment (F/S, 3cr) **OR**
       BIOEE 1780 Evolution and Diversity (F/S, 3cr)

*Cannot take both to fulfill this requirement*

6. **Premed Considerations** Pre-med students should follow the recommendations of the Cornell Health Careers Advising Program when considering AP credit. Medical schools vary in their acceptance of AP credit for introductory biology courses. Students should check the specific requirements in medical school catalogs. Some students may wish to take part of the biology introductory sequence - including the laboratory courses - at Cornell to prepare for upper level courses or the medical school admissions tests.

Freshmen who are using AP biology credit toward the requirements should NOT take advanced biology courses in the freshman year. These students may take other courses in math, psychology or courses to fulfill college distribution requirements.
DNS ADVISING NOTES:

Substituting Courses Taken at Other Colleges for Courses Required for NS-CHE, NS-CALS, or HBHS

WHY TAKE A COURSE AT ANOTHER UNIVERSITY IN THE SUMMER?
Sometimes students want or need to take a course in the summer to facilitate their progress toward their Cornell degrees. Students involved in athletics, students planning to study abroad, and students who have entered the NS-CHE, HBHS, or NS-CALS majors late often take a course in the summer. Many courses are offered at Cornell, but studying at another college or university may be the best plan for you. Tuition charges, lack of financial aid, housing arrangements, or the need to be at home or someplace else are reasons students choose to take a course at another university in the summer.

What Courses to Take in the Summer:
Before you pick a summer course at another university be sure that you understand how the course will fit into your Cornell graduation plan. Meet with your faculty advisor to be sure that you understand college and major requirements as well as recommended course sequences for your program.

Students in HBHS, NS-CHE, and NS-CALS often find that it is wisest to take an elective course or course that meets a distribution requirement at another university. Introductory courses in humanities, social sciences, and statistics are often good choices. Many universities do not have the specialized courses in nutrition, health, agriculture, policy, or human development and other subjects that are required for these majors.

Taking biology and chemistry courses away from Cornell is not generally recommended, however, some students in NS-CHE, HBHS, and NS-CALS must do this to keep up with important course sequences. Students must pay careful attention to evaluating potential summer courses in introductory biology, introductory chemistry, organic chemistry, biochemistry, or physiology. Detailed information about substitutions for these courses is summarized at the end of this information sheet.

Pre-Med Considerations:
It is generally recommended that pre-med students complete courses in introductory biology, introductory chemistry, organic chemistry, introductory physics, and other science courses at Cornell and during the regular academic year. Taking these courses at Cornell helps medical admissions committees evaluate your credentials. However, pre-med students may have important reasons for taking summer courses at other colleges. For more information, check the Guide for Pre-Medical Students published by the Health Careers Program, your college pre-med advisor, and your faculty advisor.

Finding the Right Course:
You are responsible for finding the college and the course(s) that meet your needs. Courses at 4-year and community colleges may be accepted for credit. Compare the course descriptions and syllabi you find with those of the Cornell courses you are trying to match. In evaluating potential courses, look at how a particular course fits in comparison with the
other courses offered by the department. You may have to look at all the descriptions from
the department to determine if a given course is for majors or non-majors, if the course has
prerequisites that you meet, and if the course is preparation for advanced study in the
subject or not.

GETTING APPROVAL FOR COURSES AT OTHER UNIVERSITIES
The procedures for obtaining approval for using courses at another school toward your
Cornell degree vary according to the college you are enrolled in at Cornell. Read below for
the procedures those apply to you. (No approval is required for studying at Cornell in the
summer.)

NS and HBHS majors in the College of Human Ecology
The College of Human Ecology requires prior approval for courses you plan to take in the
summer away from Cornell. Take steps to obtain prior approval before you register in a
course at another school! With prior approval, you will be sure that the credit will be
accepted by your college and major when you complete the course. Start early because
some summer courses fill up quickly, and the approval process may take a few weeks. TIP:
If you are undecided about the course or college at which you will study, get all potential
courses approved in advance. Then you can decide which course to take. Getting approval
to study in absentia does not commit you to taking the course.

To obtain approval in Human Ecology, get a "Study in Absentia Form" from the HE
registrar’s office in 145 MVR. Complete the form and attach a description of the course from
the college’s catalog or web pages and a syllabus (i.e., a list of the topics taught at each
lecture). All courses in biology, chemistry, physics and courses used to meet NS and HBHS
major requirements must be approved by the Assistant Director of Undergraduate Studies,
B17 Savage. See the information below for criteria for applying biology and chemistry
courses at other schools to your major. If you are unsure about which course meets your
needs, speak with the Assistant Director of Undergraduate Studies. The Human Ecology
Registrar makes the final approval and is the person who approves all courses that are
taken to fulfill college distribution requirements. After you take the course, have the college
send an official transcript to the Human Ecology Registrar.

NS-CALS majors in College of Agriculture and Life Sciences
The CALS also does require prior approval of summer courses at other universities.
Students should discuss their summer plans with their faculty advisor to be sure that the
intended courses will meet their college and major requirements.

CALS Registrar’s Office requires students to receive pre-approval for transfer credit taken
after matriculation into CALS. Students must complete a “Pre-Approval Form for Non-
Cornell Credit” prior to completing transfer credits. The Pre-Approval Form will specify how
many transfer credits will be accepted and which graduation requirements they will be
applied to. Guidelines for using courses at other universities toward biology and chemistry
requirements are summarized below. Please consult with the CALS Registrar’s Office if you
are considering taking classes away from Cornell.

After you take the course, have the college send the transcript to the CALS Registrar. You
may meet with the CALS Registrar to discuss substitutions.
SUBSTITUTING SPECIFIC COURSES

Substitute Introductory Chemistry Courses: Substitute courses must be at least equivalent to CHEM 2070-2080. When selecting courses at other institutions, choose the introductory chemistry sequence approved for science majors, biology majors, or pre-med majors. Chemistry courses for non-science majors will not provide sufficient preparation for advanced courses at Cornell.

Substitute Introductory Biology Courses: When selecting courses at other institutions, choose the introductory biology sequence approved for science majors, biology majors, or pre-med majors. Biology courses for non-science majors at other institutions may not provide adequate preparation for advanced courses at Cornell. A key issue in selecting biology courses at other institutions is that whereas all introductory sequences generally cover the same material, they cover the material in different order. Therefore, to get exposure to the breadth of introductory biology, it is often better to complete a two-course sequence at one place than try to match a term elsewhere with a term at Cornell.

Substitute Organic Chemistry Courses: Pre-med students who choose to take organic chemistry at another university (generally not recommended) should take the course for premed students. At least eight credits of organic chemistry lecture and lab equivalent to CHEM 3570-3580 and CHEM 2510 are required. Such courses are often called “Organic I and II”, and the lecture and lab may be combined in the same course. Students who are not pre-med may take a one-semester course equivalent to CHEM 1570 and CHEM 2510. Some students choose only to take the lecture elsewhere and take the lab course at Cornell.

Substitute Physiology Courses: Physiology courses at other colleges must have a full year of introductory chemistry and biology as prerequisites in order for these courses to substitute for NS 3410 or BIOAP 3110. Many colleges offer two-semester anatomy and physiology courses that do not have these prerequisites. These courses are usually taught at the level of introductory biology and will not be satisfactory to meet the physiology requirement for NS and HBHS majors. Medical schools and biology departments in four-year colleges will be the best places to find the types of courses needed to substitute for NS 3410 or BIOAP 3110.

Substitute Biochemistry Courses: Students who need to take biochemistry at another university must be sure that the course is equivalent to the courses required at Cornell. The course must have organic chemistry as a prerequisite, cover all three required topical areas (i.e., proteins, metabolism, and molecular biology) and involve 4 semester credit hours. The course must be equivalent to NS 3200 (4 cr), BIOMG 3300 (4 cr), BIOMG 3350 (4 cr), or (BIOBM 3310 and 3320 (5 cr)). The best sources of suitable courses are medical schools and the biology and chemistry departments in four-year colleges and universities.
DNS ADVISING NOTES:
First-Term Schedules for New Transfer Students
to NS-CHE (Nutritional Sciences, CHE),
NS-CALS (Nutritional Sciences, CALS), and
HBHS (Human Biology, Health and Society)

We look forward to having transfer students join our programs in NS-CHE, NS-CALS, and HBHS. Transfer students come from diverse backgrounds, so there is no common first-term schedule for transfer students. Each student must develop a schedule that:

- builds on his/her previous academic experiences,
- allows adjustment to Cornell’s learning environment,
- enables the student a chance to explore new academic options, and
- allows the student to meet college and major graduation requirements.

We want new transfer students to have a great first semester at Cornell. Arranging an academic schedule that works for the individual student is very important. The following considerations are questions to think about in developing your course schedule. You can discuss any questions that arise with your faculty advisor when you come in August.

1. **Which major (i.e., NS-CHE, HBHS or NS-CALS) interests you?** What special career interests (e.g., pre-med, dietetics) do you have? Please read the information about the different majors and career options so you have good idea of what interests you when you arrive. Review the “Overview of Course Requirements” for the major and career options that interest you. If you have questions about these requirements, there will be time during the orientation program to get them answered.

2. **How do the courses you have already taken meet your Cornell requirements?** By the time you arrive at Cornell, you will receive from the college registrar a summary of the transfer credits that Cornell has accepted and how they apply to your intended major. You should discuss this summary with your advisor. You will have the opportunity to review and revise this summary with the college registrar should you have questions. You may need to ask the registrar to update that summary with credits from any courses you took this past summer.

The maximum number of credits that can be transferred to Cornell is 60. If you have taken more than 60 college credits, you will want to choose those 60 that count toward meeting requirements for your degree at Cornell. You must complete 60 credits at Cornell. Human Ecology students must complete 43 credits in Human Ecology. CALS transfers must complete 55 credits in CALS. You may use courses from your past schools toward the Human Ecology and CALS credits if these courses are approved as substitutes by the Human Ecology and CALS registrars.

3. **What have you already taken in the required biology and chemistry sequences?** This is a key starting point in planning your schedule. Which biology and chemistry courses must you still take? Which are you unsure about? See the information that describes the Core Biology and Chemistry Courses for NS-CHE, NS-CALS, and HBHS majors. Cornell’s Courses of Study catalog has descriptions of all Cornell courses. There is a section in this Survival Guide that describes how to evaluate substitute courses for these requirements. Make a list of the courses that you must take and the semesters that they are offered. Note that most 2-semester biology and chemistry courses start the sequence in the fall term only. Make a list of your questions. You will discuss this plan and your questions with your advisor when you arrive at Cornell.
4. Where are you in terms of any nutritional sciences courses that may be required for your major? Which nutritional sciences must you still take? Which nutritional sciences courses are you unsure about? If you plan to major in NS-CHE or NS-CALS, be sure that you understand the required sequences of courses. Students interested in dietetics should check the requirements for this program.

5. What other courses are you interested in taking? Make a list of the courses that you would like to take. Use the course catalog and roster (or web) to find the descriptions and times and terms that these courses are offered so you will know how they may fit into your schedule.

6. What other courses must you take to fulfill your intended major, career preparation, or college graduation requirements? Most likely you have already taken introductory courses in the social sciences, written communications, and humanities. You probably have also taken quantitative and analytical course(s) at your previous college(s). The summary sheet from the registrar's office will show you what requirements you have filled and what remains.

7. Make a tentative schedule for the fall term and plans for the upcoming terms. A schedule with 13-15 credits works best for most new Cornell transfer students, particularly if they are taking an advanced science course such as biochemistry or organic chemistry. Most new students should avoid taking two advanced science courses in the first term. Thinking ahead and developing tentative schedules for the remaining semesters at Cornell is a good idea. This task will help you see if your plan is realistic and identify any important conflicts in course scheduling. Review these plans with your advisor and keep copies for later use.

IMPORTANT INFORMATION FOR PRE-MED STUDENTS:

The Health Career Evaluation Committee (HCEC) at Cornell provides a letter of evaluation that is part of most pre-med students' applications to medical college. Cornell students usually register with the HCEC early in the spring semester of their junior year, (except those who are not applying until after their senior year; they usually wait until spring semester of their senior year to register).

Transfer Students: According to HCEC:
“Transfer students with less than 30 hours in Cornell courses with a letter grade option should register at the usual time and submit transcript(s) from other institution(s) to the HCEC. (The HCEC will obtain a copy of your Cornell transcript). However, an interviewer will be assigned only after thirty credit hours at Cornell have been completed and all non-Cornell transcripts have been received. For juniors who have completed two semesters with less than 30 credits, the options include: 1) taking a Cornell course during the 3-week summer session in late May - June, 2) getting a letter from your previous institution, or 3) waiting until your senior year to apply to register for the HCEC and apply to medical school. Interviews for transfer students are typically conducted during the late spring and summer, in Ithaca, at the convenience of the interviewer. The deadline for completing the file is the end of the first week in July. This allows transfer students more time to get their letters of recommendation and gives the HCEC a fuller picture of a student's work at Cornell. See the health careers advisor to discuss 1) the pros and cons of using Cornell's HCEC or of using the committee at your previous institution; 2) suitable sources of letters of recommendation and supplementary letters; 3) issues to consider in deciding the optimum time to apply; 4) procedures for postponing your interview until summer when you have completed your semester credit hours.”
The Honors Research Program

Human Biology, Health & Society (HBHS)
Nutritional Sciences (NS-CHE)
Nutritional Sciences (NS-CALS)

What is This Program About?
The Honors Research Program in the Division of Nutritional Sciences is designed to challenge the research-oriented NS and HBHS majors. This structured research experience involves 1) a course in research, NS 3980, 2) the conduct of a research project through which the student becomes intellectually engaged in the whole research process, 3) the completion of a written thesis that reports the research, and 4) an oral presentation of the project at the Undergraduate Honors Symposium. Students in the College of Human Ecology completing the program receive a “bachelor’s degree with honors in research.” Students in the College of Agriculture and Life Sciences completing the program receive a “bachelor’s degree with distinction in research.”

Who Should Consider the Honors Research Program?
The Honors Research Program is an excellent opportunity for students who are highly interested in research and wish to commit substantial time and intellectual energy to a project that will span at least 4 semesters of their undergraduate experience. Honors students experience the excitement of designing a project to generate new knowledge on a topic that interests them and reporting the project findings. By working with faculty mentors and other researchers, they develop skills in research methods and data analysis. Students also learn that research projects are labor intensive and that writing research reports, such as the honors thesis, is a vital, but time-consuming aspect of the research process. This intensive research experience is not suitable for all students, and those who wish a less intensive research experience may conduct research with a faculty member under NS 4010, Empirical Research.

How Do You Apply to the Program?
Students interested in the program should review the program requirements, take NS 3980 (F only) in the sophomore or junior years, and speak with the program directors. Application to the program typically occurs at the end of fall semester of the junior year. Applications may be accepted at other times for students who demonstrate that they can complete the program requirements before graduation. Acceptance into the honors research program occurs when the student 1) is accepted into a faculty member’s research program and 2) submits a research proposal abstract that is approved by the directors of the honors research program.

What Are the Program Requirements?
1) NS 3980 Research in Human Nutrition and Health. 1 credit, S/U grade only, Fall semester. Students are advised to complete NS 3980 by the fall of the junior year. This lecture course focuses on the structures and practice of professional research conducted in human nutrition and health, a field that encompasses a wide range of questions ranging from subcellular components to population level issues. The course introduces the various approaches and methods used by researchers, and address the topics of ethics and research controls. The course describes the structure of the scientific literature, preparation of research proposals, roles of scientific organizations, and funding sources. Students are required to attend research seminars on campus and submit a report at the end of the term.

2) Be accepted into a faculty member’s research program
Students spend the spring sophomore and fall junior term exploring honors project opportunities with prospective faculty mentors. Students are responsible for contacting faculty members and applying to
their research programs, although some guidance in this process will be provided in NS 3980. By the fall of the junior year, the student is expected to have identified their faculty member and be working with them on a proposal abstract, which is due early in the spring junior term.

3) Complete 6 credits of NS 4990 Honors Problem
Students receive academic credit for work on their honors project under NS 4990. The 6 required credits may be taken over several semesters but mostly during their senior year (3 cr per semester). How much time is spent on the project each term will be the decision of the student and the faculty mentor. For each 3-4 hours of work, the faculty mentor usually will assign one hour of academic credit. This applies to the preparation of the research plan and necessary library research (usually completed during the junior year) as well as the carrying out of the research itself and preparation of the thesis. The student may complete more than 6 credits of NS 4990 as desired.

4) Complete an honors thesis & present at Honors Student Symposium
The honors research project comprises the major component of the honors research program. It should be well defined and sufficiently circumscribed to give the student the opportunity to develop the research plan, execute the research and write an acceptable thesis within the limited time available to students carrying full academic loads. Typically, the project is designed early in the junior year, conducted in the spring junior term and fall senior term. Students may arrange with their faculty mentor to work on the project during the summer. The spring senior term is usually devoted to writing the thesis (an original research report of at least 25 pages). The student works with the faculty mentor to prepare a draft of the thesis, which is submitted by spring break to a second faculty member for evaluation. When comments are received from the reader, the student must revise the thesis to meet the criteria for acceptance. The student presents the thesis at the Honors Student Symposium at the end of the term.

5) Achieve satisfactory GPA for Honors Research Program
To graduate with honors, the student must maintain the minimum GPA required for the Honors Research Program. Students accepted into the program will be informed of the specific GPA that is required.

6) Meet all program requirements and deadlines
To graduate with honors, the student must meet all program requirements and deadlines as set by the faculty director of the program. Students who do not meet all program requirements may receive academic credit for research work under NS 4990 if recommended by the student's faculty mentor.

PROGRAM DESCRIPTION & REQUIREMENTS: The honors research program provides a structured experience involving original research for undergraduates with a demonstrated level of achievement in coursework and a genuine interest in exploring research.

Requirements for the DNS honors program:
1) GPA > 3.2.
2) Pass (S) NS 3980.
3) Pass (S) 6 credits of NS 4990.
4) Seek, and be accepted into, a faculty mentor's laboratory/research program.
5) Complete an honors thesis (>25 pages) reporting on a project with which the student played major role. "Major role" means considerable effort in the execution of the project plus intellectual engagement in the stages of a project (conception, planning execution, interpretation, reporting)
6) Thesis will be evaluated by a Reader, and acceptance of the thesis is by approval of Dr. Cha-Sook You.
7) Make all deadlines.
8) Preparation and oral presentation of the project at the undergraduate honors symposium around week 13 of the last semester.

Acceptance into the program will be certified by email from Dr. You and will be based upon acceptance into a faculty member's research program and the submission of a suitable proposal abstract on time as noted below.

Waivers of **any** of these items, especially deadlines, are approved by Dr. You by written request only.

**DEADLINES:**

General deadlines for May 2017 graduates are listed below. Submit materials to Dr. You (cy12@cornell.edu) or designated assistant using the requested filename. If you do not receive an acknowledgement of receipt, it was not received. *Missing deadlines without prior approval is grounds for being dropped from the honors program.*

Friday of week 3 of junior spring semester, February 2016 (three terms before graduation): Proposal abstract for honors thesis due. Submit as e-mail attachment, named <YOURLASTNAME ProAbs17> in DOC, TXT, PDF. This document must be approved by an identified mentor, and have a title, describe the overall project, the piece to be performed by the student, and an expected timeline for completion. One page single spaced maximum for proposal abstract, a second page for timetable. The document is not considered binding; mentor and student may agree to a change to a task requiring a similar degree of effort and intellectual input.

Wednesday of week 4 of senior fall, Sept 2016 (two terms before graduation): Progress report due. Outline progress made, tasks left, and a brief schedule. Changes to the project should be made documented at this time. Submit as attachment. Filename must be <YOURLASTNAME ProgRep17> in DOC, TXT PDF, RTF.

Friday of week 3 of senior spring, February 2017, 3:00pm (final term): Literature review chapter(s) and a 1-paragraph abstract of the entire thesis in current form due. Reader to be identified based on the abstract. 1 paper copy.

Thursday before spring break of senior spring, March 2017, 3:00pm (final term). Full thesis is due to readers. 1 complete paper copy and electronic copy each. <YOURLASTNAME FULL THESIS 17>

Tuesday after spring break of senior spring, March 2017 (final term): Readers return thesis with comments and for final corrections, and make recommendations for acceptance.

Middle of April 2017 (final term): Final theses with all corrections/revisions are due. One electronic and paper copy each. <YOURLASTNAME FINAL THESIS 17>

First week of study period: Symposium to be scheduled depending on room availability.

**Honors Research Projects in 2013**

- Choline and Hypoxia Differentially Modulate the Angiogenic Balance in Cultured Human Trophoblasts. **Ben Andrew (Mentor: Patsy Brannon)**
- Maternal Overweight/Obesity as a Modifier in the Association Between Postpartum Work Behavior and Breastfeeding Behavior **Carlie Arbaugh (Mentor: Kathleen Rasmussen)**
- Choline Inadequacy Increases the Expression of sFLT-1. **Anita Ganti (Mentor: Marie Caudill)**
- Characterization of Circulating Levels and Gene Expression Patterns of Adiponectin, Leptin, Visfatin, and Retinol Binding Protein 4 in Women with Polycystic Ovary Syndrome (PCOS). **Nina Clark (Mentor: Marla Lujan)**
• Investigation of the Expression and Role of Feline Leukemia Virus Subgroup C Receptor 2 (FLVCR2) in the Placentas of Pregnant Adolescents. **Olivia Lee (Mentor: Kimberly O'Brien)**

• Iron Deficiency and Physical Activity After a Dietary Iron Intervention in Female Indian Tea Pickers. **Yosmel Serrano (Mentor: Jere Haas)**

• Regulation of curli expression in *Escherichia coli* by YieP, an uncharacterized GntR-like transcriptional regulator. **Rudy Nazitto (Mentor: Anthony Hay)**

• Evaluating Fuzzy Trace Theory and Theory of Reasoned Action/Planned Behavior and their Application to Fitness and Diet Decision-Making in Young Adults. **Emily Lopes (Mentor: Valerie Reyna)**

• A Fuzzy-Trace Theory Approach to Vaccination Decisions. **Julie Steinberg (Mentor: Valerie Reyna)**

• Food Prime Effects on Eating Behavior in Preschool Children. **Hilary Soohoo (Mentor: David Levitsky)**

• Studying the Crosstalk Between Nonmuscle Myosin IIA and IRE1a. **XiaoQing Li (Mentor: Ling Qi)**

• Examining Preschool-aged Children's Knowledge of the Five Basic Food Groups. **Aarti Agarwal (Mentor: Marianella Casasola)**

• The Effect of Memory on Snack Intake. **Neeta Malviya (Mentor: David Levitsky)**

DNS Honors Program Director:
Dr. Cha-Sook You, cy12@cornell.edu
07/13-honres
A variety of opportunities exist for undergraduates to become involved in research in the Division of Nutritional Sciences.

**OPTION 1: NS 4010, Empirical Research:**
Students identify the kind of research they are interested in pursuing and contact faculty members with relevant types of research to see if and how they may become involved in a project. The student and faculty member complete a special studies form (obtained in either B21 Savage Hall or the registrar of the College of Human Ecology – *Note: Form may be going online for Fall 2013*) that outlines the agreement between the faculty member and the student. The form is signed by the student, the faculty member and the Assistant Director of Undergraduate Studies in DNS. 4 credit maximum per semester. NS 4010 must be taken as S/U only for the first 2 credits. After completing this step, students can take it with two grading options—either letter or S/U.

**OPTION 2: NS 4990 Honors Research Program:**
Students with very strong academic records are invited to apply to the honors program the fall of the junior year. This structured research experience is for students who are highly interested in research and willing to commit substantial time and intellectual energy to a project that will span semesters. For more information see the detailed information sheet, *Honors Research Program* (gold pages).

**OPTION 3: Student Employment:**
A few opportunities may exist for students to assist with a research project as an employee during the academic year and/or summer. The number and nature of the opportunities vary. To identify such opportunities, students contact faculty members directly.

**Process for Exploring Research Opportunities:**
- **Find out about the types of research being conducted in the Division.**
  Beginning on the next page is a list of names of faculty members in DNS whom students may contact regarding research opportunities. Review the list and identify those faculties with whom you wish to speak. Your method of selecting faculty members may include the type of research methods you wish to learn about (e.g., social science methods or lab methods) or the problem you wish to investigate (e.g., infant nutrition or lipid metabolism). Your faculty advisor will help you identify appropriate people to contact.

- **Suggestions for contacting faculty members.**
  Speak to faculty members at least a semester in advance of the time when you would like to get a research experience. Make an appointment to see a faculty member by speaking with his/her secretary, signing up for office hours, sending an e-mail message, or another method. Before meeting, prepare a copy of the application for undergraduate research (available in B21 Savage) or bring a copy of your resume to give the faculty member. Be prepared to discuss why you are interested in research, how much time per semester and/or how many semesters you wish to be involved in research, and previous work and research-related experiences. Ask the faculty member about their current/future research projects and their expectations for undergraduates who work with them in research. The extent to which a faculty member can involve students in his/her research program will vary according to the size and scope of various projects, the faculty member’s other commitments, and the skills/abilities of individual students.

- **Remember:**
  Be prepared, but do not be scared to ask faculty members about research. All faculty members were undergraduates at some time, and many of them arranged their first research experience through this process. Faculty members like to talk about their research!

- **Assistance with Statistics:**
  One of the many things that students learn when they are involved in research is how to apply the knowledge acquired in statistics classes to real data. The Cornell Statistical Consulting Unit (CSCU) is here to help you with this. Students involved in research projects are encouraged to seek assistance from CSCU for
the design of experiments and surveys, the write-up of the statistical method section of proposals, the planning and implementation of statistical analysis, the interpretation of output and, the write-up of the results for reports or publications. To set up an appointment go to http://www.cscu.cornell.edu/about/appointment.php or contact one of the statistical consulting staff. For short questions, you may also take advantage of the walk-in consulting hours Monday-Friday from 11:00–11:30AM in B11/B13 Savage Hall and 1:30–2:00PM in B07/B-18 Savage Hall. For more information consult CSCU’s webpage at http://www.cscu.cornell.edu/ or contact either Francoise Vermeylen (B-07 Savage Hall, 5-8211, fmv1@cornell.edu).

**Brief Description of DNS Faculty Research Interests**

For more information, check faculty websites at: [http://www.human.cornell.edu/dns/academic/facultyconcen.cfm](http://www.human.cornell.edu/dns/academic/facultyconcen.cfm)

**DALE BAUMAN**, Ph.D., Professor and L. H. Bailey Professor in Animal Science, Jointly appointed in animal Science and Nutritional Sciences (262 Morrison Hall, 5-2262, deb6@cornell.edu). Nutritional biochemistry, metabolic regulation, lactation, pregnancy, growth, functional foods.

**CAROLE BISOGNI**, Ph.D., Professor. (183 MVR Hall, 5-1127, cab20@cornell.edu). Social, cultural, and environmental influences on food choice; how individuals construct personal systems for food choice; applications of food choice research to nutrition practice.

**PATSY BRANNON**, Ph.D. Professor (225 Savage Hall, 5-3770, pmb22@cornell.edu). Maternal nutrition, placental regulation and developmental programming.

**J THOMAS BRENNA**, Ph.D., Professor (B38 Savage Hall, 5-9182, jtb4@cornell.edu). Fatty acid nutrition during perinatal development; steroid and other sports doping methods development; development of biomedical mass spectrometry for lipid analysis, including high precision isotope ratio and molecular mass spectrometry.

**RICHARD CANFIELD**, Ph.D., Senior Research Assoc. (302 MVR Hall, 5-9575, rlc5@cornell.edu). Intellectual development during infancy and early childhood, including cognitive development, and the effects of low-level lead (Pb) exposure on intellectual development.

**PATRICIA A. CASSANO**, Ph.D., Assoc. Prof. (209 Savage Hall, 5-7551, pac6@cornell.edu). Research: Nutritional and genetic epidemiology, nutrients with antioxidant and anti-inflammatory properties and lung disease risk, young adult weight change and chronic disease risk, interaction of nutrition and the genome in chronic diseases.

**MARIE CAUDILL**, Ph.D., R.D. Professor (228 Savage Hall, 4-7456, mac379@cornell.edu). Optimizing dietary recommendations (e.g., choline and folate) during pregnancy and lactation to improve maternal and child health.

**CAROL DEVINE**, Ph.D., Professor. (405 Savage Hall, 5-2633, cmd10@cornell.edu). Work-family integration, food choice coping strategies, and weight gain prevention; increasing access to healthy meals for working families.

**KATE DICKIN**, Ph.D. Research Scientist (302 Savage Hall phone: 255-7297 e-mail: kid12@cornell.edu) Research: Maternal and child nutrition; micronutrient interventions; influence of parenting styles and home environments on child diet and weight; global health; nutrition disparities; methodologies for evaluation of program design, implementation, and impact.

**JAMIE DOLLAHITE**, Ph.D., Assoc. Prof. (408 Savage Hall, 5-7715, jsd13@cornell.edu). Nutrition education for low-income audiences, including methods of program evaluation; nutrition education using mobile technology and electronic media; community level change that supports healthy lifestyles.

ZHENGLONG GU, Ph.D. Assoc. Professor (312 Savage Hall, (4-5144, zg27@cornell.edu). Evolution of metabolism in human and model organisms; Evolution of duplicate genes; Network biology; Regional dietary adaptation during human evolution and its medical significance in current society. (On sabbatical leave: 1/1/13-6/30/13)

JERE HAAS, Ph.D., Nancy Schlegel Meinig Professor of Maternal and Child Nutrition. (220 Savage Hall, 5-2665, jdh12@cornell.edu). Functional consequences of undernutrition especially iron deficiency; nutrition effects on fetal and postnatal growth, work capacity, physical activity, cognitive functioning and reproduction; food-based solutions to reducing iron deficiency; international nutrition, particularly in Latin America, Rwanda and India.

DAVID LEVITSKY, Ph.D., Professor. (112 Savage Hall, 5-3263, dal4@cornell.edu). Eating behavior and the control of body weight.

JASON LOCASALE, Ph.D. Assistant Professor (108 Savage Hall, (5-5114, locasale@cornell.edu). Cancer, Metabolism, Metabolomics, Biomarkers for Precision Medicine, Computational Modeling, Metabolic Signal Transduction, One Carbon Metabolism in Cancer, Warburg Effect in Cancer

MARLA LUJAN, Ph.D. Assist. Professor (216 Savage Hall, 5-3153, mel245@cornell.edu). Nutritional regulation of the menstrual cycle; ultrasonographic evaluation of ovarian function; endocrinology of obesity and reproduction.

CHARLES McCORMICK, Ph.D., Assoc. Prof. (223 Savage Hall, 5-2063, ccm3@cornell.edu). Nutritional control of gene expression.

JOANN McDERMID, M.Sc, Ph.D., RD Assistant Professor (310 Savage Hall, 5-2490, jmm585@cornell.edu). Nutritional immunology and infectious diseases, specializing in host pathogen interactions in HIV, TB and parasitic infections that coexist in a global context; clinical dietetics; nutritional epidemiology.

SAURABH MEHTA, M.B.B.S., Sc.D., Assistant Professor of Global Health, Epidemiology, and Nutrition, (314 Savage Hall, 5-2640, smehta@cornell.edu). Maternal and Child Nutrition; Global Health; Nutritional Modulation of the Immune Response; Epidemiology; Tuberculosis; HIV; Role of Vitamin D in human health; Neglected Tropical Diseases.

KIMBERLY O'BRIEN, Ph.D., Professor (230 Savage, 5-3743, koo4@cornell.edu). Research: Mineral metabolism during pregnancy, adolescent pregnancy, placental transport of nutrients, maternal/fetal nutrient partitioning using stable isotopes and mass spectrometry, calcium, iron and vitamin D metabolism.

ROBERT PARKER, Ph.D., Assoc. Prof. (226 Savage Hall, 5-2661, rsp3@cornell.edu). Metabolism and bioavailability of vitamin E; interaction of vitamin E and vitamin K.

PILAR A. PARRA, Ph.D. Research Associate and Senior Lecturer (309 Savage Hall, 5-0063, pap2@cornell.edu) Immigration, acculturation and poverty in the health status of minority populations; applied research to design and test interventions to achieve long-term health behavior change; Home food safety among Mexican Americans, prevention through education.

DAVID PELLETIER, Ph.D., Assoc. Prof. (212 Savage Hall, 5-1086, dlp5@cornell.edu). Improved methods for the development, implementation and evaluation of nutrition policies and interventions in developing countries and the U.S. Includes a focus on chronic malnutrition, micronutrient malnutrition, childhood obesity, delivery science and nutrition governance.

PER PINSTRUP-ANDERSEN, Ph.D., H. E. Babcock Professor of Food, Nutrition and Public Policy. (305 Savage Hall, 5-9429, pp94@cornell.edu). Food and nutrition policy for developing countries; globalization and food security; economic development.

LING QI, Ph.D., Associate Professor in Molecular and Biochemical Nutrition, (307 Biotech, 5-6169, lq35@cornell.edu). Nutritional biochemistry, ER stress, inflammation, metabolic regulation, transcription regulation, obesity, diabetes and metabolic syndrome.
SHU-BING QIAN, Ph.D., Assistant Professor (301 Biotech, 4-3397, sq38@cornell.edu). Nutrient signaling in mammalian cells, stress response and protein quality control, protein synthesis and cell growth, nutritional biochemistry in human diseases.

KATHLEEN RASMUSSEN, Sc.D., Professor. (111 Savage Hall, 5-2290, kmr5@cornell.edu). Role of nutrition in reproduction, particularly the effects of maternal nutrition on pregnancy outcome and lactational performance; maternal and infant nutrition.

DAVID SAHN, Ph.D., M.P.H. Prof. and Director of Cornell Food and Nutrition Policy Program (CFNPP) (B16 MVR, 5-8931, David.Sahn@cornell.edu). The determinants of, and solutions to poverty, inequality, poor health and malnutrition; and exploring the role of policies and programs to raise living standards, and improve skills, ability and health and nutrition outcomes

REBECCA SEGUIN, PhD. Assistant Professor (412 Savage Hall, 5-8250, rs846@cornell.edu), Understanding how people’s social, food, and physical activity environments influence behavior over time—particularly in rural communities.

JEFFERY SOBAL, M.P.H., Ph.D., Professor. (407 Savage Hall, 5-6015, js57@cornell.edu). Sociological aspects of food and nutrition; social patterns of obesity; food choice; family meals and commensality, food systems.

PAUL SOLOWAY, Ph.D., Professor. (211 Weill Hall, 4-6444, Soloway@cornell.edu). Regulation of epigenetic phenomena and immune response mechanisms through studies involving genetically modified mice.

CHRISTINA STARK, M.S., R.D., C.D.N. Senior Extension Associate, (409 Savage Hall, 5-2141, cms11@cornell.edu). Nutrition education for professionals. Distance learning. Online professional development..

MARTHA STIPANUK, Ph.D., Professor. (227 Savage Hall, 5-2683, mhs6@cornell.edu). Sulfur amino acid metabolism, role of cysteine dioxygenase in sulfur metabolism; H₂S signaling and sulfhydration of target proteins; amino acid deprivation response pathways.

REBECCA STOLTZFUS, M.S, Ph.D., Professor. (120 Savage Hall, 5-7671, ris62@cornell.edu). Improving the health and well being of women and children in resource-poor environments by improving their nutritional status. Major research themes: Nutrition interventions for mothers and infants; Infections and malnutrition; and micronutrients and anemia..

PATRICK STOVER, Ph.D., Professor. (127 Savage Hall, 5-8001, pjs13@cornell.edu). Regulation of Folate mediated-metabolism one carbon metabolism; metabolic regulation of cellular methylation reactions; mechanisms of folate-related pathologies; interaction of metabolism with genome stability and gene expression.

BARBARA STRUPP, Ph.D., Professor. (also Adjunct Prof., Dept. of Psychology) (109 Savage Hall/217 Weill Hall, 5-2694, bjs13@cornell.edu). Lifelong cognitive effects of biological influences during early development (e.g., maternal nutrient intake, exposure to toxins). Ongoing studies focus on the effects of maternal choline supplementation on offspring cognition, affect, and epigenetics, in normal individuals as well as individuals with Down syndrome and Alzheimer’s Disease. Studies include rodent models and human subjects.

ANNA THALACKER-MERCER, Ph.D. Assistant Professor (109 Savage Hall, 5-7007, aet74@cornell.edu). Mechanisms underlying skeletal muscle metabolic and inflammatory dysfunction in health and disease primarily linked to aging; Dietary and exercise treatments to improve the phenotype of sarcopenic obesity and metabolic dysfunction in older adults.

JENNIFER WILKINS, Ph.D., R.D., Lecturer and Senior Ext. Assoc. (415 Savage Hall, 5-2730, jlw15@cornell.edu). Dietetic Internship Community Nutrition; Community food systems; Regional dietary guidance; Food systems and Health.

SEREA YOUNG, Ph.D., Research Scientists (113 Savage Hall, 5-4647, sly3@cornell.edu, http://www.serayoung.org) Maternal and child health, HIV, anemia, non-food cravings, infant feeding, food insecurity, sub-Saharan Africa.
Note: NS-CHE, NS-CALS and HBHS majors may also find research experiences with faculty members in other departments. To find research experiences in other departments:

1. speak with instructors of courses that interest you, and with your faculty advisor
2. speak with undergraduate students in other majors,
3. contact the department offices for lists of faculty research areas, and
4. explore the faculty pages of department web sites.
Structured learning experiences in the real world help students link theory to practice. Students also learn about communication, teamwork, setting goals, client needs, and the social, economic and political forces that influence professionals who work in the food, nutrition and health fields. Students can earn credit for a planned field experience through NS 4020, Supervised Fieldwork.

**Examples of NS 4020 Field Experiences:**

- **Nutrition and fitness:** Advanced nutrition students serve as nutrition counselors to student athletes and members of local fitness clubs.
- **Community nutrition:** Students work with local Cooperative Extension professionals and others in developing and pilot testing educational programs for adults and children.
- **Nutrition and business:** Students intern with a local software firm to learn about developing and testing food composition data bases, dietary assessment instruments, and food management programs for use by the health care industry.
- **Nutrition and health care:** Students examine how nutritionists and other health care practitioners treat and counsel patients with different conditions and the many factors that influence how these professionals conduct their work.

**Guidelines for NS 4020:**

- The experience must be planned in advance with a faculty member and have explicit goals and expected outcomes.
- The experience must have ongoing faculty involvement in all phases through regular conferences in person, by phone, or by e-mail.
- The experience must have a reflective component, such as analysis of a journal or systematic record of the experience to allow the student to consider feelings and attitudes about the experience as well as understandings about applications of classroom learning to practice.

The student’s work must be evaluated by the faculty member and the bases on which the grade will be determined must be agreed on in advance. Grades may be based on journals, papers, oral presentations, input from field supervisors, and/or other materials developed as part of the experience. NS 4020 must be taken as S/U only for the first 2 credits. After completing this step, students can take it with two grading options—either letter or S/U. 4 cr maximum per semester.

- The number of credits must be determined in advance. For 1 academic credit, the student should be working in the placement or on materials relevant to the placement an average of 3-4 hours per week for 14 weeks. This time is in addition to that spent with the faculty member.
- All registrations for NS 4020 must be processed using the College of Human Ecology Special Study form, available from the DNS Academic Affairs Office, B21 Savage or the Registrar of the College of Human Ecology. This form must be signed by the student, the Faculty Supervisor, and the Assistant Director of Undergraduate Studies in the Division of Nutritional Sciences.

**Other Field Experiences:**

The Urban Semester Program in New York City is another excellent opportunity to gain field experience. Information about this program is available through the Human Ecology Career Development Center, 162 MVR Hall.
**Study Abroad and the Urban Semester Program are exciting opportunities.** Students who have taken advantage of these special programs report that they have wonderful experiences in many different ways. These students have returned to campus with new understandings about themselves, their career goals, the global environment, and the social, cultural, economic, and political forces affecting people’s lives in the real world.

Students in our majors have studied in Italy, Australia, England, Israel, Spain, and the Semester at Sea. Through the Urban Semester Program students have learned about multicultural issues in New York City and gained experience in geriatric long term care facilities, surgical intensive care units, pediatric medical practice, and community nutrition programs.

NS-CHE, NS-CALS and HBHS majors usually use these semesters off-campus to supplement their academic experiences. Most often the semester is devoted to studying in elective areas or gaining field experience related to their career goals. In general, it is very difficult for students to complete required courses in chemistry, biology or nutrition when they are off-campus. Students do, however, complete courses for college distribution requirements.

**Early Planning**

Most NS-CHE, NS-CALS and HBHS majors have interests and career goals that involve complex sets of sequenced courses, and some students have multiple goals.

Fitting in a semester off-campus requires early planning so you can develop a blueprint for completing your courses in the right order and on time. To fit everything in, you may need to double up on some courses earlier than other students, or you may take a course(s) in the summer.

If you wish to spend a semester off-campus, start the planning process as early as you can -- **no later than the fall of your sophomore year**. Meet with your faculty advisor to discuss your academic goals and get informed about the programs in which you want to participate.

Junior year is usually the time that NS-CHE, NS-CALS, and HBHS majors spend off campus. However, this is also the year in which biochemistry is taken by most/all of our students and NS 3310, Physiological and Biochemical Bases of Nutrition, is taken by NS majors. Students can take biochemistry in the spring of the sophomore year or postpone NS 3310 until the spring of the senior year.

Our students have different ways in which they arrange their course schedules to accommodate a semester off-campus. Some will double up on required courses, others will take one or more courses in the summer, and some will postpone plans to attend medical school, dietetic internships, or graduate programs. Extracurricular commitments, the need to work during the summer or academic year, and personal situations will also determine how you arrange your term off-campus.

**All Students**

- The student is responsible for understanding all the graduation requirements for his/her program and all the procedures related to his/her academic and career goals including the procedures for studying abroad or applying to the Urban Semester Program. Cornell abounds in resources to help you, but you will have to pull together information from many sources including your faculty advisor, the Division’s Academic Affairs Office, your college’s student services office, the Urban Semester Program and/or the Cornell Abroad Program. Keep asking questions. There are people to speak with, printed materials to study, and many sources of information on the World Wide Web.
• Find out the deadlines for the program to which you wish to apply. The deadlines may be two semesters ahead of the time you wish to enter the program.

• For study abroad, contact both the University office and your college’s study abroad advisor:
  ➢ Cornell Abroad, 474 Uris Hall (or http://www.cuabroad.cornell.edu/)
    ➢ College advisors: Paul Fisher (Human Ecology), 170 MVR Hall, or Christine Potter (Agriculture and Life Sciences), Associate Director for Counseling and Advising and Study Abroad Coordinator, 140 Roberts Hall.

• For Urban Semester:
  ➢ Career Development Center, 162 MVR Hall
  ➢ Website: http://www.human.cornell.edu/academics/urban-semester/index.cfm
  ➢ Program Director: Sam Beck, Tel: (212) 746-1846, sb43@cornell.edu

Honors Students

• Students who wish to participate in the Honors Program should note that honors students are normally expected to participate in required seminars and to begin planning their research in the junior year.

• Honors students who plan to study off campus in the junior year must receive special permission to make up required work. Contact Dr. Cha-Sook You, cy12@cornell.edu for more information.

Pre-Med Students

• Pre-med students must consider their time line for applying to and attending medical school. Students apply to medical school more than one year before they plan to matriculate. For example, if you wish to attend medical schools immediately after graduating from Cornell you begin the application process in the junior year. If you will be off-campus in your junior year, you must plan when you will complete the core pre-med requirements, when you will take the MCAT’s, and how you will participate in the Cornell's Health Careers Evaluation Committee’s (HCEC) centralized services for obtaining letters of reference.

• Fall term of the junior year is a common time for NS-CHE, NS-CALS or HBHS students to spend a term abroad or in The Urban Semester Program.

However, a fall junior term off-campus requires that you have completed the requirements for two terms of organic chemistry and two terms of physics prior to your junior year. Spring term is usually a less desirable time to be off-campus because this is the term in which pre-med students participate in the interviews for the Health Careers Evaluation Committee. Premed students usually must plan to get some real world experience related to health or medicine through volunteer work, employment, internships or field study. The Urban Semester is an excellent opportunity to acquire this experience.

Dietetics Students

• Dietetics students must pay particular attention to the sequence for required courses for the dietetics program. Fall term of the junior year is a good time to study off-campus, because you can return in the spring term to take NS 3310, Physiological and Biochemical Bases of Nutrition, which is a prerequisite for NS 4410, Nutrition and Disease, taken in the fall of the senior year. However, this plan requires that you complete biochemistry in the spring of your sophomore year or in the summer before your junior year. You must also be sure that you have all the prerequisites to complete the required sequences including NS 2470, 3460, 4250, 4410, 4420, 4500, 4880.

• Applications to enter dietetic internship and graduate programs in the summer or fall may be due as early as December of the preceding year. Dietetics students are also strongly advised to take the GRE and to acquire experience in nutrition and dietetics through employment, volunteer work, internships, and/or fieldwork. Thus, you will want to consider these expectations as you plan.
General Career Ideas

Cornell Career Services information:

Each office offers scheduled appointments and walk-in hours.

Agric & Life Sciences Career Development Office
140 Roberts, 255-2257
http://www.cals.cornell.edu/cals/current/career/index.cfm
alscdo@cornell.edu

Human Ecology Career Services
172 MVR, 255-2532
http://www.human.cornell.edu/career-development/index.cfm
humec_students@cornell.edu

University Career Center
103 Barnes, 255-5221
http://www.career.cornell.edu/
career@cornell.edu

Cornell Health Careers Information:

Cornell University Health Careers Guide for Pre-applicants
http://www.career.cornell.edu/resources/upload/2012-13-
Preapplicant-Guide.pdf or stop by 103 Barnes Hall for a copy.

Cornell Pre-veterinary Guide
http://www.career.cornell.edu/resources/upload/2012-13-Prevet-
Guide.pdf
Who Should Consider the Undergraduate Dietetics Program?

Human Biology, Health & Society (HBHS)
Nutritional Sciences – CHE (NS-CHE)
Nutritional Sciences – CALS (NS-CALS)

<table>
<thead>
<tr>
<th>Clinical Nutrition</th>
<th>Community Nutrition</th>
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<tr>
<td>Sports Nutrition</td>
<td>Food and Nutrition Management</td>
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<tr>
<td>Child Nutrition</td>
<td>Nutrition Counseling</td>
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<tr>
<td>Pre-Med</td>
<td>Dietetics Research</td>
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<td>Corporate Wellness</td>
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If these career opportunities interest you, consider becoming a registered dietitian. Job markets demand and many states require that anyone who advises others about nutrition must be a registered dietitian (RD). For pre-med students, completing the dietetics program provides valuable preparation in health and disease and clinical nutrition for practicing medicine and alternative career options in healthcare in addition to medicine.

Dietitians work in a wide variety of settings and some dietitians practice in highly specialized areas. Some key job trends include:

- Increased demand for dietitians in community settings such as in programs that promote maternal and child health, adult fitness and wellness, and diabetes education.

- Increased demand for dietitians with specialized expertise in the management of complex health conditions and diseases such as cancer, AIDS, newborn intensive care, eating disorders, burns, and diabetes.

- Increased demand for dietitians by private industry such as food manufacturers, supermarket chains, food service corporations, software companies, health clubs, and print and broadcast media.

- Academic training and work experience in dietetics opens doors to advancement in many directions including management positions in businesses and not-for-profit organizations, consulting or counseling practices, and opportunities to combine dietetics with other health care specialties.

For examples of current job opportunities in dietetics see Jobs in Dietetics, a job list service for nutrition and dietetic professionals. http://www.healthecareers.com

How to Become a Registered Dietitian

The Accreditation Council for Education in Nutritional and Dietetics (ACEND) is the professional organization that sets the requirements for becoming a registered dietitian. To become a registered dietitian, you must:

- Complete the required courses of an academic program that is accredited by the ACEND.

- Complete an ACEND-accredited supervised practice program.

Admission to supervised practice programs is competitive and requires prior completion of an undergraduate degree including the required courses in the didactic program and relevant experience (paid or volunteer) in clinical, community or management settings. Programs are located throughout the U.S. and range from 6 to 12 months in duration to provide a minimum of 1200 hours of supervised learning experience. Interns receive supervised experience in clinical nutrition, community nutrition, and food and nutrition service management.

- Pass the national registration exam given by the ACEND to earn the Registered Dietitian (RD) credential. The supervised practice program must be completed before taking the exam.
The Dietetics Program at Cornell

The Division of Nutritional Sciences at Cornell University offers a ACEND, Accreditation Council for Education in Nutritional and Dietetics. Many of the course requirements in the ACEND-approved dietetics program are met by courses required in the Nutritional Sciences and HBHS majors. Students who wish to complete the dietetics program must plan their course schedules carefully to assure that they have all the prerequisites needed for advanced courses.

Summaries of the course requirements for dietetics and the important course sequences for this curriculum are included in the Advising Notes for the Didactic Program in Dietetics, in the blue pages.

Many nutrition majors at Cornell complete the courses required for the dietetics program. These students work closely with their faculty advisors and with the Dietetics Program faculty to prepare their course schedules and to acquire field, work, and research experiences that enhance their classroom learning. Faculty also helps seniors prepare their applications to supervised practice programs. Acceptance rate of Cornell nutrition seniors into supervised practice program is excellent. Placement of 1995-2012 graduates was about 93% of those who applied the year they completed the DPD.

What Will You Learn in The Dietetics Program?

<table>
<thead>
<tr>
<th>Food Science/Preparation</th>
<th>Nutrition</th>
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<tr>
<td>Biochemistry</td>
<td>Physiology</td>
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<td>Management</td>
<td>Social Sciences</td>
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<td>Health and Disease</td>
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Translating the science of nutrition into healthy food choices for individuals and groups or appropriate nutritional therapy for those with illness requires the integration of many different disciplines. The Dietetics curriculum provides a broad and integrated academic program that is strongly grounded in the physical, biological, and social sciences. The program emphasizes critical thinking, communication skills, quantitative literacy, and the application of theory to practice.

Students begin with basic courses in biology, chemistry, social sciences and introduction to food, nutrition, and health issues and nutrition and the life cycle. In the second year students progress to organic chemistry, physiology and courses that examine the social science aspects of food and nutrition, and the nutritional and physicochemical properties of foods. Advanced courses taken in the junior and senior years apply biochemistry, physiology, and social sciences to problems in clinical nutrition, counseling, communications, public health, and food and nutrition management. Throughout the program students develop skills that will foster personal and professional growth as life-long learners and as leaders and team members in the dietetic profession.

For further information about the undergraduate Dietetics Program, you should contact:
Emily Gier, MBA, RD, CDN, 307 MVR Hall, Cornell University, Ithaca, NY 14853-4401. Tel: (607) 255-2638, email: eg47@cornell.edu.

Specific information about dietetics programs at other universities may be obtained from: The Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995 Telephone: (800) 877-1600.

For more information, see the following web sites:

The Academy Web site: http://www.eatright.org

DNS Web site (dietetic program requirements):
http://www.human.cornell.edu/DNS/academic/undergraddietetics.cfm
Advising Dietetics Students

The Registered Dietitian (RD) credential conferred by “The Academy of Nutrition and Dietetics” is the credential most widely held by nutrition practitioners and is required for employment in many settings. Even if it is not required for employment, holding this credential will enhance the competitiveness of our graduates in the job market.

Who should complete dietetics requirements?

- Students interested in counseling and/or educating individuals and groups to improve diet and health
- Students interested in teaching in academic settings
- Students who want to enhance their graduate degrees
- Students interested in nutrition and health care.

It is strongly recommended that students complete dietetics requirements unless they know they are going to medical school, desire a career in research or government or do not plan to work in the nutrition field following graduation. Frequently graduates who did not complete dietetics requirements are closed out of employment opportunities they truly desire by lack of the RD credential (even PhD graduates have this experience because many academic positions in nutrition departments require the RD).

The earlier a student begins planning to complete these requirements, the more electives they will be able to preserve in their program. However, even juniors or seniors may complete requirements on time through careful planning.

Students who are serious about completing dietetics requirements and applying to supervised practice programs should complete and submit the ‘DPD Student Intent Form” found in the DNS Survival Guide.

Contact Emily Gier for information regarding undergraduate Dietetic advising.
Tel: 607/255-2638; E-mail: eg47@cornell.edu

Contact Patsy Brannon for information about Cornell’s Dietetic Internship program.
Tel: 607/255-3770; E-mail: pmb22@cornell.edu
Pre-Med Planning

Human Biology, Health & Society (HBHS)
Nutritional Sciences – CHE (NS-CHE)
Nutritional Sciences – CALS (NS-CALS)

Considering a career in medicine? The HBHS and NS majors are good starting points. You will take many of the courses required for medical school admission, and you will learn about the biological and social aspects of health and disease in your courses. You also will develop skills in evaluating the many, and often conflicting, claims about how diet and lifestyle influence health.

You also will need to take charge of your pre-med path in the following ways:

- **Know the course requirements and credentials necessary** to become a competitive applicant for medical school. Understand the medical school application process.

- **Learn as much as you can about what a career in medicine involves.** Does your image of a medical career match the realities of medical training and practice? Are you personally well-suited to the many different demands of medical practice?

- **Use extracurricular and summer activities** to gain experience, discover your strengths, learn about what you do not like to do, and develop skills and abilities that will be relevant to medicine or other careers.

- **Keep your mind open to other career possibilities.** At Cornell you will discover many new career ideas. Follow developing interests and talents and explore related career options. For example, you can be involved in human biology, a helping profession, or the health field in many different ways.

Considering alternative careers will broaden your undergraduate experience. And, if you remain dedicated to medical practice after checking out other ideas, you will have the confidence and satisfaction that you have made a thoughtful decision based on good information.

University Pre-Med Resources

**Cornell Careers Services - Health Careers Program** - 103 Barnes Hall  
[http://www.career.cornell.edu/paths/health/index.cfm](http://www.career.cornell.edu/paths/health/index.cfm)  
Contact: Janet Snoyer, 255-0542 ([js100@cornell.edu](mailto:js100@cornell.edu)).

Provides general assistance to all pre-med students at Cornell and coordinates the process of applying to medical colleges.

**Health Careers Library** has many valuable resources. Health Careers Guide for Pre-applicants - This [required guide](http://www.career.cornell.edu/paths/health/index.cfm) is available in 162 MVR.

Orientations and briefings throughout the year are designed to keep pre-meds on track.
Human Ecology Pre-Med Resources

Provides specific assistance to College of Human Ecology students about pre-med application process and career planning.

Human Ecology Career Development Center - 162 MVR Hall. You can get a copy of Health Careers Guide for Preapplicants at the center, read the most recent edition of the Official Guide to Medical School Admission Requirements, pick up an MCAT registration packet and read through medical school catalogues.

Pre-Med Advisor – Career Services
Paula Jacobs, 172 MVR Hall, 255-2532 (pj24@cornell.edu)
Verdene Lee, 172 MVR Hall, 255-2532 (val3@cornell.edu)

Pre-Med Faculty Advisor for NS and HBHS majors
Cha-Sook You, Ph.D., B17 Savage Hall, 255-2651 (cy12@cornell.edu)

PATCH The PRE-PROFESSIONAL ASSOCIATION TOWARDS CAREERS IN HEALTH can offer assistance, information, and guidance as you move toward your career goals. Including programs about life in medical school, the U.S. Health Care System, alternatives to getting an MD, how the armed forces can help you, the AMCAS application process, and field trips.
Paula Jacobs, 172 MVR Hall, 255-2532 (pj24@cornell.edu).

College of Agriculture and Life Sciences Pre-Med Resources

Provides information to College of Agriculture and Life Sciences students about pre-med applications.

Pre-Med Advisor, Catherine Thompson, 140 Roberts Hall, 254-5385 (ct30@cornell.edu)
140 Roberts Hall, 255-2215

Pre-Med Faculty Advisor for NS major
Cha-Sook You, Ph.D., B17 Savage Hall, 255-2651 (cy12@cornell.edu)

Additional Sources of Pre-Med Information

Association of American Medical Schools - http://www.aamc.org/
Medical College Admissions Test - http://www.aamc.org/students/mcat/start.htm

General Career Planning

Books (Easy reading & available in bookstores or at career centers)
• The Pathfinder: How to Choose or Change Your Career for a Lifetime of Satisfaction and Success, by Nicholas Lore
• Becoming a Physician—A Practical Guide to Planning a Career in Medicine, by J. Danek and M. Danek


Human Ecology Career Development Center – 162 MVR Hall, Deanne Maxwell (dhm8@cornell.edu); Paula Jacobs, Pre-Med Advisor (pj24@cornell.edu)
http://www.human.cornell.edu/career-development/career-exploration/index.cfm

College of Agriculture Career Planning – 177 Roberts Hall, Amy Benedict Augustine, Director, 255-2215.
http://www.cals.cornell.edu/cals/current/career/index.cfm
Sources of Health-Care Related Experience

CU Extern Program
Students can apply to the CU Extern program in October and spend part of winter break shadowing a Cornell alum in one of the health professions.
http://www.career.cornell.edu/students/options/extern/index.cfm

Urban Semester
Students spend a semester (usually in the sophomore or junior year) in New York City gaining experience in health care fields.
http://www.human.cornell.edu/academics/urban-semester/index.cfm

Health Center Student Volunteer Opportunities
http://www.career.cornell.edu/paths/health/experience/volunteer/index.cfm
The Safety Zone: Nina Cummings, Health Educator, 255-4782
Mentorship Program: Gannett Health Promotion, 255-4782

Field Experience in Your Major
Field experience in your major can provide unique opportunities. Please see the information concerning Field Experiences in the GOLD pages.

Research for credit (NS 4010), as a volunteer, or in the Honors Research. Working closely with a faculty member can help you decide how interested you are in the research aspects of nutrition and medicine. Please see the information concerning Undergraduate Research and the Honors Research Program in the GOLD pages.

Summer Experience
Volunteer to help health care providers and community support programs in your neighborhood or hometown.
Physical Therapy Career Options

Human Biology Health & Society (HBHS)
Nutritional Sciences – CHE (NS-CHE)
Nutritional Sciences – CALS (NS-CALS)

Many NS-CHE, NS-CALS and HBHS majors consider physical therapy as a career option because they are interested in this health care field or in combining nutrition with a specialty that focuses on wellness, performance and rehabilitation. The pathway to a career in physical therapy for Cornell undergraduates is through a graduate program in physical therapy to which they apply in their senior year and enter after they graduate from Cornell. This path is the long route to a physical therapy career compared to entering a physical therapy program directly from high school. Coming to Cornell to study Nutritional Sciences or Human Biology, Health and Society, however, provides a broad education at an Ivy League institution and allows the student to explore many different health-related careers.

The job opportunities in physical therapy have been good. However, the limited number of spaces in physical therapy programs means that acceptance to these programs is highly competitive. In some years, acceptance to physical therapy programs has been more competitive than acceptance to medical school.

Becoming a Competitive Applicant

Admission to graduate physical therapy programs is determined by a student’s overall academic record, completion of required courses, experiential qualifications, and recommendations from teachers and placement supervisors.

Many of the courses required by the Nutritional Sciences and the Human Biology, Health and Society majors fulfill requirements for graduate programs in physical therapy. Students then elect to take the extra courses that are required by physical therapy programs. Because physical therapy programs vary in their admission requirements, the students must check the requirements for programs of specific interest. In addition to the courses already completed for their majors, many graduate programs in physical therapy require courses in:

- College physics (full year)
- Human Anatomy & Physiology
- Kinesiology
- Statistics
- Psychology (3 courses)
- Ethics

The students interested in physical therapy generally complete the minor in Applied Exercise Science that is offered through Cornell’s exchange program at Ithaca College. Please refer to the information about the Applied Exercise Science minor in the blue pages.

In addition to having all the right courses, students must have a strong record of experience in physical therapy, including all aspects of physical therapy (not just sports medicine). Students should seek paid or volunteer experience in physical therapy settings through the Cornell, Ithaca and home communities. In some situations, students may earn academic credit (NS 4020) for non-paid field experiences when the experience is prearranged, supervised by a faculty member, and has definite learning objectives, activities, and outcomes that can be evaluated. Please refer to the information concerning Field Experiences in Food, Nutrition and Health for Undergraduates in the GOLD pages.

Because admission to graduate programs in physical therapy is so competitive, most students should consider alternative plans in the event they are not successful in their first application. Work experience in the health care
field and advanced study related to exercise science are pathways that will often enhance a student’s competitiveness for admission at a later date.

**Graduates in Physical Therapy-Related Programs**

Upon graduation about 10% of our majors indicate that within one or two years they intend to pursue training in physical therapy, exercise science, athletic training, strength and conditioning or related fields. (Based on student reports at graduation, 1992-2013.)

The graduate programs that these students have attended include:

- Auburn University (exercise science)
- Boston University (physical therapy)
- Columbia University (exercise physiology)
- Florida State University (exercise physiology)
- Hahnemann University (physical therapy)
- Kansas State University (exercise science)
- Massachusetts General Hospital
- NYU Steinhardt (physical therapy)
- Pennsylvania State University (exercise physiology)
- State University of New York at Stony Brook (physical therapy)
- Syracuse University (physical therapy)
- University at Buffalo (physical therapy)
- University of California at San Francisco (physical therapy)
- University of Florida (exercise physiology)
- University of North Carolina (athletic training)
- University of Tennessee at Chattanooga (athletic training)
- University of Texas (exercise science)
- Washington University (physical therapy and exercise physiology)

**More Information**

Extensive information about the physical therapy profession and lists of approved programs from The American Physical Therapy Association can also be obtained through the association’s World Wide Web site ([http://www.apta.org/](http://www.apta.org/))
After Cornell, What Do
D.N.S. Majors Do?

Human Biology, Health & Society (HBHS)
Nutritional Sciences – CHE (NS-CHE)
Nutritional Sciences – CALS (NS-CALS)

Immediately after graduation . . . about 35-50% of HBHS and 10-20% of NS graduates intend to go to medical school within one or two years and about 40-60% NS graduates plan to complete dietetic internships. About 5-8% expects to pursue advanced study in exercise science or physical therapy. About 10-20% of seniors intend to go to graduate programs in fields other than medicine or exercise science, and this percentage includes students earning graduate degrees while they complete their dietetic internship. Others enter the job market in areas as diverse as banking and the Peace Corps. (Percentages based on intentions of students as reported at graduation)

Medicine and Dentistry (examples of placement, 2004-2013) (more than one graduate at some sites):

- SUNY Upstate Medical School
- SUNY Stony Brook Medical School
- New York University of Medicine
- University of Buffalo Medical School
- University of Buffalo School of Dental Medicine
- Albert Einstein College of Medicine
- Washington Medical School
- University of Cape Town Medical School
- University of Wisconsin Medical School
- Weill Cornell Medical College
- Dartmouth Medical School
- New Jersey Medical School
- University of Virginia Medical School
- University of Texas Medical School
- Drexel University College of Medicine
- St George’s University
- Loyola University
- Mount Sinai University
- The George Washington University of Medicine and Health Science
- Hong Kong
- Columbia University
- Emory University School of Medicine: Atlanta, GA
- University of Rochester
- Tufts University
- SUNY Downstate College of Medicine
- National Institute of Health Intramural Research
- University of Southern California
- University of The Pacific, School of Dentistry
- University of Pennsylvania School of Dental Medicine
- SUNY Stony Brook
- University of California at San Francisco School of Dentistry
- Georgetown University
- Harvard University
- Temple University
- Sackler School of Medicine
- Indiana University School of Medicine
- Loma Linda Medical School, California
- Ohio State University
- Kech School of Medicine
- Yale University
- University of Maryland School of Medicine
- Johns Hopkins School of Medicine
- Stony Brook Medical School
- Case Western Reserve
- FIU’s Herbert Wertheim College of Medicine in South Carolina
- University of Miami Medical School
• Touro College of Osteopathic Medicine in Manhattan
• University of Pittsburgh School of Medicine
• Quinnipiac School of Medicine
• Nova-Southeastern University Medical School in Fort Lauderdale

**Physician’s Assistant examples of placement, 2012)**

• Army’s PA program

**Nursing examples of placement, 2012-2013)**

• Accelerated Nursing Program at the University of Pennsylvania
• Johns Hopkins University, School of Nursing

**Dietetics (examples of dietetic internship and AP4 program placements, 2004-2013)** (more than one graduate at some sites):

• Cornell University
• Clemson University
• North Shore Long Island Jewish Health Care System
• Baylor University Medical Center
• Brigham and Woman’s Hospital
• VA Bronx Medical Center
• Yavapai County Health Department
• Aramark Dietetic Internship
• Massachusetts General Hospital
• University of Buffalo
• SUNY Stony Brook
• New York Presbyterian Hospital
• University of Maryland Medical Center
• Syracuse University
• Cornell University
• Brook Army Military Hospital
• Pennsylvania State
• University of Wisconsin Hospital and Clinics
• Saint Francis Medical Center; Peoria, IL
• Meredith College; Raleigh, NC
• University of California; San Francisco
• Sodexo (in Metro NY and at St Johns Medical Hospital in Westlake, OH)
• National Institute of Health, Washington D.C.
• Purdue University
• Baptist Health System, San Antonio, Texas
• SUNY Buffalo
• Hunter College NYC
• IUPUI Indiana
• Vanderbilt University Medical Center
• Mount Auburn Hospital
• University of Virginia Health System
• Southern Illinois University-Carbondale
• California State University, Chico
• Henry Ford Hospital in Detroit
• UNC Chapel Hill
• University of Nevada Las Vegas

**Physical Therapy and Exercise Science, etc (examples of graduate school placements, 1994-2013)**

(more than one graduate at some sites):

• Auburn University, Auburn, GA (exercise science)
- Boston University, Boston, MA (physical therapy)
- Columbia University, New York, NY (exercise physiology, physical therapy)
- SUNY Stony Brook, NY (physical therapy)
- Syracuse University, Syracuse, NY (physical therapy)
- University of California at San Francisco, CA (physical therapy)
- University of Tennessee at Chattanooga, TN (athletic training)
- University of Texas, Austin, TX (exercise physiology)
- Washington University, St. Louis MO (physical therapy)
- NYU Steinhardt Doctor of Physical Therapy
- Colorado State University, Occupational Therapy
- Tuft University, Occupational Therapy

Other Graduate and Professional Programs (examples of placements, 2004-2013)
(more than one graduate at some sites):

- UNC Chapel Hill
- Boston University, Public Health
- Cornell University
- Colorado State University, Biomedical Sciences
- Columbia University, Human Nutrition Program
- Emory University
- SUNY Cortland
- St. George's University
- University of Puerto Rico
- New York University, Steinhardt School of Education
- Oxford University
- University of Utah
- Columbia University Teachers College
- Sloan Program in Health Administration; Cornell University
- John Hopkins’s Cell and Molecular Medicine PhD Program
- Rutgers University
- University of South California
- Berkley
- University of Minnesota, law school
- New York University: optometry
- New York University: clinical nutrition
- New York University: sports business
- University of Pennsylvania: nursing
- Reading Hospital School of Health Sciences: Nursing
- Texas Tech
- University of Pittsburgh: Nursing
- Natural Gourmet Institute’s Chef training program
- Johns Hopkins School of Public Health
- U.S. Military-Baylor Graduate Program in Nutrition
- Hunter College: public Health Nutrition
- University of Maryland: MS in animal science
- Columbia College of Physicians and Surgeons
- Brown University, MPH
- UNC’s Eschelman School of Pharmacy, Chapel Hill, NC
- Yale School of Epidemiology
- National Institute of Health
- Binghamton University
- American University Film MA program

Research
- Cornell Medical School
- New York University School of Medicine
- Manhattan Eye, Ear, and Throat Hospital
- National Institutes of Health
- North Shore University Hospital
- University of Maryland Medical center
- National Heart, Lung and Blood Institute; Washington DC
- Harvard Medical School Children’s Hospital
• Polish Academy of Sciences
• Rockefeller University
• WIC Program, NYC
• MIT/Harvard’s Broad Institute
• National Institute of Health
• Brown University Sleep and Chronobiology Research Lab
• Johns Hopkins Medical Institute in Pediatric Surgery
• Fulbright Research Scholarship

**Employment** (examples of placement immediately after graduation, 1994-2013):

- **Amway Nutrilite**  
  Lab Technician, sports medicine soft tissue research, Hospital for Special Surgery, New York, NY
- **Stockbroker, D.M.G. Securities, Clearwater, FL**
- **Research Assistant, obesity research, University of Maryland Medical Center, Baltimore, MD**
- **Home Health Aide, Classen Home Health Associates, Ithaca, NY**
- **Clinical Research Associate, dermatology company, Parsippany, NJ**
- **Assistant Football Coach, Cornell University, Ithaca, NY**
- **Management Development Trainee, Nestle, USA**
- **Management Trainee, Smith Barney, New York, NY**
- **Management Trainee, Price Waterhouse, San Francisco, NY**
- **Research Assistant, surgical intensive care unit, Cornell Medical Center/New York Hospital, New York, NY**
- **Administrator, migrant clinic, Rochester, NY**
- **Research Assistant, neurology, Massachusetts General Hospital**
- **Equity Research Assistant, Suffolk Capital Management Inc., New York, NY**
- **Assistant Embryologist with Reproductive Science Associates, Long Island, NY**
- **Peace Corps**
- **Americorps in Boston and Brooklyn**
- **Algomod Technologies, IT Recruiter**
- **Medical Research at Harvard Medical School Beth Israel Deaconess Center in Boston**
- **Women and Infant Care (WIC), Washington, DC**
- **National Institute of Child Health and Development, NIH, Bethesda, MD, (research fellow and immunology)**
- **Research Assistant, AIDS Cellular Immunology Research on South African AIDS strain, Harvard Medical School and Massachusetts General Hospital, Boston, MA**
- **Health Promotion Assistant, Gannett Clinic, Cornell University, Ithaca, NY**
- **Project Manager, E-commerce Group, Capital One, Richmond, VA**
- **Research Project Coordinator for Neonatal Sepsis Study at Valley Children's Hospital, Madera, CA**
- **Public Education and Advocacy, Tennessee Donor Services**
- **Emergency Medical Technician, Philadelphia, PA**
- **Christian Missionary**
- **Health Clinic in rural Ecuador**
- **Social, Environmental and Political Advocacy, MASSPIRG (non-profit org)**
- **Research Assistant in Clinical Trials Unit, Johns Hopkins School of Medicine**
- **Teach for America (Los Angeles and Rio Grande Valley)**
- **Research Assistant, biochemical immune mechanisms, Einstein Medical School**
- **Professional Hockey**
- **Tuberculosis Research, Cornell Medical Center**
- **Division of Rheumatology, Cornell Medical School for Special Surgery**
- **High School Math Teacher**
- **Research Assistant at National Institute of Health**
- **Teach for America – New York City – Secondary School Science Teacher**
- **University of Alberta, Department of Surgery (lab technician)**
- **WIC**
- **Montefiore’s Care Management Organization, Bronx, NY**
- **Chicago Teaching Fellows**
- **Hudson Global: account coordinator**
- **Memorial Sloan-Kettering Cancer Center, NY: hospital administration**
- **City Year Corps**
- **Healthcare consulting in the Center for Aging and Disability Policy at the Lewin Group**
Applying to Graduate School

Human Biology, Health & Society (HBHS)
Nutritional Sciences – CHE (NS-CHE)
Nutritional Sciences – CALS (NS-CALS)

Preparation for a specific career?
New area of interest?
Research careers?

After completing your Cornell degree, you may want to pursue a graduate degree. NS-CHE, NS-CALS, and HBHS majors often go to graduate school to acquire more specialized training in nutrition or health or to study in a new field. Some of the graduate degree programs that attract graduates in NS-CALS, NS-CHE and HBHS include:

- Public Health or Community Nutrition
- International Nutrition
- Biochemistry or Genomics
- Health Administration or Policy
- Food Science
- Education or Communications
- Exercise Science or Physiology
- Pharmacy or Toxicology

There are various types of graduate degrees with some focusing more on professional skills and courses and others focusing more on research. In general, M.S. and Ph.D. programs have a strong emphasis on research and expect the graduate student to design, conduct, and report on a substantial research project.

Graduate study can be an exciting experience that allows you to focus full-time on particular areas of study and be surrounded by people in academic pursuits. In addition, a graduate degree generally enhances your career options. However, deciding to go to graduate school is a big decision. Graduate school is a major investment of your time and someone’s money. Most graduate programs expect students to be very self-directed, highly committed to their academic programs, and able to handle demands from courses as well as from pre-professional placements and/or research.

You need to think carefully and be as clear as you can about your readiness and goals for going to graduate school. Some students find that going to graduate school immediately after their undergraduate program is the most efficient way to reach their goals. These students feel that they have the personal energy and resources to continue in an intense academic lifestyle. Other students feel that they need a break from academic work, need real world or work experience to define their goals, or want to earn some money before investing in another degree program.

Check the Cornell Career Service website:
http://www.career.cornell.edu/paths/graduate/index.cfm
JUNIOR YEAR: EXPLORE AND GET READY

Starting early is the best way to explore the options that graduate school has to offer. Cornell abounds with sources of information about graduate schools including printed resources and guides as well as faculty members who have all been graduate students at one time and at many different universities. If you are having trouble defining your interests or the types of programs that might be appropriate, speak with your faculty advisor or college career development office.

Once you have defined the field in which you would like to study, identify programs of possible interest. Talk to your faculty advisor, or if you wish to study in a different field, find a faculty member in that field at Cornell or elsewhere. Use printed guides (in the library or University Career Center) and World Wide Web searches to make a list of schools and programs of possible interest. Check the departmental bulletin boards to look for information about various programs and how to get more detailed information.

For programs that interest you, you should learn about admission requirements, degree options and curriculum, faculty interests, specialized facilities, and financial aid options. A director of graduate studies coordinates most programs, and it is important to know this person and his/her assistant.

TAKE THE REQUIRED STANDARDIZED TESTS

Most programs require that applicants take the Graduate Record Examination (GRE) or another standardized test. The University Career Center has information about when these tests are given and how to register to take them. Be sure to take the test early enough for your scores to be sent to programs in time for their deadlines.

SENIOR YEAR: APPLICATION PROCESS

Whereas some graduate schools have a rolling acceptance process, many graduate schools have an application deadline, often January 1 for the students wishing to enter the following fall. To maximize your chances of being accepted and being offered financial aid, you need to meet the deadline. In addition to standardized test scores, you will need to send undergraduate transcripts, a completed application form, and letters of recommendation.

Most applications require an essay or personal statement that has an important influence on how your application is evaluated. Admissions committees use the statement to judge: your understanding of the field and degree program to which you are applying, whether your particular interests in the field are a good match for the program faculty and facilities, your writing skills, your motivation for applying to the program, and any particularly relevant qualifications you may have such as work experience or technical skills. Therefore, take the time to prepare a well-written and clear statement. Be as specific as you can about the aspects of the program that interest you including the faculty with whom you wish to work. Before writing the statement, do some background reading about faculty interests.

RECOMMENDATIONS FROM FACULTY

A key component of your application will be letters of recommendation. Many graduate programs prefer letters of recommendation from faculty members who can write about your potential for graduate study because they can evaluate your academic abilities and potential in research. However, programs that emphasize professional practice may ask for some letters from employers or field placement supervisors. The following faculty members may be appropriate people to ask to write letters of reference for you: a faculty member who has supervised you in research or independent study, a faculty member for whom you have worked as an employee, your faculty advisor, or a faculty member who knows your work through a course. These faculty
members will be asked to write about your motivation for graduate work; creativity and originality; critical thinking and problem-solving skills; and abilities to work under stress, independently, and with others. When asking for letters of recommendation you need to provide the person with the appropriate forms, as well as any other information that the person needs such as a transcript, resume, or personal statement. Provide all the necessary envelopes and GIVE THE PERSON THE MATERIALS WELL IN ADVANCE OF THE DEADLINE -- ONE MONTH AHEAD IS A GOOD IDEA. In most cases, once a faculty member has prepared one letter, it is fairly easy for him/her to send additional letters to other schools.

THE IMPORTANT PERSONAL VISIT

If you can, visit the programs that interest you before or after you apply. A personal visit usually will enhance your chances of acceptance and/or being offered financial aid. In general, faculty members are much more involved in the acceptance of graduate students than they are in the acceptance of undergraduate students. A personal visit allows you to meet with the director of graduate studies and/or the faculty in whose work you are interested. You will be able to describe your interests and qualifications as they relate to their interests and expectations. Bring a resume and be prepared to ask questions about the graduate program or the research topic as appropriate. Find out how competitive you will be as an applicant. Will you need to take additional courses? If you have not applied yet, are their particular types of information you should include in your application to be competitive?

A visit will also give you the chance to find out important information such as: the number of students in the program, the average time to program completion, and what program graduates do. How are students matched with advisors? Will you have access to faculty members with whom you wish to work? Talk to students in the program and learn about their experiences.

FINANCIAL CONSIDERATIONS

Many graduate programs offer financial assistance to their students in the form of fellowships, teaching assistantships and research assistantships. Most of the time financial aid for graduate students is handled differently than it is for undergraduate education. Financial aid at the graduate level is generally competitive and based on academic and experiential qualifications; financial need is usually less important. For many graduate programs, financial aid in the form of fellowships and assistantships is coordinated at the department or program level. Therefore, ask the director of graduate studies for the department or program or his/her assistant how to find out about all possible sources of assistance, how to apply, and the application deadlines. Find out about the selection criteria for different types of assistance. Prior experience in research or as a teaching assistant may be important. Also ask about the schedule for making financial aid decisions. For example, letters of acceptance and offers of financial aid for graduate students are usually made on a rolling basis.
Establishing a good relationship with your faculty advisor is one of the most important things you can do at Cornell. Your faculty advisor can help you make decisions about your course schedule each term and give you critical guidance about your overall academic program. Advisors also suggest ways to enrich your program with courses you have not considered, individual projects, research, or internships. You will want your faculty advisor to get to know you quite well because in your junior or senior years you may wish to ask your advisor to write a letter of reference as you apply for jobs, internships or graduate programs.

Faculty members in the Division of Nutritional Sciences advise students in the HBHS, NS-CALS, NS-CHE majors. Students are assigned to a faculty advisor by Dr. Cha-Sook You (Assistant Director of Undergraduate Studies at the Division of Nutritional Sciences, B17 Savage) & Ms. Terry Mingle (Student Service Assistant, B21 Savage). Students are expected to work with their assigned advisor for the first year. Students may request a change in advisor after the first year by contacting Terry Mingle. When a student's faculty advisor is on sabbatic, the student will be notified about which faculty member will serve as the substitute advisor during that time.

HBHS, NS-CALS and NS-CHE majors are always welcome to come to the Division's Academic Affairs Office (B21 Savage) if they have questions or cannot contact their faculty advisors. Ms.Terry Mingle or Dr. Cha-Sook You will help you.

Additional help is always available in the college counseling and advising offices:

- Human Ecology Office of Student Services and Career Services (MVR 170 and 162)
- Agriculture and Life Sciences Counseling and Advising (Roberts 140)

Seven Tips for Working with your Faculty Advisor

1. **Make an appointment by phone, e-mail, or the sign-up sheets outside his/her office.** An appointment is the best way to see your faculty advisor. If you try to see him/her by just "stopping by", you may be disappointed. Faculty members are involved in many different types of teaching, research, and outreach activities. They may be in class, at a meeting, in the lab, out-of-town, or busy with another student.

2. **Be courteous, responsible, and use your advisor’s time well.** Set an appointment for enough time to cover the topics that concern you. Be on time, and remember to cancel or change the appointment if you have to change your schedule.

3. **Be prepared and organized for course planning meetings.** Review course requirements, your progress toward them, and course offerings before your appointment. Bring your course and career-planning folder with you.

4. **Develop a course and career-planning folder and keep it up to date.** Get a sturdy folder to hold your course and career planning materials and your credentials, such as grades, progress toward degree requirements, and recent resume. This folder will hold your ideas and draft plans for your 4-year course program as well as important reference materials for programs that interest you.
5. **Be sure you understand all rules and requirements.** It is the student’s responsibility to understand the course requirements for your major, the graduation requirements for your college, and academic rules and polices for your college. Read the college handbooks and catalog information for the rules that apply to your program. If you do not understand them, ask your faculty advisor, the DNS Academic Affairs Office, or your college’s academic office for clarification. Rules and requirements vary across the colleges and by year of matriculation. Do not assume that your friend knows the rules that apply to you!

6. **If you are a student of the College of Human Ecology, check your mailfolder in MVR 164 and your e-mail for updates and announcements from the college.** Students in the College of Human Ecology will receive "Commumecology", the Colleges weekly e-bulletin. Develop a habit of checking these important sources of information for critical news about any changes in course offerings, college policies, and special opportunities that may interest you.

7. **Keep your advisor informed about your Cornell experiences.** Your faculty advisor needs to know about your extracurricular activities, interests, and responsibilities. Through these experiences you will develop and demonstrate other important qualities such as leadership, initiative, creativity, commitment, judgment, and interpersonal skills. With some understanding of your extracurricular life, your faculty advisor will be better able to help you develop your academic and career plans.

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**Meet with your faculty advisor when ….**

- You are thinking about changing your major or college
- You are developing new career interests
- You want to explore courses in a certain area and need help in finding them
- You need some direction in considering career interests
- You want to know about research opportunities
- You need to plan your courses for next term

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**Take emergency action and contact your faculty advisor within a few days when:**

**You are having trouble in a course**

- How can you get extra help?
- Is it possible to drop it?
- How will your course plans for other terms be affected?

**Illness, family issues, or personal problems prevent you from attending or concentrating on your classes**

- Should you adjust your schedule?
- Can you arrange to get an incomplete?
- Who on campus can assist you?
- Can you arrange to take leave of absence?

**You feel so overwhelmed by courses and other commitments (work, athletics, family) that you are constantly exhausted and cannot concentrate**

- Should you adjust your program?
- Is there anyone who can help you deal with this stress?

**You are so worried about your grades that you are not performing at your best and feel constantly tired.**

- How can I deal with self-imposed pressure or pressure from peers or family members?
Summary of Advising Assistance for HBHS and NS Students

Faculty Advisor

- Provides counsel for your academic program throughout your Cornell career
- Meets with you at least once each term to help plan courses for next term
- Follows your progress toward degree requirements
- Helps you think about specialized academic opportunities
- Gives you guidance if special issues or problems arise related to academics
- Knows you well enough to serve as reference

DNS Academic Affairs Office, B21 Savage, 5-4410

- Place to go when you do not know whom else to ask!
- Advises HBHS, NS-CALS, and NS-CHE students when regular faculty advisor is not available
- Coordinates faculty advisor assignments
- Assists students with complex course scheduling, e.g. study abroad, urban semester
- Approves courses taken at other universities toward requirements for the major
- Acts on petitions to deviate from requirements for the major
- Signs special study forms (NS 4000-4020)
- Keeps students informed of course changes and special seminars and opportunities

College Advising Offices

- Another place to go when you do not know whom to ask!
- Provides professional counseling and referral services to students who have academic, personal, family problems
- Helps students who are undecided or changing their majors
- Provides general career planning services

Faculty advisors, the DNS Academic Affairs Office, and the college counseling offices work closely together to be sure that your advising and counseling needs are met.
# Division of Nutritional Sciences
## Office of Academic Affairs
### Schedule Planner

| Name __________________________________________ | Date __________________________ |
|________________________________________________|________________________________|
| Career Goal ___________________________________ | Major: HBHS, NS-CHE, NS-CALS, BioSci/Human Nutrition Concentration (circle one) |

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College Web Sites for NS-CHE and HBHS Majors
(College of Human Ecology)

1. The Curriculum Sheets with the graduation requirements are located at:

   For Nutritional Sciences Major:

   For Human Biology, Health and Society:

2. The Graduation Summaries are updated once a year in the summer. View your summary here:
   http://www.human.cornell.edu/registrar/degree-progress/graduation-summary.cfm

3. Requirements and Policies: including AP cheat sheet, minors, transfer credit policy, etc.
   http://www.human.cornell.edu/registrar/requirements-and-policies.cfm

4. Forms and Petitions:

   A. You can find many forms on the following CHE web page.
   http://www.human.cornell.edu/registrar/forms-and-petitions.cfm

   - Change of Major (pdf)
     Use this form to change your major. Please note that you are held to the curriculum year in effect at the time you change majors.

   - Curriculum/Waiver Substitutions (pdf)
     Use this form to petition for a course to be waived or substituted with a different course.
     Note: Allow three weeks to process.

   - General Petition (pdf)
     Use this form to petition a policy such as a missed deadline, extending graduation date, etc. The procedure requires students to meet with a Student Counselor in 172 MVR before submitting form to HE Registrar's Office.

   - Graduation Application (pdf)
     Seniors—You need to apply for graduation in your senior year so that the HE Office of Registrar knows when you plan on graduating. The deadline for submitting this application in no later than October 1 of your senior year.

   - In Absentia Petition (pdf)
     Use this form to request permission to take course work at a College or University outside Cornell and transfer the credits to Cornell to use towards your degree. Student Health Insurance is effective when student is In Absentia.
     Note: Allow three weeks to process.

   - Dean's Certification Release (pdf)
     Use this form to allow the HE Office of Registrar permission to verify good standing status for Law School Admissions.
• **Transfer Credit - College Form** ([pdf](#))
  Use this form for courses taken during your high school career that you are asking permission to receive credit towards your Cornell Degree. This form and the Transfer Credit - High School Form must both be completed and returned to be considered.

• **Request to Return from Leave of Absence** ([pdf](#))
  Use this form to request to return to Cornell after a Leave of Absence. This form should be submitted in the term immediately before the term in which you wish to return to Cornell.

• **HE 4030 TA Form** ([pdf](#))
  Use this form to when you want to TA for an Human Ecology Course.

**B. These forms must be picked up from the HE Office of Registrar in 145 MVR Hall** (some may also be available in the sorter outside B21 Savage):

• **Add/Drop Form**
  Use this form to add a class that is by permission by instructor only. Students will also need to use this form with an instructor's approval to drop a class.

• **Leave of Absence**
  Use this form to request permission to take a Leave of Absence from Cornell for one semester. You may also request to take course work during your leave and transfer the credit back to Cornell. Student Health Insurance is terminated when student is in LOA status.

• **Special (Independent) Studies**
  Use this form to add a Human Ecology Special Study course, i.e., 4000, 4010, 4020, and 4030. These courses include Research, Directed Readings, Supervised Fieldwork, and Teaching Apprenticeship.

• **Exit Interview**
  Use this form to transfer to another College at Cornell. It requires an Exit Interview with Student Services in 172 MVR.
### Graduation Requirements: Completed / Still Needed

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<td>PSYCH 1101 Introduction to Psychology</td>
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**IMPORTANT:** Students must use the correct departmental curriculum sheet to determine all requirements for that major. This tally document is not a substitute for curriculums sheets.

---

Name: Nutritional Sciences

Year Matriculated:

Following requirements for Curriculum Year: Fall 13-14

Last Updated:

This spreadsheet reflects courses through:
Graduation Requirements:
Completed / Still Needed | Category | Competency | Credits Needed | Course Used | Cornell Endowed | Cornell Statutory [Non-HE] | HE CREDITS | Transfer Credits [HE] | Transfer Credits [Non-HE] | HE Credits outside of NS from Cat. I, II, III (need min 9 credits) |
---|---|---|---|---|---|---|---|---|---|---|
Still Needed | I.C. Humanities | | 3 | | | | | | | |

See curriculum sheet for guidelines.

I.D. Written Comm. MUST BE COMPLETED DURING FIRST 2 SEMESTERS

Still Needed | First-Year Writing Seminar Choice 1: | 3 |
Still Needed | First-Year Writing Seminar Choice 2: | 3 |

I.E. Quantitative & Analytical

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.

Still Needed | I.E.1 | Calculus/Advanced Math | 3-4 |
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<td>Calculus or higher level math for premed or graduate study</td>
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<td>Choose <strong>one</strong> from the following:</td>
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<td>MATH 1105 Finite Math for Life/Social Sciences</td>
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<td>MATH 1120 Calculus II</td>
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Still Needed | I.E.2 | Statistics | 3-4 |
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<td>Choose <strong>one of the following:</strong></td>
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<td>PAM 2100 Introduction to Statistics</td>
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<td>AEM 2100 Introductory Statistics</td>
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<td>BTRY 3010 Biological Statistics I</td>
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<td>ILRST/STSCI 2100 Introductory Statistics</td>
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<td>MATH 1710 Statistical Theory &amp; Application</td>
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<td>PSYCH 3500 Statistics and Research Design</td>
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<td>STSCI 2150 Introductory Statistics for Biology</td>
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<td><strong>I.F. Additional requirements (12 credits)</strong></td>
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<td>Organic Chemistry Lecture</td>
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<td>6 credit min for pre-meds</td>
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<td>Recommended Only</td>
<td>1.F.3.</td>
<td>Students interested in premed or graduate study in biological/medical/exercise sciences should take:</td>
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<p>| II. Requirements in the Major (S/U grade restrictions apply). |          |            | 8-9           |             |                |                           |            |                      |                          |                                                                                 |
| Still Needed                                    | II. A.   | Introductory Biology Lecture and Lab |               |             |                |                           |            |                      |                          | Choose two out of three from the following lecture options:                    |
|                                                 |          |                      |               |             |                |                           |            |                      |                          | (a) BIOMG 1350 Cell and Development                                              |
|                                                 |          |                      |               |             |                |                           |            |                      |                          | (b) BIOG 1440 Comparative Physiology or BIOG 1445 Autotutorial Physiology  |</p>
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<th>(c) BIOEE 1610 Ecology and the Environment or BIOEE 1780 Evolution and Diversity</th>
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<td>II. B. Nutritional Sciences Core Courses</td>
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<td>Physiology</td>
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<td>Biochemistry</td>
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- May include no more than 3 credits from NS 4000-4020 or NS 4990.
- May not include NS 3200, NS 3980, NS 4620, NS 4030
- Economic Influences on Human Nutrition
- NS 3060 Nutritional Problems of Developing Nations
- NS 4450 Toward a Sustainable Global Food System: Food Policy for Developing Countries

**2013_NS.xls**
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<th>Graduation Requirements: Completed / Still Needed</th>
<th>Category</th>
<th>Competency</th>
<th>Credits Needed</th>
<th>Course Used</th>
<th>Cornell Endowed</th>
<th>Cornell Statutory [Non-HE]</th>
<th>HE CREDITS</th>
<th>Transfer Credits [HE]</th>
<th>Transfer Credits [Non-HE]</th>
<th>HE Credits outside of NS from Cat. I, II, III (need min 9 credits)</th>
<th>Optional SU - max of 12</th>
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<td>NS 3420 Human Anatomy and Physiology Laboratory</td>
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<td>NS 4410 Nutrition and Disease</td>
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<td>NS 4444 Sports Nutr. &amp; Supplements, Concepts and Evidence</td>
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<td>NS 4310 Mineral Nutrition &amp; Chronic Disease</td>
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<td><strong>Special Studies</strong> (max. 12 cr. in this group)</td>
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<td>Optional courses with special rules:</td>
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| Honors Thesis 4990 - may not be taken S/U.     |          |            |                |                |                           |            |                     |                          |                          |
Graduation Requirements:
Completed / Still Needed Category Competency

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Still Needed
IV. PE Requirements - do not count toward 120 minimum needed for graduation.

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<th>Cornell Statutory [Non-HE]</th>
<th>HE CREDITS</th>
<th>Transfer Credits [HE]</th>
<th>Transfer Credits [Non-HE]</th>
<th>HE Credits outside of NS from Cat. I, II, III (need min 9 credits)</th>
<th>Optional S/U - max of 12</th>
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SUMMARY OF RECORD

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<th>Calculation</th>
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<td>Still Needed</td>
<td>Total CU credits (minimum of 60) - Columns A + B + C</td>
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<td>Still Needed</td>
<td>Total Transfer credits (maximum of 60) - Columns D + E</td>
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<td>Total HE credits in Category I, II, III (minimum of 43 for graduation) - Columns C + D</td>
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<td>Total HE credits outside the major (minimum of 9 for graduation) - Column F</td>
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<td>Total credits used to graduate (minimum of 120-excludes PE) - Columns A thru E</td>
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<td>Still Needed</td>
<td>Optionally graded S/U Credits (maximum of 12) - Column G</td>
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Final GPA - need a minimum GPA of 2.0 to graduate.

Reference:

IMPORTANT: Students must use the correct departmental curriculum sheet to determine all requirements for that major. This tally document is not a substitute for following requirements as outlined on curriculums sheets.

College Policy: You are allowed 15 credits from AP/pre-college and In Absentia combined. In Absentia credit comes from credit taken at another institution after you've matriculated to Cornell.

Courses not eligible to be used for Cornell Degree include:

- 00 courses
- Option S/U graded courses beyond 12 credits
- Special studies courses beyond 12 credits
**Graduation Requirements:**

|----------|------------|----------------|-------------|-----------------|----------------------------|------------|-----------------------|-------------------------|------------------------|

**I.A. Natural Sciences - Introductory Chemistry**

- Still Needed: Choose one of the following sequences:
  - 8 CHEM 2070 AND 2080 General Chemistry
  - CHEM 2150 AND 2160 General and Inorganic Chemistry

**I.B. Social Sciences**

- Still Needed: Choose one introductory course in two different social science areas listed below:
  - Anthropology
    - ANTHR 1400 Intro. To Anthr.: Comp. Of Cult.
  - Economics
  - ECON 1110 Introduction to Microeconomics OR ECON 1120 Introduction to Macroeconomics
  - Psychology
    - HD 1150 Infancy and Childhood OR HD 1170 Adolescence and Emerging Adulthood OR PSYCH 1101 Introduction to Psychology
  - Sociology
    - DSOC 1101 Introduction to Sociology OR SOC 1101 Introduction to Sociology

**I.C. Humanities**

- Still Needed: Recommended: Ethics or Philosophy
  - See curriculum sheet for guidelines.
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<td>Still Needed</td>
<td>I.D. Written Comm. MUST BE COMPLETED DURING FIRST 2 SEMESTERS</td>
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<td>I.E. Quantitative &amp; Analytical</td>
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<td>a. Either Statistics or Calculus must be taken at Cornell unless you have earned a score of 3 or higher on AP Calculus BC.</td>
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<td>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.</td>
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<td>PHYS 1101 Gen. Physics (auto-tutor.) OR</td>
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<td>II. Requirements in the Major (S/U grade restrictions apply).</td>
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<td>II. A.</td>
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<td>Biology Foundation Courses</td>
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<td>Introduction to Biology Lecture and Lab</td>
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<td>(a) BIOMG 1350 Cell and Development</td>
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<td>(b) BIOG 1440 Comparative Physiology or</td>
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<td>(c) BIOEE 1610 Ecology and the Environment or</td>
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<td>BIOMG 3300 Princ. of Biochem. (auto-tut.)</td>
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<td>Additional Credits</td>
<td>3</td>
<td></td>
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<td></td>
<td></td>
<td>- May include extra courses from above categories</td>
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<td></td>
<td></td>
<td>- May include up to 3 credits of special studies: any CHE 4000, 4010, and 4020 course and 4990</td>
<td></td>
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<td></td>
<td></td>
<td>- Choose from the following list:</td>
<td>3</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>*NS 3060 Nutrition and Global Health</td>
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<td></td>
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<td>NS 3150 Obesity and Regulation of Body Weight</td>
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<td>----------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| +NS 3470/HD 3470 Human Growth and Development: Biological and Behavioral Interactions |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| NS 3500 Epidemiology in Context |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| **Special Studies** (max. 12 cr. in this group) |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| (max. of 3 cr. Special Studies applied to 9 credit HE requirement outside the major) |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| Any 4000 course |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| Any 4010 course |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| Any 4020 course |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| Any 4030 course [Not allowed to be used for HE credits outside the major, 5cr max/semester applies] |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| Any other internships |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| **III. Electives** |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |
| Optional courses with special rules: |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| HE 1110 - can't count toward min. 9 outside major |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| HE 1115/1105 - can't count toward min. 9 outside major |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| HE 1200 - can't count toward min. 9 outside major |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\
| **Honors Thesis 4990** - may not be taken S/U. |          |                                                                             |                 |             |                 |                             |             |                     |                          |                                                                            |\

7/8 2013_HBHS.xls
Graduation Requirements:
Completed / Still Needed Category Competency

<table>
<thead>
<tr>
<th>Still Needed</th>
<th>IV. PE Requirements - do not count toward 120 minimum needed for graduation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st class required 1 n/a n/a n/a n/a n/a</td>
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<td>2nd class required 1 n/a n/a n/a n/a n/a</td>
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<td></td>
<td>Swim test 0 n/a n/a n/a n/a n/a n/a</td>
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<td>Totals:</td>
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</table>

<table>
<thead>
<tr>
<th>Column:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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<tbody>
<tr>
<td>SUMMARY OF RECORD</td>
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<td>Still Needed</td>
<td>Total CU credit (minimum of 60) - Columns A + B + C</td>
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<td></td>
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<tr>
<td></td>
<td>Total Transfer credits (maximum of 60) - Columns D + E</td>
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<td>Still Needed</td>
<td>Total HE credits in Category I, II, III (minimum of 43 for graduation) - Columns C + D</td>
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<tr>
<td>Still Needed</td>
<td>Total HE credits outside the major (NS) (minimum of 9 for graduation) - Column F</td>
<td>0</td>
<td></td>
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<tr>
<td>Still Needed</td>
<td>Total credits used to graduate (minimum of 120-excludes PE) - Columns A thru E</td>
<td>0</td>
<td></td>
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<td></td>
<td>Optionally graded S/U Credits (maximum of 12) - Column G</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Final GPA - need a minimum GPA of 2.0 to graduate.

Reference:

IMPORTANT: Students must use the correct departmental curriculum sheet to determine all requirements for that major. This tally document is not a substitute for following requirements as outlined on curriculums sheets.

College Policy: You are allowed 15 credits from AP/pre-college and In Absentia combined. In Absentia credit comes from credit taken at another institution after you've matriculated to Cornell.

Courses not eligible to be used for Cornell Degree include:

- 00 courses
- Option S/U graded courses beyond 12 credits
- Special studies courses beyond 12 credits
There is no specific web page with all the requirements for the NS-CALS major only.

General requirements and information for the CALS students can be found on the following web page:

1. CALS graduation requirements
   http://cals.cornell.edu/academics/upload/CALS-Graduation-Requirements.pdf

2. CALS College Distribution Requirements
   http://cals.cornell.edu/academics/registrar/degree-requirements/distribution/

3. Distributed Undergraduate Student Tracking (D.U.S.T.)
   https://dust.cals.cornell.edu/
   With D.U.S.T. CALS students, faculty advisors, and selected departmental staff can access information about class enrollment (current and pre-enrollment), transcript, and student progress towards satisfying College degree requirements.

4. Forms and Policies:
   You can find many forms and policies on the following CALS web page:  http://cals.cornell.edu/academics/registrar/policies/
   **Important Forms and Policies**
   - Application for Credit Earned While in High School
   - Advanced Placement (AP) Credits Policy (pdf)
   - Four-Year Academic and Career Advising Action Plan (pdf)
   - Application to Graduate: Parts I and II
   - Application to Update Degree Status - Early or Delayed Graduation
   - Authority for Release of Academic Information
   - CALS Special Studies (also Supervised Teaching Experiences, Internship Experience, Undergraduate Research)
   - Pro-Rated Tuition
   - Repeating a Course

5. Course Enrollment:  http://cals.cornell.edu/academics/registrar/course-enrollment/
   - Independent Study
   - Transfer Credit Pre-Approval
   - Repeating a Course
   - Student Schedule Requirements
6. Academic Advising: [http://cals.cornell.edu/academics/advising/](http://cals.cornell.edu/academics/advising/)
   - Academic Advising
   - Career Advising
   - Faculty and Staff Advising Resources
   - Study Abroad and International Exchange

7. Student Research: [http://cals.cornell.edu/academics/student-research/](http://cals.cornell.edu/academics/student-research/)
   - CALS Research Honors Program
   - CALS Undergraduate Research Opportunities
   - Graduate Student Grants Proposal Info
   - Internship Guidelines
   - Undergrad Student Grants Proposal Info
   - Undergraduate Minority Research

8. International Opportunities for Undergraduates:
   [http://cals.cornell.edu/academics/international/](http://cals.cornell.edu/academics/international/)
   - Programs
   - Resources
   - Incoming Exchange Program
COLLEGE OF AGRICULTURE AND LIFE SCIENCES
GRADUATION REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE

1. Credit Requirements

A. Minimum Total Credits: 120 academic credits are required for graduation.

   Important Exceptions:
   - Repeated courses increase the number of credits required for graduation by the number of credits in the course. These credits do not count toward the minimum 12 credits required for full-time status.
   - Review or supplemental courses (ex. MATH 1109 and 000 level courses) increase the number of credits required for graduation by the number of credits in the course. These credits do not count toward the minimum 12 credits required for full-time status.
   - Physical Education courses do not count toward 120 credits for graduation. They do not count toward the minimum 12 credits required for full-time status.

B. Minimum Credits at Cornell: 60 academic credits must be completed at Cornell (includes CALS Exchange, Cornell in Room, Capital Semester and Urban Semester).

C. Maximum Non-Cornell Credits: 60 non-Cornell credits (AP, CASE, IB, GCE, transfer, Cornell Abroad) can be applied toward degree requirements. A first year student is able to transfer in 30 credits before the first semester in CALS. (AP, CASE, IB, GCE and transfer credits)

D. Minimum Credits from College of Agriculture and Life Sciences: 55 CALS credits are required for graduation. CALS credits include all courses from departments within CALS, and courses offered in the Biological Sciences, Biology & Society, Earth and Atmospheric Sciences, Information Science, and Nutritional Sciences Departments.

E. Minimum Letter-Graded Credits: 100 (prorated with transfer credits Table 1).

F. Maximum Credits earned through Independent Study, Research, Teaching Assistantships, and/or Internships: 15 credits of “unstructured” coursework can be applied toward graduation requirements (prorated with transfer credits Table 1)

2. Physical Education Requirement

A. Pass two Physical Education (PE) courses with a satisfactory grade in two different semesters. Exception: External transfer students are credited with one course of physical education for each semester previously enrolled full-time (12 or more credits) at another college before matriculation.

B. Pass a required swim test, administered during orientation. External transfer students who are exempt from PE are exempt from the swim test.

C. Students are expected to complete the physical education requirement in their first two semesters at Cornell.

3. Residency Requirements

A. Eight semesters of full-time study are expected. Transfer students are credited with one semester in residence for each 15 credits earned at another institution.

B. Internal transfer students must be enrolled in CALS for at least two semesters, includes conditional semester sponsored by CALS in the Internal Transfer Division.

C. The final semester before graduation must be completed in a Cornell program as a full-time student.
D. **Students in the ninth and final semester may apply for prorated tuition.** The eligibility criteria are listed online at [http://www.cals.cornell.edu/cals/current/registrar/current-students/cals-graduation/prorated.cfm](http://www.cals.cornell.edu/cals/current/registrar/current-students/cals-graduation/prorated.cfm).

4. **Grade-Point Average (GPA) Requirements**

**Minimum cumulative GPA:** 2.00 or above must be maintained. The cumulative GPA includes all letter grades earned at Cornell.

5. **Schedule Requirements**

A. **A minimum of 12 academic credits per semester** is required to be a full-time student in good academic standing. **NOTE:** Students must enroll in an average of 15 credits per semester to be on track to graduate in 8 semesters.

B. **Students must enroll in at least one CALS course** each semester until 55 CALS credits have been earned.

C. Review or supplemental courses (1000- to 1099-level courses and Physical Education (PE) courses) **do not** count toward the 12 credit minimum required for full-time status.

D. Upperclassmen may not electronically enroll themselves in more than 18 credit unless they have their advisors permission. Freshmen **may not** enroll in more than 18 credits, not including PE or review/supplemental courses and are limited to one S-U optional course per semester.

6. **Distribution Requirements**

The purpose of the distribution requirement is to have all students achieve common learning outcomes. It is expected that through college and major course requirements graduates will be able to:

- Explain, evaluate, and effectively interpret factual claims, theories and assumptions in the student’s discipline(s) (especially in one or more of the college’s priority areas of land grant-agricultural sciences, applied social sciences, environmental sciences, and/or life sciences) and more broadly in the sciences and humanities
- Find, access, critically evaluate, and ethically use information
- Integrate quantitative and qualitative information to reach defensible and creative conclusions
- Communicate effectively through writing, speech, and visual information
- Articulate the views of people with diverse perspectives
- Demonstrate the capability to work both independently and in cooperation with others

Through study of the **physical and life sciences**, students develop their understanding and appreciation of the physical sciences, enhance their quantitative reasoning skills, and gain an appreciation of the variability of living organisms. **The social sciences and humanities** give students perspective on the structure and values of the society in which we live, and prepare them to make decisions on ethical issues that will affect their work and role in society. **Written and oral expression** is designed to help students become competent and confident in the use of oral and written communication to express themselves and their ideas.

**Important Notes:**
Credits received for independent study, fieldwork, teaching, research, work experience, and internships **cannot** be used to fulfill the distribution requirement. Review or supplemental courses, such as 1000- to 1099-level courses, will **not** be counted in the distribution areas.

**First-Year Writing Seminars (FWS) cannot** be used to satisfy the Physical and Life Sciences distribution area.
**Physical and Life Sciences**: 18 credits in at least three disciplines of which 6 credits must be introductory life sciences/biology and 3 credits in chemistry or physics.

**Introductory Life Sciences/Biology Requirement**: Student’s must complete at least 6 academic credits from the following: *(Students should consult with their advisor/major department to clarify major requirements. The recommendations below should be used as a guideline for students and advisors when selecting appropriate courses for your curriculum.)*

- Advanced Placement Credit; or

<table>
<thead>
<tr>
<th>Advising Recommendation</th>
<th>Course number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the Biological Sciences Majors: <a href="http://biology.cornell.edu/academics.Requirementsmajor.html">http://biology.cornell.edu/academics.Requirementsmajor.html</a></td>
<td>BIOG 1440</td>
<td>Comparative Physiology (Overlap with BIOG 1105)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOMG 1350</td>
<td>Cell and Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOEE 1610</td>
<td>Ecology and the Environment</td>
<td>3 or 4</td>
</tr>
<tr>
<td></td>
<td>BIOG 1500</td>
<td>Investigative Laboratory</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>BIOG 1780</td>
<td>Evolutionary Biology and Diversity</td>
<td>4 or 5</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1610 (Summer)</td>
<td>Ecology and the Marine Environment</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1500 (Summer)</td>
<td>Investigative Marine Biology</td>
<td>2</td>
</tr>
<tr>
<td>For the Life Sciences Majors</td>
<td>ANSC 1100</td>
<td>Domestic Animal Biology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIOMG 1290</td>
<td>Personal Genomics and Medicine</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOG 1105</td>
<td>Introductory Biology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIOG 1106</td>
<td>Introductory Biology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIOG 1140</td>
<td>Foundations of Biology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>HORT 1115</td>
<td>The Nature of Plants</td>
<td>3</td>
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<tr>
<td></td>
<td>BIOL 2400</td>
<td>Green World Blue Planet</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 2410</td>
<td>Plant Diversity and Evolution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 2450 (Summer)</td>
<td>Plant Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1610 (summer)</td>
<td>Ecology and the Marine Environment</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1650 (summer)</td>
<td>Whales, Seals and Sharks: Marine Vertebrates of the Gulf of Maine</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1780 (summer)</td>
<td>Evolution and Marine Diversity</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1500 (Summer)</td>
<td>Investigative Marine Biology</td>
<td>2</td>
</tr>
<tr>
<td>For the Non-Life Science Majors</td>
<td>CSS/BIOMI 1120</td>
<td>Microbes, the Earth, &amp; Everything</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EAS 1560</td>
<td>Introductory Oceanography with Laboratory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENTOM 2020</td>
<td>Invasions</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 1120</td>
<td>Issues in Social Biology: from Diet to Diseases, DNA to Deforestation</td>
<td>3</td>
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<tr>
<td></td>
<td>BIOL 2470</td>
<td>Plants and People</td>
<td>3</td>
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<tr>
<td></td>
<td>BIOL 2490</td>
<td>Hollywood Biology: Science in Cinema</td>
<td>3</td>
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<td></td>
<td>ENTOM 2011</td>
<td>Alien Empire: Bizarre Biology of Bugs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PLPA 2013</td>
<td>Mushrooms, Molds, and More</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PLPA 2015</td>
<td>Mushrooms, Molds and Molecules</td>
<td>3</td>
</tr>
</tbody>
</table>
Chemistry/Physics: All CHEM and PHYS courses (does not include FWS or supplemental courses)

**Other Physical/Life Sciences Courses:**
- AEM 2100; 3100
- ANSC 1100, 1120, 2120, 2150, 2210, 2400, 3200, 3410, 3700, 3920, 3980, 4300, 4400
- ANTHR 4495
- ASTRO
- BEE 4590
- BIOLOGY (except BIOG 2000, BIOG 2990, BIOG 4980, BIOAP 4980, BIOMG 4980, BIOMI 4980, BIONB 4310, BIONB 4980, BIONC 4980, BIONL 4980)
- BTRY/Statistics (Includes all courses with BTRY/Statistics prefix - excluding courses that are supplemental, independent study, research, TA, Internship and First Year Writing Seminars.)
- CHEM (Includes all courses with CHEM prefix - excluding courses that are supplemental, independent study, research, TA, Internship and First Year Writing Seminars.)
- CRP 3210
- CSS 1900, 2110, 2600, 3150, 3170, 4050, 4140, 4440, 4551, 4660, 4830
- DSOC 2020
- EAS (Includes all courses with EAS prefix - excluding courses that are supplemental, independent study, research, TA, Internship and First Year Writing Seminars and EAS 2900.)
- ENTO 2010, 2100, 2120, 2150, 2410, 3070, 3150, 3250, 3310, 3311, 3440, 3690, 4440, 4550, 4630
- FDSC 2000
- HADM 2010
- HORT 2200, 2430, 3170, 4000, 4260, 4400, 4450, 4551
- IARD 2020, 4140
- ILRST 2100, 3100
- MATH - see CALS requirements for graduation
- NS 1150, 1220, 3200, 3310, 3320, 3410, 3470, 4310, 4410, 4444
- NTRES 1101, 2010, 2100, 2830, 3100, 3130, 3140, 3141, 3220, 3260, 4130, 4200, 4201, 4220
- PAM 2100
- PHYS (Includes all courses with PHYS prefix - excluding courses that are supplemental, independent study, research, TA, Internship and First Year Writing Seminars.)
- PLBR 2010, 2250, 4030, 4050
- PLPA 2010, 2950, 3010, 3090, 3190, 3290, 4010, 4020, 4330, 4430, 4480
- PSYCH 3500
- SEA (Includes all courses with SEA prefix - excluding courses that are supplemental, independent study, research, TA, Internship and First Year Writing Seminars.)
- SNES 1101
- STSCI 2100, 2150, 2200, 4080, 4500, 5010, 5020, 5951, 5990, 6000
- TOX 3070

**Quantitative Literacy Requirement:** College learning goals require minimum competency in quantitative literacy to complete a degree in the College of Agriculture and Life Sciences. This requirement can be satisfied in one of three ways:

- Earning a score of 4 or 5 on the AP Calculus exam or the AP Statistics exam; or
- Transferring an approved calculus or statistics course with a grade of “C” or better; or
- Taking an approved math or statistics course at Cornell. *(All 3 - 4 credit math or statistics courses (except MATH 1000 and all MATH First-Year Writing Seminars) are approved to complete the quantitative literacy requirement in CALS). Many majors require statistics.*
Social Sciences and Humanities: Students must complete four courses of 3 or more credits each from the following seven categories of courses in the humanities and social sciences. At least one course MUST be completed from three different categories. No more than two courses in the same department will be counted toward the distribution requirement. To view a detailed list of these courses, please view the search engine on DUST (https://dust.cals.cornell.edu) titled “Find Courses for Distribution Requirement”. If the course can be counted towards this requirement the course will be coded in the Courses of Study with the category prefix listed below after the title.

Social Sciences & Humanities Categories:

- Cultural Analysis (CA)
- Foreign Language (FL)
- Human Diversity (D)
- Historical Analysis (HA)
- Social and Behavioral Analysis (SBA)
- Knowledge, Cognition, and Moral Reasoning (KCM)
- Literature and the Arts (LA)

Category descriptions can be found in Table 2

Written and Oral Expression: 9 credits total, of which at least 6 must be in written expression. Oral expression is not required by the college (it may be for some majors); all 9 credits may be in written expression. Courses in written and oral expression may be selected from the following:

<table>
<thead>
<tr>
<th>Oral Expression</th>
<th>Written Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOAP 6100 (2 credits)</td>
<td>BIOAP 6100 (2 credits)</td>
</tr>
<tr>
<td>COMM 2010</td>
<td>First-Year Writing Seminars</td>
</tr>
<tr>
<td>ENTOM 3350</td>
<td>AEM 2000</td>
</tr>
<tr>
<td>ILRLR 2300</td>
<td>COMM 2310, 3030, 3040, 3060, 3020</td>
</tr>
<tr>
<td>PMA 3815 (old THETR 3300)</td>
<td>DSOC 4800</td>
</tr>
<tr>
<td></td>
<td>ENGL 2800, 2810, 2880, 2890, 3820-3850, 3880, 3890</td>
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<td>SOC 3620</td>
</tr>
<tr>
<td></td>
<td>STS 3020</td>
</tr>
</tbody>
</table>
Table 1: Proration Chart for Students with Non-Cornell Credit

<table>
<thead>
<tr>
<th>Number of Non-Cornell Credits Accepted by CALS</th>
<th>Number of Structured Credits Required for Graduation</th>
<th>Number of Letter-Graded Credits Required for Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 7</td>
<td>105 structured credits (15 unstructured credits allowed)</td>
<td>100 letter-graded credits (20 S/U credits allowed)</td>
</tr>
<tr>
<td>8 - 15 (Equivalent to 1 semester of coursework)</td>
<td>92 structured credits (13 unstructured credits allowed)</td>
<td>88 letter-graded credits (17 S/U credits allowed)</td>
</tr>
<tr>
<td>16-30 (Equivalent to 2 semesters of coursework)</td>
<td>80 structured credits (11 unstructured credits allowed)</td>
<td>75 letter-graded credits (15 S/U credits allowed)</td>
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<tr>
<td>31-45 (Equivalent to 3 semesters of coursework)</td>
<td>66 structured credits (9 unstructured credits allowed)</td>
<td>63 letter-graded credits (12 S/U credits allowed)</td>
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<tr>
<td>46-60 (Equivalent to 4 semesters of coursework)</td>
<td>52 structured credits (8 unstructured credits allowed)</td>
<td>50 letter-graded credits (10 S/U credits allowed)</td>
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</tbody>
</table>

Structured Credit Rationale:
Faculty legislation states that an entering first-year student can count up to 15 non-structured credits toward graduation. It also states that a student is expected to register in the college for 8 semesters. If you divide the number of non-structured credits allowed (15) by the number of expected semesters in residence (8), students need to average 13 structured credits a semester.

Letter-Graded Credit Rationale:
Faculty legislation states that an entering first-year student needs to complete a minimum of 100 letter-graded credits for graduation. It also states that a student is expected to register in the college for 8 semesters. If you divide the number of letter-graded credits required (100) by the number of expected semesters in residence (8), students need to average 12.5 letter graded credits a semester.
Table 2: SOCIAL SCIENCES & HUMANITIES: CATEGORY DESCRIPTIONS

Human Diversity (D)
These courses address several of the College’s stated goals for undergraduate education, specifically, the expectation that in the course of earning a degree, students will enhance their abilities to communicate with people of different cultural perspectives; to listen carefully and respectfully to the views of others, especially views with which they disagree; and to employ ethical reasoning in judging ideas, actions, and their implications. These courses explore the challenges of building a diverse society, and/or examine the various processes that marginalize people and produce unequal power relations in terms of race, nationality, ethnicity, sexuality, religion, gender, age, or economic status.

Historical Analysis (HA)
These courses interpret continuities and changes--political, social, economic, diplomatic, religious, intellectual, artistic, scientific--through time. The focus may be on groups of people, dominant or subordinate, a specific country or region, an event, a process, or a time period.

Knowledge, Cognition, and Moral Reasoning (KCM)
These courses investigate the bases of human knowledge in its broadest sense, ranging from cognitive faculties shared by humans and animals such as perception, to abstract reasoning, to the ability to form and justify moral judgments. Courses investigating the sources, structure, and limits of cognition may use the methodologies of science, cognitive psychology, linguistics, or philosophy. Courses focusing on moral reasoning explore ways of reflecting on ethical questions that concern the nature of justice, the good life, or human values in general.

Literature and the Arts (LA)
These courses explore literature and the arts in two different but related ways. Some courses focus on the critical study of artworks and on their history, aesthetics, and theory. These courses develop skills of reading, observing, and hearing and encourage reflection on such experiences; many investigate the interplay among individual achievement, artistic tradition, and historical context. Other courses are devoted to the production and performance of artworks (in creative writing, performing arts, and media such as film and video). These courses emphasize the interaction among technical mastery, cognitive knowledge, and creative imagination.

Social and Behavioral Analysis (SBA)
These courses examine human life in its social context through the use of social scientific methods, often including hypothesis testing, scientific sampling techniques, and statistical analysis. Topics studied range from the thoughts, feelings, beliefs, and attitudes of individuals to interpersonal relations between individuals (e.g., in friendship, love, conflict) to larger social organizations (e.g., the family, society, religious or educational or civic institutions, the economy, government) to the relationships and conflicts among groups or individuals (e.g., discrimination, inequality, prejudice, stigmas, conflict resolution).

Foreign Language (FL)
These courses are taught by the following departments: Africana Studies and Research Center (AS&RC – language only), Asian Studies (BENG, BURM, CHIN, HINDI, INDO, JAPAN, KHMER, KOREA, SANSK, TAG, THAI, and VIET), Classics (CLASS – language only), German Studies (GERST – language only, DUTCH, and SWED), Linguistics (LING - languages only), Near Eastern Studies (NES - languages only), Romance Studies (CATAL, FRROM, ITALA, PORT, QUECH, and SPANR), and Russian Studies (RUSSA, HUNGR, POLSH, SEBCR, and UKRAN).

Cultural Analysis (CA)
These courses study human life in particular cultural contexts through interpretive analysis of individual behavior, discourse, and social practice. Topics include belief systems (science, medicine, and religion), expressive arts and symbolic behavior (visual arts, performance, poetry, myth, narrative, and ritual), identity (nationality, race, ethnicity, gender, and sexuality), social groups and institutions (family, market, and community), power and politics (states, colonialism, and inequality).
**Physical Education (PG 2):** Must pass swim test and pass 2 physical education classes

* Transfer students are exempt with 2 or more semesters at another institution

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<tr>
<th>Pass Swim Test</th>
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<td>Physical Education</td>
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<td>Physical Education</td>
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**Physical and Life Sciences (PG 2):** 18 credits in at least 3 disciplines of which 6 credits must be introductory life sciences/biology, 3 credits in chemistry or physics and a Quantitative Literacy Course.

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<tr>
<th>Introductory Life Sciences (Biology)</th>
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<tr>
<td>Introductory Life Sciences (Biology)</td>
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<tr>
<td>Chemistry/Physics</td>
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<tr>
<td>Quantitative Literacy (can be completed with a 4 or 5 on AP calculus or Stats, transferring a Calc or Stats with “C” or higher, completing an approved math or Stats course at Cornell)</td>
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<tr>
<td>Other</td>
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<td>Other</td>
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**Social Sciences and Humanities (PG 4):** 4 courses of 3 or more credits each. At least 1 course MUST be completed from 3 different categories: (CA), (FL), (D)*, (HA), (SBA), (KCM), (LA)

* Freshman entering fall 2009 or later MUST complete one (D)
* Transfers entering fall 2010 or later MUST complete one (D)

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<thead>
<tr>
<th>Human Diversity Category</th>
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<td>Second Category</td>
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<td>Third Category</td>
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<td>Final Course</td>
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**Written and Oral Expression (PG 4):** 9 credits total of which 6 must be written expression (Oral expression not required by college, but may be for your major. All 9 credits may be written)

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<th>Written Expression</th>
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<td>Written Expression</td>
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<td>Written or Oral</td>
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</table>

### Total Credit Requirements (PG 1)

120 academic credits
- 60 academic credits must be at Cornell
  - Physical Education does not count
  - Supplemental courses do not count
  - ESL Courses do not count
- 55 credits must be from CALS
- 100 must be Letter-Graded
  - Pro-rated for Transfers
- 105 must be structured
  - 15 maximum can be earned through Independent Study, Research, TA-ing, and/or Internships. Pro-rated for Transfers
Changing Majors, Double Majors, Minors, Colleges, or your Faculty Advisor

Double Majors and Minors:

A. Declaring or Dropping a Second Major

CALS students can declare a second undergraduate major only if both majors are within the College of Agriculture and Life Sciences. Students should contact the department of interest to discuss requirements and identify a second faculty advisor. Students must complete the requirements set forth by both departments in order to graduate with a double major. It is the student’s responsibility to keep both faculty advisors informed. It is the student’s responsibility to obtain signatures from each faculty advisor on the Application to Graduate.

Students wishing to remove a second major from their record may contact the CALS Student Services Office, 140 Roberts Hall, cals-studentservices@cornell.edu.

B. Declaring a Minor

CALS students can declare a minor from the list of approved minors which have been reviewed by the CALS Curriculum Committee. It is not necessary to file paperwork with the college when adding a minor. Students interested in completing a minor should speak to the department contact for requirements and guidance. When filing Part II of the Application to Graduate, it is the student’s responsibility to identify the minor and to obtain signatures from all major and minor advisors. Minors are added to the record just prior to degree completion and will appear on the final transcript post-graduation.

Undergraduate Minor Fields of Study

Cornell offers 70 minors to undergraduates, listed below. Students may pursue minors in any department in any college that offers them, subject to limitations placed by the department offering the minor or by the student's major.

Minors are controlled, tracked, and audited by the academic department or unit in which they are offered. Completed minors will appear on the student's official transcript.

Check following web site for approved minors at Cornell: http://www.cornell.edu/academics/minors.cfm
So, you're thinking about changing your major…

Do you know what you want to change it to?

No

Visit the professional career counselors in 140 Roberts Hall. They can help you discover the major that best suits your interests. Check out Alumni Career Link, http://acl.cals.cornell.edu/ and visit the department web sites. You might be surprised at what you learn! When you find a major that interests you, visit the contact person listed below. Talk about career possibilities and your progress toward completion of major requirements in relation to the time you have left at Cornell. If you haven’t already, you might want to take some classes in the major first to decide if you like it. Once you decide to enter the major…

Yes

Talk to the contact person in the major you’re interested in. They can answer your questions about the major and explain the application process. Some majors have requirements that must be met before you are accepted to the major; for instance you may have to take specific courses or meet a GPA requirement. Once you are approved to change your major, the contact person below will help you secure a new advisor if necessary. They will initiate the change by working with the college Registrar’s Office who will make the official change. Please inform your old faculty advisor and/or department rep that you have changed your major.

To change your advisor only (not your major) speak with the contact person from your major listed below.

<table>
<thead>
<tr>
<th>Contacts:</th>
<th>707 Bradfield Hall</th>
<th>135 Warren Hall</th>
<th>149 Morrison Hall</th>
<th>1114 Bradford Hall</th>
<th>207 Riley Robb Hall</th>
<th>306 Rockefeller Hall</th>
<th>216 Stimson Hall</th>
<th>1198 Comstock Hall</th>
<th>329 Kennedy Hall</th>
<th>236 Emerson Hall</th>
<th>123A Academic Surge</th>
<th>2134 Comstock Hall</th>
<th>207 Riley Robb Hall</th>
<th>107 Stocking Hall</th>
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<th>303 Upson Hall</th>
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<th>2124 Snee Hall</th>
<th>104 Bruckner Lab</th>
<th>108 Stocking Hall</th>
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<tbody>
<tr>
<td>Agricultural Sciences</td>
<td>Kari Richards</td>
<td>707 Bradfield Hall</td>
<td>5-0660</td>
<td><a href="mailto:ksu2@cornell.edu">ksu2@cornell.edu</a></td>
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<tr>
<td>Applied Economics &amp; Management</td>
<td>Adrienne Wilson</td>
<td>135 Warren Hall</td>
<td>5-8472</td>
<td><a href="mailto:aaw25@cornell.edu">aaw25@cornell.edu</a></td>
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<td>Animal Science</td>
<td>Aubrey Whittaker</td>
<td>149 Morrison Hall</td>
<td>5-5497</td>
<td><a href="mailto:arw93@cornell.edu">arw93@cornell.edu</a></td>
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<td>Atmospheric Sciences</td>
<td>Mark Wysocki</td>
<td>1114 Bradford Hall</td>
<td>5-2568</td>
<td><a href="mailto:mww3@cornell.edu">mww3@cornell.edu</a></td>
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<td>Biological Engineering</td>
<td>Brenda Marchewka</td>
<td>207 Riley Robb Hall</td>
<td>5-2173</td>
<td><a href="mailto:bls19@cornell.edu">bls19@cornell.edu</a></td>
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<tr>
<td>Biology &amp; Society</td>
<td>Sue Sullivan</td>
<td>306 Rockefeller Hall</td>
<td>5-6047</td>
<td><a href="mailto:sfc1@cornell.edu">sfc1@cornell.edu</a></td>
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<tr>
<td>Biological Sciences</td>
<td>Amy Horning</td>
<td>216 Stimson Hall</td>
<td>5-5233</td>
<td><a href="mailto:anh7@cornell.edu">anh7@cornell.edu</a></td>
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<tr>
<td>Biometry &amp; Statistics</td>
<td>Bea Johnson</td>
<td>1198 Comstock Hall</td>
<td>5-1646</td>
<td><a href="mailto:biom-stat@cornell.edu">biom-stat@cornell.edu</a></td>
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<td>(Students must review undergraduate program information at <a href="http://www.bscb.cornell.edu">www.bscb.cornell.edu</a> before contacting Ms. Johnson.)</td>
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<td>Communication</td>
<td>Andrea Poag</td>
<td>329 Kennedy Hall</td>
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<td>Crop &amp; Soil Sciences</td>
<td>Amy Lanfair</td>
<td>236 Emerson Hall</td>
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<td>Cindy Twardokus</td>
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<td>Entomology</td>
<td>Laurie McCall</td>
<td>2134 Comstock Hall</td>
<td>5-6198</td>
<td><a href="mailto:lm19@cornell.edu">lm19@cornell.edu</a></td>
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<td>Food Science</td>
<td>Alicia Orta-Ramirez</td>
<td>107 Stocking Hall</td>
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<td>Horticulture*</td>
<td>Leah Cook</td>
<td>134A Plant Science Bldg</td>
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<td>Information Science</td>
<td>Amy Sindone</td>
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<td>5-9837</td>
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<td>Interdisciplinary Studies</td>
<td>Lisa Ryan</td>
<td>140 Roberts Hall</td>
<td>5-2257</td>
<td><a href="mailto:lar4@cornell.edu">lar4@cornell.edu</a></td>
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<td>International Ag &amp; Rural Development</td>
<td>Diane Munn</td>
<td>609 Bradfield Hall</td>
<td>5-3811</td>
<td><a href="mailto:dmm40@cornell.edu">dmm40@cornell.edu</a></td>
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<tr>
<td>Landscape Architecture</td>
<td>Kristie Oplinger</td>
<td>440 Kennedy Hall</td>
<td>5-9552</td>
<td><a href="mailto:klo28@cornell.edu">klo28@cornell.edu</a></td>
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<tr>
<td>Natural Resources</td>
<td>Marian Hovencamp</td>
<td>104 Bruckner Lab</td>
<td>5-2809</td>
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<tr>
<td>Nutritional Sciences</td>
<td>Terry Mingle</td>
<td>821 Savage Hall</td>
<td>5-4410</td>
<td><a href="mailto:tpm2@cornell.edu">tpm2@cornell.edu</a></td>
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<td>Plant Sciences</td>
<td>Leah Cook</td>
<td>134A Plant Science Bldg</td>
<td>5-4568</td>
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<tr>
<td>Science of Earth Systems</td>
<td>Savannah Sawyer</td>
<td>2124 Snee Hall</td>
<td>5-5466</td>
<td><a href="mailto:ss376@cornell.edu">ss376@cornell.edu</a></td>
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<tr>
<td>Science of Natural &amp; Environmental Systems</td>
<td>Suzanne Wapner</td>
<td>104 Bruckner Lab</td>
<td>5-1269</td>
<td><a href="mailto:sw38@cornell.edu">sw38@cornell.edu</a></td>
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<tr>
<td>Viticulture and Enology</td>
<td>Andrea Elmore</td>
<td>108 Stocking Hall</td>
<td>5-2539</td>
<td><a href="mailto:ace23@cornell.edu">ace23@cornell.edu</a></td>
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*Horticulture is a specialization within Plant Sciences, yet operates somewhat independently from the main department. If you choose to follow the curriculum for Horticulture, your major will appear as “Plant Sciences”.*
Transfer to another college at Cornell University

To CALS

Thank you for your interest in the College of Agriculture and Life Sciences. The following information will prepare you for the internal transfer process. Information for students interested in transferring to CALS.

From CALS

The Office of Internal Transfer assists undergraduate students who are considering transfer between colleges within Cornell. The internal transfer process requires students to apply and the criteria for admission vary by program. If you have a clear idea of what you want to pursue, you can contact the admissions or advising office in your target college. Visit the Internal Transfer Office for more information.
Student Record Privacy Statement: Annual Notification Under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. Further details may be found in Cornell Policy 4.5 Access to Student Information. These rights include:

1. The right to inspect and review the student’s education records within 45 days of the day the university receives a request for access.

   Students should submit to the office of the university registrar, written requests that identify the record(s) they wish to inspect. The university official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent:

   - Disclosure to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic (including emeritus faculty), research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

     A school official has a legitimate educational interest if the official needs to review an education record to fulfill his or her professional responsibility.

     - Upon request, to officials of another school in which a student seeks or intends to enroll.

     - To parents or legal guardians of dependent students as that term is defined in the Internal Revenue Code. In general, the university does not make education records available to the parents of a student. However, where the university believes that it is in a dependent student’s best interest, information from the student’s education records may, at the university’s discretion, be released to the parents or legal guardians of such a dependent student. Such disclosure generally will be limited to information about a student’s official status at the university, but parents or legal guardians of a dependent student may also be notified upon the authorization of the dean of the student’s college, or the Vice President for Student and Academic Services, or the Dean of Students, or their designees in the following cases:

       - when a student has voluntarily withdrawn from the university or has been required by the university to withdraw;
       - when a student has been placed on academic warning;
       - when the student’s academic good standing or promotion is at issue;
       - when a student engages in alcohol-or-drug-related behavior that violates Cornell policies;
       - when a student has been placed on disciplinary probation or restriction.
• in exceptional cases when a student otherwise engages in behavior calling into question the appropriateness of the student's continued enrollment in the university.

- Disclosure of directory information. Cornell University has defined directory information to include the following: name, photograph, major field of study and college attended, dates of attendance, enrollment status, participation in officially recognized activities and sports, weight and height (of members of athletic teams), and any degrees earned and awards received. Directory information may be released unless the student updates his/her privacy settings (under personal information) on Student Center. Students who wish to suppress their directory information from the electronic directory must perform this update within 10 days of the date of official university registration. Students may rescind their no-release request at any time by writing to the Office of the University Registrar or on Student Center.

3. The right to request the amendment of the student’s education record that the student believes is inaccurate.

Students may ask the office of the university registrar to amend a record that they believe is inaccurate. They should write the university official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate.

If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Cornell University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

    Family Policy Compliance Office
    U.S. Department of Education
    400 Maryland Avenue, SW
    Washington, DC 20202-5901

Unless otherwise indicated in writing by the student at the time of registration, or thereafter, the university will presume that a full-time undergraduate student is a dependent as that term is defined in the Internal Revenue Code. Undergraduate students who are not financially dependent and do not wish to permit their parents or legal guardian access to their education records should advise the Office of the University Registrar in writing and provide evidence of financial independence. Graduate and professional students are not assumed to be financially dependent upon their parents or legal guardian for these purposes.
The beginning of your college studies can be an exciting time. Most students are faced with many changes and new challenges. These demands can be exhilarating but they also usually require adjustments in expectations and behaviors. We know that many new students encounter perplexing situations as they try to adjust to Cornell and that it is not always easy to understand what is going on. Therefore, we have created this description of some of the new situations you are likely to encounter, as well as a list of resources designed to help you succeed at Cornell.

**SITUATIONS YOU ARE LIKELY TO ENCOUNTER:**

**Number of credits**
Plan a manageable course load. HBHS, NS-CHE, and NS-CALS are rigorous majors with demanding class schedules and you will need to plan a manageable course load. In the first year, you will have to juggle many new expectations, interact with new students and professors, and do these things while adjusting to a new living arrangement. You will need time to develop new strategies for your academic work. Your course schedule should be set to allow you to be successful and feel in control even at the end of the term when you will face the pressures of papers and exams, and perhaps need extra sleep because you have a cold.

Most new freshmen and transfer students should take only 12-15 academic credits (not including physical education.) You will have no problem taking more credits in future semesters, so do not worry about getting behind in progress to your degree. Avoid comparing your schedule to that of your siblings, your roommate, or friends in other majors or at other universities. Your schedule must be right for you at Cornell.

Normally freshmen take both chemistry and biology, but biology may be postponed until the sophomore year. Chemistry in the first year is essential. At some point in your first year you should develop a tentative 4-year plan. This activity will help you understand college and major requirements and also show you how you can distribute your courses throughout the eight semesters. See the DNS Advising Notes in the blue pages for sample schedules for NS-CHE, NS-CALS, and HBHS majors.

**Classes**
In many courses attendance is not usually taken, but attending classes is essential to keeping up with class material, understanding the pace expected, and staying informed about assignments and exam expectations. You need to arrange your schedule and manage your time (including sleeping and waking) so that you get to classes and use class time for active learning. It is easy to fall behind (or fall asleep) in class, but if this becomes a pattern, you will put yourself at risk. You also may spend more time worrying and catching up in the long run.

Most NS-CHE, NS-CALS, and HBHS students find that class attendance is critical to success in courses and their academic goals. Avoid comparing yourself to others who appear to be doing well without going to class.
**Assignments**
Turning in assignments is critical. You will receive grade penalties for late and missing work. Completing all assignments well and on time can help a grade that suffers from poor exam performance.

**Studying**
Studying more is not necessarily the same as studying better. Work on balancing details and the "big picture." Ask instructors and teaching assistants (TAs) to help you decide what level of knowledge of the details is required to understand the big picture. Practice applying details to real life situations.

**Exams**
You will often be asked to apply information on exams. In some classes, it is expected that everyone has "memorized the facts." Exams in those classes will ask students to use that information to solve problems with conditions that differ from those presented in class. Often, old exams are available so students can practice this more demanding way of thinking about the material. You probably will notice that on many exams, students are asked to do original thinking, not just recognize the same material that was presented in class and in the readings.

**CU "Culture"**
Unfortunately, many new undergraduates feel that saying that they find a class difficult or that they feel like they are struggling is a sign of incompetence. Additionally, you may often hear the apparently nonchalant comments, "This class is a gut" (meaning that it is easy) and "Everything's fine with me." Keep in mind that many people are saying those things even though they are not true. Try not to let this cultural norm keep you from asking questions in class, at office hours, via email or in whatever way you find appropriate. There is some scientific evidence that college students who study in groups have higher GPAs than those who don't. If you would like to group study, talk to people in your classes. You will probably find like-minded people interested in creating and maintaining study groups.

**Relaxing**
Take time to relax. This is not the same as relaxing all the time, but if you plan relaxation and recreation into your schedule, you can often return to your studies with a sharper, more focused mind. Studies in which people are asked to solve very perplexing problems support this recommendation. In these studies, people who were stumped while trying to solve complex problems but who took a break and then returned to the problems, often solved them quickly when they returned after the break. And the total amount of time spent solving the problem was less than for people who did not take breaks. Some of the no-break people never solved the problems.

**REALISTIC GOALS:**
Set reasonable expectations for yourself. Getting high grades and being among the top students in a class will probably be much harder at Cornell than it was at your former school. If your plan is to achieve only "A" grades at Cornell, you probably will be disappointed and frustrated in your first year. You may find yourself studying harder than you ever have before and still earning lower grades than you expect or feel you should. Try not to be too hard on yourself. Be assured that as you gain more experience at Cornell you will learn how to study more effectively. Most students find that their grade point average improves after the first year.

Cornell offers many people and resources to help students with general academic skills and to assist with specific courses. By using these people and resources, you can actually speed up the process of developing necessary learning and studying skills. Some students who can benefit from these resources avoid them because they do not want to think of themselves as "needing assistance." Remember that the sooner you take advantage of these resources, the sooner you will benefit from them. And, if you wait until the last weeks of class to see the professor, find a tutor, or go to the Learning Strategies Center, it may be too late to gain much benefit.
RESOURCES TO ASSIST STUDENTS:

**Course instructors**
Learn to interact with the professors, instructors, and teaching assistants in your classes. If you do not understand class material or assignments, the instructors need to know. Unless you speak up, they will assume that you understand everything. These teachers usually are happy to assist students who are working hard but having trouble. See them early in the term when they can be most helpful to you.

If you do poorly on the first assignment or exam, contact your instructors to find sources of help. You probably need some new strategies for working with the course material. You may be tempted to try to figure it out yourself by planning to study longer or better for the next exam, but often this approach does not work as well as one hopes — and then it is very late to improve the situation. If you perform poorly on an exam or assignment and do not contact them, they may assume that you are disinterested and not trying.

**Faculty advisor**
Build a strong relationship with your faculty advisor and work closely with him/her throughout your program. Make appointments to discuss your plans, and be "up front" with your advisor about issues that concern you. See this person if you are having trouble with your classes or course load.

**College counselor**
Professional counselors in the College of Human Ecology (170 MVR) and the College of Agriculture and Life Sciences (140 Roberts) are available to help students with any concerns or issues that students have.

**Center for Teaching Excellence** (420 CCC, 255-3990) ([http://www.cte.cornell.edu/](http://www.cte.cornell.edu/))
The CTE offers academic support to Cornell students in all colleges. Their services include supplemental instruction for major introductory courses, tutorial assistance and workshops.

**Supplemental courses:** Students can enroll in the "1000" courses that support courses in which they are enrolled, e.g. Chem 1007 assists students with Chem 2070. Courses in Biology, Mathematics, Physics, Economics, and Statistics are also offered. These supplemental courses clarify lecture material, help students keep pace with lectures, and assist students with exam preparation.

**Tutorial assistance:** Free walk-in tutorials are offered for many courses. Check the web for schedules.

**Workshops:** Group and individual assistance is offered in Time Management, Textbook Mastery, Rapid Reading, Learning from Lecture, Exam Preparation and Strategies. Call the LSC office for schedules.

**Study Skills Course:** HE 1000 Critical Reading and Thinking is a 2 credit course to help students increase reading, thinking and learning skills. For further information, please call the LSC office.

**Writing Walk-In Service** ([http://www.arts.cornell.edu/knight_institute/walkin/walkin.htm](http://www.arts.cornell.edu/knight_institute/walkin/walkin.htm))
The Writing Workshop offers courses for credit as well as a Walk-In Service to assist Cornell students from all colleges. Walk-In tutors at three campus locations help students with particular pieces of writing including academic papers at any stage of development. The focus is on improving the substance and quality of the writing by helping the writer with issues of self-confidence, active use of the imagination, and critical thinking. Tutors do not proofread or edit.
SUCCESSFUL STUDENT ATHLETES

Human Biology, Health & Society (HBHS)
Nutritional Sciences – CHE (NS-CHE)
Nutritional Sciences – CALS (NS-CALS)

Being a college athlete can make school more fun. Being involved in athletics also can be a good way to relax and decrease stress. At the same time, during competition athletes are expected to perform at high levels of competence in stressful situations. Being responsible for key situations helps many athletes learn how to handle stress. Student athletes who transfer the wisdom they gain on the playing fields to their academic experiences succeed at both athletics and academics. Transferring that knowledge is not always easy, so we have asked successful student-athletes to share their strategies with you.

**Time Issues**

The biggest challenges to the student athlete are time issues. These issues arise at the level of daily planning, semester-long planning and even planning your four years at Cornell. Athletes have to use the same discipline they use in their sports to ensure that they use the time available to them between classes and before and after practice and competitions to complete their assignments and prepare for exams. In addition, athletes (and others) can increase their efficiency by taking advantage of computerized processes, such as email and electronic databases. With careful planning, athletes have been able to participate in undergraduate research, field experiences, the Honors Program, and to volunteer as Teaching Assistants.

**Take Charge of Your Academic Progress**

One of the biggest changes from high school that many athletes experience here is the expectation that they will be actively involved in the planning of their course of study and their future careers. Set academic goals for yourself just as you set athletic goals. Seek and use the advice of academic advisors like you do with coaches. Learn what your special academic strengths are, as well as those areas that are weak and need to be strengthened. Learn how to use your strengths and improve your weaknesses.

**Top 10 Ways to Balance Athletic Responsibilities & Schoolwork:**

10. Take advantage of resources, such as tutors, that the athletic department can make available to you. Academic support and assistance are also available throughout campus from the Learning Strategies Center, the Math Support Center, the Writing Workshop and the Bio Center, among others. The student services and career development offices of your college can provide another layer of personal and academic counseling and advising.

9. Understand the requirements of your major as well as the graduation requirements for your college. Read the notices about changes.

8. Don't assume that advice and rules that apply to your teammates also apply to you and your program (but do ask them how they planned their schedules, how they study, etc.)

7. Develop a four-year plan that integrates your athletic demands with your academic schedule and your career plans. Try to take very academically-demanding classes in semesters when your athletic responsibilities are lighter.

6. Plan manageable course loads. Try to take about 12-15 credits - especially in your first semesters. Freshmen may delay taking intro biology until the sophomore year. Consider auto-tutorial classes - they can ease scheduling pressures and provide an efficient way of getting the required number of credits. Consider summer classes.
5. Build a strong relationship with your faculty advisor and work closely with him/her throughout your program. Make appointments to discuss your plans and be "up front" with your advisor about issues that concern you, such as the number of credits per semester and the difficulty of specific courses that you are thinking of taking.

4. Speak individually with all instructors and notify them early in the semester about your required absences because of competitions. Some instructors will be more flexible than others, but most will agree to slight adjustments in schedule. Expect to turn in all assignments and take all exams.

3. Learn how to succeed in each class - how to study, what to read, how to prepare for exams. Get to know the teaching assistants (TAs). Join or create an informal study group of students. Do not wait until the night before an exam to begin studying for it. Take early action when you are having trouble in a class. Go to office hours or email your TA with specific questions about the course material. Make an appointment with the instructor to discuss additional concerns (such as strategies for specific kinds of exams, test anxiety, etc.).

2. **Do not get behind.** Look ahead through the entire semester. Identify deadlines for assignments and exam dates. Then make a personalized plan that includes time for reading and homework (daily) as well as studying for exams and attending review sessions and office hours. Purchase and use a daily planner. Make a large copy of your time commitments and hang it on the wall of your room. Stick to your plan as best you can.

**AND MOST IMPORTANTLY**

1. **MANAGE YOUR TIME.** Other students with the same academic schedule as athletes have fewer constraints on their time. Athletes who practice every afternoon must find time in the rest of their daily schedules for reading, homework, library work, writing papers and studying. **This requires planning ahead.**

**Comments From Recent Successful Student Athletes:**

- Demands for balancing the time commitments for athletics and academics have stayed pretty much the same in my four years at Cornell. I have been able to fine-tune things like time management and not getting behind in class work.

- Try to keep things in perspective. Being too stressed out doesn't do anything good for you.

- You are intelligent enough to choose Cornell, so take advantage of the academic as well as the athletic opportunities. Pay close attention to your GPA. Consider alternative careers and use your undergraduate choices as a foundation for that career.

- In the Fall, all athletes including those who will participate in winter and spring sports should contact Sarah Wattenberg (skh22@cornell.edu, 254-7472), Director of Student-Athletic Support Services, for information about combining athletic and academic work.

Finally, to help us help other athletes, please send us your advice for future student athletes and we'll share it with them! Thanks so much.
**Minor in Nutrition and Health**  
**Division of Nutritional Sciences, Cornell University**

The Minor in Nutrition and Health will consist of NS 1150 plus 9 credits of didactic NS courses listed below. Students must choose the 9 cr. of NS courses from the list. Courses must be completed as letter grade with a minimum grade of “C” – grades of “C– “ or less cannot be accepted. All courses are 3 credits unless otherwise indicated in parenthesis. Bracketed courses may require instructors' permission to enroll. **No Special Studies (NS 4000-4010-4020-4030) or transfer credit courses may be used.**

### Global Perspectives on Human Health
- NS 3060 Nutrition and Global Health
- NS 4450 Toward a Sustainable Global Food System: Food Policy for Developing Countries
- NS 4570 Economics of Hunger and Malnutrition (also ECON 4740)

### Public Health and Nutrition
- NS 4500 Public Health Nutrition (2)
- NS 3500 Epidemiology in Context

### Food Quality and Food Service Management
- NS 2470 Food for Contemporary Living (2)
- NS 3450 Nutritional and Physicochemical Aspects of Food (also FDSC 2000)

### Human Health and Nutrition
- NS 1220 Nutrition and the Life Cycle
- NS 2750 Human Biology and Evolution (also ANTHR 2750)
- NS 3150 Obesity and the Regulation of Body Weight (also PSYC 3150)
- NS 3220 Maternal and Child Nutrition
- NS 3410 Human Anatomy and Physiology, lecture
- NS 4315 Nutrient Requirements and Recommendations: Biological Aspects
- NS 4370 Nutritional Immunology and Infectious Diseases
- NS 4410 Nutrition and Disease
  [NS 4420 Implementation of Nutrition Care]
- NS 4444 Sports Nutrition and Supplements: Concepts and Evidence

### Nutritional Biochemistry
- NS 3200 Introduction to Human Biochemistry
- NS 3310 Nutrient Metabolism
- NS 3320 Methods in Nutritional Sciences
- NS 4130 Nutritional Genomics-Evolution and Environment
- NS 4310 Mineral Nutrition and Chronic Disease
- NS 4750 Molecular Nutrition and Development (also BIOAP 4750)
- NS 4900 Manipulating the Mouse Genome (also BIOMG 4900)

### Psychological and Social Influences on Human Nutrition
- NS 2450 Social Science Perspectives on Food and Nutrition
- NS 3470 Human Growth and Development: Biological and Behavioral Interactions (also HD 3470 & BSOC 3471)
- NS 4250 Nutrition Communications and Counseling (Restricted – priority given to Senior standing students completing dietetics requirements)
**ELIGIBILITY FOR THE MINOR**

- **To be considered** for the Minor in Nutrition and Health, students must:

  1. not be in our major programs, including NS-CALS, NS-CHE, HBHS, and Biological Sciences with a Program of Study in Nutrition
  2. fill out and submit a copy of the top half of the form, “Intention to Minor in Nutrition and Health,” to the Undergraduate Student Services Assistant in B21 Savage (blank forms can be found in the sorter outside of B21 Savage)
  3. keep a copy of the form for yourself and give a copy to your major advisor.

Students will be personally responsible for planning their minor program of study in conjunction with their advisor in their major.

Students and advisors in other departments should contact Dr. Cha-Sook You, the Assistant Director of Undergraduate Studies in the Division of Nutritional Sciences, at cy12@cornell.edu, or Terry Mingle (tpm2@cornell.edu) in B21 Savage Hall if they have questions about our courses.

- **To graduate** with a minor in Nutrition and Health, you must submit the following materials to the DNS Academic Affairs Office, B21 Savage, by March 15th of your Senior year:

  - A copy of your “Intention to Minor in Nutrition and Health” form with the bottom half (“Application to Graduate with a Minor in Nutrition & Health” section) completed – please list the courses you have taken toward the minor, and the grades you received for each. If you are currently enrolled in a course, just list the course, and leave the grade field blank – we will check your grade at the end of the semester and fill it in.

  - An “Application to Graduate” form (IF your college requires this), which DNS will verify and sign so that you can turn it in to your College Registrar’s Office.

When you have completed all of your courses, the DNS Academic Affairs Office will review your transcript (which we can access online – you do not need to provide a copy to us), and then (if complete), we will verify with your Registrar’s Office that the requirements for the Minor in Nutrition & Health have been completed. Your college’s Registrar will then see that the minor gets added to your transcript (it will not appear on your diploma, just on your transcript). If there are any problems regarding completion, we will contact you.
Nutrition and Health Minor Intent Form

Not eligible: HBHS, NS-CHE & NS-CALS or Bio. Sci. major with Nutrition Program of Study students

Name: ____________________________________________________________

Cornell ID #: ___________________________ Net ID: ________________________

College: _________________________________ Major: _________________________

E-mail: _________________________________ Graduation Year: ________________

Advisor’s Name: Dept: __________________________

Advisor’s Signature: Date: _________________

Submit the top section of this form to B21 Savage. Keep one copy and give one copy to your major advisor.

APPLICATION TO GRADUATE WITH A MINOR IN NUTRITION & HEALTH

Submit the bottom section of this form to B21 Savage when submitting an application to graduate.

Directions: When submitting an application to graduate, please complete and submit this section of the form and return it to B21 Savage Hall, along with a copy of your transcript (can be printed from Student Center – does not have to be official) – by March 15th of your Senior year.

STUDENTS – PLEASE FILL IN THIS TABLE WITH COURSES THAT YOU’VE TAKEN (OR ARE ENROLLED IN):

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<td>NS 1150</td>
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<td>ADDITIONAL COURSES (9 credits, at or above the 2000-level. This may include NS 1220)</td>
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*Note: If you are finishing a course during the LAST semester of your Senior year just fill in the course information, and we will check for the completion and grade at the end of the semester. Also, please be sure to check with your college registrar to see if there are any additional forms that you need to complete in order to be able to declare a minor. These types of forms are generally due by March 15th as well.

FOR OFFICE USE ONLY:

Date Application to Graduate submitted: ________________________________

Notes: ________________________________
Carole Bisogni, Ph.D.
Professor & Associate Dean for Academic Affairs, College of Human Ecology
183 MVR Hall
phone: 255-1127
e-mail: cab20@cornell.edu
- Research: Social, cultural, and environmental influences on food choice; how individuals construct personal systems for food choice; applications of food choice research to nutrition practice.
- Teaches: NS 2450: Social Science Perspective on Food and Nutrition (with Jeffery Sobal)
- Personal: Enjoys gardening, knitting and quilting
- On sabbatical leave 1/1/14 to 6/30/14

Patsy M. Brannon, Ph.D.
Professor
225 Savage Hall
phone: 255-3770
e-mail: pmb22@cornell.edu
- Research: Maternal nutrition, placental regulation and developmental programming.
- Teaches: NS1220: Nutrition and the Life Cycle; NS 3220: Maternal and Child Nutrition; NS 6200: Translational Research and Evidence-based Policy and Practice in Nutrition (with Patrick Stover); and NS 6320: Regulation of Macronutrient Metabolism (with other DNS Staff)
- Personal: Enjoys mysteries, cats, playing bridge, and traveling

J. Thomas Brenna, Ph.D.
Professor
B38 Savage Hall
phone: 255-9182
e-mail: jtb4@cornell.edu
- Research: Fatty acid nutrition during perinatal development; steroid and other sports doping methods development; development of biomedical mass spectrometry for lipid analysis, including high precision isotope ratio and molecular mass spectrometry.
- Teaches: NS 4444: Sports Nutrition and Supplements: Concepts and Evidence (with Charles McCormick); NS 6320: Regulation of Macronutrient Metabolism (with other DNS Staff); and NS 6900/Chem 6280: Trace Elements and Isotope Analysis
- Personal: Enjoys being with his kids and surfing the web
Richard L. Canfield, Ph.D.
Senior Research Associate
302 MVR Hall
phone: 255-9575
e-mail: rlc5@cornell.edu
- Research: Neurobehavioral development in infants and children; effects of early exposure to environmental neurotoxins and possible interactions with nutritional factors (e.g., potential tradeoffs between prenatal methylmercury exposure and a fish-based maternal diet); lasting effects of early low-level lead (Pb) exposure on children’s cognitive function; lasting effects of early iron supplementation on cognition.
- Teaches: NS 4010 Independent Research
- Personal: Enjoys motorcycling in the summer, cooking in the winter (especially Northern Italian, Bengali, and Seychellois), and encourages you to bond with the natural beauty of the Fingerlakes Region

Patricia A. Cassano, Ph.D.
Associate Professor
209 Savage Hall
phone: 255-7551
e-mail: pac6@cornell.edu
- Research: Nutritional and genetic epidemiology; Nutrients with antioxidant and anti-inflammatory properties and lung disease risk; Interaction of nutrition and the genome in chronic diseases.
- Teaches: NS 6520: The Foundations of Epidemiology

Marie A. Caudill, Ph.D.
Professor
228 Savage Hall
phone: 254-7456
e-mail: mac379@cornell.edu
- Research: A primary goal of my research program is to generate data that will inform the development of nutrient intake recommendations to promote mother and child well-being. I have expertise in one-carbon metabolism, methyl nutrients such as choline and folate, and nutritional genomics/epigenomics as well as 15+ years of experience in conducting human nutritional intervention studies.
- Teaches: NS 4410: Nutrition and Disease
Carol M. Devine, Ph.D.

Professor
405 Savage Hall
phone: 255-2633
e-mail: cmd10@cornell.edu
- Research: Work-family integration, food choice coping strategies, and weight gain prevention; Increasing access to healthy meals for working families.
- Teaches: NS 6190: Field of Nutrition Seminar (with other DNS Staff)
- Extension: Distance learning for health professionals

Kate Dickin, Ph.D.

Research Scientist
302 Savage Hall
phone: 255-7297
e-mail: kld12@cornell.edu
- Research: Maternal and child nutrition; micronutrient interventions; influence of parenting styles and home environments on child diet and weight; global health; nutrition disparities; methodologies for evaluation of program design, implementation, and impact.
- Personal: Enjoys traveling, gardening, music

Jamie Dollahite, Ph.D., R.D.

Associate Professor
408 Savage Hall
phone: 255-7715
e-mail: jsd13@cornell.edu
- Research: Nutrition education for low-income audiences including barriers to changes in dietary behavior; family and community factors influencing overweight in children; professional development among nutrition professionals and paraprofessionals.
- Extension: Statewide nutrition education program for low-income families.
- Personal: Enjoy my family, my dogs and cats, and cooking. Love being in beautiful Ithaca in all seasons and encourage you to explore the parks, waterfalls, walking trails, etc.
Martha S. Field, Ph.D.
Research Associate
320 Savage Hall
phone: 255-5803
e-mail: mas246@cornell.edu
- Research: Biochemical mechanisms underlying the regulation of folate-mediated one-carbon metabolism as related to physiological outcomes including neural tube defects and cancer.
- Personal: Enjoys running and reading historical fiction

Finkelstein, M.P.H., S.M., Sc. D.
Research Scientist
218 Savage Hall
phone: 255-9180
e-mail: jfinkelstein@cornell.edu
- Teaches: NS 7030: Seminars in Nutritional Sciences (Epidemiology and International Nutrition)

Emily Wilcox Gier, M.B.A., R.D., C.D.N.
Lecturer, Didactic Program in Dietetics Director
416 Savage Hall
phone: 255-2638
e-mail: eg47@cornell.edu
- Teaches: NS 2470: Food for Contemporary Living; NS 4420: Implementation of Nutrition Care; and NS 4880: Applied Dietetics in Food Service Systems
- Personal: Enjoys cooking with her two young daughters; was on the Crew Team during her undergraduate days at Cornell and enjoys getting back in the boat during Reunion Row; hobbies include playing the violin, baking, aerobics and walking
Zhenglong Gu, Ph.D.
Associate Professor
312 Savage Hall
phone: 254-5144
e-mail: zg27@cornell.edu

- Research: Evolution of metabolism in human and model organisms; Evolution of duplicate genes; Network biology; Regional dietary adaptation during human evolution and its medical significance in current society.
- Teaches: NS/ANTHR 2750: Human Biology and Evolution (with Jere Haas); and NS 4130: Nutritional Genomics-Evolution and Environment
- Personal: Enjoys cooking, gardening and fishing; Dreams include playing music, hunting and carpentry

Jere D. Haas, Ph.D.
The Nancy Schlegel Meinig Professor in Maternal and Child Nutrition
220 Savage Hall
phone: 255-2665
e-mail: jdh12@cornell.edu

- Research: Environmental and nutritional factors influencing physical growth; maternal and child nutrition; international nutrition, particularly in Latin America, Rwanda and India; functional consequences of malnutrition; causes and consequences of iron deficiency.
- Teaches: NS/ANTHR 2750: Human Biology and Evolution (with Zhenglong Gu) and NS 6300: Anthropometric Assessment
- Personal: Enjoys cooking, gardening, carpentry and playing golf. Advises you to find something that is enjoyable to do during the winters, spend a summer in Ithaca, and venture beyond Collegetown, the mall, and Wegman's

David A. Levitsky, Ph.D.
Professor
112 Savage Hall
phone: 255-3263
e-mail: dal4@cornell.edu

- Research: Control of Food Intake and the Regulation of Body Weight, Obesity; Energy Balance.
- Teaches: NS 1150: Nutrition, Health, and Society; and NS/PSYCH 3150: Obesity and the Regulation of Body Weight
- Personal: Enjoys all kinds of music (blues, classical, jazz, and country), poetry, biking, politics and philosophy
Jason Locasale, Ph.D.
Assistant Professor
108 Savage Hall
phone: 255-5114
e-mail: locasale@cornell.edu
- Research: Cancer, Metabolism, Metabolomics, Computational Modeling, Metabolic Signal Transduction, one carbon metabolism in cancer, Warburg Effect in cancer
- Teaches: NS 3320 Methods in Nutritional Sciences

Marla E. Lujan, Ph.D.
Assistant Professor
216 Savage Hall
phone: 255-3153
e-mail: mel245@cornell.edu
- Research: Nutritional regulation of the menstrual cycle; ultrasonographic evaluation of ovarian function; endocrinology of obesity and reproduction.
- Teaches: NS 3420: Human Anatomy and Physiology Laboratory; and NS 6190: Field of Nutrition Seminar (with other DNS Staff)
- Personal: Enjoys hiking, traveling and spending time with family

Charles C. McCormick, Ph.D.
Associate Professor, Director of Graduate Studies
223 Savage Hall
phone: 255-2063
e-mail: ccm3@cornell.edu
- Teaches: NS 4310: Mineral Nutrition and Chronic Disease; NS 4315: Nutrient Requirements and Recommendations: Biological Aspects; NS 4444: Sports Nutrition and Supplements: Concepts and Evidence (with J. Thomas Brenna); and NS 6310: Micronutrients: Function, Homeostasis, and Assessment (with other DNS Staff)
- Personal: Enjoys golf, backyard astronomy, and motorcycling

Joann McDermid, M.Sc, Ph.D., RD
Assistant Professor
310 Savage Hall
phone: 255-2490
e-mail: jmm585@cornell.edu
- Research: Nutritional Immunology and Infectious Diseases; Clinical Nutrition; Nutritional Epidemiology.
- Teaches: NS 4370: Nutritional Immunology and Infectious Diseases and NS 6370: Current and Emerging Topics in Nutritional Epidemiology
Saurabh Mehta, M.B.B.S., Sc.D.
Assistant Professor
314 Savage Hall
phone: 255-2640
e-mail: smehta@cornell.edu
- Research: Maternal and Child Nutrition; Global Health; Nutritional Modulation of the Immune Response; Epidemiology; Tuberculosis; HIV; Role of Vitamin D in Human Health; Neglected Tropical Diseases.
- Teaches: NS 3060: Nutrition and Global Health; and NS 6580: Advanced Epidemiology: Theory and Practice

Kimberly O'Brien, Ph.D.
Professor
230 Savage
Phone: 255-3743
e-mail: koo4@cornell.edu
- Teaches: NS 3410: Human Anatomy and Physiology; and NS 6310: Micronutrients: Function, Homeostasis, and Assessment (with other DNS Staff)

Robert S. Parker, Ph.D.
Associate Professor, Director of Undergraduate Studies
226 Savage Hall
phone: 255-2661
e-mail: rsp3@cornell.edu
- Research: Metabolism and bioavailability of vitamin E; interaction of vitamin E and vitamin K
- Teaches: NS 3450/FDSC 2000: Introduction to Physicochemical and Biological Aspects of Foods; NS 6310: Micronutrients: Function, Homeostasis, and Assessment (with other DNS Staff); and NS 6320: Regulation of Macronutrient Metabolism (with other DNS Staff)

Pilar Parra, Ph.D.
Research Associate & Senior Lecturer
309 Savage Hall
phone: 255-0063
e-mail: pap2@cornell.edu
- Teaches: LSP/DEV SOC 2200: Sociology of Health and Ethnic Minorities
- Personal: Enjoys hiking, reading, good movies and a newly discover love for gardening
David L. Pelletier, Ph.D.
Associate Professor
212 Savage Hall
phone: 255-1086
e-mail: dlp5@cornell.edu
- Research: Development, implementation and evaluation of nutrition policies and interventions in developing countries and the U.S., including chronic malnutrition, micronutrient malnutrition, childhood obesity, delivery science and nutrition governance.
- Teaches: NS 3500: Epidemiology in Context; NS 4600: Exploration in Global Health; and NS 6800: International Nutrition Problems, Policy, and Programs (with other DNS Staff)

Per Pinstrup-Andersen, Ph.D.
H. E. Babcock Professor of Food, Nutrition and Public Policy
J. Thomas Clark Professor of Entrepreneurship
305 Savage Hall
phone: 255-9429
e-mail: pp94@cornell.edu
- Research: Food and nutrition policy for developing countries; globalization and food security; economic development; the global food system.
- Teaches: NS 4450/AEM 4450: Toward a Sustainable Global Food System: Food Policy for Developing Countries; and NS 6420/AEM 6420: Globalization, Food Security, and Nutrition

Ling Qi, Ph.D.
Associate Professor
307 Biotech
phone: 255-6169
e-mail: lq35@cornell.edu
- Research: ER Stress, Inflammation, Obesity and Diabetes.
- Teaches: NS 3310: Physiological and Biochemical Bases of Human Nutrition; and NS 6320: Regulation of Macronutrient Metabolism (with other DNS Staff)
- Personal: Enjoys being with his daughter and in his lab

Shu-Bing Qian, Ph.D.
Assistant Professor
301 Biotech Bldg.
phone: 254-3397
e-mail: sq38@cornell.edu
- Teaches: NS 3200: Introduction to Human Biochemistry (with Patrick Stover); and NS 7030: Seminar in Nutritional Sciences (with other DNS Staff)
- Personal: Enjoys painting, photographing, and making creative artwork
Kathleen M. Rasmussen, Sc.D.
Professor
111 Savage Hall
phone: 255-2290
e-mail: kmr5@cornell.edu
- Research: Role of nutrition in reproduction, particularly the effects of maternal nutrition on pregnancy outcome and lactational performance; maternal and infant nutrition.
- Teaches: Teaches: NS 4500: Public Health Nutrition; NS 6140: Topics in Maternal and Child Nutrition; and portions of other courses

David E. Sahn, M.P.H., Ph.D.
Professor and Director of Cornell Food and Nutrition Policy Program (CFNPP)
B16 MVR
phone: 255-8931
e-mail: David.Sahn@cornell.edu
- Research: The determinants of, and solutions to poverty, inequality, poor health and malnutrition; and exploring the role of policies and programs to raise living standards, and improve skills, ability and health and nutrition outcomes.

Rebecca Seguin
Assistant Professor
412 Savage Hall
Phone: 255-8250
Email: rs946@cornell.edu
- Research: Understanding how people's social, food, and physical activity environments influence behavior over time—particularly in rural communities.
- Teaches: BIOG 4990 (Independent Undergraduate Research) and NS 4010 (Empirical Research/Independent Study)

Jeffery Sobal, M.P.H., Ph.D.
Professor
407 Savage Hall
phone: 255-6015
e-mail: js57@cornell.edu
- Research: Sociological aspect of food, eating, and nutrition; social aspects of obesity; food choice, family meals and commensality, food systems.
- Teaches: NS 2450: Social Science Perspectives on Food and Nutrition (with Carole Bisogni); NS 6400: Social Science Theories in Nutrition; and NS 7030: Seminar in Nutritional Sciences (with other DNS Staff)
Paul Soloway, Ph.D.
Professor
211 Weill Hall
phone: 254-6444
e-mail: Soloway@cornell.edu
- Research: Regulation of epigenetic phenomena; development of next generation technologies for epigenomic analysis.
- Teaches: NS 4900: Manipulating the Mouse Genome; NS 6080: Epigenetics; and NS 6320: Regulation of Macronutrient Metabolism (with other DNS Staff)
- Personal: Enjoys bicycling, kayaking, New Year’s Day swims, family, teaching, and arguments with Prof. Levitsky

Christina Stark, M.S., R.D., C.D.N
Senior Extension Associate
409 Savage Hall
phone: 255-2141
e-mail: cms11@cornell.edu
- Research: Program evaluation of distance learning for nutrition and health professionals.
- Extension: Program Leader for Cornell NutritionWorks, an online professional development website for nutrition and health practitioners
- Personal: Enjoys swimming, hiking, singing, and reading

Martha H. Stipanuk, Ph.D.
Professor
227 Savage Hall
phone: 255-2683
e-mail: mhs6@cornell.edu
- Research: Sulfur amino acid metabolism; role of cysteine dioxygenase in sulfur metabolism; $\text{H}_2\text{S}$ signaling and sulfhydration of target proteins; amino acid deprivation response pathways.
- Teaches: NS 6100: Proteins and Amino Acids: Nutritional Regulation of Mammalian Protein Synthesis and Degradation; and NS 6320: Regulation of Macronutrient Metabolism (with other DNS Staff)
Rebecca Stoltzfus, M.S, Ph.D.
Professor
120 Savage Hall
phone: 255-7671
e-mail: rjs62@cornell.edu
- Improving the health and well being of women and children in resource-poor environments by improving their nutritional status. Major research themes: Nutrition interventions for mothers and infants; Infections and malnutrition; and micronutrients and anemia.
- Teaches: NS 2600: Introduction to Global Health (with Jeanne Moseley); NS 4620: Global Service Learning Pre-Departure Seminar (with Jeanne Moseley); NS 4630: Global Health, Development and Policy Issues in Tanzania (with Jeanne Moseley)

Patrick Stover, Ph.D.
Professor, Director
127 Savage Hall
phone: 255-8001
e-mail: pjs13@cornell.edu
- Research: Regulation of Folate mediated metabolism one-carbon metabolism; metabolic regulation of cellular methylation reactions; mechanisms of folate-related pathologies; interaction of metabolism with genome stability and gene expression.
- Teaches NS 3200: Introduction to Human Biochemistry (with Shu-Bing Qian); NS 4750: Mechanisms Underlying Mammalian Developmental Defects (with Drew Noden); NS 6200: Translational Research and Evidence-based Policy and Practice in Nutrition (with Patsy Brannon); and NS 7040: Grant Writing

Barbara Strupp, Ph.D.
Professor (also Professor, Dept. of Psychology)
109 Savage Hall/217 Weill Hall
phone: 255-2694
e-mail: bjs13@cornell.edu
- Research: Lifelong cognitive effects of biological influences during early development (e.g., maternal nutrient intake, exposure to toxins), with implications for normal cognitive functioning, as well as therapeutic intervention for cognitive disorders. Current research focuses on the cognitive, affective, and epigenetic effects of supplementing the maternal diet with additional choline during pregnancy. Studies include rodent models and human subjects.
- Teaches: NS 6110 Molecular Toxicology (with Stephen Bloom and DonnaMuscarella); and NS 7030: Seminar in Nutritional Sciences (with other DNS Staff)
- On sabbatical leave 7/16/13 to 1/15/14
Anna Thalacker-Mercer, PhD
Assistant Professor
109 Savage Hall
Phone: 255-7007
e-mail: aet74@cornell.edu
- Research: Mechanisms underlying skeletal muscle metabolic and inflammatory dysfunction in health and disease primarily linked to aging; Dietary and exercise treatments to improve the phenotype of sarcopenic obesity and metabolic dysfunction in older adults.
- Teaches: NS 3410: Human Anatomy and Physiology and NS 6320 Macronutrient Metabolism (with other DNS Staff).
- Personal: Enjoys spending time with her kids, working on art projects, and photography

Cha-Sook You, Ph.D.
Assistant Director for Undergraduate Studies/Lecturer
Director of the DNS Honors Program
B17 Savage
phone: 255-2651
e-mail: cy12@cornell.edu
- Teaches: NS 1200: Nutrition and Health: Issues, Outlooks, and Opportunities; NS 3980: Research in Human Nutrition and Health; NS 4990: Honors Problem; and NS 6180: Teaching Experience
- Personal: Enjoys traveling, reading, singing, and cooking; loves to teach

Sera Young, Ph.D.
Research Scientist
113 Savage
phone: 255-4647; 351-0172
e-mail: sly3@cornell.edu
Web site: http://www.serayoung.org
- Research: Maternal and child health, HIV, anemia, non-food cravings, infant feeding, food insecurity, sub-Saharan Africa.
- Personal: Beekeeping, breadmaking, bikram yoga
Division of Nutritional Sciences

A Division of the New York State Colleges of Human Ecology and Agriculture and Life Sciences – Contract Colleges of the State University of New York

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Division of Nutritional Sciences - Office of Academic Affairs
(607) 255-4410

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Important Offices

❖ **For ALL Students in DNS (CHE and CALS)**

*B21 Savage Hall – DNS Office of Academic Affairs, 255-4410*
*aadns@cornell.edu* Academic Affairs is an undergraduate information center for students in HBHS, NS-CHE and NS-CALS majors. Information regarding an exercise science minor, research, and student employment opportunities is available. The Undergraduate Nutrition Organization (Health Nuts) is advised through this office.

❖ **For Human Ecology Students in NS-CHE & HBHS:**

*145 MVR – CHE Registrar, 255-2235*

The Registrar’s Office is responsible for receiving add/drop slips, special studies forms, graduation credit information and official transcripts for students in Human Ecology.

*172 MVR – CHE Office of Student and Career Development, 255-2532*

The office is organized to assist students as they develop skills and strategies to manage and negotiate the complex academic, social and personal challenges of a dynamic and rigorous educational environment. The office combines academic planning and career counseling to encourage students to expand their knowledge of themselves, their academic choices and career options. Counselors in the office of Student and Career Development can help students explore and define personal, academic, and career goals; obtain an overview of college and university programs; become informed about college policies and graduation requirements; and identify resources for academic and career planning.

❖ **For Agriculture and Life Sciences Students in NS-CALS:**

*140 Roberts Hall – Office of CALS Student Services, 255-2257*

This office functions in much the same way as the C.H.E. equivalents except that these are in the College of Agriculture & Life Sciences. CALS students should contact this office for official forms, transcript requests, graduation requirements, help with personal and academic problems and career guidance.