The requirements listed below pertain to all students matriculating in August 2019 and January 2020. All of the following sections are required to be completed to graduate. Courses in areas 1-15 must be taken for a Letter Grade.

<table>
<thead>
<tr>
<th>Overall Credits (REQUIRED)</th>
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<tr>
<td>Total: 120 credits</td>
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<tr>
<td>Human Ecology: 43 credits</td>
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<tr>
<td>Human Ecology, outside the major: 9 credits (from DEA, FSAD, HD, NS at any level or HE at the 3000/4000 level)</td>
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1. **PAM Required Courses A** (15 credits)
   Take the following:
   a. **PAM 2000** Intermediate Microeconomics (prerequisite ECON 1110)
   b. **PAM 2101** Statistics for Policy Analysis and Management Majors
   c. **PAM 2350** The US Health Care System
   d. **PAM 3100** Multiple Regression Analysis (prerequisite PAM 2101)

2. **PAM Required Courses B** (3 credits)
   Choose one from the following:
   a. **PAM 2030** Population and Public Policy
   b. **PAM 3280** Fundamentals of Population Health

3. **PAM 3000/4000 Concentration Courses** (18 credits)
   Students must take a minimum of 18 credits of 3000 or 4000 level PAM courses in addition to the PAM Core Requirements. **12-15 of these credits must be Health Care and Health Policy Courses, and 3-6 of these credits must be Social Policy Courses.**
   Note: PAM 4000, 4010, 4020, 4030, 4060, 4980, and 4990 may not be used to fulfill this requirement.
   a. **Health Care and Health Policy** (12-15 credits)
      - **PAM 3110** Pharmaceutical Management and Policy (3 Credits)
      - **PAM 3180** Health Disparities (3 Credits)
      - **PAM 3300** Cost Benefit Analysis (4 Credits)
      - **PAM 3780** Sick around the World? Comparing Health Care Systems around the World (3 Credits)
      - **PAM 3870** Economic Evaluations of Health Care (3 Credits)
      - **PAM 4140** Global Health Economics and Policy (3 Credits)
      - **PAM 4280** Economics of Risky Health Behaviors (4 Credits)
      - **PAM 4370** Economics of Health Care Markets (3 Credits)
      - **PAM 5641** Health Care Quality Improvement (3 Credits)
      - **PAM 5670** Health Policy (3 Credits)
      - **PAM 5740** Short Course in Fundamentals of Health Facility Planning for Managers (1 Credit)
      - **PAM 5760** Long-Term Care and Lifestyle Alternatives for Older Adults (1 Credit)
      - **PAM 5900** Special Topics in Health Administration and Finance (1-3 Credits)
   b. **Social Policy** (3-6 credits)
      - **PAM 3130** Behavioral Economics and Public Policy (3 Credits)
      - **PAM 3160** Labor Markets and Public Policy (3 Credits)
      - **PAM 3301** Intermediate Policy Analysis (4 Credits)
      - **PAM 3410** Economics of Consumer Law and Protection (3 Credits)
      - **PAM 3850** Applied Demography in Business and Government (3 Credits)
      - **PAM 4080** Demographic Techniques (3 Credits)

4. **Additional PAM Electives** (3 credits)
   Any 3 additional PAM credits (except PAM 4030 and PAM 1200)
   (E.g. PAM 2040 Economics of the Public Sector, PAM 3240 Risk Management and Policy, PAM 3360 Evolving Families)

5. **First Year Writing Seminars** (6 credits)
   Note: The 2 required first year writing seminar courses must be completed during the first two semesters at Cornell.

6. **Introductory Microeconomics** (3 credits)
   **ECON 1110** Introductory Microeconomics
7. **Introduction to Sociology**  (3 credits)
   Choose one of the following:
   - PAM 2250 Social Problems in the U.S.
   - SOC 1101 Introduction to Sociology
   - DSOC 1101 Introduction to Sociology
   **Note:** PAM 2250 cannot count for both the Introduction to Sociology requirement AND the Additional PAM Electives requirement.

8. **Mathematics**  (3-4 credits)
   Either of the following:
   - Score of 4 or 5 on AP Calculus BC exam OR
   - Any 3 credit Cornell math course except MATH 1101 and MATH 1710
   **Note:** If this requirement is not satisfied with AP Calculus BC then the MATH course must be taken at Cornell.
   **Note:** AP Calculus AB credit (a score of 4 or 5) may be applied as elective credits, but does not fulfill this requirement.

9. **Biology Lecture**  (6-8 credits)
   Choose two of the following:
   - a. BIOMG 1350 Cell and Development
   - b. BIOG 1440 Comparative Physiology OR BIOG 1445 Comparative Physiology (autotutorial)
   - c. BIOEE 1610 Ecology and the Environment OR BIOEE 1780 Evolution and Diversity

10. **Biology Lab**  (2 credits)
    BIOG 1500 Investigative Lab

11. **Introductory Chemistry**  (8 credits)
    - CHEM 2070 General Chemistry I
    - CHEM 2080 General Chemistry II

12. **Organic Chemistry Lecture**  (3-6 credits)
    Choose one of the following options:
    - a. CHEM 1570 Introduction to Organic and Biological Chemistry
    - b. CHEM 3530 Principles of Organic Chemistry
    - c. CHEM 3570-3580 Organic Chemistry for the Life Sciences I and II (must take both)

13. **Biochemistry**  (3-6 credits)
    Choose one of the following options:
    - a. NS 3200 Introduction to Human Biochemistry
    - b. BIOMG 3300 Principles of Biochemistry (auto-tutorial)
    - c. BIOMG 3310 and BIOMG 3320 Principles of Biochemistry
    - d. BIOMG 3310 Principles of Biochemistry and BIOMI 2900 General Microbiology
    - e. BIOMG 3330 Principles of Biochemistry
    - f. BIOMG 3350 Principles of Biochemistry

14. **Ethics**  (3 credits)
    Choose one of the following options:
    - a. BSOC 2051 Ethical Issues in Health and Medicine (also STS 2051)
    - b. INFO 1200 Information, Ethics, Law and Policy
    - c. PHIL 2455 Introduction to Bioethics
    - d. ILRST 3130 The Ethics of Data Analysis and AEM 3080 Ethical Issues in Business Management and Organizations
    - e. ILRST 3130 The Ethics of Data Analysis and ANSC 4140 Ethics and Animal Science

15. **Additional Requirements**  (10-12 credits)
    Any course with the Course Distribution PBS, BIOLS-AG, BIONLS-AG, SBA, KCM, MQR, LA, CA, or HA. Language courses may count here.

16. **Electives**  (Variable)
    Any courses that are not taken in Areas 1-14 above, count as Electives.

17. **Physical Education Requirement**  (2 courses)
    Physical Education must be completed in order to graduate. However, physical education does not count toward college and university minimum credit requirements for full-time status, nor does it count towards the 120 credits required for graduation.

18. **Swim Test Requirement**
    A successful swim test must be completed in order to graduate.
College Policies:

- **120 Overall Credits**
  - Students must complete 120 credits toward graduation.
  - A maximum of 15 credits of AP credit and in absentia credit can count towards the 120 total credits.
  - 15 credits of Study Abroad/Exchange, Cornell-In-Washington or Capital semester can count towards total electives.

- **43 HE Credits**
  - Students must complete a minimum of 43 HE credits.
  - HE non-departmental courses at the 2000-level and below do not count toward the 43 HE credits.
  - Students must complete 5 HE credits by the end of the freshmen year and 12 HE credits by the end of the sophomore year.

- **9 HE Credits outside the major**
  - Students must complete a minimum of 9 HE credits outside of PAM. These credits are given for any Human Ecology course outside your major (except 4030). These can be taken S/U only if course is NOT used to fulfill a curriculum requirement.

- **Pass/Fail Courses [S/U]**
  - S/U grading option may NOT be used for any required course [Areas 1-15] unless it is the only grade option offered for those courses.
  - S/Us MAY be used for the 9 HE Credits outside the major and for electives in Area 16.
  - Students may apply no more than 12 credits of S/U towards graduation requirements. If a required course is only offered S/U, it will not count towards this limit. Students may take more S/Us if they choose, but the additional credit will not be applied towards graduation.
  - The **deadline for changing grade options is the 57th calendar day of the semester**, the same as the “drop” deadline.

- **Special Study Courses [4000, 4010, 4020, 4030]**
  - A maximum of 12 credits of special study course work from Human Ecology or other colleges will count towards the 120 overall credits. Courses will be indicated on the class roster with a Component of either IND or RSC. [Additional credits can be taken but will not be applied.]
  - A maximum of 12 credits of 4000-4030 may count toward the 43 HE credit requirement.
  - A maximum of 3 credits of 4000-4020 (not including 4030) may count towards the 9 HE credits outside the major requirement as long as the special study is in a department outside the student’s major.
  - Students cannot TA (4030) the same course for credit more than once or take and TA the same course simultaneously. 4030 does not fulfill any requirements towards the major. Registration for 4030 may not exceed 5 credit hours per semester.

Pre-Health Students:

- Students interested in premed or other health professional degrees should take either as Additional Credits or as Requirements in the Major:
  a. **CHEM 3570 AND CHEM 3580** Organic Chemistry (full year sequence)
  b. **CHEM 2510** Introduction to Experimental Organic Chemistry (Organic Chemistry Lab)
  c. **PHYS 1101 AND PHYS 1102** General Physics (auto-tutorial) OR **PHYS 2207 AND PHYS 2208** Fundamentals of Physics
  d. **MATH 1106** Calculus for the Life and Social Sciences OR **MATH 1110** Calculus I
  e. **NS 3410 Human Anatomy and Physiology AND NS 3420 Human Anatomy and Physiology Laboratory** OR **BIOMI 2900 General Microbiology Lectures AND BIOMG 4320 Survey of Cell Biology**
  f. **PSYCH 1101 Introduction to Psychology OR HD 1150 Human Development: Infancy and Childhood**

Suggested Courses:

- Students interested in health informatics and/or computer science could take a selection of the following courses as either Additional Credits, Electives, or Major Requirements. These specific courses are not required.
  a. **CS 1300** Introductory Design and Programming for the Web
  b. **CS 1112** Introduction to Computing Using MATLAB
  c. **INFO 4130** Health and Computation
  d. **ORIE 4580** Simulation Modeling and Analysis
  e. **ILRST 3130** The Ethics of Data Analysis
  f. **PAM 5641** Health Care Quality and IT
  g. **CS 1110** Introduction to Computing Using Python