Fiber Science 2017-2018

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

<table>
<thead>
<tr>
<th>Credits</th>
<th>I. Distribution Requirements</th>
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<tbody>
<tr>
<td></td>
<td>A. Natural Sciences 8</td>
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<td>B. Social Sciences 6</td>
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<td>C. Humanities 3-4</td>
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<td>D. Written Communications 6</td>
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<td>E. Quantitative and Analytical 11-12</td>
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<td>I.E.1. Statistics</td>
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<td>I.E.2. Calculus</td>
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<td>F. Additional credits 25-28</td>
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<td>I.F.2. Choose one of the following sequences: PHYS 1101 – 1102 PHYS 1112 – 2213 PHYS 2207 – 2208</td>
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<td>I.F.3. Choose one of the following sequences: CHEM 2870 - 2880 Introductory Physical Chemistry CHEM 3890 - 3900 Honors Physical Chemistry MSE 2610 Mechanical Properties of Materials: From Nanodevices to Superstructures AND MSE 3010 Materials Chemistry BIOG 1500 Investigative Biology Laboratory AND Choose two out of three from the following lecture options: (a) BIOMG 1350 Introductory Biology: Cell and Developmental Biology (b) BIOG 1440 Introductory Biology: Comparative Physiolog OR BIOG 1445 Autotutorial Physiology (c) BIOEE 1610 Introductory Biology: Ecology and the Environment DEA 1500 Introduction to Environmental Psychology AND DEA 3510 Ergonomics and Anthropometics</td>
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<td>I.F.4. Ethics/Sustainability: Choose one course from the following: ANTHR 3470 Ethics, Animals and Nonhumans BEE 3299 Sustainable Development: A Web-Based Course BSOC 2051 Ethical Issues in Health and Medicine (also STS 2051) BSOC 2061 Ethics and the Environment (also STS 2061/PHIL 2460) CRP 3011 Ethics, Development, and Globalization CRP 3840 Green Cities DEA 1200 Art + Science: Sustainability, Multiculturalism and Transdisciplinarity DEA 4220 Ecological Literacy and Design (also ARCH 4601) DSOC 3240 Environmental Sociology FSAD 4021/6021 Apparel and Textiles in Developing Nations I/Apparel and Textiles in Developing Nations II GOVT 4917 Ethics in International Relations HE 4923 Professional Practice and Leadership (NYC) INFO 1200 Information Ethics, Law, and Policy NTRES 3320 Introduction to Ethics and Environment PHIL 1450 Contemporary Moral Issues PHIL 2410 Ethics PHIL 2450 Ethics and Health Care</td>
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Choose one of the following sequences:
CHEM 1560 – 2080 General Chemistry
CHEM 2070 – 2080 General Chemistry
CHEM 2090 Engineering General Chemistry (requires written permission from the Chemistry Office of Undergraduate Studies) – 2080 General Chemistry

Choose any course with the Course Distribution HA, LA or CA.

Must be First-Year Writing Seminars

MUST BE COMPLETED DURING FIRST 2 SEMESTERS

Either Statistics or Calculus must be taken at Cornell unless you have earned a score of 4 or 5 on AP Calculus BC.

Once the above requirement is met, other AP credit from Calculus AB (a score of 4 or 5) or Statistics (a score of 4 or 5) may be applied to the Quantitative and Analytical requirement if the content is not overlapping.

Choose one of the following:
AEM 2100, BTRY 3010, ILRST/STSCI 2100, MATH 1710, PAM 2100, PSYCH 3500, ENGRD 2700

Choose one of the following sequences:
MATH 1110 – 1120
MATH 1110 – 1220
MATH 1910 – 1920 (preferred)
II. Requirements in the Major                                      25-26
A. Must take the following:
  FSAD 1350 Fibers, Fabrics, and Finishes
  FSAD 1360 Fiber and Yarn Analysis Laboratory
  FSAD 2370 Structural Fabric Design
  FSAD 3320 Product Quality Assessment
  FSAD 3350 Fiber Science
  FSAD 4360 Fiber Chemistry
  FSAD 4660 Textiles, Apparel, and Innovation
Choose one of the following:
  CS 1110 Introduction to Computing Using Python
  CS 1112 Introduction to Computing Using MATLAB
  CS 1300 Introductory Design and Programming for the Web (also INFO 1300)
  FSAD 1140 Introduction to Computer-Aided Design
Choose one of the following:
  FSAD 4390 Biomedical Materials and Devices for Human Body Repair
  FSAD 6160 Rheology of Solids: Dynamic Mechanical Analysis of Fibers and Polymers
  FSAD 6260 Physical Properties of Fiber – Forming Polymers and Fibers
  FSAD 6260 The Chemistry of Textile Finishes and Dyeing
  FSAD 6390 Properties of Fibrous Systems
  FSAD 6660 Fiber Formation: Theory and Practice

III. Electives                                                   Variable Credit
Recommended:
  Human Ecology Distribution (9 credits)
  Foreign Language
  COMM 2010 Oral Communication
  HADM 3650 Managerial Communication II

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

Total Credits (exclusive of PE)                                  120

College Requirements:

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

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

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

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

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

- Students must complete 120 credits overall, exclusive of physical education and “00” courses.
- Elective credits can be earned in Human Ecology or elsewhere.