DNS Survival Guide
for students majoring in
Nutritional Sciences,
OR
Human Biology, Health & Society
OR
Global & Public Health Sciences

2016 - 2017
Division of Nutritional Sciences
Cornell University
# Division of Nutritional Sciences Survival Guide

## Table of Contents

### Overview (GREEN) (pp. 1-16)
- DNS Directory for Undergraduate Students  
  1
- Nutrition at Cornell: An Introduction  
  3
- Human Biology, Health and Society: An Introduction  
  8
- Global & Public Health Sciences: An Introduction  
  13

### Course Requirements and Sample Schedules (BLUE) (pp. 17-32)
- Choosing NS Courses  
  17
- Course Requirements – Nutritional Sciences - CHE  
  18
- Sample Schedule – Nutritional Sciences - CHE  
  19
- Course Requirements – Nutritional Sciences - CALS  
  20
- Sample Schedule – Nutritional Sciences - CALS  
  21
- Course Requirements – Human Biology, Health & Society  
  22
- Sample Schedule – Human Biology, Health & Society  
  25
- Course Requirements – Global & Public Health Sciences - CHE  
  26
- Sample Schedule – Global & Public Health Sciences - CHE  
  28
- Course Requirements – Global & Public Health Sciences - CALS  
  29
- Sample Schedule – Global & Public Health Sciences - CALS  
  31
- Biology Majors: Requirements for Human Nutrition Concentration  
  32

### Additional Information about other requirements (N. BLUE) (pp. 33-53)
- Core Biology and Chemistry Courses for NS, HBHS, and GPHS majors  
  33
- Didactic Program in Dietetics (DPD) - Academic Requirements  
  37
- Pre-Dietetics (DPD) Student Intent Form  
  39
- Applied Exercise Science Minor and Form (Ithaca College)  
  40
- Global Health Minor Program  
  44
- Using AP Credits to Meet Requirements  
  47
- Substituting Courses Taken at Other Colleges or Universities  
  49
- First-Term Schedules for New Transfer Students  
  52
Academic Options (GOLD) (pp. 55-66)
- Honors Research Program 55
- Undergraduate Research 59
- Field Experiences for Undergraduates 63
- Study Abroad or Urban Semester 65

General Career Ideas (CHERRY) (pp. 67-84)
- Cornell Career Services Information (General Career Ideas) 67
- Who Should Consider the Undergraduate Dietetics Program? 68
- Advising Dietetics Students 71
- Pre-Med Planning 72
- Physical Therapy Career Options 75
- After Cornell, What Do DNS Majors Do? 77
- Applying to Graduate School 82

College Success – part I (TAN) (pp. 85-104)
- Working With Your Faculty Advisor 85
- Four Year Schedule Planner 88
- CHE College Web Sites for NS-CHE, HBHS, and GPHS-CHE 89
- CALS College Web Sites for NS-CALS and GPHS-CALS 91
- CALS: Graduation Requirements 93
- CALS: Double Majors, Minors, Changing Majors, etc. 101

Family Education and Privacy Act of 1974 (FERPA) 103

College Success – part II (PINK) (pp. 105-109)
- College Strategies and Services 105
- Successful Student Athletes 108

Minor in Nutrition and Health and Form (PURPLE) (pp. 111-113) 111

Faculty Advisor Profiles (YELLOW) (pp. 115-126) 115
Division of Nutritional Sciences
Directory for Undergraduate Students

Office of the Director:
Patrick Stover, Director (pjs13@cornell.edu) 127 Savage Hall (607) 255-8001

Academic Affairs Office: (aadns@cornell.edu)

Robert Parker, Director of Undergraduate Studies (DUS) (rsp3@cornell.edu) 226 Savage Hall (607) 255-2661
Cha-Sook You, Associate Director of Undergraduate Studies (ADUS) (cy12@cornell.edu) B17 Savage Hall (607) 255-2651
(Ms.) Terry Mingle, Undergraduate Student Services Assistant (USSA) (tpm2@cornell.edu) B21 Savage Hall (607) 255-4410

Didactic Program in Dietetics:
Emily Gier, Director (eg47@cornell.edu) 307 MVR Hall (607) 255-2638
Patsy Brannon, Dietetic Internship Director (pmb22@cornell.edu) 225 Savage (607) 255-3770

Honors Program:
Cha-Sook You, ADUS (cy12@cornell.edu) B17 Savage Hall (607) 255-2651

Applied Exercise Science Program:
(Ms.) Terry Mingle, USSA (tpm2@cornell.edu) B21 Savage Hall (607) 255-4410

College Offices for Human Ecology Students

Admissions: 170 MVR Hall (607) 255-5471
Student and Career Development: 172 MVR Hall (607) 255-2532
Career Exploration Center: 162 MVR Hall (607) 255-1846

Darryl Scott, Director (ds42@cornell.edu)
Paul Fisher, Senior Associate Director/Admissions/Study Abroad (psf1@cornell.edu)
Paula Jacobs, Senior Associate Director/Academic Counseling and Premed Advising/Career Development (pj24@cornell.edu)
Verdene Lee, Senior Associate Director/Multicultural Affairs/ Academic Counseling and Premed Advising (val3@cornell.edu)
Deanne Maxwell, Associate Director/ Academic Counseling and Prelaw Advising/Career Development (dhm8@cornell.edu)
Patti Papapietro, Senior Associate Director/ Academic Counseling and Advising/Disabilities Services representative (pip4@cornell.edu)
Bernadette Soto Parr, Associate Director/Admissions/Human Ecology Ambassadors (bs28@cornell.edu)

Registrar:
(Mr.) Tracey Thompson, Registrar (ttl3) 146 MVR (607) 255-2235
Lori Asperschlager, Assistant Registrar/Degree Auditor (law32) 146 MVR (607) 254-5270
College Offices for Agriculture and Life Sciences Students

Admissions: 177 Roberts Hall (607) 255-2036

Pamela Tan, Director of Admissions (pmt1@cornell.edu)
Heather Marcotte, Associate Director of Admissions and Transfer Coordinator (hed24@cornell.edu)
Carla Crooker, Assistant Director of Admissions (cc147@cornell.edu)
Erin Treat, Assistant Director of Admissions (et335@cornell.edu)
Shawna Fulkerson, Administrative Coordinator (sfb27@cornell.edu)
Aubrey Holbrook, Administrative Coordinator (arw93@cornell.edu)
Questions? cals_admissions@cornell.edu

CALS Student Services: http://www.chatter.cals.cornell.edu/ 140 Roberts Hall (607) 255-2257

Inquiries? Please contact: cals-studentservices@cornell.edu

Director of Student Services:
Ann LaFave (aml25@cornell.edu)

Registrar:
Shawna Alling Registrar (sll33@cornell.edu)
Laura Beam-Mylnieck (lmb78@cornell.edu)
Vicki Parker (vrp5@cornell.edu)

Advising and Diversity Programs:
Torrey Jacobs, Community Manager and Associate Director of Student Services (tkj8@cornell.edu)
Lisa Ryan (lar4@cornell.edu)
Catherine Thompson (ct30@cornell.edu)
Nikki Lynn (nl427@cornell.edu)

Study Abroad and International Exchange:
Julia Franke (jef298@cornell.edu)

Career Development:
Laurie Gillespie (lag11@cornell.edu)
Jennifer DeRosa (jd242@cornell.edu)
Steve Shaum (ssl243@cornell.edu)
Jo-Lynn Buchanan (jb44@cornell.edu)

Prehealth Advisor:
Catherine Thompson (ct30@cornell.edu)
Nutritional Sciences (NS-CHE and NS-CALS)  
An Introduction

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:** Human Nutrition and 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 3030:** Nutrition, Health and Vegetarian Diets
- **NS 3060:** Nutrition and Global Health
- **NS 3150:** Obesity and the Regulation of Body Weight
- **NS 3220:** Maternal and Child Nutrition
- **NS 4250:** Nutrition Communications and Counseling
- **NS 4310:** Mineral Nutrition and Chronic Disease
- **NS 4410:** Nutrition and Disease
- **NS 4444:** Sports Nutrition and Supplements: Concepts and Evidence
- **NS 4450:** Toward a Sustainable Global Food System: Food Policy for Developing Countries
- **NS 4480:** Economics of Food and Malnutrition
- **NS 4500:** Public Health Nutrition
- **NS 4570:** Health, Poverty, and Inequality: A Global Perspective

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 in our division. 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.

Students interested in dietetics are encouraged to join and serve in leadership roles with the Cornell University Dietetics Association (CUDA). With goals similar to HealthNutS, CUDA opportunities are also geared towards professional development in dietetics. CUDA holds meetings and educational sessions throughout the year featuring RD speakers, guidance on gaining dietetics-related jobs and internships with opportunities to network with RDs and dietetics students. CUDA also elects students to serve as liaisons to the local and national dietetics academies.

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/path/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 Academy of Nutrition and Dietetics (AND). 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 1600 or NS 4500)
- Applied Dietetics in Foodservice Systems (NS 4880)

AND

- Human Anatomy and Physiology-laboratory (NS 3420)

AND

- Microbiology (BIOMI 2900)

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

6. Nutrition and Agriculture: Especially for CALS Students
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) (CHERRY 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.

**Faculty and Facilities**
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, 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. Note: The HBHS major is offered only through 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, physician
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 Savage Hall, and some work in the nearby Kinzelberg Hall or MVR 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.
Global & Public Health Sciences (GPHS): An Introduction

HEALTHY COMMUNITIES THROUGH RESEARCH AND ACTION

Public health is the prevention of illness and promotion of wellness in communities, both large and small. The Global & Public Health Sciences major teaches the tools of public health research and action, and their application to population health issues in the U.S. and around the world. Sustained improvement of the health of populations often requires a multidisciplinary approach involving the biomedical, social, behavioral, political and environmental sciences, and careful consideration of the importance of cultural and ethical contexts.

The Global & Public Health Sciences major is intended for students who are interested in the health problems of communities and the actions that will protect or improve the lives of large numbers of individuals within communities. Communities might be as small as a village, or as large as a country or even a continent, and successful actions can affect dozens or millions of persons. The work of public health professionals is distinct from the work of clinical professionals, who typically treat individuals after they have become sick or injured. Public health actions often involve educational and/or governmental approaches that influence many persons simultaneously, for example, in order to address issues such as obesity and diabetes, food security, HIV/AIDS and other infectious diseases, quality of food, water and air, and access to health care. The major is especially appropriate for students who wish to pursue advanced study that would lead to leadership positions in governmental or non-governmental organizations that deal directly with current and emerging health concerns in the U.S. or internationally.

CURRICULUM

Courses:

The major requires courses in introductory biology, general chemistry, organic chemistry, biochemistry, and physiology. These courses collectively provide a foundation with which to understand the biomedical basis of public health issues.

All majors must take “Introduction to Public Health” and “Introduction to Global Health” in their first year. These courses introduce students to the principles of public health practice and research, domestically and internationally. Using case studies, students will learn about the achievements, challenges, and controversies in the field of public health, and the range of career opportunities.

Epidemiology is often referred to as the cornerstone of public health, and, together with biostatistics, these disciplines are the foundation for public health research and practice. Epidemiology is the study of the distribution and determinants of health and well-being in human populations. Biostatistics is the application of statistics to biology, in this case to biomedical problems, and includes the analysis, interpretation and inferences in health-related studies. One course in each of these two subjects is required, and should be completed within the first five semesters.

Given the interdisciplinary nature of population health problems, students are required to take one advanced course in each of the following three areas: Social & Behavioral Health, Biological Aspects of Public Health, Environmental Health, and Health Policy & Management. Students choose from a list of courses in each of these areas according to their interests and course schedule. Topics include public health microbiology, public health nutrition, nutrition and disease, nutrition and global health, social inequalities in physical and mental health, the U.S. healthcare system, reproductive health, and risk analysis and management.
Experiential Learning:

Public health focuses on identifying and solving problems. Therefore, all students in this major are required to complete a minimum of three credit hours of supervised experiential (active, engaged) learning in a laboratory or community setting. The experiential learning component will provide students in the major with the unique opportunity to connect theory and practice, to learn in unfamiliar contexts, to interact with others unlike themselves, and to practice using knowledge and skills in an applied public health setting. Through this requirement, students will be challenged to engage more effectively with the content of their courses while also learning about citizenship and about themselves as individuals. In addition, students will gain a deeper understanding of public health issues and problems and have the opportunity to enhance research, writing and critical thinking skills by applying knowledge and skills learned in the classroom to a public health community or laboratory setting. Students choose from a list of supervised experiences in the local community, on-campus laboratory, off-campus academic setting (e.g. Urban Semester in NYC, Cornell in Washington, Capital Semester in Albany), or international field setting in a resource-poor environment. Some settings, for example an international placement, may involve pre-departure preparation and/or additional expenses. All students take NS 2060 Preparation for Engaged Learning in Global & Public Health Sciences, in the fall of their sophomore year.

Capstone:

Upon completion of the experiential learning component, seniors enroll in Explorations in Global and Public Health, the capstone course in the major. This course involves, in part, a reflective document and presentation that connects the experiential component with the core principles of public health as presented in coursework taken over the previous three years.

Requirements in the Major

Core Courses in GPHS:

- NS 1600 Introduction to Public Health
- NS 2600 Introduction to Global Health
- NS 2060 Preparation for Engaged Learning in Global & Public Health Sciences
- NS 3600 Epidemiology
- STSCI 2150 Introductory Statistics for Biology (preferred/prerequisite for NS 3600)
- Supervised experiential learning (minimum of three credits)
- NS 4600 Explorations in Global and Public Health (capstone)

Advanced Specialized Selectives:

(One course from each of the following areas)

- Social and behavioral health
- Biological aspects of public health
- Environmental health
- Health policy and management

Natural Sciences:

- Introductory Chemistry with lab
- Introductory Biology (three courses)
- Organic Chemistry
- Principles of Biochemistry
- Physiology
SPECIAL OPPORTUNITIES

1. **Undergraduate research:** A variety of research opportunities are available to students to work with Cornell faculty on a broad range of topics. In some cases, students can qualify for graduation with Honors by completing an honors thesis and presentation. Along with the experiential learning component required by the major, a research experience prepares students for advanced degree programs in schools of public health.

2. **Meeting pre-med requirements within GPHS major:** Students with interests in medicine who are intending to apply to medical school can complete a pre-medical program by adding two semesters of physics and at least one semester of calculus.

3. **Meeting dietetics requirements within GPHS major:** Students interested in nutrition practice can meet the requirements of the Academy of Nutrition and Dietetics by adding courses in foods, nutrition and disease, microbiology, food service management and counseling.

CAREERS

Opportunities in public health are numerous and growing. Students completing the major in Global & Public Health Sciences will be prepared to pursue careers in public health, public service, research, social entrepreneurship, medicine and other health careers both domestically and globally, following appropriate graduate or professional training. Public health fields include epidemiology, biostatistics, health education/behavior, international health, health policy and management, and environmental health. Depending on the position and the employer, some opportunities may require an advanced degree, such as a Master’s in Public Health. While the Global & Public Health Sciences major offers the broad interdisciplinary perspective to prepare students for the complex setting, organizations and specialties encountered in advanced study, students are encouraged to meet with advisors and career counselors to insure appropriate undergraduate preparation, as specific requirements differ among the various fields.
FACULTY ADVISING

Every student majoring in GPHS 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.

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 “Global & Public Health Sciences” in two ways:

- Global & Public Health Sciences – CHE through the College of Human Ecology
- Global & Public Health 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. For more information about which program is best for you, contact the Academic Affairs Office in B21 Savage Hall.

Faculty and Facilities

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, Savage and Kinzelberg Halls. In addition to housing offices and classrooms, these buildings also contain specialized research facilities.
Choosing NS Undergraduate 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 4480: Economics of Food and Malnutrition
- NS 4570 Health, Poverty, and Inequality: A Global Perspective (also ECON 3910)
- NS 4600 Explorations in Global and Public Health – restricted to students in Global Health minor

Epidemiology and Public Health
- NS 1600 Introduction to Public Health
- NS 3600 Epidemiology
- 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 3030 Nutrition, Health and Vegetarian Diets
- 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 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 Human Nutrition and Nutrient Metabolism
- NS 3320 Methods in Nutritional Sciences
- NS 4310 Mineral Nutrition and Chronic Disease
- NS 4900 Manipulating the Mouse Genome

Psychological and Social Influences on Human Nutrition
- NS 2450 Social Science Perspectives on Food and Nutrition
- NS 4250 Nutrition Communications and Counseling
DNS ADVISING NOTES: OVERVIEW OF COURSE REQUIREMENTS FOR
NUTRITIONAL SCIENCES – COLLEGE OF HUMAN ECOLOGY (CHE)
FOR STUDENTS ENTERING AUGUST 2016

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 [BIOC 1500 plus two introductory biology lectures]
   Introductory chemistry, 8 cr [CHEM 2070-2080]
   Organic chemistry lecture, 3-8 cr [CHEM 3570-3580, 3530, 1570 (not for pre-med), or 3590-3600]
   Organic chemistry lab, 2-4 cr [CHEM 2510 or 3010]
   Physiology, 3-4 cr [NS 3410(4)] or [BIOAP 3110(3)]
   Biochemistry, 4-6 cr [NS 3200(4)], [BIOC 3300(4)], [BIOC 3310(3) + BIOC 3320(2)], or [BIOC 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: Need following courses

   *Premed:* Organic chemistry lecture, CHEM 3570-3580 [6 cr] and Physics, PHYS 1101-1102 or 2207-2208 [8 cr]
   *Dietetics:* Microbiology, BIOC 2900 [3 cr] AND Human Anatomy and Physiology lab, NS 3420 [2 cr] in addition to NS 3410.
   *Exercise science:* Both NS 3410 [4 cr] AND NS 3420 [2 cr]. Strongly recommend: Physics, 8 cr, [PHYS 1101-1102 or 2207-2208]

2. NUTRITIONAL SCIENCES
   (Count toward 43 required CHE credits. Letter grade only)
   Core courses, 16 cr:
   NS 1150 Nutrition, Health and Society [Fall, 3 cr]
   NS 2450 Social Science Perspectives on Food and Nutrition [Fall, 3 cr]
   NS 3450 Introduction to Physiochemical and Biological Aspects of Foods [Fall, 3 cr]
   NS 3310 Human Nutrition and Nutrient Metabolism [Spring, 4 cr]
   NS 3320 Methods in Nutritional Sciences [Fall, 3 cr]

   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]
   Psychobiology [HD 1150* or HD 1170* or HD 1100* or PSYCH 1101]
   Psychology [ANTHR 1400]
   Sociology [DSOC 1101 or SOC 1101]
   Note: ECON 1110 & 1120 count as HUMEC courses. For dietetics: Psychology 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. 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). Contact college registrar for questions regarding Humanities courses.

4. WRITTEN COMMUNICATIONS
   First Year Writing Seminars: 6 cr (MUST BE COMPLETED DURING FIRST 2 SEMESTERS OF FRESHMAN YEAR)

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 STSCI 2150 [4], AEM 2100 [4], BTRY 3010 [4], MATH 1710 [4], SOC 3010 [4], or PSYCH 3500 [4], PAM 2100 [4], 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 requirements. 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

---

**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, HD 1100, PSYCH 1101, ECON 1110, ECON 1120, DEA 1110, DSOC 1101) (For dietetics will need PSYCH 1101, HD 1100, 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); NS 1220 (required for dietetics, S only); NS 2470 (F/S, required for dietetics, or in sopho yr)
- HE course to meet social science requirement or as elective (ECON 1110/1120, or other) or a class for math requirement.

**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) or CHEM 3530
- CHEM 2510 (org lab, F/S with 3570 concurrently, or later)
- Requirements in social sciences, humanities, other HE (HD 1150, ECON 1110/1120, or others)
- 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, if took 3570 and pre med) 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 2900 (F/S), if will take BIOMG 3310; Or later
- NS 1200 (S only) if desired
- PHYS 1102 or 2208 (S only: if needed and taken 1101/2207: Or junior)

**FALL -- JUNIOR**
- NS 3200 (F), BIOMG 3310 (F), 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 (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 3030, 3150 [alt yrs], 4250, 4444, 4500, etc.)
- HE electives, other requirements, or electives (see above)
- Semester abroad or urban semester (if elected)
- Food Service Management (HADM1360, if dietetics transfer)

**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)

---

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!!!

---

 seamlessly integrate the text from the image into a single, readable block of text.
1. NATURAL SCIENCES

Introductory biology, 8 cr [BIOG 1500 plus two introductory biology lectures]
Introductory chemistry, 8 cr [CHEM 2070-2080]
Organic chemistry lecture, 3-8 cr [CHEM 3570-3580, 3530, 1570 (not for pre-med), or 3590-3600]
Organic chemistry lab, 2-4 cr [CHEM 2510 or CHEM 3010]
Physiology, 3-4 cr [NS 3410(4)] 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: Organic chemistry lecture, CHEM 3570-3580 [6 cr] and Physics, PHYS 1101-1102 or 2207-2208 [8 cr]
- Dietetics: Microbiology, BIOMI 2900 [3 cr] AND Human Anatomy and Physiology lab, NS 3420 [2 cr] in addition to NS 3410.
- Exercise Science: Both NS 3410 [4 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 Human Nutrition and 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

12 credits: Four courses of at least 3 credits in 3 different categories of the following 7 categories. Cultural Analysis (CA), Social and Behavioral Analysis (SBA, Foreign Language (FL), Knowledge, Cognition, and Moral Reasoning (KCM), Human Diversity (D) Literature and the Arts (LA), Historical Analysis (HA).

No more than two courses from the same category and one course must be in the Diversity (D).

For dietetics: PSYCH 1101 is required. Check “DUST” for more information about course selection.

4. COMMUNICATION

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. Check “DUST” for more information about course selection.

5. 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 STSCI 2150 [4], AEM 2100 [4], BTRY 3010 [4], MATH 1710 [4], SOC 3010 [4], PSYCH 3500 [4], PAM 2100 [4], or STSCI 2100/LRST 2120 [4]

Calculus and higher level math is generally needed for premed or grad study.

6. ELECTIVES IN AGRICULTURE & LIFE SCIENCES (9cr outside major but within the college. CALS credits)

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 (3-5 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 1500 may NOT be used because 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
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); NS 1220 (required for dietetics, S only); NS 2470 (F/S, required for dietetics; Or in sophomore yr)
- Other requirements (social science, humanities, math or statistic: 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 CHEM 3530
- 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 took 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 BIOMG 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, 4444, 4500, etc.)
- 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)
DNS ADVISING NOTES: OVERVIEW OF COURSE REQUIREMENTS FOR HUMAN BIOLOGY, HEALTH AND SOCIETY – COLLEGE OF HUMAN ECOLOGY (CHE)
FOR STUDENTS ENTERING AUGUST 2016

See HBHS/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]

**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 3570-3580, 3550, 1570 (not for pre-med), or 3590-3600]

**Organic chemistry lab, 2-4 cr** [Chem 2510 or 3010]

**Physiology, 3-4 cr** [NS 3440 (4 cr) or Bioap 3110 (3 cr)]

**Biochemistry, 4-6 cr** [NS 3200(4)], [Biomg 3300(4)], [Biomg 3310(3) + Bioap 3320(2)], or [Bioap 3310(3) + Bio<Postcode title=“BIOMI 2900(3)”, “BIOMG 3300(4)”, “BIOMG 3310(4)”, “BIOMG 3320(4)”]

**Nutrition, 4 cr** [NS 3200(4)] or [Bioap 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 (These courses MAY NOT also be applied to HBHS Selectives; 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 Bioap 2800 or 2810)**
- **Microbiology (including Bioap 2900, Vetmi 4310)**
- **Neurobiology (including Bionb 2210, 2220, 4280)**
- **Cell Biology (including Bioap 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 the above under biochemistry requirement)**
- **Nutrition (may use NS 3030, 3220, 3310, 3420, 4310, 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 [Anth 1400]**
- **Psychology [Psych 1100* or Psych 1101]**
- **Sociology [Soci 1101 or Soci 1101]**

*Note: Econ 1101 & 1102 count as HUMEC courses. For dietetics: Psychology 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.** 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

**First Year 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**, STSCI 2150, AEM 2100[4cr], BTRY 3010[4cr], Math 1710[4cr], SOC 3010[4], Psych 3500[4], PAM 2100[4], STSCI/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.*

5. OTHER Requirements in the Major

- **NS 1150: Nutrition, Health and Society [3 cr]**

- **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 (^). A course cannot be used for more than one category.

### 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 4480** Economics of Food and Malnutrition (S, 4 cr)
- **NS 4500** Public Health Nutrition (S, 3 cr)
- **NS 4570** Health, Poverty, and Inequality: A Global Perspective (alt F, 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 3620** Human Bonding (S, 3 cr)
- **HD 3700/PSYCH 3250** Adult Psychopathology (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 3110** Pharmaceutical Management and Policy (S, 3 cr)
- **PAM 3240** Risk Management and Policy (F, 3 cr)
- **PAM 3280** Fundamentals of Population Health (F, 3 cr)
- **PAM 3780** Sick Around the World? Comparing Health Care Systems Around the World (S, 3 cr)
- **PAM 4280** Economics of Risky Health Behaviors (F, 3 cr)
- **PAM 4370** Economics of Health Care Markets (S, 3 cr)
- **PAM 4380** Economics of Public Health (S, 3 cr)
- **DSOC 2200** Sociology of Health and Ethnic Minorities (F, 3 cr)
- **DSOC 3111** Sociology of Medicine (S, 4 cr)

### Natural Science Perspective on Health  6 credits
- **NS 2750** Human Biology and Evolution (F, 3 cr)
- **NS 3030** Nutrition, Health and Vegetarian Diets (S, 3 cr)
- **NS 3060** Nutrition and Global Health (alt F, 3 cr)
- **NS 3150** Obesity and Regulation of Body Weight (alt S, 3 cr)
- **NS 3220** Maternal and Child Nutrition (alt S, 3 cr)
- **NS 3310** Human Nutrition and Nutrient Metabolism (S, 4 cr)
- **NS 3320** Methods in Nutritional Sciences (F, 3 cr)
- **NS 3450** Introduction to Physiochemical and Biological Aspects of Foods (F, 3 cr)
- **NS 4310** Mineral Nutrition and Chronic Disease (F, 3 cr)
- **NS 4410** Nutrition and Disease (F, 3 cr)
- **NS 4420** Implementation of Nutrition Care (F, 3 cr)
- **NS 4444** Sports Nutrition and Supplements, Concepts and Evidence (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 (F, 3 cr)
- **HD 3250** Neurochemistry of Human Behavior (S, 3 cr)
- **HD 3440** Infant Behavior and Development (F, 3 cr)
- **HD 3660** Affective and Social Neuroscience (S, 3 cr)
- **HD 4780** Attention Deficit/Hyperactivity Disorder in Children (alt S, 3 cr)
- **FSAD 4390** Biomedical Materials and Devices for Human Body (F, 3 cr)
- **BIOMI 2500** Public Health Microbiology (F, 3 cr)
- **PLPA 2950** Biology of Infectious Disease (F, 3 cr)
- **BIOMI 3210** Human Microbes and Health (S, 3 cr)
**Nutritional Science Perspective on Health  3 credits**

NS 3030 Nutrition, Health and Vegetarian Diets (S, 3 cr)
NS 3150 Obesity and Regulation of Body Weight (alt S, 3 cr)
NS 3220 Maternal and Child Nutrition (alt S, 3 cr)
NS 4310 Mineral Nutrition and Chronic Disease (F, 3 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 4450/AEM 4450 Toward a Sustainable Global Food System: Food Policy for Developing Countries (F, 3 cr)
NS 4480 Economics of Food and Malnutrition (S, 3 cr)
NS 4500 Public Health Nutrition (S, 3 cr)
### 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!!!!!

<table>
<thead>
<tr>
<th>FALL -- FRESHMAN</th>
<th>SPRING -- FRESHMAN By the end of the Spring semester, must complete a total of at least 5 CHE credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2070 (F only)</td>
<td>CHEM 2080 (S only)</td>
</tr>
<tr>
<td>BIOG 1500 and/or one lecture course; Optional</td>
<td>BIOG 1500 and/or one lecture course; Optional</td>
</tr>
<tr>
<td>CHEM and BIOG supplement courses as needed</td>
<td>CHEM or BIOG supplement courses as needed</td>
</tr>
<tr>
<td>NS 1150 (F only)</td>
<td>First year writing seminar (S/F)</td>
</tr>
<tr>
<td>NS 1160 (F only, Recommended)</td>
<td>NS 1200 (1 cr, S only)</td>
</tr>
<tr>
<td>First year writing seminar (S/F)</td>
<td>NS 1220 (required for dietetics, S only)</td>
</tr>
<tr>
<td>Other requirements or electives if bio postponed (HD 1150, 1100, or PSYCH 1101, DEA 1110, ECON 1110/1120; DSOC 1101)</td>
<td>HE course to meet other requirements or electives (ECON 1110/1120, or others)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL -- SOPHOMORE</th>
<th>SPRING -- SOPHOMORE By the end of the Spring semester, must complete a total of at least 12 CHE credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3570 (F only, if premed or biochem interest) or CHEM 3530</td>
<td>CHEM 3580 (S only, if took 3570)</td>
</tr>
<tr>
<td>CHEM 2510 (F/S, if 3570 taken or later)</td>
<td>CHEM 1570 (S only, if not 3570-3580, non-premed)</td>
</tr>
<tr>
<td>BIOG 1500 plus one lecture course if not taken.</td>
<td>CHEM 2510 (F/S, or in junior)</td>
</tr>
<tr>
<td>PHYS 1101 or 2207 (F only, or in junior)</td>
<td>One bio lecture if not taken</td>
</tr>
<tr>
<td>HE course to meet other requirements or as elective (HD 1100 or 1150, ECON 1110/1120, HBHS Selectives [see list of options])</td>
<td>NS 3410 (S only, or in junior) &amp; NS 3420 (S only, or in junior; Required for dietetics &amp; exercise science minor)</td>
</tr>
<tr>
<td>Other requirements or electives (math, statistics, social sciences, humanities)</td>
<td>HBHS Selectives [see list of options]</td>
</tr>
<tr>
<td>BIOAP 3110 (F only, if will not take NS 3410 or as biology elective, may be in junior)</td>
<td>Other requirements (math, statistics, humanities, biology, etc.)</td>
</tr>
<tr>
<td></td>
<td>NS 1200 (S only), if desired</td>
</tr>
<tr>
<td></td>
<td>Physics 1102 or 2208 (S only, if premed or physical therapy and have taken 1101/2207, or junior)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL -- JUNIOR</th>
<th>SPRING -- JUNIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 3200 (F only), BIOMG 3310 (F only) or BIOMG 3300’ (F/S)</td>
<td>BIOMG 3300 (S or F) or BIOMG 3350 (S only)</td>
</tr>
<tr>
<td>HBHS Selectives [see list of options]</td>
<td>BIOMG 3320 (S only, if took BIOM 3310, may be senior)</td>
</tr>
<tr>
<td>Biology elective (BIOMG 2800, 2810, BIOMI 2900, BIONB 2210, BIOEE 2780, NS 2750, or other)</td>
<td>HBHS Selectives [see list]</td>
</tr>
<tr>
<td>Semester abroad or urban semester (if elected)</td>
<td>Biology elective (BIOMG 2810, 2820, BIOMI 2900, BIONB 2220, BIOEE 2740, 2780, or other)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL -- SENIOR</th>
<th>SPRING -- SENIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining requirements (see above)</td>
<td>Remaining requirements (see above)</td>
</tr>
<tr>
<td>Electives to meet personal or career interests</td>
<td>Electives to meet personal or career interests</td>
</tr>
</tbody>
</table>
DNS ADVISING NOTES: OVERVIEW OF COURSE REQUIREMENTS FOR
GLOBAL & PUBLIC HEALTH SCIENCES – COLLEGE OF HUMAN ECOLOGY (CHE)
FOR STUDENTS ENTERING AUGUST 2016

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, 4 cr [CHEM 2070 or 2150]
   Organic chemistry lecture, 3-8 cr [CHEM 3570-3580 (for pre-med) or CHEM 1570 (not for pre-med) or CHEM 3530 or CHEM 3590-3600]
   Physiology, 3-4 cr [NS 3410 (4 cr) or BIOAP 3110 (3 cr) or NS 1150 (3 cr) or BIOG 1440/1445 (if not used for introductory bio)]
   Biochemistry, 4-6 cr [NS 3200 (4 cr) or BIOMG 3300 (4 cr) or BIOMG 3310 (3 cr) + BIOMG 3320 (2 cr) or BIOMG 3310 (3 cr) + BIOMI 2900 (3 cr) or BIOMG 3350 (4 cr) or BIOMG 3330 (4 cr)]

2. GLOBAL & PUBLIC HEALTH SCIENCES [Count toward 43 required cr in CHE. Letter grade only]
   Core courses, 14 cr: 
   NS 1600 Introduction to Public Health [Fall, 3 cr]
   NS 2600 Introduction to Global Health [Spring, 3 cr]
   NS 2060 Preparation for Engaged Learning in GPHS [Fall, 2 cr]
   NS 3600 Epidemiology [Fall, 3 cr]
   NS 4600 Explorations in Global and Public Health [Fall, 3 cr]

   Supervised Experiential Learning in Public Health, 3+ cr
   Must be largely completed before the fall semester of senior yr. Pre-approval required. This experience may be obtaining through one of several options including:
   - Urban semester
   - Global Health Summer Program
   - Cornell in Washington
   - Public Health Research and Internship

3. SPECIALIZED SELECTIVES: Four courses, one from each of the following four categories
   Social & Behavioral Health:
   NS 2450 Social Science Perspectives on Food and Nutrition
   HD 3570 /SOC3670 Social Inequalities in Physical and Mental Health
   PAM 3280 Fundamentals of Population Health
   PAM 4280 The Economics of Risky Health Behaviors
   ANTHR 2468 Medicine, Culture, and Society

   Biological Aspects of Public Health:
   NS 3060 Nutrition and Global Health
   NS 3150 Obesity and the Regulation of Body Weight
   NS 4310 Mineral Nutrition and Chronic Disease
   NS 4410 Nutrition and Disease
   BIOMG 4870 Human Genomics
   BIONB 4270 Darwinian Medicine
   BIOMI 3210 Normal Microbes of the Human Body in Health and Disease

   Environmental Health:
   FDSC 3960 Food Safety Assurance
   DSOC 3400 Agriculture, Food Systems and Society
   ENTOM 2100 Plagues and People
   ENTOM 3070 /TOX 3070 Pesticides and the Environment
   CEE 5970 / TOX 5970 Risk analysis and management
   ILRSC 3342 Workplace Health and Safety as a Human Right
   COMM 2850 Communication, Environment, Science and Health
   BIOMI 2500 Public Health Microbiology
   BIOMI 4310 Medical Parasitology
   ENTOM 3520 Medical and Veterinary Entomology
Health Policy & Management:
NS 4500 Public Health Nutrition
NS 4570 / ECON 4740 Health, Poverty and Inequality
PAM 2350 The US health care system
PAM 3110 Pharmaceutical Management and Policy
PAM 4050 Reproductive Health Policy
PAM 4370 Economics of health policy
PAM 4380 Economics of public health

4. 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 HD 1100* or PSYCH 1101]
- Anthropology [ANTHR 1400]
- Sociology [DSOC 1101 or SOC 1101]

Note: ECON 1110 & 1120 count as HUMEC courses. For dietetics: Psychology 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. 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)

5. WRITTEN COMMUNICATIONS
First Year Writing Seminars: 6 cr (MUST BE COMPLETED DURING FIRST 2 SEMESTERS)

6. QUANTITATIVE & ANALYTICAL
Statistics: 4 cr. STSCI 2150 Introductory Statistics for Biology [F/S, 4 cr].

7. 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.

8. OTHER & ELECTIVE courses to bring academic credits to 120
Student must complete 43 HUMEC credits across all categories of graduation requirements. 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.
Suggestions for 4-Year Schedule
GLOBAL & PUBLIC HEALTH SCIENCES—CHE
College of Human Ecology

• 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
- NS 1600 Introduction to Public Health, 3 cr (must take in the fall of freshman)
- CHEM 2070 General Chemistry I, 4 cr
- Biology lecture (BIOG 1440 or BIOMG 1350) and/or lab (BIOG 1500), 3-5 cr—can be postponed to the spring semester.
- FWS, 3 cr
- PSYCH 1101 Introduction to Psychology, 3 cr OR HD 1150 Human Development, 3 cr OR other college requirement.

### SPRING – FRESHMAN: By the end of the spring semester, must complete a total 5 HUMEC credits
- NS 2600 Introduction to Global Health, 3 cr (must take in the spring of freshman)
- CHEM 2080 General Chemistry II, 4 cr, if needed
- Biology Lecture and/or Lab, 2-5 cr
- FWS, 3 cr
- STSCI 2150 Introductory Statistics for Biology, 4 cr.
- Other Humanities/Soc. Sci.

### FALL – SOPHOMORE
- NS 2060 Prep for Engaged Learning, 2 cr
- NS 3600 Epidemiology
- CHEM 3570 Organic Chemistry I, 3 cr OR CHEM 3530 Principles of Org Chemistry, 3 cr.
- Biology Lecture and/or Lab if not completed, 3 or 2 cr
- Humanities or Soc. Sci, 3 cr

### SPRING – SOPHOMORE: By the end of the spring semester, must complete at least 12 HUMEC credits
- CHEM 3580 Organic Chemistry II, 3 cr., if pre-med and took CHEM 3570 OR
- CHEM 1570 Intro to Org & Bio Chemistry, 3 cr. (CHEM 2070 is a pre-req)
- CHEM 2510 Organic Chemistry Lab, 2 cr
- Biology Lecture and/or Lab if not completed, 3 or 2 cr
- GPHS Selectives
- Non-NS HUMEC Courses

* Summer: Experiential Learning (if desired)

### FALL – JUNIOR
- NS 3200 Biochemistry, 4 cr
- NS 4600 Explorations in Global and Public Health, 3 cr, if completed Experiential Learning
- GPHS Selectives
- Experiential learning (if not completed)
- Electives AND/OR College Distribution Requirement, if needed

### SPRING – JUNIOR
- GPHS Selectives
- Experiential learning (if not completed)
- NS 3410 Human Anatomy & Physiology (if wanted), 4 cr
- GPHS Selectives
- Electives including non-NS HUMEC courses

* Summer: Experiential Learning (if not completed)

### FALL – SENIOR
- NS 4600 Explorations in Global and Public Health, 3 cr
- GPHS Selectives, if not completed
- Electives AND/OR College Distribution Requirement, if needed

### SPRING – SENIOR
- GPHS Selectives, if not completed
- NS 3410 Human Anatomy & Physiology (if wanted but not completed), 4 cr
- Electives AND/OR College Distribution Requirement, if needed

* Summer: Experiential Learning (if not completed)
DNS ADVISING NOTES: OVERVIEW OF COURSE REQUIREMENTS FOR GLOBAL & PUBLIC HEALTH SCIENCES – COLLEGE OF AGRICULTURE AND LIFE SCIENCES (CALS) FOR STUDENTS ENTERING AUGUST 2016

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, 4 cr [CHEM 2070 or 2150]
   Organic chemistry lecture, 3-8 cr [CHEM 3570-3580 (for pre-med) or CHEM 1570 (not for pre-med) or CHEM 3530 or CHEM 3590-3600]
   Physiology, 3-4 cr [NS 3410 (4 cr) or BIOAP 3110 (3 cr) or NS 1150 (3 cr) or BIOG 1440/1445 (if not used for introductory bio)]
   Biochemistry, 4-6 cr [NS 3200 (4 cr) or BIOMG 3300 (4 cr) or BIOMG 3310 (3 cr) + BIOMG 3320 (2 cr) or BIOMG 3310 (3 cr) + BIOMI 2900 (3 cr) or BIOMG 3350 (4 cr) or BIOMG 3330 (4 cr)]

2. GLOBAL & PUBLIC HEALTH SCIENCES [Count toward 43 required cr in CHE. Letter grade only]
   Core courses, 14 cr:
   NS 1600 Introduction to Public Health [Fall, 3 cr]
   NS 2600 Introduction to Global Health [Spring, 3 cr]
   NS 2060 Preparation for Engaged Learning in GPHS [Fall, 2 cr]
   NS 3600 Epidemiology [Fall, 3 cr]
   NS 4600 Explorations in Global and Public Health [Fall, 3 cr]
   Supervised Experiential Learning in Public Health, 3+ cr
   Must be largely completed before the fall semester of senior yr. Pre-approval required. This experience may be obtaining through one of several options including:
   - Urban semester
   - Global Health Summer Program
   - Cornell in Washington
   - Public Health Research and Internship

3. SPECIALIZED SELECTIVES: Four courses, one from each of the following four categories
   Social & Behavioral Health:
   NS 2450 Social Science Perspectives on Food and Nutrition
   HD 3570/SOC3670 Social Inequalities in Physical and Mental Health
   PAM 3280 Fundamentals of Population Health
   PAM 4280 The Economics of Risky Health Behaviors
   ANTHR 2468 Medicine, Culture, and Society

   Biological Aspects of Public Health:
   NS 3060 Nutrition and Global Health
   NS 3150 Obesity and the Regulation of Body Weight
   NS 4310 Mineral Nutrition and Chronic Disease
   NS 4410 Nutrition and Disease
   BIOMG 4870 Human Genomics
   BIONB 4270 Darwinian Medicine
   BIOMI 3210 Normal Microbes of the Human Body in Health and Disease

   Environmental Health:
   FDSC 3960 Food Safety Assurance
   DSOC 3400 Agriculture, Food Systems and Society
   ENTOM 2100 Plagues and People
   ENTOM 3070/TOX 3070 Pesticides and the Environment
   CEE 5970/TOX 5970 Risk analysis and management
   ILRIC 3342 Workplace Health and Safety as a Human Right
   COMM 2850 Communication, Environment, Science and Health
   BIOMI 2500 Public Health Microbiology
   BIOMI 4310 Medical Parasitology
   ENTOM 3520 Medical and Veterinary Entomology
Health Policy & Management:
NS 4500 Public Health Nutrition
NS 4570 / ECON 4740 Health, Poverty and Inequality
PAM 2350 The US health care system
PAM 3110 Pharmaceutical Management and Policy
PAM 4050 Reproductive Health Policy
PAM 4370 Economics of health policy
PAM 4380 Economics of public health

4. SOCIAL SCIENCES and HUMANITIES
12 credits: Four courses of at least 3 credits in 3 different categories of the following 7 categories. Cultural Analysis (CA), Social and Behavioral Analysis (SBA, Foreign Language (FL), Knowledge, Cognition, and Moral Reasoning (KCM), Human Diversity (D) Literature and the Arts (LA), Historical Analysis (HA).
No more than two courses from the same category and one course must be in the Diversity (D).
For dietetics: PSYCH 1101 is required. Check “DUST” for more information about course selection.

5. COMMUNICATIONS
Written and Oral Expression (9 cr): Must include at least 6 cr of written expression; Select from First Year Writing Seminars, English, and Communications courses as per CALS distribution requirements. Check “DUST” for more information about course selection.

6. QUANTITATIVE & ANALYTICAL
Statistics: 4 cr. STSCI 2150 Introductory Statistics for Biology [F/S, 4 cr].

7. ELECTIVES IN AGRICULTURE & LIFE SCIENCES [9cr outside major but within the college. CALS credits]
9 cr from ANY of the CALS courses 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 (4-6 above)).

Typical GPHS Core Sequence

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
<th>SUMMER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRESHMAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS 1600 Intro Public Health</td>
<td>NS 2600 Intro Global Health</td>
<td>STAT SCI 2150 Statistics for Biology</td>
</tr>
<tr>
<td>SOPHOMORE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS 2060 Prep for Engaged Learning</td>
<td></td>
<td>Experiential (Engaged) Learning</td>
</tr>
<tr>
<td>NS 3600 Epidemiology (requires STSCI 2150)</td>
<td></td>
<td>Many options, Fall, Spring, or Summers</td>
</tr>
<tr>
<td>JUNIOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experiential Learning may require additional context-specific preparation, e.g.</td>
<td></td>
</tr>
<tr>
<td>NS 2061 (individual faculty sections), NS 4620 (Tanzania, Zambia, DR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SENIOR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS 4600 Explorations in GPHS (capstone)</td>
<td></td>
<td>NS 4600 should be taken Fall Junior year if the Experiential Learning requirement has been completed</td>
</tr>
</tbody>
</table>
Suggestions for 4-Year Schedule
GLOBAL & PUBLIC HEALTH SCIENCES – CALS
College of Agriculture and Life Sciences

• 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!!!!!

<table>
<thead>
<tr>
<th>FALL – FRESHMAN</th>
<th>SPRING – FRESHMAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>- NS 1600 Introduction to Public Health, 3 cr (must take in the fall of freshman)</td>
<td>- NS 2600 Introduction to Global Health, 3 cr (must take in the spring of freshman)</td>
</tr>
<tr>
<td>- CHEM 2070 General Chemistry I, 4 cr</td>
<td>- CHEM 2080 General Chemistry II, 4 cr, if needed</td>
</tr>
<tr>
<td>- Biology lecture (BIOG 1440 or BIOMG 1350) and/or lab (BIOG 1500), 3-5 cr---can be postponed to the spring semester.</td>
<td>- Biology Lecture and/or Lab, 2-5 cr</td>
</tr>
<tr>
<td>- FWS, 3 cr</td>
<td>- FWS, 3 cr</td>
</tr>
<tr>
<td>- A course of Humanities/Soc. Sci.</td>
<td>- STSCI 2150 Introductory Statistics for Biology, 4 cr.</td>
</tr>
<tr>
<td></td>
<td>- Other Humanities/Soc. Sci.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL – SOPHOMORE</th>
<th>SPRING – SOPHOMORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>- NS 2060 Prep for Engaged Learning, 2 cr</td>
<td>- CHEM 3580 Organic Chemistry II, 3 cr., if pre-med and took CHEM 3570 OR CHEM 1570 Intro to Org &amp; Bio Chemistry, 3 cr. (CHEM 2070 is a pre-req.)</td>
</tr>
<tr>
<td>- NS 3600 Epidemiology</td>
<td>- CHEM 2510 Organic Chemistry Lab, 2 cr</td>
</tr>
<tr>
<td>- CHEM 3570 Organic Chemistry I, 3 cr OR CHEM 3530 Principles of Org Chemistry, 3 cr. Both Orgo requires CHEM 2080 as a pre-req.</td>
<td>- Biology Lecture and/or Lab if not completed, 3 or 2 cr</td>
</tr>
<tr>
<td>- Biology Lecture and/or Lab if not completed, 3 or 2 cr</td>
<td>- GPHS Selectives</td>
</tr>
<tr>
<td>- Humanities/Soc. Sci, 3 cr</td>
<td>- Non-NS CALS (GPHS-CALS electives)</td>
</tr>
</tbody>
</table>

Summer: Experiential Learning (if desired)

<table>
<thead>
<tr>
<th>FALL – JUNIOR</th>
<th>SPRING – JUNIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>- NS 3200 Biochemistry, 4 cr</td>
<td>- GPHS Selectives</td>
</tr>
<tr>
<td>- NS 4600 Explorations in Global and Public Health, 3 cr, if completed Experiential Learning</td>
<td>- Experiential learning (if not completed)</td>
</tr>
<tr>
<td>- GPHS Selectives</td>
<td>- NS 3410 Human Anatomy &amp; Physiology (if wanted), 4 cr</td>
</tr>
<tr>
<td>- Experiential learning (if not completed)</td>
<td>- GPHS Selectives</td>
</tr>
<tr>
<td>- Humanities/Soc. Sci, 3 cr</td>
<td>- Electives including GPHS-CALS electives</td>
</tr>
</tbody>
</table>

Summer: Experiential Learning (if not completed)

<table>
<thead>
<tr>
<th>FALL – SENIOR</th>
<th>SPRING – SENIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>- NS 4600 Explorations in Global and Public Health, 3 cr</td>
<td>- GPHS Selectives, if not completed</td>
</tr>
<tr>
<td>- GPHS Selectives, if not completed</td>
<td>- NS 3410 Human Anatomy &amp; Physiology (if wanted but not completed), 4 cr</td>
</tr>
<tr>
<td>- Electives AND/OR College Distribution Requirement, if needed</td>
<td>- Electives AND/OR College Distribution Requirement, if needed</td>
</tr>
</tbody>
</table>
DNS ADVISING NOTES: Biology Majors
Requirements for the “Human Nutrition” Concentration

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. Human Nutrition and Nutrient Metabolism (4 cr) and at least 9 credits of additional coursework ONLY from the following list:

NS 2750 Human Biology and Evolution
NS 3030 Nutrition, Health and Vegetarian Diets
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 3450 Introduction to Physiochemical and Biological Aspects of Foods
NS 4310 Mineral Nutrition and Chronic Disease
NS 4410 Nutrition and Disease
NS 4444 Sports Nutrition and Supplements: Concepts and Evidence
NS 4900 Manipulating the Mouse Genome
NS 6080 Epigenetics
NS 6100 Proteins and Amino Acids: Nutritional Regulation of Mammalian Protein Synthesis and Degradation
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

INTRODUCTORY CHEMISTRY
• CHEM 2070-2080 (8 cr) Fall-Spring

ORGANIC CHEMISTRY LECTURE
Choose from:
- CHEM 1570 (3 cr) Spring OR
- CHEM 3530 (3 cr) Fall OR
- CHEM 3570-3580 (6 cr) Fall-Spring OR
- CHEM 3590-3600 (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 LAB
Choose from:
• CHEM 2510 (2 cr) Fall or Spring OR
• CHEM 3010 (4 cr) Spring

PHYSIOLOGY
Choose from:
• NS 3410 (4 cr) Spring OR
• BIOAP 3110 (3 cr) Fall

INTRODUCTORY BIOLOGY
BIOG 1500 (lab, F/S, 2 cr)

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)

INTRODUCTORY CHEMISTRY
• CHEM 2070-2080 (8 cr) Fall-Spring

GUIDELINES FOR SELECTING COURSES
The NS-CHE, NS-CALS, HBHS, and GPHS 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 Associate Director of Undergraduate Studies (B17 Savage) may be used as substitutions. On-line courses will not be accepted toward major’s science course requirement, such as introductory biology, general chemistry, etc. 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, HBHS, and GPHS 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. All students must take CHEM 2070 in the fall term and CHEM 2080 in the spring term unless you are only completing GPHS major. CHEM 2150 is the most advanced introductory chemistry and may be chosen by students with AP chemistry score 5. However most of medical schools require 8 cr of college chemistry, so CHEM 2070-2080 sequence will be the best choice among others.

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. 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 (on-line courses will not be accepted.) 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 (on-line courses will not be accepted.) 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 3530 is another one semester organic chemistry lecture course that may be accepted by some medical school.

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 (4 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 or “applied exercise sciences minor.”

**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 2016-2017**
Division of Nutritional Sciences
Cornell University

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inorganic Chemistry</strong></td>
<td>8</td>
</tr>
<tr>
<td>Chem 2070-2080 (8)</td>
<td></td>
</tr>
<tr>
<td><strong>Organic Chemistry</strong></td>
<td>5-10</td>
</tr>
<tr>
<td>Chem 1570 (3) or Chem 3530 (3) or Chem 3570-3580 (6) <strong>and</strong> Chem 2510 (2) or Chem 3010 (4)</td>
<td></td>
</tr>
<tr>
<td><strong>Microbiology</strong></td>
<td>3</td>
</tr>
<tr>
<td>BioMi 2900 General Microbiology (3)</td>
<td></td>
</tr>
<tr>
<td><strong>Biology (8-9) and Physiology (6)</strong></td>
<td>14-15</td>
</tr>
<tr>
<td>Biology: BioG 1500 plus two from following 3 courses: BioMG 1350, BioG 1440/1445, or BioEE 1610/1780 Physiology: NS 3410 (4, Spring, lecture) <strong>AND</strong> NS 3420 (2, Spring, Lab, concurrent registration with NS 3410)</td>
<td></td>
</tr>
<tr>
<td><strong>Biochemistry</strong></td>
<td>3-4</td>
</tr>
<tr>
<td>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)</td>
<td></td>
</tr>
<tr>
<td><strong>Psychology</strong></td>
<td>3</td>
</tr>
<tr>
<td>HD 1100 Lifespan Development, HD (3, Fall) 1150 Human Development: Infancy and Childhood (3, Fall or Summer) <strong>OR</strong> HD 1170 Human Development: Adolescence and Emerging Adulthood (3, Spring) <strong>OR</strong> Psych 1101 Introduction to Psychology (3, Fall)</td>
<td></td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>6</td>
</tr>
<tr>
<td>First year Seminars (6)</td>
<td></td>
</tr>
<tr>
<td><strong>Statistics</strong></td>
<td>3-4</td>
</tr>
<tr>
<td><strong>Nutrition Core</strong></td>
<td>16</td>
</tr>
<tr>
<td>NS 1150 Nutrition, Health and Society (3, Fall)</td>
<td></td>
</tr>
<tr>
<td>NS 2450 Social Science Perspectives on Food and Nutrition (3, Fall)</td>
<td></td>
</tr>
<tr>
<td>NS 3450 Nutritional and Physicochemical Aspects of Foods (3, Fall)</td>
<td></td>
</tr>
<tr>
<td>NS 3310 Human Nutrition and Nutrient Metabolism (4, Spring)</td>
<td></td>
</tr>
<tr>
<td>NS 3320 Methods in Nutritional Sciences (3, Fall)</td>
<td></td>
</tr>
<tr>
<td><strong>Dietetics Courses</strong></td>
<td>24-25</td>
</tr>
<tr>
<td>NS 1220 Nutrition and the Life Cycle (3, Spring)</td>
<td></td>
</tr>
<tr>
<td>NS 2470 Food for Contemporary Living (2, Fall &amp; Spring)</td>
<td></td>
</tr>
<tr>
<td>HADM 1360 Food Service Management (3, Fall &amp; Spring)</td>
<td></td>
</tr>
<tr>
<td>NS 4250 Nutrition Communications (3, Spring)</td>
<td></td>
</tr>
<tr>
<td>NS 4410 Nutrition and Disease (4, Fall)</td>
<td></td>
</tr>
<tr>
<td>NS 4420 Implementation of Nutrition Care (3, Fall)</td>
<td></td>
</tr>
<tr>
<td>NS 4500 Public Health Nutrition (3, Spring) <strong>OR</strong> NS 1600 Introduction to Public Health (3, Fall)</td>
<td></td>
</tr>
<tr>
<td>NS 4880 Applied Dietetics in Food Service Management (4, Spring)</td>
<td></td>
</tr>
</tbody>
</table>

For information regarding undergraduate Dietetics advising, please contact:
Emily Gier, 416 Savage Hall, (607) 255-2638, eg47@cornell.edu
Spider Chart of Required Dietetics Courses & Their Prerequisites

* = required for ALL NS majors
⇒ = prerequisites

If intending to complete the dietetic requirement, you must complete the DPD Intent form (see p. 39)
Pre-Dietetics Student Intent Form  (Rev. 10-05-2015)

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 (Campus) Address: __________________________________________________________________________

College: ____________________________ Major: ____________________________

Expected Graduation Year: __________ Faculty Advisor’s Name: ____________________________

CU E-mail: ____________________________

Phone #: ____________________________

Transfer Student? Yes  No  IF TRANSFER: Year transferred to Cornell: __________

Transferred from (College/Dept.): __________________________________________________________________________

I am aware that information about the DPD, including the program Handbook and policies, is available on the dietetics web site. I understand that students interested in completing DPD requirements will need to apply to the DPD, typically in their junior year. Students who are not accepted into the program, or choose not to apply, will no longer be identified with the “Dietetics” milestone in Cornell’s academic records system, which will affect the ability to enroll in any (NS) “dietetics-preferred” courses.

(Please sign. If submitting form electronically, please stop by B21 Savage to sign the form at your earliest convenience.)

FOR OFFICE USE ONLY

DPD Completion Date: ________________

Notes:
A minor in applied exercise science may be completed by Division of Nutritional Sciences undergraduates majoring in NS, HBHS, and GPHS. 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 prerequisites NS 3410, lecture, 4 cr and NS 3420, laboratory, 2 cr of Human Anatomy and Physiology before enrolling in IC courses. The 2 credits for NS 3420 may be used towards the upper level nutrition course requirement (NS major) or biology electives (HBHS major). 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 – prereq: Kinesiology). Note that Advanced Biomechanics is available in Spring, but there is a pre-req of 1 semester of Physics.

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 course credits count toward 120 Cornell graduation credits as 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: Cornell course
Biology

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

Junior/Senior: IC courses
Kinesiology/Applied Anatomy (Fall & Spring)
Exercise Physiology (Fall & Spring)
Biomechanics of Human Movement (Fall only course – must complete Kinesiology first)
NOTE: Advanced Biomechanics also available (Spring only course – must complete Kinesiology and Physics first)

NOTE: Please plan to take the IC courses as early as possible once you complete the prerequisites. 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.
- 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” or above 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
IC Course Catalog: 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, GPHS, and NS majors

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Completed</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 3410 (Human Physiology and Anatomy-lecture)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS 3420 (Human Physiology and Anatomy-laboratory)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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:

VERIFIED COMPLETION @ ITHACA COLLEGE

<table>
<thead>
<tr>
<th>COURSE</th>
<th>SEMESTER COMPLETED</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Physiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinesiology/Applied Anatomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biomechanics of Human Movement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

The Cornell University Division of Nutritional Sciences 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:

To successfully complete the Undergraduate Minor in Global Health, students must enroll in two (2) Core Courses and three (3) Elective Courses for a total of fifteen (15) credits. Additionally, students are required to complete an 8-week international Experiential Learning Opportunity (ELO) in a resource-limited environment. These requirements must be completed as follows:

1. Take the first required Core Course, NS 2600: Introduction to Global Health, to gain basic understanding of global health and to prepare you for additional coursework and the ELO.
2. Begin to complete Elective Coursework. While it is recommended that you have begun to complete this coursework prior to embarking on your ELO, it is not required.
3. Meet with the Global Health Program Associate Director or Fellow to discuss your intended ELO.
   a. If you apply and are accepted to participate in a Global Health Summer Program, you are required to enroll in NS 4620: Global Service Learning Pre-Departure Seminar (2 credits) during the Spring semester prior to the Field Experience.
   b. If you elect to participate in an Independent ELO, you are required to attend one Health & Safety Seminar, one Ethics, Culture & Diversity Seminar, and one NS 4600 Preparatory Seminar the Spring semester prior to the Field Experience.
4. Complete an 8-week (minimum) Experiential Learning Opportunity in which you live and work abroad on a health-related placement in a resource-limited setting.
5. Complete the Final Report detailing your ELO and attend a mandatory post-ELO meeting in the Fall.
6. Take the second required Core Course, NS 4600: Explorations in Global and Public Health. This course must be taken the Fall semester immediately following the completion of your ELO.

Core Course #1 – NS 2600: Introduction to Global Health
Spring, 3 credits. Tuesday/Thursday at 10:10 – 11:25AM.
Students must successfully complete NS 2600 prior to completing their Experiential Learning Opportunity.

Elective Coursework
Students are required to take and successfully complete the three Elective Courses. These courses must be distributed across three (3) of the five (5) Elective Course categories,
   I. Biomedical & Epidemiological Approaches to Global Health
   II. Social & Ethical Approaches to Global Health
III. Political, Economic, & Food Systems Approaches to Global Health
IV. Health Systems & Programmatic Approaches to Global Health
V. Area-Specific Studies (Petition Only)

While it is recommended that students complete their Elective coursework prior to their Experiential Learning Opportunity, it is not required. Students must enroll in a minimum of 9 credits to complete their Elective Coursework. For a full list of approved Elective Courses, refer to the Cornell Global Health Program website: http://www.human.cornell.edu/dns/globalhealth/undergraduate/elective.cfm.

**Experiential Learning Opportunity (ELO)**
*Fall, Spring, or Summer.*

A critical element of the Global Health Minor is an approved eight-week (minimum) Experiential Learning Opportunity (ELO) in which students live and work abroad in a resource-poor setting. The ELO component encourages students to empirically deepen their understanding of global health while continuously living, learning, working and/or serving abroad in a resource-limited environment. For a minimum of 8-weeks, students are challenged to apply their classroom learning to the field setting and to deepen their understanding of the health problems that disproportionately affect the resource-poor.

The Experiential Learning Opportunity requirement may be satisfied through:

**Cornell Global Health Summer Programs**
Santo Domingo, Dominican Republic
Mysore, India
Moshi, Tanzania
Mwanza, Tanzania
Lusaka, Zambia

**Independent ELOs**
Full-time academic study abroad program
Summer internship
Volunteer service project
Work/research experience

**Required Pre-Departure Preparation:**
NS 4620: GSL Pre-Departure Seminar OR ILRIC 4260: GSL Pre-Departure Seminar (India) – Spring, 2 credits

**Core Course #2 – NS 4600: Explorations in Global and Public Health**
*Fall, 3 credits. Tuesday/Thursday at 1:25 – 2:40PM.*

Students must enroll in and complete NS 4600 in the Fall semester immediately following their Experiential Learning Opportunity.

**Experiential Learning Opportunities for the Global Health Minor:**

**A. Cornell Global Health Summer Programs**
Santo Domingo, Dominican Republic | Universidad de Autonoma de Santo Domingo

Concurrently,

- Coursework: *Universidad Autonoma de Santo Domingo*
- Service Project: *Asesoria Nutricional Para del Desarrollo Armonico, La Casa Comunitaria de Justica*
- Living Arrangements: Homestay with local family
- Language Skills: Spanish fluency required

Mysore, India | Swami Vivekananda Youth Movement
*Offered in collaboration with the School of Industrial & Labor Relations*
Course Period (2 weeks): Vivekananda Institute for Indian Studies
Service Project (6 weeks): Swami Vivekananda Youth Movement
Living Arrangements: SVYM hostel or guesthouse, depending on site
Moshi, Tanzania | Kilimanjaro Christian Medical University-College
Policy Case Study (4 weeks, 4 credits): Kilimanjaro Christian Medical University-College
  NS 4630: Global Health and Policy Issues in Tanzania (counts as an Elective Course)
Service Project (4 weeks): Local NGO, government agency, rural clinic or home for children with disabilities
Living Arrangements: Homestay with local family

Mwanza, Tanzania | Weill-Bugando University College of Health Sciences
Offered in collaboration with Weill Cornell Medical College
Concurrently,
  Clinical Shadowing: Active learning from Cornell & Tanzanian faculty in referral and regional hospitals
  Student Project: Participate in a faculty-elected student project (i.e. faculty research, fieldwork, etc.)
Living Arrangements: Hospital guesthouse
Other: Prior clinical experience (i.e. shadowing, EMS), strong desire for a career in medicine required

Lusaka, Zambia | Southern African Institute for Policy & Research
Offered in collaboration with the School of Industrial & Labor Relations
Concurrently,
  Policy Case Study: Southern African Institute for Policy & Research
  Service Project: University of Zambia’s University Teaching Hospital
Living Arrangements: Homestay with local family (4 weeks), guesthouse (4 weeks)

B. Independent Experiential Learning Opportunities
An Independent ELO is an eight-week field experience that counts towards completion of the Global Health Minor, but is not directly affiliated with the Cornell Global Health Program.

Pre-Approved Opportunities
ProWorld (Intrax) – Ghana
Support for International Change – Tanzania
UBELONG – Cambodia, Ecuador, Ghana, Peru
Unite For Sight – Ghana, Honduras, India

Other Opportunities (By Petition Only)
For all other Independent ELOs (i.e. research opportunities, programs outside of Pre-Approved Opportunities, etc.), students are required to complete and submit an Independent ELO Proposal to the Global Health Program Associate Director or Fellow at least eight weeks prior to departure.

For more information regarding Field Experience opportunities, refer to the Cornell Global Health Program website: http://www.human.cornell.edu/dns/globalhealth/undergraduate/field.cfm

Contact Information:
Jeanne Moseley, Associate Director (jmm298@cornell.edu), 607-254-6228, Savage Hall B15
Tatyana Roberts, Global and Public Health Fellow (tdr37@cornell.edu), 607-255-8983, Savage Hall B20
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 score 5 in chemistry may apply it toward the introductory chemistry I (CHEM 2070) 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, and 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.

**Advanced Placement Credit:**
Check the following link for a summary of the AP test scores required for placing out of specific Cornell courses: [http://courses.cornell.edu/content.php?catoid=28&navoid=7243](http://courses.cornell.edu/content.php?catoid=28&navoid=7243)

**Note:** You still need to check with individual colleges/departments for specific rules concerning the use of AP credit.
DNS ADVISING NOTES:
Substituting Courses Taken at Other Colleges for Courses Required for NS, HBHS, or GPHS Major

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 or HBHS majors late (as a transfer student) 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, and GPHS 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, HBHS, and GPHS 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, HBHS, and GPHS 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, submit the on-line petition form called "In Absentia Petition" from the HE registrar’s web site. 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 Associate 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 Associate 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. On-line course may not be accepted.

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. On-line course may not be accepted.

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. On-line course may not be accepted.

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. On-line course may not be accepted.

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. Online courses may not be accepted.
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. However, due to the sequencing of core courses beginning with the freshman year, GPHS major is not available to transfer students.

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 that 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 letter-graded credit hours in Cornell courses 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 register with the HCEC and apply to medical school. Interviews for transfer students are typically conducted during the late spring, in Ithaca, at the convenience of the interviewer. Transfer students may contact the HCEC via email to determine eligibility and deadlines.

See the health careers advisor to discuss 1) the pros and cons of using Cornell's HEC 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 when you have completed your semester credit hours; 5) proceeding with an HCEC Letter without an HCEC interview.
The Honors Research Program

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

What is This Program About?
The Honors Research Program in the Division of Nutritional Sciences is designed to challenge the research-oriented NS, HBHS, and GPHS 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. GPHS major students may use the honors research toward major’s “experiential learning” requirement.

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 director. Application to the program typically occurs at the end of fall semester of the junior year. Applications may be accepted at other times (during junior yr) 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 (GPA 3.2 or above).

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 (after accepted to the program. Senior yr).
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 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 (three terms before graduation): Proposal abstract for honors thesis due. Submit as e-mail attachment, named <YOURLASTNAME ProAbs 20> in DOC, TXT, PDF, if you are the class of 2020. 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 (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 ProgRep 20> in DOC, TXT PDF, RTF.

Friday of week 3 of senior spring, 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, 3:00pm (final term). Full thesis is due to readers. 1 complete paper copy and electronic copy each. <YOURLASTNAME FULL THESIS 20>

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

Middle of April (final term): Final theses with all corrections/revisions are due. One electronic and paper copy each. <YOURLASTNAME FINAL THESIS 20>

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

**Honors Research Projects completed in 2016**

- Lamin Malformation Disrupts Nuclear de novo Thymidylate Synthesis and Leads to Uracil Accumulation in Nuclear DNA.

- Vitamin D3, 25-dihydroxyvitamin D3, and 1,25-dihydroxyvitamin D3 Increase CYP24A1 mRNA Expression in Human Placental Extravillous Trophoblast Cells, but Their Action is Modified by Hypoxia.

- Comparison of Accelerometer Data Reduction Algorithms in Women of Reproductive Age.

- The Impact of a Weight Loss Intervention on Health-Related Quality of Life in Overweight and Obese Women with Irregular Menses.
• Maternal Characteristics Affecting Preschool-Aged Children’s Diets.

• Investigating the Efficacy of Caloric Restriction to Attenuate Inflammatory Cell Activity and Cancer Proliferation in a Metastatic Mouse Model.


• Cadherin-11 Overexpression Induces Extracellular Matrix Remodeling and Calcification in Mature Aortic Valves.

• Identifying Factors that Influence a Child’s Food Choice.

• The Effects of Folate Deficiency, Arsenic Trioxide, and Serine Hydroxymethyltransferase 1 (SHMT1) on de novo Thymidylate Synthesis.

• Tissue Transglutaminase Interacts with the Major Focal Adhesion Protein Paxillin.

• The Effect of Inflammation on Leucine Metabolism in Cultured Human Skeletal Muscle Cells.

• Influence of Caffeine on Cognition and Cholinergic--Induced Cognitive Deficits.

• Negative Priming Effect of Weighing on Food Intake.
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 then contact faculty members with relevant types of research to see if/how they may become involved in a project. Once students identify the research lab, they submit a form online: [https://students.human.cornell.edu/student/](https://students.human.cornell.edu/student/). Before the form is submitted, the student and the faculty member should discuss details and outline the agreement for the content of research work. Once the form is submitted, the faculty member and the Director of Undergraduate Studies in DNS will approve it online. There is a 4 credit maximum per semester. **NOTE - IMPORTANT PREREQUISITE:** Before NS 4010 can be taken for a letter grade, the course must be first be taken as S/U for at least 2 credits. After the course has been successfully completed for at least 2 credits S/U, the student may then request to take the course for a letter grade if they choose. They can also take it again as 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 afraid 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 analyses, 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/B18 Savage Hall and 1:30–2:00PM in B07/B09/B13 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)

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

**J THOMAS BRENNAN**, 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., Associate Professor (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 maternal nutrition 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: kld12@cornell.edu) Research: Maternal and child nutrition; micronutrient interventions; parenting and feeding styles, food insecurity, nutrition disparities, and evaluation of program implementation and impact.

**JAMIE DOLLAHITE**, Ph.D., Professor (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.

**JULIA L. FINKELSTEIN**, MPH SM ScD, The Follett Sesquicentennial Faculty Fellow and Assistant Professor of Epidemiology and Nutrition, (218 Savage Hall, 5-9180, jfinkelstein@cornell.edu). The role of vitamin B12, iron, and folate in the etiology of anemia and adverse pregnancy outcomes; intersection of nutrition and infection, particularly HIV and neglected tropical diseases. Epidemiology, maternal and child health, international nutrition, geographic information science and technology. Randomized trials, cohort studies, and epidemiologic surveillance programs in resource-limited settings in India and Latin America.

**ZHENGLONG GU**, Ph.D. Associate 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.

**JOHN HODDINOTT**, D.Phil., Professor (305 Savage Hall, 5-8443, Hoddinott@cornell.edu) Economics of food security and nutrition; international nutrition; program evaluation; development economics.

**DAVID LEVITSKY**, Ph.D., Professor. (112 Savage Hall, 5-3263, dal4@cornell.edu). Eating behavior and the control of body weight.
MARLA LUJAN, Ph.D. Assistant 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., Associate Professor (223 Savage Hall, 5-2063, ccm3@cornell.edu). Nutritional control of gene expression.

SAURABH MEHTA, M.B.B.S., Sc.D., Assistant Professor of Global Health, Epidemiology, and Nutrition, (314 Savage Hall, 5-2640, smehtha@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., Associate Professor (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., Professor (212 Savage Hall, 5-1086, dlp5@cornell.edu). Improved methods for the development, implementation and evaluation of nutrition policies, programs and interventions in developing countries and the U.S. Includes a focus on chronic malnutrition, micronutrient malnutrition, childhood obesity, implementation science, multisectoral nutrition and nutrition governance.

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. Professor 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), Community-based nutrition and physical activity interventions and dissemination research; underserved populations (e.g. low-income; rural); social, food, and physical activity environments influences on behavior and health.

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.

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, 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; micronutrients, anemia, environmental enteropathy, hygiene and sanitation, mycotoxins and human health.

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.

Note: You 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.
Field Experiences in Food, Nutrition, and Health for Undergraduates

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

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 databases, 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. 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.
- **Register for NS 4020 online**: [https://students.human.cornell.edu/student/](https://students.human.cornell.edu/student/). Before the form is submitted, the student and the faculty member should discuss details and outline the agreement for the content of the field work. Once the form is submitted, the faculty member and the Assistant Director of Undergraduate Studies in DNS will approve it online. There is a 4 credit maximum per semester. **NOTE - IMPORTANT PREREQUISITE**: Before NS 4020 can be taken for a letter grade, the course must be first be taken as S/U for at least 2 credits. After the course has been successfully completed for at least 2 credits S/U, the student may then request to take the course for a letter grade if they choose. They can also take it again as S/U.

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 or Urban Semester

**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, Denmark, 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, HBHS, and GPHS 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 not recommended 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. GPHS major may use these opportunities toward the major’s “experiential learning” requirement if approved in advance.

**Note:** For the students of CHE, there is another opportunity to study abroad through the CHE exchange program: http://www.human.cornell.edu/academics/undergraduate/exchange-programs/

**Early Planning**

Most NS, HBHS, and GPHS 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, HBHS, and GPHS majors spend off campus. However, this is also the year in which biochemistry is taken by most/all of our students and NS 3310, Nutrient Metabolism, is taken by NS majors. Students can take biochemistry either in the fall or in the spring depending on their schedule (only NS 3200, fall semester only, is a HUMEC course) and 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, psf1@cornell.edu or Julia Franke (Agriculture and Life Sciences) 278 Morrison Hall, jef298@cornell.edu

For Urban Semester:

- Website: http://www.human.cornell.edu/academics/urban-semester/index.cfm
- Program Director: Sam Beck, Tel: (212) 746-1846, sb43@cornell.edu

For Exchange Program of the College of Human Ecology:

- Website: http://www.human.cornell.edu/academics/undergraduate/exchange-programs/
- Program Director: Dr. Pauline Morin, MVR 183, pmm24@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 our 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, Human Nutrition and Nutrient Metabolism, 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, 4250, 4410, 4420, 4500, 4880.
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://cals.cornell.edu/academics/advising/career

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

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

Cornell Health Careers Information:

Cornell University Health Careers Guide for Pre-applicants:
http://www.career.cornell.edu/resources/upload/Advanced_Preme
dical_Guide_2015-16.pdf or stop by 103 Barnes Hall for a copy.

Cornell Pre-veterinary Guide:
http://www.career.cornell.edu/resources/upload/prevetguide_2015
_LLO.pdf

New versions (2016-2017) of both guides will be ready in the beginning of the fall semester
The Didactic Program in Dietetics (DPD)

Should you consider completing DPD requirements?

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

<table>
<thead>
<tr>
<th>Clinical Nutrition</th>
<th>Community Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports Nutrition</td>
<td>Food and Nutrition Management</td>
</tr>
<tr>
<td>Child Nutrition</td>
<td>Nutrition Counseling</td>
</tr>
<tr>
<td>Pre-Med</td>
<td>Dietetics Research</td>
</tr>
<tr>
<td>Dietetics Education</td>
<td>Corporate Wellness</td>
</tr>
<tr>
<td>Public Health Nutrition</td>
<td>Retail Nutrition</td>
</tr>
</tbody>
</table>

If these career opportunities interest you, consider becoming a registered dietitian (RD). Job markets demand and many states require that anyone who advises others about nutrition or diet must be a registered dietitian (RD). For pre-med students, completing the dietetics program provides valuable preparation in health, 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, restaurants, software companies, health clubs, and print and broadcast media.

In addition, academic training and work experience in dietetics opens doors to advancement in many directions, including management positions 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 at [www.healthecareers.com](http://www.healthecareers.com) and [http://www.eatrightpro.org/resources/career/become-an-rdn-or-dtr](http://www.eatrightpro.org/resources/career/become-an-rdn-or-dtr).

**How to Become a Registered Dietitian**

The Academy of Nutrition and Dietetics is the largest professional organization for dietetics professionals and sets the standards for dietetics education through the Accreditation Council for Education in Nutrition and Dietetics (ACEND) and for credentialing as a registered dietitian through the Commission on Dietetic Registration (CDR). To become a registered dietitian, you must:

- Complete the required courses of an academic program that is accredited by ACEND. Complete an ACEND-accredited supervised practice program (see below) prior to taking the registration exam.
- Pass the national registration exam given by the CDR to earn the Registered Dietitian (RD) credential.
Admission to supervised practice programs:

- Is highly competitive with the national placement rate into supervised practice programs at approximately 50%. (see below)
- Requires prior completion of an undergraduate degree including the required courses in the didactic program
- Requires relevant and adequate field experience (paid or volunteer) in clinical, community, management and/or research settings.

Programs are located throughout the U.S. and typically range from 9 to 12 months in duration to provide a minimum of 1200 hours of supervised learning experience. Some programs also offer advanced degrees. Interns receive supervised experience in clinical nutrition, community nutrition, and food and nutrition service management as well as a concentration area specific to an internship.

The Didactic Program in Dietetics (DPD) at Cornell

The Division of Nutritional Sciences at Cornell University offers an ACEND accredited DPD. The mission of the DPD is to prepare critical thinking graduates ready for supervised evidence-based practice to become registered dietitians and for leadership in their careers in nutrition and dietetics. Although many of the course requirements in the ACEND-accredited dietetics program are met by courses required in the NS, G&PHS and HBHS majors, there are additional course requirements unique to the DPD. Approximately 15% of DNS students opt to pursue the DPD. 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 DPD in the blue pages.

Students pursuing dietetics education work closely with their faculty advisors and with the Dietetics Program faculty to prepare their course schedules and to acquire field experience in dietetics, and research experiences that enhance their classroom learning. Such efforts increase the likelihood of acceptance into the DPD and ultimately placement into supervised practice programs. The placement rate of Cornell DPD students who apply to supervised practice programs over the past five years is, on average, 89%. The Cornell DPD placement rate is notably higher than the national placement rate of approximately 50%. Find more information on program goals, objectives and outcomes at www.dp.dpd.human.cornell.edu.

Application. Students interested in pursuing a career as a Registered Dietitian must apply for admission into the DPD, typically at the beginning of the junior year. Admission into the DPD is a competitive and selective process with a limited number of placements. Completing DPD requirements should be an option pursued as part of a thoughtful plan by students serious in pursuing dietetics and health careers. Admissions reflect an overall competitiveness for successful placement into supervised practice and commitment to a career in dietetics and health. Selection is based on successful academic progress, committed intention to pursue a career in dietetics and health, potential for excellence or leadership in the field of dietetics and a high likelihood for successful placement into an accredited internship post-baccalaureate. Students who determine that becoming a Registered Dietitian is a good fit with their professional goals after thoughtful consideration and career exploration should apply to the DPD program at Cornell. Refer to additional information regarding the application process on the DNS undergraduate dietetics website.

Pre-dietetics Registration. Students who are interested in completing dietetics at Cornell should register as a "pre-dietetics" student and begin taking dietetics courses as well as seek dietetics-related experiences prior to their application to the DPD program. A meeting with the DPD Director is also strongly advised. Please refer to the undergraduate dietetics website at www.dp.dpd.human.cornell.edu for more information on how to register as a "pre-dietetics" student and to review the Dietetics Pathway flowchart as well as other resources.
**What Does a Strong Applicant for the DPD Look Like?**

Acceptance into supervised practice programs is highly competitive. Strong applicants have the most potential for success at gaining acceptance into internship programs and exhibit the following:

- is completing DPD coursework and degree requirements with an overall GPA of 3.0 or better.
- has strong letters of support (from advisors, instructors, an RD practitioner, coaches, employers, etc) to practice in the field of dietetics.
- has gained relevant and adequate dietetics related experiences through work, volunteer, lab and field experiences.
- is mature and capable of balancing the rigors of work and study during the internship experience.
- has developed leadership skills through involvement with clubs, organizations, sports, work, volunteer and other extracurricular experiences and exhibits potential for excellence or leadership in the field of dietetics.
- is passionate about food, nutrition and health and practicing in the field of dietetics.
- is committed to pursuing a career in dietetics and health.

**What Will You Learn in The Dietetics Program?**

<table>
<thead>
<tr>
<th>Food Science/Preparation</th>
<th>Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry</td>
<td>Physiology</td>
</tr>
<tr>
<td>Management</td>
<td>Social and Behavioral Sciences</td>
</tr>
<tr>
<td>Health and Disease</td>
<td>Counseling &amp; Communication</td>
</tr>
</tbody>
</table>

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, social and behavioral 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 and behavioral 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, social, and behavioral 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 dietetics profession.

For further information about the undergraduate Dietetics Program, you should contact the DPD Director: Emily Gier, MBA, RD, CDN, 416 Savage Hall, Cornell University, Ithaca, NY 14853-4401. Tel: (607) 255-2638, or via 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 and at www.eatright.org.

For more information, please visit the following web sites:

- Academy web site: [http://www.eatright.org](http://www.eatright.org)
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, including working as sports dietitians and in private practice settings.
- Students interested in combining nutrition knowledge with the culinary arts and students interested in large scale food service operations.
- 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 consider applying to the Didactic Program in Dietetics (DPD) unless they know they are going to medical school, desire a career in research or government where the RD credential is not likely to enhance their career, 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. Careful early planning may also enable students to study abroad or complete a minor. Students should plan to be on track with meeting dietetics requirements so that they can apply to the DPD at the beginning of their junior year. Gaining dietetics related experience through work, volunteer, and field placements is necessary to be a strong candidate for the DPD. Students should check their progress at the end of each year using the “Dietetics Pathway Flowchart” found on the undergraduate dietetics website.

Students who are serious about completing dietetics requirements and applying to supervised practice programs should complete and submit the “Pre-Dietetics Registration Form” found online or in the DNS Survival Guide. Students should also get involved with CUDA and/or HealthNutS and make every effort to attend DPD informational meetings (typically held in the fall; refer to undergraduate dietetics website for dates). Meeting with the DPD Director is also strongly advised.

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
Considering a career in medicine? The HBHS, NS, and GPHS 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
Contact: Lauren O’Neill, Director, Health Careers Advising Program
E-mail: healthcareersadvisor@cornell.edu

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

**Health Careers Library, 103 Barnes Hall** has many valuable resources.
Health Careers Guide for Pre-applicants - This guidebook is available in 162 MVR as well.

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 Pre-applicants 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
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)
CALS Student Services, 140 Roberts Hall, 255-2215 (cals-studentservices@cornell.edu)

Pre-Med Faculty Advisor
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 - https://www.aamc.org/students/applying/mcat/
American Medical College Application Service - https://www.aamc.org/students/applying/amcas/

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 – 140 Roberts Hall http://www.cals.cornell.edu/cals/current/career/index.cfm
Sources of Health-Care Related Experience

**CU Alumni Connections Program**
Students can apply to the CU Alumni Connections Program to shadow a Cornell alum in one of the health professions.
http://www.career.cornell.edu/students/options/ACP/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**
Health Careers, Getting Experience: http://www.career.cornell.edu/paths/health/experience/volunteer/index.cfm

Community Health Professionals Mentorship Program through Gannett
http://www.gannett.cornell.edu/services/volunteer/mentorship.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

Many NS 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, 1992-2016.)

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/)

Division of Nutritional Sciences • Office of Academic Affairs • Cornell University.
B21 Savage Hall • (607) 255-4410 • aadns@cornell.edu • 07/16
After Cornell, What Do
D.N.S. Majors Do?

Human Biology, Health & Society (HBHS)
Nutritional Sciences (NS-CHE & NS-CALS)
Global & Public Health Sciences (GPHS-CHE & GPHS-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).

Data for GPHS major will be available after 2018 since the major accepted the first class in Fall, 2014.

Medicine and Dentistry (examples of placement) (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
- Keck 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
• New York Institute of Technology College of Osteopathic Medicine
• UMDNJ-Rowan SOM Medical School
• Virginia Tech Carilion School of Medicine

**Physician’s Assistant (examples of placement)**

• Army’s PA program
• Pace University, Lenox Hill Hospital in NYC

**Nursing (examples of placement)**

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

**Pharmacology (examples of placement)**

• Emory University, Ph.D. program in Pharmacology
• University of Maryland School of Pharmacy, Baltimore

**Veterinary (examples of placement)**

• University of Pennsylvania School of Veterinary Medicine

**Dietetics (examples of dietetic internship program placements) (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** *(examples of graduate school placements)*
*(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
- Tufts University, Occupational Therapy
- University of Illinois, Chicago
- University of Delaware

**Other Graduate and Professional Programs** *(examples of placements)*
*(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
- Boston 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
- Stanford School of Medicine

**Employment (examples of placement immediately after graduation):**

- 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
The H.J. Heinz Company, Pittsburgh, PA
Midwives for Haiti
Baldor Foods Inc.
Hewlett-Packard
Office of the Global AIDS Coordinator, United States Department of State
Applying to Graduate School

Human Biology, Health & Society (HBHS)
Nutritional Sciences (NS-CHE & NS-CALS)
Global & Public Health Sciences (GPHS-CHE & GPHS-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, HBHS, and GPHS 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, HBHS, and GPHS include:

- Public Health
- 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, GPHS, and NS majors. Students are assigned to a faculty advisor by Dr. Cha-Sook You (Associate 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, GPHS, 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 policies 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 "Communcology", the College's 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.

**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

**Shy about talking to your faculty advisor?** (It doesn’t take much to get them talking.)

- Ask your advisor about his/her interests, research program, or the courses s/he teaches.
- Find out where s/he attended college and graduate school and the path that led him/her to Cornell.
- Ask him/her to tell you some of the things in Ithaca you should take advantage of while at Cornell.

**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 Our 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, GPHS, and NS 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
- Reviews/Approves special study forms online (NS 4000, NS 4010, NS 4020 & NS 4030)
- 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, GPHS-CHE, GPHS-CALS, BioSci/Human Nutrition Concentration (circle one)

### Freshman Year:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
</tbody>
</table>

Notes:

### Sophomore Year:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
</tbody>
</table>

Notes:

### Junior Year:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
</tbody>
</table>

Notes:

### Senior Year:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>4.</td>
<td>4.</td>
</tr>
<tr>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td>6.</td>
<td>6.</td>
</tr>
</tbody>
</table>

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

   - **For Nutritional Sciences Major:**
   
   - **For Human Biology, Health and Society:**
   
   - **For Global & Public Health Sciences:**

2. **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](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](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:**

     - **Curriculum Waiver/Substitutions** ([link](http://www.human.cornell.edu/registrar/forms-and-petitions.cfm))
       Use this form to petition for a course to be waived or substituted with a different course. *Note: Allow three weeks to process.*

     - **In Absentia Petition** ([link](http://www.human.cornell.edu/registrar/forms-and-petitions.cfm))
       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.*

     - **Over 18 Credit Hour Enrollment Form** ([link](http://www.human.cornell.edu/registrar/forms-and-petitions.cfm))
       Use this form to request permission to enroll in more than 18 credits.

     - **Change of Major (Plan)** ([pdf](http://www.human.cornell.edu/registrar/forms-and-petitions.cfm))
       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.

     - **General Petition** ([pdf](http://www.human.cornell.edu/registrar/forms-and-petitions.cfm))
       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.

     - **Dean's Certification Release** ([pdf](http://www.human.cornell.edu/registrar/forms-and-petitions.cfm))
       Use this form to allow the HE Office of Registrar permission to verify good standing status for Law School Admissions.
• **Transfer Credit - High School 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 - College Form must both be completed and returned to be considered.

• **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 for Leave of Absence (pdf)**
  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.

• **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 Undergraduate TA Form (pdf)** - Use this form to when you want to sign up to be a TA for a Human Ecology Course (with the course instructor).
  **NOTE:** DNS no longer requires students to attach a transcript to the form.

**B. These forms must be picked up from the HE Office of Registrar in 146 MVR Hall (ADD/DROP is also available in the sorter outside B21 Savage):**

• **Add/Drop Form (Paper, half sheet)**
  Use this form to add a class that is by permission by instructor only, or that you cannot enroll in via Student Center online. Students will also need to use this form with an instructor's approval to drop a class or to enroll in courses with (approved) overlaps. Note that overlaps may require an additional form.

• **Exit Interview**
  Use this form to transfer to another College at Cornell. It requires an Exit Interview with Student Services in 172 MVR.

**C. These forms must be completed ONLINE:**

• **Special (Independent) Studies**
  Use this form to request enrollment in a Directed Reading (4000), Empirical Research (4010), or Supervised Fieldwork (4020) course.
  **Enrollment Form:** [https://students.human.cornell.edu/student/](https://students.human.cornell.edu/student/)
  Before the form is submitted, the student and the DNS faculty member should discuss details and outline the agreement for the work. Once the form is submitted, the faculty member and the Director of Undergraduate Studies in DNS will approve it online. There is a 4 credit maximum per semester. **NOTE - IMPORTANT PREREQUISITE:** Before NS 4000, 4010, or 4020 can be taken for a letter grade, the course must be first be taken as S/U for at least 2 credits. After the course has been successfully completed for at least 2 credits S/U, the student may then request to take the (same) course for a letter grade if they choose. They can also take it again as S/U.
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 pages:

1. CALS graduation requirements  

2. CALS College Distribution Requirements  
   [http://courses.cornell.edu/content.php?catoid=28&navoid=7171](http://courses.cornell.edu/content.php?catoid=28&navoid=7171)

3. Distributed Undergraduate Student Tracking (D.U.S.T.)  
   [https://dust.cals.cornell.edu/](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/](http://cals.cornell.edu/academics/registrar/policies/)  
   Important Forms and Policies you can find on the page:
   - Application for Credit Earned While in High School
   - Advanced Placement (AP) Credits Policy
   - Four-Year Academic and Career Advising Action Plan (pdf)
   - Application to Graduate: Parts I and II
   - Application to exceed 22 academic credits in a semester (max. 25 cr)
   - Authority for Release of Academic Information
   - CALS Special Studies (also Supervised Teaching Experiences, Internship Experience, Undergraduate Research)
   - Pro-Rated Tuition

**Note:** For Application to Update Degree Status - Early or Delayed Graduation, visit:  
[https://cals.cornell.edu/academics/registrar/degree-requirements/degree-standing](https://cals.cornell.edu/academics/registrar/degree-requirements/degree-standing)
5. Course Enrollment: [http://cals.cornell.edu/academics/registrar/course-enrollment/](http://cals.cornell.edu/academics/registrar/course-enrollment/)
   - CALS Special Studies – **NOTE:** Many CALS students choose to apply for Special Studies via the College of Human Ecology (CHE). Their form can be found online as well. Please visit: [https://students.human.cornell.edu/student/](https://students.human.cornell.edu/student/).
   - 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
     - Tutoring
     - Academic Standing
     - Pre-Health
     - Petitions
     - Disability Services
     - Double Majors, Minors, and Internal Transfers
     - Academics and Personal Resources
     - Undergraduate Learning Outcomes
   - 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 count toward the minimum 12 credits required for full-time status.
   • Review or supplemental courses (e.g., 1000- to 1099-level) 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 Rome, Capital Semester and Urban Semester).

   C. Maximum Non-Cornell Credits: 60 non-Cornell credits (AP, CASE, IB, GCE, French Baccalauréat 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, French Baccalauréat, 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, Nutritional Science, Statistical Science, and Sea Semester 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. Physical Education Requirement: Successful completion of two PE Cornell courses with a satisfactory grade. Students are expected to complete the Physical Education Requirement in their first two semesters at Cornell. A description of all Physical education courses and policies are be found on their website: www.pe.cornell.edu

   Exception: Students who transfer to Cornell from another college or university will be awarded one term of physical education credit for each full term (12 or more) academic transfer credit they are granted by Cornell before matriculation.

   B. Swimming Requirement: Successful completion of the swim test or successful completion of two PE1100 Beginning Swimming courses. Swim tests are administered during orientation.

   Exception: Students who transfer to Cornell’s College of Agriculture and Life Sciences who are exempt from Physical Education requirement are exempt from the swim test.

   Waivers and Accommodations are available. All requests for accommodations to the Physical Education or Swimming Requirements due to disability must be made through Student Disability Services.

3. Residency Requirements
   
   A. Eight semesters of full-time study are expected. Transfer students are credited with one semester in residence for each full-time semester (or equivalent) 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. (The School of Continuing Education does not count towards a final semester in residency.)

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.

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. 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> (BIO-AG)</td>
<td>BLOG 1440</td>
<td>Comparative Physiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIMG 1350</td>
<td>Cell and Developmental Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOE 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>BIOE 1780</td>
<td>Evolutionary Biology and Diversity</td>
<td>4 or 5</td>
</tr>
<tr>
<td></td>
<td>BIOE 2525/2526</td>
<td>Ecology and Conservation of Wildlife in the Neotropics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1500 (summer)</td>
<td>Investigative Marine Biology Laboratory</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 2770 (summer)</td>
<td>Marine and Coastal Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOSM 3830 (summer)</td>
<td>Field Marine Invertebrate Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOSM 1780 (summer)</td>
<td>Evolution and Marine Diversity</td>
<td>4</td>
</tr>
</tbody>
</table>

For the Life Sciences Majors (BIOLS-AG)

<table>
<thead>
<tr>
<th>Advising Recommendation</th>
<th>Course number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOAP (former ANSC) 1100</td>
<td>Domestic Animal Biology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIMG 1290</td>
<td>Personal Genomics and Medicine</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIMG 1150</td>
<td>Human Genetics: Science &amp; Society</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOG 1140</td>
<td>Foundations of Biology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIOE 2070/STS 2871</td>
<td>Evolution</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLHRT 1112 (summer)</td>
<td>Lawns, Gardens and Landscapes</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLHRT 1115</td>
<td>The Nature of Plants</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBIO 2400</td>
<td>Green World Blue Planet</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBIO 2410</td>
<td>Plant Diversity and Evolution</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBIO 2450 (summer)</td>
<td>Plant Biology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOMS 1130 (summer)</td>
<td>Introduction to Reproduction</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOSM 1500 (summer)</td>
<td>Investigative Marine Biology Laboratory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOSM 1610 (summer)</td>
<td>Ecology and the Marine Environment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOSM 1650 (summer)</td>
<td>Introduction to Marine Mammal Biology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOSM 1780 (summer)</td>
<td>Evolution and Marine Diversity</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

For the Non-Life Science Majors (BIONLS_AG)

<table>
<thead>
<tr>
<th>Advising Recommendation</th>
<th>Course number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS/BIOE 1551(summer)</td>
<td>Field Introductory Oceanography (Intro Biology will be fulfilled when combined with EAS/BIOE 1540 on campus)</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>PLSCS/BIOIMI 1120</td>
<td>Microbes, the Earth, &amp; Everything</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOMI 1100 (Spring 2017)</td>
<td>College Dormitory Microbiology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOE/EAS 1560</td>
<td>Introductory Oceanography with Laboratory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENTOM 2020</td>
<td>Invasions</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENTOM 2030</td>
<td>Honey Bees: Their Intriguing Biology &amp; Interactions with Humans</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBIO 1120</td>
<td>Issues in Social Biology: from Diet to Diseases, DNA to Deforestation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBIO 2470</td>
<td>Plants and People</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBIO 2490</td>
<td>Hollywood Biology: Science in Cinema</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLBRG 2010</td>
<td>Plants, Genes, and Global Food Production</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENTOM 2011</td>
<td>Alien Empire: Bizarre Biology of Bugs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLHRT/FDSC/VIEN 2204</td>
<td>Principles &amp; Practices of Growing Grapes and Making Wines</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLPPM 2013</td>
<td>Mushrooms, Molds, and More</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLPPM 2015</td>
<td>Mushrooms, Molds and Molecules</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PLPPM 2900</td>
<td>Celebrating Inquiry—the Wonder of Willow</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
**Chemistry/Physics:** All CHEM and PHYS courses (does not include FWS or supplemental courses)

**Other Physical/Life Sciences Courses (OPHLS-AG):**
- AEM 2100; 4100
- ANSC 2120, 2150, 2210, 2400, 3200, 3700, 3920
- ANTHR 4495
- ASTRO
- BEE 4590
- BIOLOGY (except BIOG 2000, BIOSM 2040 and 4940’s)
- BTRY
- CHEM
- CRP 3210
- CS 4775
- DSOC 2020
- EAS (EXCEPT 2900)
- ENTOM 2010, 2100, 2120, 2150, 2410, 2600, 3070, 3150, 3310, 3340, 3440, 3690, 4440, 4550, 4630
- FDSC 2000
- HADM 2201, 2010
- IARD 2020, 4050, 4140, 4495
- ILRST 2100, 2110, 3100, 5110
- MATH
- NS 1150, 1220, 3200, 3310, 3320, 3410, 4310, 4410, 4520, 4444
- NTRES 1101, 2010, 2100, 2830, 3100, 3130, 3220, 3260, 4130, 4200, 4201, 4220
- PAM 2101
- PHYS
- PLBRG 2010, 2250, 4010, 4030, 4050
- PLHRT 2200, 3600, 4000, 4400, 4450, 4490
- PLPPM 2010, 2013, 2015, 2950, 3010, 3090, 3190, 3290, 4010, 4020, 4250, 4330, 4480
- PLSCS 1900, 2110, 2600, 3150, 3170, 4050, 4140, 4440
- PSYCH 3500
- SEA
- SNES 1101
- SOC 3010/6010
- STSCI 2100, 2110, 2200, 4080, 4090, 4500, 5010, 5110, 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 a score of 5 on 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)
- Social and Behavioral Analysis (SBA)
- Foreign Language (FL)
- Knowledge, Cognition, and Moral Reasoning (KCM)
- Human Diversity (D-AG)
- Literature and the Arts (LA)
- Historical Analysis (HA)

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>COMM 2010, 3060</td>
<td>First-Year Writing Seminars</td>
</tr>
<tr>
<td>ENTOM 3350</td>
<td>AEM 2000</td>
</tr>
<tr>
<td>ILRLR 3300 (2300)</td>
<td>COMM 2310, 3010, 3030, 3040, 3060, 3020</td>
</tr>
<tr>
<td>PMA 3815</td>
<td>DSOC 4800</td>
</tr>
<tr>
<td>AEM 2700</td>
<td>ENGL 2800, 2810, 2880, 2890, 3820-3850, 3880, 3890</td>
</tr>
<tr>
<td></td>
<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>
</tr>
<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>
</tr>
<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>
</tr>
</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-AG)
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, LATIN, GREEK and Sanskrit - 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

| Pass Swim Test |
| Physical Education |
| Physical Education |

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.

| Introductory Life Sciences (Biology) |
| Introductory Life Sciences (Biology) |
| Chemistry/Physics |
| 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) |
| Other |
| Other |

Social Sciences and Humanities (PG 4): 4 courses of 3 or more credit each. At least 1 course MUST be completed from 3 different categories: (CA), (FL), (D-AG)*, (HA), (SBA), (KCM), (LA)

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

| Human Diversity Category* |
| Second Category |
| Third Category |
| Final Course |

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)

| Written Expression |
| Written Expression |
| Written or Oral |

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 Table 1
- 105 must be structured
  - 15 maximum can be earned through Independent Study, Research, TA-ing, and/or Internships. Pro-rated for Transfers Table 1
**Double Majors, Minors, or Changing Majors in CALS**

**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 – see [http://admissions.cals.cornell.edu/academics/majors/](http://admissions.cals.cornell.edu/academics/majors/).

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](mailto: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 (see approved minors link, below). 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](http://www.cornell.edu/academics/minors.cfm) (click on the **UNDERGRADUATE MINORS** tab)
So, you're thinking about changing your major…

**Contacts:**

<table>
<thead>
<tr>
<th>Field</th>
<th>Contact Name</th>
<th>Office Address</th>
<th>Phone Number</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Sciences</td>
<td>Kari Richards</td>
<td>707 Bradfield Hall</td>
<td>607-255-0660</td>
<td><a href="mailto:ksu2@cornell.edu">ksu2@cornell.edu</a></td>
</tr>
<tr>
<td>Applied Economics &amp; Management</td>
<td>Adrienne Wilson</td>
<td>B62 Warren Hall</td>
<td>607-255-8472</td>
<td><a href="mailto:aww25@cornell.edu">aww25@cornell.edu</a></td>
</tr>
<tr>
<td>Animal Science</td>
<td>Carol McEvoy</td>
<td>149 Morrison Hall</td>
<td>607-255-5497</td>
<td><a href="mailto:cmm485@cornell.edu">cmm485@cornell.edu</a></td>
</tr>
<tr>
<td>Atmospheric Sciences</td>
<td>Mark Wysocki</td>
<td>1114 Bradfield Hall</td>
<td>607-255-2568</td>
<td><a href="mailto:mww3@cornell.edu">mww3@cornell.edu</a></td>
</tr>
<tr>
<td>Biological Engineering</td>
<td>Brenda Marchewka</td>
<td>207 Riley Robb Hall</td>
<td>607-255-2173</td>
<td><a href="mailto:bsl19@cornell.edu">bsl19@cornell.edu</a></td>
</tr>
<tr>
<td>Biology &amp; Society</td>
<td>Stacey Stone</td>
<td>306 Rockefeller Hall</td>
<td>607-255-6047</td>
<td><a href="mailto:sms252@cornell.edu">sms252@cornell.edu</a></td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>Amy Horning</td>
<td>216 Stimson Hall</td>
<td>607-255-5233</td>
<td><a href="mailto:anh7@cornell.edu">anh7@cornell.edu</a></td>
</tr>
<tr>
<td>Biometry &amp; Statistics</td>
<td>Bea Johnson</td>
<td>1198 Comstock Hall</td>
<td>607-255-1646</td>
<td><a href="mailto:biom-stat@cornell.edu">biom-stat@cornell.edu</a></td>
</tr>
<tr>
<td>Communication</td>
<td>Andrea Poag</td>
<td>451 Mann Library</td>
<td>607-254-4789</td>
<td><a href="mailto:alp232@cornell.edu">alp232@cornell.edu</a></td>
</tr>
<tr>
<td>Development Sociology</td>
<td>Cindy Twardokus</td>
<td>240A Warren Hall</td>
<td>607-255-3163</td>
<td><a href="mailto:ctt259@cornell.edu">ctt259@cornell.edu</a></td>
</tr>
<tr>
<td>Entomology</td>
<td>Rita Stuckey</td>
<td>2134 Comstock Hall</td>
<td>607-255-6198</td>
<td><a href="mailto:lhs32@cornell.edu">lhs32@cornell.edu</a></td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>Brenda Marchewka</td>
<td>207 Riley Robb Hall</td>
<td>607-255-2173</td>
<td><a href="mailto:bsl19@cornell.edu">bsl19@cornell.edu</a></td>
</tr>
<tr>
<td>Environmental &amp; Sustainability Sciences</td>
<td>Suzanne Wapner</td>
<td>G15 Fernow Hall</td>
<td>607-255-1269</td>
<td><a href="mailto:sw38@cornell.edu">sw38@cornell.edu</a></td>
</tr>
<tr>
<td>Food Science</td>
<td>Alicia Orta-Ramirez</td>
<td>152A Stocking Hall</td>
<td>607-254-8381</td>
<td><a href="mailto:ao98@cornell.edu">ao98@cornell.edu</a></td>
</tr>
<tr>
<td>Global Public Health</td>
<td>Terry Mingle</td>
<td>B21 Savage Hall</td>
<td>607-255-4410</td>
<td><a href="mailto:tpm2@cornell.edu">tpm2@cornell.edu</a></td>
</tr>
<tr>
<td>Information Science</td>
<td>Amy Sindone</td>
<td>110H Gates Hall</td>
<td>607-255-9837</td>
<td><a href="mailto:als44@cornell.edu">als44@cornell.edu</a></td>
</tr>
<tr>
<td>Interdisciplinary Studies</td>
<td>Lisa Ryan</td>
<td>140 Roberts Hall</td>
<td>607-255-2257</td>
<td><a href="mailto:lar4@cornell.edu">lar4@cornell.edu</a></td>
</tr>
<tr>
<td>International Ag &amp; Rural Development</td>
<td>Diane Munn</td>
<td>B75 Mann Library</td>
<td>607-255-3811</td>
<td><a href="mailto:dmm40@cornell.edu">dmm40@cornell.edu</a></td>
</tr>
<tr>
<td>Landscape Architecture</td>
<td>Kristie Oplinger</td>
<td>440 Kennedy Hall</td>
<td>607-255-9552</td>
<td><a href="mailto:klo28@cornell.edu">klo28@cornell.edu</a></td>
</tr>
<tr>
<td>Nutritional Sciences</td>
<td>Terry Mingle</td>
<td>B21 Savage Hall</td>
<td>607-255-4410</td>
<td><a href="mailto:tpm2@cornell.edu">tpm2@cornell.edu</a></td>
</tr>
<tr>
<td>Plant Sciences</td>
<td>Leah Cook</td>
<td>134A Plant Science Bldg</td>
<td>607-255-1257</td>
<td><a href="mailto:lcc2@cornell.edu">lcc2@cornell.edu</a></td>
</tr>
<tr>
<td>Science of Earth Systems</td>
<td>Savannah Williams</td>
<td>2124 Snee Hall</td>
<td>607-255-5466</td>
<td><a href="mailto:ss376@cornell.edu">ss376@cornell.edu</a></td>
</tr>
<tr>
<td>Viticulture and Enology</td>
<td>Andrea Elmore</td>
<td>152A Stocking Hall</td>
<td>607-255-2539</td>
<td><a href="mailto:ace23@cornell.edu">ace23@cornell.edu</a></td>
</tr>
</tbody>
</table>

(Students must review undergraduate program information at [www.bscb.cornell.edu](http://www.bscb.cornell.edu) before contacting Ms. Johnson.)

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://alumni.cornell.edu), the [Admissions Office information](http://admissions.cornell.edu) pages, and [department web sites](http://www.bscb.cornell.edu). 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…

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

**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.

**No**

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

For more information, visit: http://courses.cornell.edu/content.php?catoid=28&navoid=7247
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, and GPHS 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, HBHS, and GPHS 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 of our major 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 counselors
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/)
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)
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 (NS-CHE & NS-CALS)
Global & Public Health Sciences (GPHS-CHE & GPHS-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. **Please note that NO substitutions for NS 1150 will be accepted, and NO Special (Independent) 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 4480 Economics of Food and Malnutrition (also AEM 4485)
- NS 4570 Health, Poverty, and Inequality: A Global Perspective (also ECON 4740)

**Public Health and Nutrition**
- NS 4500 Public Health Nutrition
- NS 3600 Epidemiology

**Food Quality and Food Service Management**
- NS 2470 Food for Contemporary Living (2 cr.)
- NS 3450 Introduction to Physicochemical and Biological Aspects of Foods (also FDSC 2000)

**Human Health and Nutrition**
- NS 1220 Nutrition and the Life Cycle
- NS 2750 Human Biology and Evolution (also ANTHR 2750)
- NS 3030 Nutrition, Health and Vegetarian Diets
- NS 3150 Obesity and the Regulation of Body Weight (also PSYCH 3150)
- NS 3220 Maternal and Child Nutrition (Enrollment restricted – priority to Dietetics students)
- NS 3410 Human Anatomy and Physiology (Lecture)
- NS 4410 Nutrition and Disease
- NS 4420 Implementation of Nutrition Care (Enrollment restricted – priority to Sr. Dietetics students)
- NS 4444 Sports Nutrition and Supplements: Concepts and Evidence

**Nutritional Biochemistry**
- NS 3200 Introduction to Human Biochemistry
- NS 3310 Human Nutrition and Nutrient Metabolism
- NS 3320 Methods in Nutritional Sciences (Enrollment restricted – priority to Sr. Nutrition/Dietetics students)
- NS 4310 Mineral Nutrition and Chronic Disease
- 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 4250 Nutrition Communications and Counseling (Enrollment restricted – priority to Sr. Dietetics students)
ELIGIBILITY FOR THE MINOR

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

(1) **not** be enrolled in any of the Division of Nutritional Sciences majors, including: NS (CALS or CHE), HBHS, GPHS (CALS or CHE), or Biological Sciences with a Concentration in Human 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) as soon as possible.

(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 Associate 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:

- A completed copy of the TOP half of your “Intention to Minor in Nutrition and Health” form – this part should be turned in as soon as you decide to complete the minor.

- A completed copy of the BOTTOM half of your “Intention to Minor in Nutrition and Health” form – this part should be turned in **by March 15th of your Senior year**. Please list all of 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. ALSO, please bring in your Application to Graduate form (IF your college requires one) and DNS will verify and sign it, so that you can turn it in to your College Registrar’s Office.

When you have completed all of your courses and submitted all forms, the DNS Academic Affairs Office will then review your transcript (we can access it online – you do not need to provide a copy), and (if complete) will notify your Registrar’s Office that the requirements for the minor have been completed. Your college registrar will then see that the minor gets added to your transcript (it will not appear on your diploma, only on your transcript). If there are any problems regarding completion, we will contact you. **If you do not see the minor on your transcript within a month after you have completed it, please contact your College Registrar’s Office to inquire.**
Nutrition and Health Minor Intent Form

Not eligible: NS (CALS or CHE), HBHS, GPHS (CALS or CHE), or Bio. Sci. major w/ Human Nutrition Concentration students

Name: ____________________________________________________________

Cornell ID #: ____________________________ NetID: ______________________

College: ________________________________ Major: _______________________

E-mail: _________________________________ Graduation Year: _____________

Faculty Advisor’s Name: ___________________ Dept: _______________________

Faculty Advisor’s Signature: _____________________ Date: _______________

Please submit the TOP section of this form to B21 Savage as soon as you decide to complete the minor. Be sure to keep one copy for yourself, and give one copy to your major advisor for their files.

---------------------------------------------------------------------------

NUTRITION & HEALTH MINOR COURSES TAKEN/GRADATES RECEIVED

Please submit the BOTTOM section of this form to B21 Savage when you are in your last semester at Cornell. If your college requires one, please also submit your Application to Graduate form. All required paperwork must be submitted by March 15th of your Senior year.

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

<table>
<thead>
<tr>
<th>COURSE</th>
<th>SEMESTER COMPLETED/ENROLLED</th>
<th>*GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED COURSE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS 1150</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADDITIONAL COURSES (9 credits, at or above the 2000-level. This may include NS 1220)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: If you are finishing up 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. We will report all minor completions to your college registrar’s office at the end of the semester after grades are final. They should appear on your transcript within a month or so after completion.

---------------------------------------------------------------------------

FOR OFFICE USE ONLY:

Date Application to Graduate submitted: _________________________________

Notes: 

113
Profiles of Undergraduate Advisors for NS, HBHS, and GPHS Majors

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: NS 3220 Maternal and Child Nutrition; NS 5550 Leadership in Dietetics; NS 6200 Translational Research and Evidence-based Policy and Practice in Nutrition (with Patrick Stover); 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); NS 6900/Chem 6280 Trace Elements and Isotope Analysis
Personal: Enjoys being with his kids and surfing the web

Patricia A. Cassano, Ph.D.
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; NS 6200 Translational Research and Evidence-based Policy and Practice in Nutrition (with Patrick Stover and Patsy Brannon)
Marie A. Caudill, Ph.D.
Professor
228 Savage Hall
phone: Not available
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.

Kate Dickin, Ph.D.
Research Scientist
Program in International Nutrition Director
302 Savage Hall
phone: 255-7297
e-mail: kld12@cornell.edu
- Research: Maternal and child nutrition; micronutrient interventions; parenting and feeding styles, food insecurity, nutrition disparities, and evaluation of program implementation and impact.
- NS 6980 International Nutrition Seminar
Jamie Dollahite, Ph.D.

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.

Senior 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.
- Teaches: NS 3320 Methods in Nutritional Sciences

Personal: Enjoys running and reading historical fiction

Julia L. Finkelstein, MPH, SM, ScD

The Follett Sesquicentennial Faculty Fellow and Assistant Professor of Epidemiology and Nutrition
218 Savage Hall
phone: 255-9180
e-mail: jfinkelstein@cornell.edu
website: http://www.human.cornell.edu/bio.cfm?netid=jlf288

- Research: The role of vitamin B₁₂, iron, and folate in the etiology of anemia and adverse pregnancy outcomes; intersection of nutrition and infection, particularly HIV and neglected tropical diseases. Epidemiology, maternal and child health, international nutrition, geographic information science and technology. Randomized trials, cohort studies, and epidemiologic surveillance programs in resource-limited settings in India and Latin America.
- Teaches: NS 3600 Epidemiology; and NS 7030 Seminars in Nutritional Sciences (with Barb Strupp and other DNS staff)
Emily Wilcox Gier, M.B.A., R.D., C.D.N.
Senior 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; NS 4880 Applied Dietetics in Food Service Systems
- Personal: Enjoys cooking with her two daughters; was on the Crew Team during her undergraduate days at Cornell and enjoys getting back in the boat during Reunion Row; in her free time she enjoys exercising, volunteering at her kids schools and playing violin in the Cortland Community Orchestra.

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; and has also taught 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 Emeritus 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.
- 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
John Hoddinott, D. Phil
H.E.Babcock Professor of Food & Nutrition Economics and Policy
305 Savage Hall
phone: 255-8443
e-mail: Hoddinott@cornell.edu
• Research: Causes of poverty, food insecurity and undernutrition in developing countries, and the design and evaluation of interventions that would reduce these. Current work focuses on Bangladesh and Ethiopia.
• Teaches:
• Personal: Plays ice hockey

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; 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

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 folliculogenesis; anovulatory disorders and polycystic ovary syndrome (PCOS);
• Teaches: NS 3420 Human Anatomy and Physiology Laboratory
Stephanie L. Martin, M.Ed., Ph.D.
Lecturer
118 Savage Hall
phone: 254-4737
e-mail: slm345@cornell.edu
- Research: Maternal and child nutrition, infant feeding, behavior change, implementation research
- Teaches: NS 2060 Preparation for Engaged Learning in Global and Public Health Sciences

Charles C. McCormick, Ph.D.
Associate Professor
223 Savage Hall
phone: 255-2063
e-mail: ccm3@cornell.edu
- Teaches: NS 3030 Nutrition, Health and Vegetarian Diets; NS 3310 Human Nutrition and Nutrient Metabolism; NS 4310 Mineral Nutrition and Chronic Disease; NS 4444 Sports Nutrition and Supplements: Concepts and Evidence (with J. Thomas Brenna); NS 6310 Micronutrients: Function, Homeostasis, and Assessment (with other DNS Staff) and has also taught NS 4315 Nutrient Requirements and Recommendations: Biological Aspects.
- Personal: Enjoys golf, backyard astronomy, and motorcycling

Saurabh Mehta, M.B.B.S., Sc.D.
Associate 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; NS 6580 Advanced Epidemiology: Theory and Practice
Jeanne Moseley, MPH
Lecturer & Associate Director of Global Health Program
B15 Savage Hall
phone: 254-6228
e-mail: jmm298@cornell.edu

- Focus Areas: Global health curriculum development, student leadership training and development opportunities, critical reflective practice in global and public health experiential learning, and the dimensions of reciprocity in the context of international partnerships and collaborations.
- Teaches: NS 2600 Introduction to Global Health, NS 2610 Hot Topics in Global and Public Health, NS 4620 Global Service Learning Pre-Departure Seminar; NS 4630 Global Health, Development and Policy Issues in Tanzania (with Dr. Francis Ngure)

Kimberly O'Brien, Ph.D.
Professor
230 Savage
Phone: 255-3743
e-mail: koo4@cornell.edu

- Teaches: NS 3410 Human Anatomy and Physiology; NS 6310 Micronutrients Function, Homeostasis, and Assessment (with other DNS Staff)

Robert S. Parker, Ph.D.
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); 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
- Personal: Enjoys hiking, reading, good movies and a newly discovered love for gardening

David L. Pelletier, Ph.D.
Professor
212 Savage Hall
phone: 255-1086
e-mail: dlp5@cornell.edu
- Research: Development, implementation and evaluation of nutrition policies, programs and interventions in low income countries and the U.S., including chronic malnutrition, micronutrient malnutrition, childhood obesity, implementation science, multisectoral nutrition and nutrition governance.
- Teaches: NS 4600 Exploration in Global and Public Health

Shu-Bing Qian, Ph.D.
Associate Professor
301 Biotech Bldg.
phone: 254-3397
e-mail: sq38@cornell.edu
- Teaches: NS 3200 Introduction to Human Biochemistry (with Jason Locasale); 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
- On Sabbatical Leave, from 07/01/16 to 12/31/16

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.
- On Sabbatical Leave, from 07/01/16 to 12/31/16

Rebecca Seguin
Assistant Professor
412 Savage Hall
Phone: 255-8250
Email: rs946@cornell.edu
- Research: Community-based nutrition and physical activity interventions and dissemination research; underserved populations (e.g. low-income; rural); social, food, and physical activity environments influences on behavior and health.
- Teaches: NS1600 Introduction to Public Health
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; NS 6400 Social Science Theories in Nutrition

Paul Soloway, Ph.D.
Professor
211 Weill Hall
phone: 254-6444
e-mail: Soloway@cornell.edu
- Research: Regulation of epigenetic phenomena.
- Teaches: NS 4900 Manipulating the Mouse Genome; NS 6080 Epigenetics; 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, biking, 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; H₂S 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; 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; micronutrients, anemia, environmental enteropathy, hygiene and sanitation, mycotoxins and human health.
- Teaches: 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 of the Division of Nutritional Sciences
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 6200 Translational Research and Evidence-based Policy and Practice in Nutrition (with Patsy Brannon); NS 7040 Grant Writing
Barbara Strupp, Ph.D.
Professor (also Professor, Dept. of Psychology)
Director of Graduate Studies
102 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 Donna Muscarella); NS 7030 Seminar in Nutritional Sciences (with other DNS Staff)

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 6320 Macronutrient Metabolism (with other DNS Staff) and NS 3200 Introduction to Human Biochemistry (with Shu-Bing Qian)
- Personal: Enjoys spending time with her kids, working on art projects, and photography

Cha-Sook You, Ph.D.
Associate Director for Undergraduate Studies & Lecturer
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: Directing DNS Honors Program
- Personal: Enjoys traveling, reading, singing, and cooking; loves to teach
- On leave, from 7/15/16 to 1/15/17
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

Alan Mathios, Dean
College of Human Ecology
(607) 255-2138

Kathryn Boor, Dean
College of Agriculture and Life Sciences
(607) 255-2241

Patrick Stover, Director
Division of Nutritional Sciences
(607) 255-8001

Robert Parker, Director of Undergraduate Studies (DUS)
Division of Nutritional Sciences
(607) 255-2063

Cha-Sook You, Associate Director of Undergraduate Studies (ADUS)
Division of Nutritional Sciences
(607) 255-2651

Julia Felice, Acting Associate Director of Undergraduate Studies (ADUS) (Fall 2016)
Division of Nutritional Sciences
(607) 255-2651

(Ms.) Terry Mingle, Undergraduate Student Services Assistant (USSA)
Division of Nutritional Sciences - Office of Academic Affairs
(607) 255-4410

Cornell is an equal opportunity, affirmative action employer/educator
Important Offices

❖ For ALL Students (CHE and CALS) in The Division of Nutritional Sciences (DNS)

*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, NS-CALS, and GPHS majors. Information regarding an exercise science minor, research, and student employment opportunities is available. The Undergraduate Nutrition Organization (HealthNutS) is advised through this office (contact Dr. You at **cy12@cornell.edu** for details).

❖ For Human Ecology (CHE) Students in the NS-CHE, HBHS, or GPHS-CHE Majors:

**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 (CALS) Students in the NS-CALS or GPHS-CALS Majors:

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

This office functions in much the same way as the CHE 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.