CLAS C&C

Minutes DRAFT

8.28.2018

Chair: Pamela Bedore

1. **Opening Business**

Welcome and Introductions

Review of Procedures

* The CLAS C&C website, which includes information and access to the online CAR workflow, is at <https://ccc.clas.uconn.edu/>. Please don’t hesitate to email pam.bedore@uconn.edu with any questions about submitting proposals to add, revise, or drop courses, minors, majors, or graduate programs.
* The effective date for all course, minor, and major revisions (all approvals obtained) is **Feb 5, 2019**.
* If you’re interested in serving on the Delta General Education committee tasked with making recommendations for changes to the gen ed curriculum, please email Bedore.
* Bedore also welcomes topics of discussion/revision for 2018/19. Again, please email.

**B. Approvals by the Chair**

2018-180 MARN 5995 Special Topic: Oceanographic Expedition (Fall 2018)

**C. Old Business**

2018-174 MCB 3845W Add Course (G) (S)

**D. New Business**

2018-181 Biological Sciences Revise Major (guest: Joe Crivello)

2018-182 ARIS 1211 Add Course (guest: Ally Ladha) (G) (S)

2018-183 GSCI 5150 Add Course (guest: Ran Fang)

2018-184 AASI/HIST 3530 Revise Course (S)

2018-185 AASI/HIST 3554 Revise Course

2018-186 AASI/HIST 3820 Revise Course

2018-187 AASI/HIST 3822 Revise Course

2018-188 AASI/HIST 3841 Revise Course

2018-189 AASI/HIST 3842 Revise Course

2018-190 AASI/HIST 3845 Revise Course

2018-191 AFRA/CLTR 5100 Revise Course

2018-192 POLS 5615 Revise Course

2018-193 POLS 5610 Drop Course

2018-194 ECON Revise Major

2018-195 ECON Revise Minor

2018-196 ENVS (CLAS) Revise Major

2018-197 Film Studies Revise Minor

2018-198 PHYS Revise Minor

**Discussion**

Research and Experiential Courses proposal from the Senate Scholastic Standards Committee

**APPROVED CATALOG COPY:**

**2018-181 Biological Sciences Revise Major (guest: Joe Crivello)**

*Current Copy:*

**Biology**

The biological sciences are organized into three departments: the Department of Ecology and Evolutionary Biology (EEB), the Department of Molecular and Cell Biology (MCB, and the Department of Physiology and Neurobiology (PNB). Introductory level courses are listed under General Biology (BIOL). Other courses are listed separately under individual departments.

The Bachelor of Science Degree is generally recommended for students planning a scientific career in biology, but the Bachelor of Arts Degree in Biological Sciences allows a richer liberal arts program and provides good preparation for many careers, including subsequent graduate study

**Credit restriction:** In no case may students receive more than 12 credits for courses in biology at the 1000 level.

**Biological Sciences Major**

The requirements for the major in Biological Sciences are designed to ensure a sound and broad background in biology, with opportunities to explore related fields. Biological Sciences majors must take [BIOL 1107](https://catalog.uconn.edu/BIOL/#1107) and [1108](https://catalog.uconn.edu/BIOL/#1108), but majors interested primarily in botany may wish to take [BIOL 1110](https://catalog.uconn.edu/BIOL/#1110) in addition or may substitute [BIOL 1110](https://catalog.uconn.edu/BIOL/#1110) for [BIOL 1108](https://catalog.uconn.edu/BIOL/#1108). Students wishing to complete this major must take at least 24 credits of 2000-level or higher courses from EEB, MCB, and PNB, of which at least three credits must be at the 3000 level or above. It is strongly recommended that at least four courses include laboratory or field work. In addition to laboratory work associated directly with courses, an Independent Study course in any of the three biology departments will provide majors with a means of gaining specific research experience. A maximum of 3 independent study credits from among [EEB 3899](https://catalog.uconn.edu/EEB/#3899), [MCB 3899](https://catalog.uconn.edu/MCB/#3899), [MCB 3989](https://catalog.uconn.edu/MCB/#3989), [MCB 4989](https://catalog.uconn.edu/MCB/#4989), and [PNB 3299](https://catalog.uconn.edu/PNB/#3299) may count toward the 24-credit requirement. Courses chosen for the major must include at least one course or course sequence from each of the following three groups:

1. [MCB 2000](https://catalog.uconn.edu/MCB/#2000), [2210](https://catalog.uconn.edu/MCB/#2210), [2400](https://catalog.uconn.edu/MCB/#2400), [2410](https://catalog.uconn.edu/MCB/#2410), [2610](https://catalog.uconn.edu/MCB/#2610), or [3010](https://catalog.uconn.edu/MCB/#3010)
2. [EEB 2244/W](https://catalog.uconn.edu/EEB/#2244) or [2245/W](https://catalog.uconn.edu/EEB/#2245).
3. [PNB 2250](https://catalog.uconn.edu/PNB/#2250), or [2274](https://catalog.uconn.edu/PNB/#2274)–[2275](https://catalog.uconn.edu/PNB/#2275). (Note: [PNB 2274](https://catalog.uconn.edu/PNB/#2274)–[2275](https://catalog.uconn.edu/PNB/#2275) must be taken in sequence to be counted towards the Biology major.)

To satisfy the writing in the major and information literacy competency requirements, all students must pass at least one of the following courses: [EEB 2244W](https://catalog.uconn.edu/EEB/#2244W), [2245W](https://catalog.uconn.edu/EEB/#2245W), [3220W](https://catalog.uconn.edu/EEB/#3220W), [4230W](https://catalog.uconn.edu/EEB/#4230W), [4276W](https://catalog.uconn.edu/EEB/#4276W), [4896W](https://catalog.uconn.edu/EEB/#4896W), 5335W; [MCB 3841W](https://catalog.uconn.edu/MCB/#3841W), [4026W](https://catalog.uconn.edu/MCB/#4026W), [4997W](https://catalog.uconn.edu/MCB/#4997W); [PNB 3263WQ](https://catalog.uconn.edu/PNB/#3263WQ), [4296W](https://catalog.uconn.edu/PNB/#4296W); or any W course approved for this major.

A maximum of eight 2000-level or above transfer credits in EEB, MCB, or PNB may count toward the major with approval of the respective department.

A minor in Biological Sciences is described in the "[Minors](https://catalog.uconn.edu/minors/biological-sciences/)" section.

Majors are also offered in [Ecology and Evolutionary Biology](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/ecology-evolutionary-biology/), [Molecular and Cell Biology](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/molecular-and-cell-biology/), [Physiology and Neurobiology](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/physiology-neurobiology/), and [Structural Biology and Biophysics](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/structural-biology-biophysics/). These majors are described in separate sections in the *Catalog*.

*Approved Copy:*

**Biology**

The biological sciences are organized into three departments: the Department of Ecology and Evolutionary Biology (EEB), the Department of Molecular and Cell Biology (MCB, and the Department of Physiology and Neurobiology (PNB). Introductory level courses are listed under General Biology (BIOL).

The Bachelor of Science Degree is generally recommended for students planning a scientific career in biology, but the Bachelor of Arts Degree in Biological Sciences allows a richer liberal arts program and provides good preparation for many careers, including subsequent graduate study

**Credit restriction:** In no case may students receive more than 12 credits for courses in biology at the 1000 level.

**Biological Sciences Major**

 The Biological Sciences major gives students a broad training in all aspects of biological sciences and prepares students interested in graduate programs in science, biotechnology, or health (MD, DDS, PA), science education, and other related fields. The major can be tailored for a student's interest in any area of biology. Students can obtain a B.S. or B.A. degree. The Biological Sciences B.A. degree does not require students to also take chemistry, physics and calculus and focuses solely on classes related to biology. All BIOL majors are required to take the following introductory classes and are encouraged to do so by the end of their sophomore year.

* BIOL 1107 Principles of Biology I (4 credits)
* BIOL 1108 Principles of Biology II (4 credits), **or**, BIOL 1110 Introduction to Botany (4 credits)

Students are required to take a class from each of the five core areas of ecology; evolution; genetics; physiology; cells and molecules.

* Ecology
	+ EEB 2244 **or** 2244W General Ecology (3 or 4 credits)
* Evolution
	+ EEB 2245 **or** 2245W Evolutionary Biology (3 or 4 credits)
* Genetics
	+ MCB 2410 Genetics (3 credits) **or** MCB 2400 Human Genetics (3 credits)
* Physiology
	+ PNB 2250 Animal Physiology (3 credits) **or** PNB 2274 and 2275 Enhanced Human Anatomy & Physiology (8 credits total)
* Cells and Molecules
	+ MCB 2000 Biochemistry (4 credits), **or** MCB 2210 Cell Biology (3 credits), **or** MCB 2610 Fundamentals of Microbiology (4 credits)

Students must complete a total of 36 credits from any EEB, MCB, or PNB course at the 2000 level or higher. Six credits must be at the 3000 level or higher. Students are also required to take a 'W' course from any W course offered by EEB, MCB or PNB. A maximum of 3 independent study credits from among [EEB 3899](https://catalog.uconn.edu/EEB/#3899), [MCB 3899](https://catalog.uconn.edu/MCB/#3899), [MCB 3989](https://catalog.uconn.edu/MCB/#3989), [MCB 4989](https://catalog.uconn.edu/MCB/#4989), and [PNB 3299](https://catalog.uconn.edu/PNB/#3299) may count toward the 36-credit requirement. A maximum of eight 2000-level or above transfer credits in EEB, MCB, or PNB may count toward the major with approval of the respective department.

A minor in Biological Sciences is described in the "[Minors](https://catalog.uconn.edu/minors/biological-sciences/)" section.

Majors are also offered in [Ecology and Evolutionary Biology](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/ecology-evolutionary-biology/), [Molecular and Cell Biology](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/molecular-and-cell-biology/), [Physiology and Neurobiology](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/physiology-neurobiology/), and [Structural Biology and Biophysics](https://catalog.uconn.edu/college-of-liberal-arts-and-sciences/structural-biology-biophysics/). These majors are described in separate sections in the *Catalog*.

**2018-182 ARIS 1211 Add Course (guest: Ally Ladha) (G) (S)**

*Approved Copy:*

ARIS 1211. Introduction to Islam

Three credits. Taught in English.

An introduction to the study of Islam as an intellectual and lived religious tradition. Revelation, literature, aesthetics, philosophy, theology, and law in relation to faith practices in diverse Muslim societies across time. (CA1-E, CA4)

**2018-183 GSCI 5150 Add Course (guest: Ran Fang)**

*Approved Copy:*

GSCI 5150. Applied Data Analysis in Earth Sciences

Three credits. Open to graduate students; others with instructor permission. Recommended preparation: Introductory level statistics (equivalent to STATS 1000Q or 1100Q), Introductory level Earth sciences (equivalent to GSCI1050 or 1051).

Application of multivariate and time series analysis methods in Earth Sciences, emphasizing conceptual understanding and hands-on application using R.

**2018-184 AASI/HIST 3530 Revise Course (S)**

*Current Copy:*

HIST 3530. Asian-American Experience Since 1850

(Also offered as AASI 3578.) Three credits. Chang

Survey of Asian-American experiences in the United States since 1850. Responses by Asian-Americans to both opportunities and discrimination.

*Approved Copy:*

HIST 2530. Asian American Experience Since 1850

(Also offered as AASI 2530.) Three credits.

Survey of Asian American experiences in the United States since 1850. Responses by Asian Americans to both opportunities and discrimination.

**2018-185 AASI/HIST 3554 Revise Course**

*Current Copy:*

HIST 3554. Immigrants and the Shaping of American History

Three credits. Recommended preparation: One course in American History. Chang

The origins of immigration to the United States and the interaction of immigrants with the social, political, and economic life of the nation after 1789, with emphasis on such topics as nativism, assimilation, and the “ethnic legacy.”

*Approved Copy:*

AASI 3554 / HIST 3554. Immigrants and the Shaping of American History

Three credits. Recommended preparation: One course in American History.

The origins of immigration to the United States and the interaction of immigrants with the social, political, and economic life of the nation after 1789, with emphasis on such topics as nativism, assimilation, and the “ethnic legacy.”

**2018-186 AASI/HIST 3820 Revise Course**

*Current Copy:*

HIST 3820. History of Modern Chinese Political Thought

Three credits.

Survey of Chinese political ideas and ideologies since the nineteenth century.

*Approved Copy:*

AASI/HIST 3820. History of Modern Chinese Political Thought

Three credits.

Survey of Chinese political ideas and ideologies since the nineteenth century.

**2018-187 AASI/HIST 3822 Revise Course**

*Current Copy:*

HIST 3822 Modern China

Three credits.

Survey of patterns of modern China since 1800. Topics will include reforms and revolutions, industrialization and urbanization, and family and population growth.

*Approved Copy:*

AASI/HIST 3822 Modern China

Three credits.

Survey of patterns of modern China since 1800. Topics will include reforms and revolutions, industrialization and urbanization, and family and population growth.

**2018-188 AASI/HIST 3841 Revise Course**

*Current Copy:*

HIST 3841. Empire and Nation in Southeast Asia

Three credits. Prerequisite: Open to sophomores or higher.

Major themes in modern Southeast Asian history from the 17th century to the present: growth of global commerce; western imperialism; nationalism; emergence of independent nation-states; challenges of the post-independence period. Emphasis on the region’s largest countries: Burma, Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

*Approved Copy:*

AASI/HIST 3841. Empire and Nation in Southeast Asia

Three credits. Prerequisite: Open to sophomores or higher.

Major themes in modern Southeast Asian history from the 17th century to the present: growth of global commerce; western imperialism; nationalism; emergence of independent nation-states; challenges of the post-independence period. Emphasis on the region’s largest countries: Burma, Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

**2018-189 AASI/HIST 3842 Revise Course**

*Current Copy:*

HIST 3842: History of Vietnam

Three credits. Prerequisite: Open to sophomores or higher.

Introduction to the history of the Vietnamese from the late Bronze Age to the present: the ancient culture of the Red River delta, the millennium of Chinese rule, the independent kingdom of Dai Viet and its successors, French colonialism, the Vietnam War, and postwar Vietnam.

*Approved Copy:*

AASI/HIST 3842: History of Vietnam

Three credits. Prerequisite: Open to sophomores or higher.

Introduction to the history of the Vietnamese from the late Bronze Age to the present: the ancient culture of the Red River delta, the millennium of Chinese rule, the independent kingdom of Dai Viet and its successors, French colonialism, the Vietnam War, and postwar Vietnam.

**2018-190 AASI/HIST 3845 Revise Course**

*Current Copy:*

HIST 3845: The Vietnam War

Three credits. Prerequisite: Open to sophomores or higher.

Origins, evolution, and aftermath of the Vietnamese conflict: the prewar history of colonialism, nationalism, communism, and anticommunism; the formation and development of the three main Vietnamese belligerents; American intervention; culture and politics in wartime Vietnam; escalation and de-escalation of the war; the postwar legacy.

*Approved Copy:*

AASI/HIST 3845: The Vietnam War

Three credits. Prerequisite: Open to sophomores or higher.

Origins, evolution, and aftermath of the Vietnamese conflict: the prewar history of colonialism, nationalism, communism, and anticommunism; the formation and development of the three main Vietnamese belligerents; American intervention; culture and politics in wartime Vietnam; escalation and de-escalation of the war; the postwar legacy.

**2018-191 AFRA/CLTR 5100 Revise Course**

*Current Copy:*

AFRA 5100. Impacts of Race on Health Equity and Medical Research and Practice

Three credits. Prerequisite: Open to Medical and Dental School graduate students with instructor consent.

Impacts of race and racism in medicine, healthcare, and health outcomes in the United States. Sociological, psychological, historical, and medical perspectives on the multiple health risks affecting racialized non-white populations as well as how disparities should be addressed.

*Approved Copy:*

AFRA/CLTR 5100. Impacts of Race on Health Equity and Medical Research and Practice

Three credits. Prerequisite: Open only to graduate students. Instructor consent required.

Impacts of race and racism in medicine, healthcare, and health outcomes in the United States. Sociological, psychological, historical, and medical perspectives on health risks affecting racialized, non-white populations and on strategies to address health disparities.

**2018-174 MCB 3845W Add Course (G) (S)**

*Approved Copy:*

MCB 3845W Microbial Diversity, Ecology and Evolution

Three credits. Prerequisites: ENGL 1010 or 1011 or 2011; BIOL 1107. Recommended preparation: MCB 2610

Prokaryotic organisms generate diversity primarily through horizontal gene transfer. Readings from the scientific literature will provide a focus for investigating the mechanisms and strategies for the exchange of genetic information, as well as the impact of gene transfer on environmental adaptation and evolution.

**2018-192 POLS 5615 Revise Course**

*Current Copy:*

POLS 5615. Seminar in Qualitative Methods of Political Science

Three credits. Prerequisite: POLS 5600, 5605, and 5610; department consent required. May be repeated once for credit.

A survey of qualitative research methods. Training in use of case studies, comparative historical approach, interviewing and focus groups, ethnography and interpretive methods.

*Approved Copy:*

POLS 5615. Seminar in Qualitative Methods of Political Science

Three credits. Prerequisite: POLS 5600 and 5605; department consent required. May be repeated once for credit.

A survey of qualitative research methods. Training in use of case studies, comparative historical approach, interviewing and focus groups, ethnography and interpretive methods.

**2018-193 POLS 5610 Drop Course**

*Current Copy:*

POLS 5610. Research Design in Political Science

Three credits.

Introduction to quantitative and non-quantitative empirical research design in political science.

*Approved*

**2018-194 ECON Revise Major**

*Current Copy:*

A student majoring in economics should acquire a thorough grounding in basic principles and methods of analysis, plus a working competence in several of the specialized and applied fields. Examples of such fields are industrial organization, law and economics, money and banking, international trade and finance, public finance, labor economics, health economics, urban and regional economics, and economic development. The major in economics can lead to either a Bachelor of Arts or a Bachelor of Science degree.

Course work in economics serves a wide variety of vocational objectives. An economics major (supplemented by a rigorous calculus and statistics course sequence) is excellent preparation for graduate work in economics, which qualifies a person for academic, business, or government employment. Majors and others with strong economics training are attractive prospects for business firms and government agencies, and for professional graduate study in business or public policy. An economics background is especially desirable for the study and practice of law. The economics B.S. is recommended for students interested in professions that call for quantitative skills. The B.S. is especially recommended for Honors students and students considering graduate school in economics or other quantitative areas.

For an economics major that leads to a Bachelor of Arts degree, students must earn twenty-four credits in courses at the 2000 level or above, including two intermediate theory courses (ECON 2201 or 2211Q and 2202 or 2212Q), plus at least nine credits in either quantitative skills courses (ECON 2301- 2328) and/or ECON courses at the 3000 level or above. No more than six credits in ECON 2499 and/or 3499 may be counted toward the required 24 credits in economics courses at the 2000 level or above. ECON 2481 does not count toward fulfilling the major requirements.

Economics B.A. majors are also required to pass twelve credits in 2000-level or above courses in fields related to economics or to fulfill a minor related to economics. In addition, all Economics majors must take STAT 1000Q or 1100Q and one of the following: MATH 1071Q, 1110Q, 1126Q, 1131Q, 1151Q or 2141Q. MATH 1125Q or higher is recommended, and STAT 1100Q is recommended over STAT 1000Q. Students may substitute more advanced MATH and STAT courses with consent of the faculty advisor.

For an economics major that leads to a Bachelor of Science degree, students must take STAT 1000Q or 1100Q (STAT 1100Q is recommended over STAT 1000Q) and one of the following MATH sequences: MATH 1125Q, 1126Q, and 1132Q; MATH 1131Q (or 1151Q) and 1132Q (or 1152Q); or MATH 2141Q and 2142Q. In addition, B.S. majors must also take one of the following: MATH 2110Q or 2130Q or 2210Q or 2410Q or 2420Q. Students may substitute more advanced MATH and STAT courses with consent of the advisor.

B.S. students must take one of the following science sequences in Biology, Chemistry, or Physics:

1. Biology: BIOL 1107 and either BIOL 1108 or 1110.
2. Chemistry: CHEM 1124Q, 1125Q, 1126Q; or CHEM 1127Q, 1128Q; or CHEM 1137Q, 1138Q; or CHEM 1147Q, 1148Q.
3. Physics: PHYS 1201Q, 1202Q; or PHYS 1401Q, 1402Q; or PHYS 1501Q, 1502Q; or PHYS 1601Q, 1602Q.

One of these courses may be used to fulfill the CA 3 lab requirement of the University’s general education requirements. In addition, students must take one other CA 3 course from a different subject area, but it need not be a lab course.

B.S. majors must also earn 29 credits in courses at the 2000-level or above, including two quantitative intermediate theory courses (ECON 2211Q and 2212Q); a sequence in econometrics (ECON 2311 and 2312); at least six credits from the following modeling and methods courses (ECON 2301, 2326, 2327, 3208, 3313, 4206); plus at least nine additional credits in ECON courses at the 2000-level or higher. B.S. majors may not count ECON 2201, 2202, or 2481 toward the major, nor may they count more than six credits in ECON 2499 and/or 3499. Students may substitute equivalent graduate-level courses with consent of the advisor.

B.S. majors are also required to pass 12 credits in 2000-level or above courses in a field or fields related to economics. These related area courses may count toward a minor in a field related to economics.

For both the B.A. and B.S., the intermediate theory courses (ECON 2201 or 2211Q and ECON 2202 or 2212Q) should be taken early in the student’s major program. ECON 2311 is a recommended course for the B.A. The department has special requirements for economic majors in the University Honors Program and for majors who qualify for the department’s Economics Scholars and Quantitative Certificate Programs.

Economics majors satisfy the information literacy competency by passing at least one W course in Economics. Students may gain enhanced competence in information literacy by taking ECON 2311, 2312W, 2326, or 2327. Economics majors satisfy the writing in the major requirement by passing at least one W course in Economics. A minor in Economics is described in the “Minors” section.

*Approved Copy:*

A student majoring in economics should acquire a thorough grounding in basic principles and methods of analysis, plus a working competence in several of the specialized and applied fields. Examples of such fields are industrial organization, law and economics, money and banking, international trade and finance, public finance, labor economics, health economics, urban and regional economics, and economic development. The major in economics can lead to either a Bachelor of Arts or a Bachelor of Science degree.

Course work in economics serves a wide variety of vocational objectives. An economics major (supplemented by a rigorous calculus and statistics course sequence) is excellent preparation for graduate work in economics, which qualifies a person for academic, business, or government employment. Majors and others with strong economics training are attractive prospects for business firms and government agencies, and for professional graduate study in business or public policy. An economics background is especially desirable for the study and practice of law. The economics B.S. is recommended for students interested in professions that call for quantitative skills. The B.S. is especially recommended for Honors students and students considering graduate school in economics or other quantitative areas.

For an economics major that leads to a Bachelor of Arts degree, students must earn twenty-four credits in courses at the 2000 level or above, including two intermediate theory courses (ECON 2201 or 2211Q and 2202 or 2212Q), plus at least nine credits in either quantitative skills courses (ECON 2301- 2328) and/or ECON courses at the 3000 level or above. No more than six credits in ECON 2499 and/or 3499 may be counted toward the required 24 credits in economics courses at the 2000 level or above. ECON 2481 does not count toward fulfilling the major requirements.

Economics B.A. majors are also required to pass twelve credits in 2000-level or above courses in fields related to economics or to fulfill a minor related to economics. In addition, all Economics majors must take STAT 1000Q or 1100Q and one of the following: MATH 1071Q, 1110Q, 1126Q, 1131Q, 1151Q or 2141Q. MATH 1125Q or higher is recommended, and STAT 1100Q is recommended over STAT 1000Q. ECON 2311 is a recommended course for the B.A. Students may substitute more advanced MATH and STAT courses with consent of the faculty advisor.

For an economics major that leads to a Bachelor of Science degree, students must take STAT 1000Q or 1100Q (STAT 1100Q is recommended over STAT 1000Q) and one of the following MATH sequences: MATH 1125Q, 1126Q, and 1132Q; MATH 1131Q (or 1151Q) and 1132Q (or 1152Q); or MATH 2141Q and 2142Q. In addition, B.S. majors must also take one of the following: MATH 2110Q or 2130Q or 2210Q or 2410Q or 2420Q. Students may substitute more advanced MATH and STAT courses with consent of the advisor.

B.S. students must take one of the following science sequences in Biology, Chemistry, or Physics:

1. Biology: BIOL 1107 and either BIOL 1108 or 1110.
2. Chemistry: CHEM 1124Q, 1125Q, 1126Q; or CHEM 1127Q, 1128Q; or CHEM 1137Q, 1138Q; or CHEM 1147Q, 1148Q.
3. Physics: PHYS 1201Q, 1202Q; or PHYS 1401Q, 1402Q; or PHYS 1501Q, 1502Q; or PHYS 1601Q, 1602Q.

One of these courses may be used to fulfill the CA 3 lab requirement of the University’s general education requirements. In addition, students must take one other CA 3 course from a different subject area, but it need not be a lab course.

B.S. majors must also earn 29 credits in courses at the 2000-level or above, including two quantitative intermediate theory courses (ECON 2211Q and 2212Q); a sequence in econometrics (ECON 2311 and 2312); and at least six credits from the following modeling and methods courses: ECON 2301, 2326, 2327, 3208, 3313, 3315, 4206. ~~plus at least nine additional credits in ECON courses at the 2000-level or higher.~~  Students may substitute equivalent graduate-level courses with consent of the advisor. B.S. majors may fulfill the requirement for ECON 2211Q and ECON 2212Q by taking ECON 2201, ECON 2202, and ECON 2301, in which case ECON 2301 cannot be used to fulfill the requirement for six credits in modeling and methods courses. B.S. majors may not count ECON ~~2201, 2202, or~~ 2481 toward the major, nor may they count more than six credits in ECON 2499 and/or 3499. ~~Students may substitute equivalent graduate-level courses with consent of the advisor~~.

B.S. majors are also required to pass 12 credits in 2000-level or above courses in a field or fields related to economics. These related area courses may count toward a minor in a field related to economics.

For both the B.A. and B.S., the intermediate theory courses (ECON 2201 or 2211Q and ECON 2202 or 2212Q) should be taken early in the student’s major program. ~~ECON 2311 is a recommended course for the B.A.~~ The department has special requirements for economic majors in the University Honors Program ~~and for majors who qualify for the department’s Economics Scholars and Quantitative Certificate Programs~~.

Economics majors satisfy the information literacy competency by passing at least one W course in Economics. Students may gain enhanced competence in information literacy by taking ECON 2311, 2312W, 2326, or 2327. Economics majors satisfy the writing in the major requirement by passing at least one W course in Economics. A minor in Economics is described in the “Minors” section.

**2018-195 ECON Revise Minor**

*Current Copy:*

Students wishing to minor in Economics must complete five three-credit courses at the 2000 level and above, including ECON 2201, 2202, and one course numbered 2301–2328 or at the 3000 level or above.

The minor is offered by the Economics Department

*Approved Copy:*

Students wishing to minor in Economics must complete five three-credit courses at the 2000 level and above, including ECON 2201 or 2211Q, ECON 2202 or 2212Q, and one course numbered 2301–2328 or at the 3000 level or above.

The minor is offered by the Economics Department

**2018-196 ENVS (CLAS) Revise Major**

*Current Copy:*

The major in Environmental Sciences is based in the physical and biological sciences, but also includes course work in selected areas of the social sciences. The major leads to a Bachelor of Science degree, and may be adopted by students in either the College of Agriculture, Health and Natural Resources or the College of Liberal Arts and Sciences. This curriculum offers a comprehensive approach to the study of environmental problems, including not only a rigorous scientific background, but also detailed analyses of the social and economic implications of environmental issues. The complexity and interdisciplinary nature of environmental science is reflected in the core requirements of the major. These courses, assembled from several different academic departments representing two colleges, provide both breadth and depth, preparing students for careers that deal with environmental issues and for graduate study in environmental sciences and related fields.

### Required courses in Basic (Natural) Sciences

* [BIOL 1107](https://catalog.uconn.edu/BIOL/#1107) and [1108](https://catalog.uconn.edu/BIOL/#1108) or [1110](https://catalog.uconn.edu/BIOL/#1110);
* [CHEM 1124Q](https://catalog.uconn.edu/CHEM/#1124Q), [1125Q](https://catalog.uconn.edu/CHEM/#1125Q), [1126Q](https://catalog.uconn.edu/CHEM/#1126Q) or [1127Q](https://catalog.uconn.edu/CHEM/#1127Q), [1128Q](https://catalog.uconn.edu/CHEM/#1128Q);
* [MATH 1131Q](https://catalog.uconn.edu/MATH/#1131Q), [1132Q](https://catalog.uconn.edu/MATH/#1132Q);
* [PHYS 1201Q](https://catalog.uconn.edu/PHYS/#1201Q), [1202Q](https://catalog.uconn.edu/PHYS/#1202Q), or [1401Q](https://catalog.uconn.edu/PHYS/#1401Q), [1402Q](https://catalog.uconn.edu/PHYS/#1402Q);
* [STAT 1000Q](https://catalog.uconn.edu/STAT/#1000Q) or [1100Q](https://catalog.uconn.edu/STAT/#1100Q) or [3025Q](https://catalog.uconn.edu/STAT/#3025Q);
* [NRE 1000](https://catalog.uconn.edu/NRE/#1000).

[ARE 1150](https://catalog.uconn.edu/ARE/#1150); [ECON 1200](https://catalog.uconn.edu/ECON/#1200) or [1201](https://catalog.uconn.edu/ECON/#1201); [GEOG 2300](https://catalog.uconn.edu/GEOG/#2300); [GSCI 1050](https://catalog.uconn.edu/GSCI/#1050); and [MARN 1002](https://catalog.uconn.edu/MARN/#1002) are prerequisites for several upper division course concentration options. It is the student’s responsibility to ensure that all pre-requisites in the catalog for concentration courses have been satisfied.

### Required Sophomore Seminar Course

[ENVS 2000](https://catalog.uconn.edu/ENVS/#2000)

### Required Capstone Course

[NRE 4000W](https://catalog.uconn.edu/NRE/#4000W) (3 credits). Completion of NRE 4000W satisfies the writing in the major and information literacy exit requirements.

### Required Internship or Research Experience

1-6 credits of internship and/or research experience. Internship and/or research experience must be approved by the student’s advisor.

### Area of Concentration

All students majoring in Environmental Sciences must declare and fulfill the requirements of a concentration in a discipline associated with the program before graduation. Approved concentrations are listed below:

#### Sustainable Systems Concentration

Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

##### Resource Management

[EEB 2208](https://catalog.uconn.edu/EEB/#2208); [GEOG 3340](https://catalog.uconn.edu/GEOG/#3340); [MARN 3030](https://catalog.uconn.edu/MARN/#3030); [NRE 2010](https://catalog.uconn.edu/NRE/#2010), [2215](https://catalog.uconn.edu/NRE/#2215), [2345](https://catalog.uconn.edu/NRE/#2345), [3105](https://catalog.uconn.edu/NRE/#3105), [3125](https://catalog.uconn.edu/NRE/#3125), [3155](https://catalog.uconn.edu/NRE/#3155), [3305](https://catalog.uconn.edu/NRE/#3305), [3335](https://catalog.uconn.edu/NRE/#3335), [3345/W](https://catalog.uconn.edu/NRE/#3345), [3500](https://catalog.uconn.edu/NRE/#3500), [3535](https://catalog.uconn.edu/NRE/#3535), [4335](https://catalog.uconn.edu/NRE/#4335), [4575](https://catalog.uconn.edu/NRE/#4575).

##### Ecological Systems

[EEB 2244/W](https://catalog.uconn.edu/EEB/#2244), [3247](https://catalog.uconn.edu/EEB/#3247), [4230W](https://catalog.uconn.edu/EEB/#4230W); [EEB 3230](https://catalog.uconn.edu/EEB/#3230)/[MARN 3014](https://catalog.uconn.edu/MARN/#3014); [NRE 2455](https://catalog.uconn.edu/NRE/#2455), [3205](https://catalog.uconn.edu/NRE/#3205), [4340](https://catalog.uconn.edu/NRE/#4340).

Students must complete at least one course from each of the following Knowledge Competencies.

##### Built Systems

[AH 3175](https://catalog.uconn.edu/AH/#3175); [GEOG 2400](https://catalog.uconn.edu/GEOG/#2400); [LAND 3230W](https://catalog.uconn.edu/LAND/#3230W); [NRE 3265](https://catalog.uconn.edu/NRE/#3265).

##### Governance and Policy

[AH 3174](https://catalog.uconn.edu/AH/#3174); [ARE 2235](https://catalog.uconn.edu/ARE/#2235), [3434](https://catalog.uconn.edu/ARE/#3434), [3437](https://catalog.uconn.edu/ARE/#3437), [4438](https://catalog.uconn.edu/ARE/#4438), [4462](https://catalog.uconn.edu/ARE/#4462); [ECON/MAST 2467](https://catalog.uconn.edu/MAST/#2467); [GEOG 3320W](https://catalog.uconn.edu/GEOG/#3320W); [MAST/POLS 3832](https://catalog.uconn.edu/POLS/#3832); [NRE 3000](https://catalog.uconn.edu/NRE/#3000), [3201](https://catalog.uconn.edu/NRE/#3201), [3245](https://catalog.uconn.edu/NRE/#3245); [POLS 3412](https://catalog.uconn.edu/POLS/#3412); [SOCI 3407/W](https://catalog.uconn.edu/SOCI/#3407).

##### Ethics, Values, and Culture

[ANTH 3339](https://catalog.uconn.edu/ANTH/#3339); [ENGL 3240](https://catalog.uconn.edu/ENGL/#3240), [3715](https://catalog.uconn.edu/ENGL/#3715); [GEOG 3410](https://catalog.uconn.edu/GEOG/#3410); [HIST 3540](https://catalog.uconn.edu/HIST/#3540), [3542](https://catalog.uconn.edu/HIST/#3542); [JOUR 3046](https://catalog.uconn.edu/JOUR/#3046); [PHIL 3216](https://catalog.uconn.edu/PHIL/#3216); [SOCI 2701](https://catalog.uconn.edu/SOCI/#2701), [2705](https://catalog.uconn.edu/SOCI/#2705), [2709W](https://catalog.uconn.edu/SOCI/#2709W), [3407/W](https://catalog.uconn.edu/SOCI/#3407).

##### Economics and Business

[ARE 2235](https://catalog.uconn.edu/ARE/#2235), [4305](https://catalog.uconn.edu/ARE/#4305), [4438](https://catalog.uconn.edu/ARE/#4438), [4444](https://catalog.uconn.edu/ARE/#4444), [4462](https://catalog.uconn.edu/ARE/#4462); [ECON/MAST 2467](https://catalog.uconn.edu/MAST/#2467); [ECON 3466](https://catalog.uconn.edu/ECON/#3466), [3473](https://catalog.uconn.edu/ECON/#3473).

#### Global Change Concentration

Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

##### Climate Change and its Impacts

[GEOG 3400](https://catalog.uconn.edu/GEOG/#3400), [4300](https://catalog.uconn.edu/GEOG/#4300); [GSCI 3010](https://catalog.uconn.edu/GSCI/#3010); [MARN 3000](https://catalog.uconn.edu/MARN/#3000); [NRE 3115](https://catalog.uconn.edu/NRE/#3115), [3146](https://catalog.uconn.edu/NRE/#3146), [4170](https://catalog.uconn.edu/NRE/#4170).

##### Land and Ocean Use and its Impacts

[EEB 2208](https://catalog.uconn.edu/EEB/#2208); [GEOG 3310](https://catalog.uconn.edu/GEOG/#3310), [3410](https://catalog.uconn.edu/GEOG/#3410); [GSCI 3020](https://catalog.uconn.edu/GSCI/#3020); [GSCI/MARN 3230](https://catalog.uconn.edu/MARN/#3230); [MARN 3001](https://catalog.uconn.edu/MARN/#3001), [3030](https://catalog.uconn.edu/MARN/#3030), [4066](https://catalog.uconn.edu/MARN/#4066); [NRE 2215](https://catalog.uconn.edu/NRE/#2215), [2345](https://catalog.uconn.edu/NRE/#2345), [3105](https://catalog.uconn.edu/NRE/#3105), [3115](https://catalog.uconn.edu/NRE/#3115), [3155](https://catalog.uconn.edu/NRE/#3155), [4340](https://catalog.uconn.edu/NRE/#4340); [NRE 4135](https://catalog.uconn.edu/NRE/#4135)/[GSCI 4735](https://catalog.uconn.edu/GSCI/#4735).

##### Natural Science

[CHEM 4370](https://catalog.uconn.edu/CHEM/#4370), [4371](https://catalog.uconn.edu/CHEM/#4371); [EEB 2244/W](https://catalog.uconn.edu/EEB/#2244), [2245/W](https://catalog.uconn.edu/EEB/#2245), [3247](https://catalog.uconn.edu/EEB/#3247); [EEB 3230](https://catalog.uconn.edu/EEB/#3230)/[MARN 3014](https://catalog.uconn.edu/MARN/#3014); [EEB/GSCI 4120](https://catalog.uconn.edu/GSCI/#4120); [GEOG 2300](https://catalog.uconn.edu/GEOG/#2300); [GSCI 4110](https://catalog.uconn.edu/GSCI/#4110), [4210](https://catalog.uconn.edu/GSCI/#4210); [MARN 2002](https://catalog.uconn.edu/MARN/#2002), [2060](https://catalog.uconn.edu/MARN/#2060), [3003Q](https://catalog.uconn.edu/MARN/#3003Q), [4030W](https://catalog.uconn.edu/MARN/#4030W), [4060](https://catalog.uconn.edu/MARN/#4060); [NRE 2455](https://catalog.uconn.edu/NRE/#2455), [3125](https://catalog.uconn.edu/NRE/#3125), [3145](https://catalog.uconn.edu/NRE/#3145), [3205](https://catalog.uconn.edu/NRE/#3205); [SPSS 2120](https://catalog.uconn.edu/SPSS/#2120), [3420](https://catalog.uconn.edu/SPSS/#3420).

Students must complete at least one course from each of the following Knowledge Competencies.

##### Methods

[CE 2251](https://catalog.uconn.edu/CE/#2251); [CE/ENVE 3530/GSCI 3710](https://catalog.uconn.edu/CE/#3530); [EEB 4230W](https://catalog.uconn.edu/EEB/#4230W); [GEOG 3500Q](https://catalog.uconn.edu/GEOG/#3500Q); [GEOG/GSCI 4230](https://catalog.uconn.edu/GEOG/#4230); [GEOG/MARN 3505](https://catalog.uconn.edu/MARN/#3505); [GSCI](https://catalog.uconn.edu/GSCI/#4735)/[NRE 4735](https://catalog.uconn.edu/NRE/#4735); [MARN 3003Q](https://catalog.uconn.edu/MARN/#3003Q); [NRE 2000](https://catalog.uconn.edu/NRE/#2000), [2010](https://catalog.uconn.edu/NRE/#2010), [3305](https://catalog.uconn.edu/NRE/#3305), [3345/W](https://catalog.uconn.edu/NRE/#3345), [3535](https://catalog.uconn.edu/NRE/#3535), [4335](https://catalog.uconn.edu/NRE/#4335), [4475](https://catalog.uconn.edu/NRE/#4475), [4535](https://catalog.uconn.edu/NRE/#4535), [4544](https://catalog.uconn.edu/NRE/#4544), [4545](https://catalog.uconn.edu/NRE/#4545), [4575](https://catalog.uconn.edu/NRE/#4575), [4665](https://catalog.uconn.edu/NRE/#4665); [PHYS 2400](https://catalog.uconn.edu/PHYS/#2400); [STAT 2215Q](https://catalog.uconn.edu/STAT/#2215Q), [3025Q](https://catalog.uconn.edu/STAT/#3025Q).

##### Governance and Policy

[AH 3174](https://catalog.uconn.edu/AH/#3174); [ARE 2235](https://catalog.uconn.edu/ARE/#2235), [3434](https://catalog.uconn.edu/ARE/#3434), [3437](https://catalog.uconn.edu/ARE/#3437), [4438](https://catalog.uconn.edu/ARE/#4438), [4462](https://catalog.uconn.edu/ARE/#4462); [ECON/MAST 2467](https://catalog.uconn.edu/MAST/#2467); [EVST/POLS 3412](https://catalog.uconn.edu/EVST/#3412); [GEOG 3320W](https://catalog.uconn.edu/GEOG/#3320W); [MAST/POLS 3832](https://catalog.uconn.edu/POLS/#3832); [NRE 3000](https://catalog.uconn.edu/NRE/#3000), [3201](https://catalog.uconn.edu/NRE/#3201), [3245](https://catalog.uconn.edu/NRE/#3245); [SOCI 3407/W](https://catalog.uconn.edu/SOCI/#3407).

#### Human Health Concentration

Students must pass all of the following: [AH 3021](https://catalog.uconn.edu/AH/#3021), [3175](https://catalog.uconn.edu/AH/#3175), [3275](https://catalog.uconn.edu/AH/#3275); [ANSC 4341](https://catalog.uconn.edu/ANSC/#4341); [MCB 2610](https://catalog.uconn.edu/MCB/#2610).

Students must pass two of the following; totaling 6 or more credits: [ANSC 4642](https://catalog.uconn.edu/ANSC/#4642); [MCB 2400](https://catalog.uconn.edu/MCB/#2400), [3010](https://catalog.uconn.edu/MCB/#3010), [3011](https://catalog.uconn.edu/MCB/#3011), [3201](https://catalog.uconn.edu/MCB/#3201), [3633](https://catalog.uconn.edu/MCB/#3633), [4211](https://catalog.uconn.edu/MCB/#4211); [PVS 2100](https://catalog.uconn.edu/PVS/#2100).

Students must pass one of the following: [AH 3570](https://catalog.uconn.edu/AH/#3570), [3571](https://catalog.uconn.edu/AH/#3571), [3573](https://catalog.uconn.edu/AH/#3573), [3574](https://catalog.uconn.edu/AH/#3574); [PVS 4300](https://catalog.uconn.edu/PVS/#4300).

Note: A B.S. in Environmental Sciences can also be earned through the College of Agriculture, Health and Natural Resources. For the complete requirements, refer to the Environmental Sciences description in the [College of Agriculture, Health and Natural Resources](https://catalog.uconn.edu/agriculture-health-and-natural-resources/environmental-sciences/) section of this Catalog.

*Approved Copy:*

The major in Environmental Sciences is based in the physical and biological sciences, but also includes course work in selected areas of the social sciences. The major leads to a Bachelor of Science degree, and may be adopted by students in either the College of Agriculture, Health and Natural Resources or the College of Liberal Arts and Sciences. This curriculum offers a comprehensive approach to the study of environmental problems, including not only a rigorous scientific background, but also detailed analyses of the social and economic implications of environmental issues. The complexity and interdisciplinary nature of environmental science is reflected in the core requirements of the major. These courses, assembled from several different academic departments representing two colleges, provide both breadth and depth, preparing students for careers that deal with environmental issues and for graduate study in environmental sciences and related fields.

### Required courses in Basic (Natural) Sciences

* [BIOL 1107](https://catalog.uconn.edu/BIOL/#1107) and [1108](https://catalog.uconn.edu/BIOL/#1108) or [1110](https://catalog.uconn.edu/BIOL/#1110);
* [CHEM 1124Q](https://catalog.uconn.edu/CHEM/#1124Q), [1125Q](https://catalog.uconn.edu/CHEM/#1125Q), [1126Q](https://catalog.uconn.edu/CHEM/#1126Q) or [1127Q](https://catalog.uconn.edu/CHEM/#1127Q), [1128Q](https://catalog.uconn.edu/CHEM/#1128Q);
* [MATH 1131Q](https://catalog.uconn.edu/MATH/#1131Q), [1132Q](https://catalog.uconn.edu/MATH/#1132Q);
* [PHYS 1201Q](https://catalog.uconn.edu/PHYS/#1201Q), [1202Q](https://catalog.uconn.edu/PHYS/#1202Q), or [1401Q](https://catalog.uconn.edu/PHYS/#1401Q), [1402Q](https://catalog.uconn.edu/PHYS/#1402Q);
* [STAT 1000Q](https://catalog.uconn.edu/STAT/#1000Q) or [1100Q](https://catalog.uconn.edu/STAT/#1100Q) or [3025Q](https://catalog.uconn.edu/STAT/#3025Q);
* [NRE 1000](https://catalog.uconn.edu/NRE/#1000).

[ARE 1150](https://catalog.uconn.edu/ARE/#1150); [ECON 1200](https://catalog.uconn.edu/ECON/#1200) or [1201](https://catalog.uconn.edu/ECON/#1201); [GEOG 2300](https://catalog.uconn.edu/GEOG/#2300); [GSCI 1050](https://catalog.uconn.edu/GSCI/#1050); and [MARN 1002](https://catalog.uconn.edu/MARN/#1002) are prerequisites for several upper division course concentration options. It is the student’s responsibility to ensure that all pre-requisites in the catalog for concentration courses have been satisfied.

### Required Sophomore Seminar Course

[ENVS 2000](https://catalog.uconn.edu/ENVS/#2000)

### Required Capstone Course

[NRE 4000W](https://catalog.uconn.edu/NRE/#4000W) (3 credits). Completion of NRE 4000W satisfies the writing in the major and information literacy exit requirements.

### Required Internship or Research Experience

1-6 credits of internship and/or research experience. Internship and/or research experience must be approved by the student’s advisor.

Students are required to complete a minimum of 36 credits of approved courses, at the 2000-level or higher. Approved courses include: ENVS 2000, NRE 4000W, 1-6 credits of internship or research experience, and a minimum of 24-credits within a declared concentration.

### Area of Concentration

All students majoring in Environmental Sciences must declare and fulfill the requirements of a concentration in a discipline associated with the program before graduation. Approved concentrations are listed below:

#### Sustainable Systems Concentration

Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

##### Resource Management

[EEB 2208](https://catalog.uconn.edu/EEB/#2208); [GEOG 3340](https://catalog.uconn.edu/GEOG/#3340); [MARN 3030](https://catalog.uconn.edu/MARN/#3030); [NRE 2010](https://catalog.uconn.edu/NRE/#2010), [2215](https://catalog.uconn.edu/NRE/#2215), [2345](https://catalog.uconn.edu/NRE/#2345), 2600, [3105](https://catalog.uconn.edu/NRE/#3105), [3125](https://catalog.uconn.edu/NRE/#3125), [3155](https://catalog.uconn.edu/NRE/#3155), [3305](https://catalog.uconn.edu/NRE/#3305), [3335](https://catalog.uconn.edu/NRE/#3335), [3345/W](https://catalog.uconn.edu/NRE/#3345), [3500](https://catalog.uconn.edu/NRE/#3500), [3535](https://catalog.uconn.edu/NRE/#3535), [4335](https://catalog.uconn.edu/NRE/#4335), [4575](https://catalog.uconn.edu/NRE/#4575).

##### Ecological Systems

[EEB 2244/W](https://catalog.uconn.edu/EEB/#2244), [3247](https://catalog.uconn.edu/EEB/#3247), [4230W](https://catalog.uconn.edu/EEB/#4230W); [EEB 3230](https://catalog.uconn.edu/EEB/#3230)/[MARN 3014](https://catalog.uconn.edu/MARN/#3014); [NRE 2455](https://catalog.uconn.edu/NRE/#2455), [3205](https://catalog.uconn.edu/NRE/#3205), [4340](https://catalog.uconn.edu/NRE/#4340).

Students must complete at least one course from each of the following Knowledge Competencies.

##### Built Systems

[AH 3175](https://catalog.uconn.edu/AH/#3175); [GEOG 2400](https://catalog.uconn.edu/GEOG/#2400); [LAND 3230W](https://catalog.uconn.edu/LAND/#3230W); [NRE 3265](https://catalog.uconn.edu/NRE/#3265).

##### Governance and Policy

[AH 3174](https://catalog.uconn.edu/AH/#3174); [ARE 2235](https://catalog.uconn.edu/ARE/#2235), [3434](https://catalog.uconn.edu/ARE/#3434), [3437](https://catalog.uconn.edu/ARE/#3437), [4438](https://catalog.uconn.edu/ARE/#4438), [4462](https://catalog.uconn.edu/ARE/#4462); [ECON/MAST 2467](https://catalog.uconn.edu/MAST/#2467); [GEOG 3320W](https://catalog.uconn.edu/GEOG/#3320W); [MAST/POLS 3832](https://catalog.uconn.edu/POLS/#3832); [NRE 3000](https://catalog.uconn.edu/NRE/#3000), [3201](https://catalog.uconn.edu/NRE/#3201), [3245](https://catalog.uconn.edu/NRE/#3245); [POLS 3412](https://catalog.uconn.edu/POLS/#3412); [SOCI 3407/W](https://catalog.uconn.edu/SOCI/#3407).

##### Ethics, Values, and Culture

[ANTH 3339](https://catalog.uconn.edu/ANTH/#3339); [ENGL 3240](https://catalog.uconn.edu/ENGL/#3240), [3715](https://catalog.uconn.edu/ENGL/#3715); [GEOG 3410](https://catalog.uconn.edu/GEOG/#3410); [HIST 3540](https://catalog.uconn.edu/HIST/#3540), [3542](https://catalog.uconn.edu/HIST/#3542); [JOUR 3046](https://catalog.uconn.edu/JOUR/#3046); [PHIL 3216](https://catalog.uconn.edu/PHIL/#3216); [SOCI 2701](https://catalog.uconn.edu/SOCI/#2701), [2705](https://catalog.uconn.edu/SOCI/#2705), [2709W](https://catalog.uconn.edu/SOCI/#2709W), [3407/W](https://catalog.uconn.edu/SOCI/#3407).

##### Economics and Business

[ARE 2235](https://catalog.uconn.edu/ARE/#2235), [4305](https://catalog.uconn.edu/ARE/#4305), [4438](https://catalog.uconn.edu/ARE/#4438), [4444](https://catalog.uconn.edu/ARE/#4444), [4462](https://catalog.uconn.edu/ARE/#4462); [ECON/MAST 2467](https://catalog.uconn.edu/MAST/#2467); [ECON 3466](https://catalog.uconn.edu/ECON/#3466), [3473](https://catalog.uconn.edu/ECON/#3473).

#### Global Change Concentration

Students must complete at least two courses from each of the following Knowledge Competencies. The same course cannot be used to fulfill more than one knowledge competency.

##### Climate Change and its Impacts

[GEOG 3400](https://catalog.uconn.edu/GEOG/#3400), [4300](https://catalog.uconn.edu/GEOG/#4300); [GSCI 3010](https://catalog.uconn.edu/GSCI/#3010); [MARN 3000](https://catalog.uconn.edu/MARN/#3000); [NRE 2600, 3115](https://catalog.uconn.edu/NRE/#3115), [3146](https://catalog.uconn.edu/NRE/#3146), [4170](https://catalog.uconn.edu/NRE/#4170).

##### Land and Ocean Use and its Impacts

[EEB 2208](https://catalog.uconn.edu/EEB/#2208); [GEOG 3310](https://catalog.uconn.edu/GEOG/#3310), [3410](https://catalog.uconn.edu/GEOG/#3410); [GSCI 3020](https://catalog.uconn.edu/GSCI/#3020); [GSCI/MARN 3230](https://catalog.uconn.edu/MARN/#3230); [MARN 3001](https://catalog.uconn.edu/MARN/#3001), [3030](https://catalog.uconn.edu/MARN/#3030), [4066](https://catalog.uconn.edu/MARN/#4066); [NRE 2215](https://catalog.uconn.edu/NRE/#2215), [2345](https://catalog.uconn.edu/NRE/#2345), 2600, [3105](https://catalog.uconn.edu/NRE/#3105), [3115](https://catalog.uconn.edu/NRE/#3115), [3155](https://catalog.uconn.edu/NRE/#3155), [4340](https://catalog.uconn.edu/NRE/#4340); [NRE 4135](https://catalog.uconn.edu/NRE/#4135)/[GSCI 4735](https://catalog.uconn.edu/GSCI/#4735).

##### Natural Science

[CHEM 4370](https://catalog.uconn.edu/CHEM/#4370), [4371](https://catalog.uconn.edu/CHEM/#4371); [EEB 2244/W](https://catalog.uconn.edu/EEB/#2244), [2245/W](https://catalog.uconn.edu/EEB/#2245), [3247](https://catalog.uconn.edu/EEB/#3247); [EEB 3230](https://catalog.uconn.edu/EEB/#3230)/[MARN 3014](https://catalog.uconn.edu/MARN/#3014); [EEB/GSCI 4120](https://catalog.uconn.edu/GSCI/#4120); [GEOG 2300](https://catalog.uconn.edu/GEOG/#2300); [GSCI 4110](https://catalog.uconn.edu/GSCI/#4110), [4210](https://catalog.uconn.edu/GSCI/#4210); [MARN 2002](https://catalog.uconn.edu/MARN/#2002), [2060](https://catalog.uconn.edu/MARN/#2060), [3003Q](https://catalog.uconn.edu/MARN/#3003Q), [4030W](https://catalog.uconn.edu/MARN/#4030W), [4060](https://catalog.uconn.edu/MARN/#4060); [NRE 2455](https://catalog.uconn.edu/NRE/#2455), [3125](https://catalog.uconn.edu/NRE/#3125), [3145](https://catalog.uconn.edu/NRE/#3145), [3205](https://catalog.uconn.edu/NRE/#3205); [SPSS 2120](https://catalog.uconn.edu/SPSS/#2120), [3420](https://catalog.uconn.edu/SPSS/#3420).

Students must complete at least one course from each of the following Knowledge Competencies.

##### Methods

[CE 2251](https://catalog.uconn.edu/CE/#2251); [CE/ENVE 3530/GSCI 3710](https://catalog.uconn.edu/CE/#3530); [EEB 4230W](https://catalog.uconn.edu/EEB/#4230W); [GEOG 3500Q](https://catalog.uconn.edu/GEOG/#3500Q); [GEOG/GSCI 4230](https://catalog.uconn.edu/GEOG/#4230); [GEOG/MARN 3505](https://catalog.uconn.edu/MARN/#3505); [GSCI](https://catalog.uconn.edu/GSCI/#4735)/[NRE 4735](https://catalog.uconn.edu/NRE/#4735); [MARN 3003Q](https://catalog.uconn.edu/MARN/#3003Q); [NRE 2000](https://catalog.uconn.edu/NRE/#2000), [2010](https://catalog.uconn.edu/NRE/#2010), [3305](https://catalog.uconn.edu/NRE/#3305), [3345/W](https://catalog.uconn.edu/NRE/#3345), [3535](https://catalog.uconn.edu/NRE/#3535), [4335](https://catalog.uconn.edu/NRE/#4335), [4475](https://catalog.uconn.edu/NRE/#4475), [4535](https://catalog.uconn.edu/NRE/#4535), [4544](https://catalog.uconn.edu/NRE/#4544), [4545](https://catalog.uconn.edu/NRE/#4545), [4575](https://catalog.uconn.edu/NRE/#4575), [4665](https://catalog.uconn.edu/NRE/#4665); [PHYS 2400](https://catalog.uconn.edu/PHYS/#2400); [STAT 2215Q](https://catalog.uconn.edu/STAT/#2215Q), [3025Q](https://catalog.uconn.edu/STAT/#3025Q).

##### Governance and Policy

[AH 3174](https://catalog.uconn.edu/AH/#3174); [ARE 2235](https://catalog.uconn.edu/ARE/#2235), [3434](https://catalog.uconn.edu/ARE/#3434), [3437](https://catalog.uconn.edu/ARE/#3437), [4438](https://catalog.uconn.edu/ARE/#4438), [4462](https://catalog.uconn.edu/ARE/#4462); [ECON/MAST 2467](https://catalog.uconn.edu/MAST/#2467); [EVST/POLS 3412](https://catalog.uconn.edu/EVST/#3412); [GEOG 3320W](https://catalog.uconn.edu/GEOG/#3320W); [MAST/POLS 3832](https://catalog.uconn.edu/POLS/#3832); [NRE 3000](https://catalog.uconn.edu/NRE/#3000), [3201](https://catalog.uconn.edu/NRE/#3201), [3245](https://catalog.uconn.edu/NRE/#3245); [SOCI 3407/W](https://catalog.uconn.edu/SOCI/#3407).

#### Human Health Concentration

Students must pass all of the following: [AH 3021](https://catalog.uconn.edu/AH/#3021), [3175](https://catalog.uconn.edu/AH/#3175), [3275](https://catalog.uconn.edu/AH/#3275); [ANSC 4341](https://catalog.uconn.edu/ANSC/#4341); [MCB 2610](https://catalog.uconn.edu/MCB/#2610).

Students must pass two of the following; totaling 6 or more credits: [ANSC 4642](https://catalog.uconn.edu/ANSC/#4642); [MCB 2400](https://catalog.uconn.edu/MCB/#2400), [3010](https://catalog.uconn.edu/MCB/#3010), [3011](https://catalog.uconn.edu/MCB/#3011), [3201](https://catalog.uconn.edu/MCB/#3201), [3633](https://catalog.uconn.edu/MCB/#3633), [4211](https://catalog.uconn.edu/MCB/#4211); [PVS 2100](https://catalog.uconn.edu/PVS/#2100).

Students must pass one of the following: [AH 3570](https://catalog.uconn.edu/AH/#3570), [3571](https://catalog.uconn.edu/AH/#3571), [3573](https://catalog.uconn.edu/AH/#3573), [3574](https://catalog.uconn.edu/AH/#3574); [PVS 4300](https://catalog.uconn.edu/PVS/#4300).

Note: A B.S. in Environmental Sciences can also be earned through the College of Agriculture, Health and Natural Resources. For the complete requirements, refer to the Environmental Sciences description in the [College of Agriculture, Health and Natural Resources](https://catalog.uconn.edu/agriculture-health-and-natural-resources/environmental-sciences/) section of this Catalog.

**2018-197 Film Studies Revise Minor**

*Current Copy:*

Students electing this minor must take one course in the first Distribution Group (Core Film Studies) and take two courses from the second and third Distribution Groups (National Cinemas and Interdisciplinary Courses):

* **One course in core film studies:** [CLCS 3207](https://catalog.uconn.edu/CLCS/#3207), [3208](https://catalog.uconn.edu/CLCS/#3208); [DRAM 4152](https://catalog.uconn.edu/DRAM/#4152)
* **Two courses in national cinemas:** [ARAB 3771](https://catalog.uconn.edu/ARAB/#3771); [CHIN 3270](https://catalog.uconn.edu/CHIN/#3270), [3282](https://catalog.uconn.edu/CHIN/#3282); [CLCS 3211](https://catalog.uconn.edu/CLCS/#3211); [DRAM 4151](https://catalog.uconn.edu/DRAM/#4151); [FREN 3223](https://catalog.uconn.edu/FREN/#3223)\*, [3226](https://catalog.uconn.edu/FREN/#3226)\*\*; [GERM 3261W](https://catalog.uconn.edu/GERM/#3261W), [3264W](https://catalog.uconn.edu/GERM/#3264W)\*\*; [ILCS 3259](https://catalog.uconn.edu/ILCS/#3259)\*; [ILCS 3260W](https://catalog.uconn.edu/ILCS/#3260W)\*\*; [SPAN 3250](https://catalog.uconn.edu/SPAN/#3250)\*\*, [3251](https://catalog.uconn.edu/SPAN/#3251)\*, [3252](https://catalog.uconn.edu/SPAN/#3252), [3254](https://catalog.uconn.edu/SPAN/#3254)\*\*
* **Two interdisciplinary courses:** [AASI/ENGL 3212](https://catalog.uconn.edu/ENGL/#3212); [CLCS 3201](https://catalog.uconn.edu/CLCS/#3201); [CAMS 3245](https://catalog.uconn.edu/CAMS/#3245); [COMM](https://catalog.uconn.edu/COMM/#4320)/[LLAS 4320](https://catalog.uconn.edu/LLAS/#4320); [COMM/LLAS 4470](https://catalog.uconn.edu/COMM/#4470); [ENGL 3621](https://catalog.uconn.edu/ENGL/#3621); [DRAM](https://catalog.uconn.edu/DRAM/#2203)/[HEJS](https://catalog.uconn.edu/HEJS/#2203)/[HRTS 2203](https://catalog.uconn.edu/HRTS/#2203); [ILCS 3258W](https://catalog.uconn.edu/ILCS/#3258W); [JOUR 2010](https://catalog.uconn.edu/JOUR/#2010); [LLAS 3575](https://catalog.uconn.edu/LLAS/#3575); [POLS 3426](https://catalog.uconn.edu/POLS/#3426); [POLS 3822](https://catalog.uconn.edu/POLS/#3822); [WGSS 3217](https://catalog.uconn.edu/WGSS/#3217), [3253/W](https://catalog.uconn.edu/WGSS/#3253)

\* May be taught in English.

\*\* Taught in English.

This interdisciplinary minor is offered by the [Literatures, Cultures and Languages Department](http://languages.uconn.edu/).

*Approved Copy:*

Students electing this minor must take one course in the first Distribution Group (Core Film Studies) and take two courses from the second and third Distribution Groups (National Cinemas and Interdisciplinary Courses). With advisor's consent, up to six credits of the minor can be met through approved study abroad courses.

* **One course in core film studies:** [CLCS 3207](https://catalog.uconn.edu/CLCS/#3207), [3208](https://catalog.uconn.edu/CLCS/#3208), 3293\*\*\*; [DRAM 4152](https://catalog.uconn.edu/DRAM/#4152)
* **Two courses in national cinemas:** [ARAB 3771](https://catalog.uconn.edu/ARAB/#3771); [CHIN 3270](https://catalog.uconn.edu/CHIN/#3270), [3282](https://catalog.uconn.edu/CHIN/#3282); [CLCS 3211](https://catalog.uconn.edu/CLCS/#3211), 3293\*\*\*; [DRAM 4151](https://catalog.uconn.edu/DRAM/#4151); [FREN 3223](https://catalog.uconn.edu/FREN/#3223)\*, [3226](https://catalog.uconn.edu/FREN/#3226)\*\*; [GERM 3261W](https://catalog.uconn.edu/GERM/#3261W), [3264W](https://catalog.uconn.edu/GERM/#3264W)\*\*; [ILCS 3259](https://catalog.uconn.edu/ILCS/#3259)\*; [ILCS 3260W](https://catalog.uconn.edu/ILCS/#3260W)\*\*; [SPAN 3250](https://catalog.uconn.edu/SPAN/#3250)\*\*, [3251](https://catalog.uconn.edu/SPAN/#3251), [3252](https://catalog.uconn.edu/SPAN/#3252), [3254](https://catalog.uconn.edu/SPAN/#3254)\*\*
* **Two interdisciplinary courses:** [AASI/ENGL 3212](https://catalog.uconn.edu/ENGL/#3212); [CLCS 3201](https://catalog.uconn.edu/CLCS/#3201), 3293\*\*\*; [CAMS 3245](https://catalog.uconn.edu/CAMS/#3245); [COMM](https://catalog.uconn.edu/COMM/#4320)/[LLAS 4320](https://catalog.uconn.edu/LLAS/#4320); [COMM/LLAS 4470](https://catalog.uconn.edu/COMM/#4470); [ENGL 3621](https://catalog.uconn.edu/ENGL/#3621); [DRAM](https://catalog.uconn.edu/DRAM/#2203)/[HEJS](https://catalog.uconn.edu/HEJS/#2203)/[HRTS 2203](https://catalog.uconn.edu/HRTS/#2203); [ILCS 3258W](https://catalog.uconn.edu/ILCS/#3258W); [JOUR 2010](https://catalog.uconn.edu/JOUR/#2010); [LLAS 3575](https://catalog.uconn.edu/LLAS/#3575); [POLS 3426](https://catalog.uconn.edu/POLS/#3426); [POLS 3822](https://catalog.uconn.edu/POLS/#3822); [WGSS 3217](https://catalog.uconn.edu/WGSS/#3217), [3253/W](https://catalog.uconn.edu/WGSS/#3253)

\* May be taught in English.

\*\* Taught in English.

\*\*\* With advisor’s consent

This interdisciplinary minor is offered by the [Literatures, Cultures and Languages Department](http://languages.uconn.edu/).

**2018-198 PHYS Revise Minor**

*Current Copy:*

Physics Minor

Although this minor is particularly suitable for students in the physical or life sciences as well as in engineering, it will also serve other students who have the appropriate Freshman/Sophomore calculus-based physics preparation. The minor introduces the students to the core concepts in mechanics, electricity and magnetism, thermal physics, and quantum physics, and provides further opportunities to study laser physics, optics, nuclear and particle physics, and astrophysics. The minor requires a minimum of fifteen credits of 2000-level or higher course work.

Course Requirements

1. . Nine credits of required courses: [PHYS 2300](https://catalog.uconn.edu/PHYS/#2300), [3101](https://catalog.uconn.edu/PHYS/#3101), [3201](https://catalog.uconn.edu/PHYS/#3201), [3401](https://catalog.uconn.edu/PHYS/#3401), or [ECE 3001](https://catalog.uconn.edu/ECE/#3001)
2. . Six credits of elective courses chosen from any of the PHYS 2000-level or higher courses, other than the ones already taken above, with no more than three credits from [PHYS 4096W](https://catalog.uconn.edu/PHYS/#4096) and [4099](https://catalog.uconn.edu/PHYS/#4099).

The minor is offered by the [Physics Department](http://physics.uconn.edu/)

*Approved Copy:*

Physics Minor

Although this minor is particularly suitable for students in the physical or life sciences as well as in engineering, it will also serve other students who have the appropriate Freshman/Sophomore calculus-based physics preparation. The minor introduces the students to the core concepts in mechanics, electricity and magnetism, thermal physics, and quantum physics, and provides further opportunities to study laser physics, optics, nuclear and particle physics, and astrophysics. The minor requires a minimum of fifteen credits of 2000-level or higher course work.

Course Requirements

A. Nine credits of required courses: PHYS 3101, PHYS 2300 or PHYS 3401, and PHYS 3201 or ECE 3001.

B. Six credits of elective courses chosen from any of the PHYS 2000-level or higher courses, other than the ones already taken above, with no more than three credits from PHYS 3089, [PHYS 4096W](https://catalog.uconn.edu/PHYS/#4096) and [4099](https://catalog.uconn.edu/PHYS/#4099).

The minor is offered by the [Physics Department](http://physics.uconn.edu/)

**DISCUSSION:**

The committee reviewed and discussed the Research and Experiential Courses proposal from the Senate Scholastic Standards Committee. Bedore took notes and will send an email to Veronica Makowsky (chair of Scholastic Standards) asking for a guest from that committee to attend the CLAS C&C meeting of 9.18 to make a brief presentation and answer questions. Committee members will take the proposal to their home departments for feedback.

**Attendance:**

|  |  |
| --- | --- |
| Cathy Schlund-Vials | AASI/CLAS Dean’s Office |
| Fatma Selampinar | CHEM |
| Rebecca Bacher | CLAS Dean’s Office |
| Mansour Ndiaye | CLAS Dean’s Office |
| Stephen Stifano | COMM |
| Richard Langlois | ECON |
| Paul Lewis | EEB |
| Claire King’oo | ENGL |
| Jason Vokoun | ENVS |
| Robert Thorson | GSCI |
| Kari Adamsons | HDFS |
| Kathy Libal | HRTS |
| Maureen Croteau | JOUR |
| Sara Johnson | LCL |
| Jennifer Terni | LCL |
| Anne Gebelein | LLAS |
| Luke Rogers | MATH |
| James Cole | MCB |
| Vernon Cormier | PHYS |
| Bob Gallo | PNB |
| Evan Perkoski | POLS |
| Stephen Dyson | POLS |
| James Chrobak | PSYC |
| HaiYing Wang | STAT |
|  |  |
|  |  |
| *Guests:* |  |
| Joe Crivello | PNB |
| Ran Feng | GSCI |
| Ally Ladha | LCL |
| Gustavo Nanclares | LCL |
|  |  |
|  |  |