

Fiscal Unit/Academic Org	Sch of Enviro&Natural Res - D1173
Administering College/Academic Group	Food, Agric & Environ Science
Co-administering College/Academic Group	
Semester Conversion Designation	Converted with minimal changes to program goals and/or curricular requirements (e.g., sub-plan/specialization name changes, changes in electives and/or prerequisites, minimal changes in overall structure of program, minimal or no changes in program goals or content)
Current Program/Plan Name	Soil Resources Minor
Proposed Program/Plan Name	Soil Science Minor
Program/Plan Code Abbreviation	SOILRES-MN
Current Degree Title	

Credit Hour Explanation

Program credit hour requirements		A) Number of credit hours in current program (Quarter credit hours)	B) Calculated result for 2/3rds of current (Semester credit hours)	C) Number of credit hours required for proposed program (Semester credit hours)	D) Change in credit hours
Total minimum credit hours required for completion of program		23	15.3	16	0.7
Required credit hours offered by the unit	Minimum	23	15.3	16	0.7
	Maximum				
Required credit hours offered outside of the unit	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	25	16.7	18	1.3

Program Learning Goals

Note: these are required for all undergraduate degree programs and majors now, and will be required for all graduate and professional degree programs in 2012. Nonetheless, all programs are encouraged to complete these now.

Program Learning Goals

- Students will:

Gain a basic understanding of soils.

- Understand the fate of chemicals and waste products applied to or buried in soil.
- Gain background information to identify and understand soils and the climate and processes under which they form.
- Understand economic and political problems related to soils in developing countries.
- Gain decision-making knowledge related to soils helpful to employment in agricultural production, marketing, management, and conservation.

Assessment

Assessment plan includes student learning goals, how those goals are evaluated, and how the information collected is used to improve student learning. An assessment plan is required for undergraduate majors and degrees. Graduate and professional degree programs are encouraged to complete this now, but will not be required to do so until 2012.

Is this a degree program (undergraduate, graduate, or professional) or major proposal? No

Program Specializations/Sub-Plans

If you do not specify a program specialization/sub-plan it will be assumed you are submitting this program for all program specializations/sub-plans.

Pre-Major

Does this Program have a Pre-Major? No

Attachments

- Undergraduate Minor in Soil Science Rationale.doc: Soil Science Minor Rationale
(Program Rationale Statement. Owner: Hitzhusen, Gregory Ernest)
- SR_Minor.pdf: Soil Science Minor Quarter Advising Sheet
(Quarter Advising Sheet(s). Owner: Hitzhusen, Gregory Ernest)
- SENR_Q2S_Transition_Plans.pdf: SENR transition plans
(Transition Policy. Owner: Hitzhusen, Gregory Ernest)
- SENRcoverLetterFinal.pdf: SENR cover letter
(Letter from Program-offering Unit. Owner: Hitzhusen, Gregory Ernest)
- SoilSci-MNcourseList.doc: Soil Science minor semester course list
(List of Semester Courses. Owner: Hitzhusen, Gregory Ernest)
- SoilSci-MNsemAdv.doc: Soil Science minor semester advising
(Additional documentation for Ohio BOR review. Owner: Hitzhusen, Gregory Ernest)

Comments

- Program/Plan Code Abbreviation should be "SOILSCI-MN" to be consistent with all other soil science majors, minors, and specializations. *(by Hitzhusen, Gregory Ernest on 11/27/2010 12:56 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Hitzhusen, Gregory Ernest	11/27/2010 12:56 AM	Submitted for Approval
Revision Requested	Hitzhusen, Gregory Ernest	12/10/2010 02:51 PM	Unit Approval
Submitted	Hitzhusen, Gregory Ernest	12/12/2010 02:28 PM	Submitted for Approval
Approved	Hitzhusen, Gregory Ernest	12/12/2010 02:28 PM	Unit Approval
Revision Requested	Pfister, Jill Ann	12/14/2010 11:58 AM	SubCollege Approval
Submitted	Hitzhusen, Gregory Ernest	12/14/2010 01:02 PM	Submitted for Approval
Approved	Hitzhusen, Gregory Ernest	12/14/2010 01:03 PM	Unit Approval
Approved	Pfister, Jill Ann	01/14/2011 05:13 PM	SubCollege Approval
Approved	Pfister, Jill Ann	01/14/2011 05:14 PM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Meyers, Catherine Anne Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay	01/14/2011 05:14 PM	ASCCAO Approval



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To: The Office of Academic Affairs

From: Ron Hendrick, Professor and Director

Date: November 23, 2010

Re: School of Environment and Natural Resources Semester Program Proposals

The faculty and staff of the School of Environment and Natural Resources (SENR) have completed a thorough review and revision of our undergraduate and graduate curricula in preparation for the conversion to semesters, and the SENR faculty has voted to recommend that the Office of Academic Affairs approve the attached semester curriculum proposals. In addition to the work of several curricular sub-committees within the School, the SENR Academic Affairs Committee reviewed and approved all semester conversion plans for undergraduate programs, and the SENR Graduate Studies Committee reviewed and approved plans for the MS, PhD, and MENR graduate programs. SENR faculty approved these semester plans by unanimous vote (25 in favor, 0 opposed, 0 abstentions) on April 16, 2010; subsequent minor revisions and updates to the plans have been approved by SENR curriculum committees as appropriate.

The following outline details the SENR programs proposed for semester: A) conversion, B) new approval, C) deactivation, and D) termination.

A. Existing SENR programs to be converted to semesters include:

(Note: Rural Sociology programs included below became part of SENR in 2010; program degree codes are in parentheses following program titles; specialization three-letter codes are in parentheses following specializations.)

Four Undergraduate Majors:

- 1) Environmental Science (ENVSCI-BS): *modified from four to five specializations representing existing focal areas in the major, including Ecosystem Restoration (ECR), Water Science (WTR), Environmental Molecular Science (EMS), Soil Resources and Environmental Sustainability (SOI), and Environmental Science Education (ESE).*
- 2) Forestry, Fisheries, and Wildlife (FFW-BS): *converted as **semester equivalent**, with appropriate revisions to maintain certification and double-certification options uniquely available (compared with other programs nationally) to students in this major, including Society of American Foresters (SAF) accreditation and The Wildlife Society (TWS) and American Fisheries Society (AFS) certifications. Three-letter specialization codes for FFW specializations (FAS, FOR, FWM, UFW, WFS, WPV, WLS) are detailed in the comment field of the FFW-BS program request.*
- 3) Environmental Policy and Decision Making (ENVPDM-BS): *modified in title (previously Environmental Policy and Management (EPM)) and designating three specializations based on existing focal areas in the major: Climate Change (CCP), International Issues (IIP), and Water Conservation (WCP).*
- 4) Natural Resource Management (NATRESM-BS): *modified in title (previously Parks, Recreation & Tourism (PRT)) and designating three specializations based on existing and emerging focal areas (made possible by the addition of Rural Sociology faculty to SENR in 2010) in the major: Parks and Recreation Management (PRM), Natural Resource Administration and Management (NRA), and Sustainable Agriculture (SAG), with additional focus-area options (non-transcript) aligned with employment opportunities and existing programs in the School: Forestry, Fisheries, Wildlife, Soil and Water, Visitor Services, and Zoo Science and Management.*

Two Undergraduate Minors:

- 1) Soil Resources (SOILSCI-MN): *converted as **semester equivalent**.*
- 2) Rural Sociology (RURLSOC-MN): *converted as **semester equivalent**.*

Two Graduate Degree Programs:

- 1) Master of Science (ENVNATR-MS): converted as **semester equivalent**
- 2) Doctor of Philosophy (ENVNATR-PH): converted as **semester equivalent**

The Environment and Natural Resources Graduate Program awards both MS and PhD degrees in seven areas of specialty (all converted as **semester equivalents**):

- Ecological Restoration (ERS)
- Ecosystem Science (ECS)
- Environmental Social Sciences (ESS)
- Rural Sociology (RS)
- Fisheries and Wildlife Science (FWS)
- Forest Science (FS)
- Soil Science (SSC)

Three Graduate Minors (all converted as semester equivalents):

- 1) Environment and Natural Resources (ENVNATR-GM)
- 2) Soil Science (SOILSCI-GM)
- 3) Rural Sociology (RURLSOC-GM)

One Professional Degree Program (converted as semester equivalent):

- 1) Master of Environment and Natural Resources (ENVNAT-MEN)

Three Combined Programs (all combined programs will be converted as **semester equivalents**, and impose no additional requirements or provisions beyond the requirements of the combined degrees. As such, and abiding all college and university rules of the degree-granting partners, forms for **these combined degrees are not included in these SENR semester electronic program proposals**):

- 1) Combined BS/MS
- 2) Combined BS/MENR
- 3) Dual Degree Program with the John Glenn School of Public Affairs: MS/MAPPM (Master of Arts in Public Policy and Management) or MS/MPA (Master of Public Administration)

B. New SENR semester programs proposed for approval by OAA:

Four undergraduate minors have been developed for semesters. Three minors correspond with existing majors in the School; these three minors collectively replace the Natural Resources Management minor. The fourth minor, Sustainable Agriculture, has been developed through the collaboration of Rural Sociology and Soils faculty, together with colleagues from across the College of Food, Agricultural and Environmental Sciences.

Undergraduate Minors:

- 1) Environmental Science (ENVSCI-MN)
- 2) Forestry, Fisheries & Wildlife (FFW-MN)
- 3) Society and Environmental Issues (SOCENV-MN)
- 4) Sustainable Agriculture (SUSTAGR-MN)

C. SENR programs to be deactivated:

Each listed below is an old program name that has been replaced by current programs listed above, either through revised titles (1-3), or being subsumed as a specialization into the ENR MS and PhD (4-9). With the exception of Rural Sociology, which joined SENR in 2010, each of these changes were effected three or more years ago.

- 1) Fisheries and Wildlife Management (FWMGT-BS)
- 2) Forestry and Urban Forestry (FORUF-BS)
- 3) Human Dimensions in Natural Resources (HDNR-BS)
- 4) Natural Resources (NATRES-PH)
- 5) Natural Resources (NATRES-MS)
- 6) Rural Sociology (RURLSOC-MS)
- 7) Rural Sociology (RURLSOC-PH)

- 8) Soil Science (SOILSCI-PH)
- 9) Soil Science (SOILSCI-MS)

D. SENR programs to be terminated:

1) Natural Resources Management Minor (NATRESM-MN): this minor is being terminated because of its broad scope and is being replaced by the more specific new minors listed above that correspond to existing majors.

SENR faculty and staff have worked tirelessly to develop these plans, engaging in a thorough and collegial process. Two faculty retreats devoted significant time to semester conversion plans, and all faculty meetings beginning in the fall of 2009 included updates and discussion about semester conversion planning. Dr. Greg Hitzhusen was appointed by the School as a point person to facilitate Q2S planning, participated in regular UCAT Q2S workshops with colleagues from across the university, and established a Carmen site to share and organize Q2S working documents and resources. In addition to the committees mentioned above, several new committees led the curriculum development process, including four faculty working groups formed within each of the majors, and a core curriculum committee of a dozen faculty representing all of the specializations across the four undergraduate majors and including myself and the chairs of the Grad Studies Committee and Academic Affairs Committee. These groups reviewed all recent SENR curriculum revisions, researched semester programs of peer institutions, and generated creative proposals of how to improve and better integrate our multi-disciplinary curriculum. Curriculum mapping revealed gaps and overlap in our curriculum; to match our semester courses to our learning goals, at least nine new courses have been proposed, several others have been merged, and at least 75 courses will be discontinued. As a previous director of a Natural Resources program that underwent semester conversion at the University of Georgia, I provided guidance to revise SENR's curricular offerings around our core strengths, guided by learning outcome goals and encouraging options beyond existing structures and traditions. Several SENR faculty and staff participated in the College of Food, Agricultural, and Environmental Sciences bi-weekly Q2S Implementation Committee meetings starting in November 2009, sharing planning ideas with Q2S point people from across the College.

We also based our semester curriculum development on several faculty-led research efforts. Our social science faculty created a survey of environmental curriculum interests and career goals for CFAES, SENR and OSU undergraduate student samples, and results from over 1300 respondents (published results now *in press*) informed our vision of student interests, needs, and knowledge about the environmental topics addressed in SENR programs. We also completed phone interviews with SENR alumni and stakeholders to examine curricular elements most valuable to graduates and employers. And I conducted exit interviews of SENR students to better understand their experience in SENR programs. These measures and the efforts mentioned above collectively led the faculty to propose an expanded core of courses to help SENR students better integrate natural and social science elements of the curriculum, and to modify the majors as described above. The core curriculum committee will remain intact to monitor the quality and success of the semester curriculum, and make revisions as appropriate into the future.

This proposed curriculum represents welcome changes that increase the efficiency and complementarity of SENR programs, maximizing the expertise of our faculty and improving opportunities for SENR students to prepare for graduate education and succeed in their professional careers. I have also attached a commentary detailing SENR's preliminary assessment plans for semester programs. These program proposals reflect the outstanding collaborative efforts of SENR faculty to prepare for the semester transition. I heartily recommend approval of these plans, and appreciate OAA's ongoing efforts to strengthen our curriculum in OSU's transition to semesters.



Ronald L. Hendrick, Ph.D.
Director, SENR

Undergraduate Minor in Soil Science

Program Rationale

Soil is a fundamental resource for ecosystem function and environmental health. It is a living filter that provides vital ecosystem services – including food production, water purification, carbon sequestration, nutrient recycling, and assimilation of waste products. Soil is a key component of natural agricultural, wildland, and urban ecosystems that sustain all global processes. Soil science is highly interdisciplinary; soil scientists apply biology and microbial ecology, chemistry, earth sciences, ecology, hydrology, mineralogy, mathematics, nutrition, toxicology, and physics to understand, sustain, and improve the environment.

The minor in Soil Science is designed to introduce students to basic soil environmental science concepts, techniques and practices. A diverse range of soil science course offerings provide experience with geospatial analysis, computer modeling, spectroscopy, bioassays, molecular biology, and other advanced field and lab technology for soil investigation. A total of 16 semester hours are required.

SENR Q2S Transition Plans

SENR's transition plans, including the OSU Pledge to Students, are posted on the SENR website at:

<http://senr.osu.edu/Current Students/SENR Quarter to Semester Conversion.htm#>

The links listed there are printed below.

Additional transition resources will be posted at this link shortly, including sample four-year plans for students who will graduate with three years in quarters and one year in semesters (3-1), two years in each (2-2), and one year in quarters and three in semesters (1-3). Sample 2-1, 2-2, and 1-3 plans will be posted for each SENR undergraduate major.

School Of Environmental & Natural Resources

<http://senr.osu.edu/secondaryprint.asp?id=65c=2145&info=&pageid=2336>



Quarter-to-Semester Update

SENr and the Quarter-to-Semester Conversion

Why is this happening?

The conversion is the result of a directive from the Ohio Board of Regents and affects twenty 2 and 4 year Ohio colleges and universities that are currently on the quarter system, including: Ohio University, University of Cincinnati, Wright State University, Columbus State Community College, Sinclair Community College, Otterbein College, Clark State Community College, and others. The reasons are many but the main benefits to students are:

- The chance to be more competitive for internships and permanent positions because of an earlier end to the academic year.
- Greater ease of transfer between institutions and academic exchange programs, with an academic calendar consistent with the majority of colleges and universities in Ohio, the United States, and around the world.

When will the semester system be implemented?

The new semester system will become effective Summer 2012. All of OSU will convert at the same time.

[SENr Curriculum being prepared for Semester Conversion](#)

[Semester Planning: What can current students do now?](#)

[How will Earned Course Credits be Handled?](#)

[Q2S Course Numbering](#)

[OSU Pledge to Undergraduate Students](#)

[Semester Calendars for Academic Years 2012-2013 through 2016-2017](#)

Check back here often for updates on the School of Environment and Natural Resources Q2S.

School Of Environmental & Natural Resources

<http://senr.osu.edu/secondaryprint.asp?>

[id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=SENR_Q2S_Curriculum_Conversion](http://senr.osu.edu/secondaryprint.asp?id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=SENR_Q2S_Curriculum_Conversion)



Quarter-to-Semester Update

[SENR Quarter to Semester Conversion](#)

Preparing the SENR Curriculum for the Semester Conversion

Over the past year, SENR faculty and staff in consultation with students, alumni, and stakeholders have been developing courses and majors that will be implemented at the time of the conversion. The SENR semester majors and courses have been proposed and are now starting the review and approval process. This starts with review and approval by the SENR Academic Affairs Committee and the SENR Faculty. The College of Food, Agricultural and Environmental Sciences will conduct an administrative and fiscal review as well. Eventually, the University's Council on Academic Affairs (CAA) will review the curriculum and courses being established or revised by the School of Environment and Natural Resources. Ultimately, the OSU Board of Trustees will review and give its approval.

The SENR majors being proposed under the new Semester system are:

1. Environmental Science (ES)
2. Environmental Policy and Decision Making (EPDM)
3. Forestry, Fisheries and Wildlife (FFW)
4. Parks, Recreation and Resource Management (PRRM)

All SENR majors will take a common core of major courses which will be slightly expanded under the new semester curriculum. Most of the SENR majors will remain relatively intact with a variety of enhancements to program options and courses being offered by the School.

How will the SENR Courses be Converted?

All current SENR courses will "disappear" from the course catalog and master schedule starting Summer 2012. In their place will be the semester courses. Several courses it will be a "straight" conversion with just a change in course number and credits and possibly title. These courses will appear as direct transfer in the degree audit.

In other cases, courses have been changed significantly because of being combined with other courses. How these courses transition into filling major requirements will vary, depending on what a student has taken. Some semester courses will be completely new. In most cases these

won't fill an old requirement but, under special circumstances, may be used to satisfy a particular curriculum requirement where a requirement gap may exist. This will be determined by the student's faculty advisor, the SENR Secretary, and the SENR Academic Affairs Committee.

School Of Environmental & Natural Resources

http://senr.osu.edu/secondaryprint.asp?id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=Q2S_Semester_Planning



Quarter-to-Semester Update

[SENOR Quarter to Semester Conversion](#)

Semester Planning: What Can Current Students Do Now?

If you are going to be here for the quarter to semester switch (Summer 2012) you are a transition student, here's what you should be doing now:

1. Get those science and math GEC's done before the conversion if you've been putting them off. The courses will be longer with more material covered under semesters. That goes for any other course you've been dreading.
2. You can start preparing yourself mentally for taking FIVE 3 hour courses a semester instead of THREE 5 hour classes. A common mistake for students moving from quarters to semesters is to not take enough classes. You'll need a minimum of 121 hours to graduate under semesters, so if all courses were done under semesters that's $121 \div 8 = 15.1$ hrs/semester.
3. You will most likely have classes all 5 days a week. It will be harder to schedule those Mondays and Fridays off.
4. About half of your courses will meet only on M, W, F and the other half of your courses only on Tu and Th so if you miss a M and/or W, you'll miss 1/3 to 2/3 of those M,W, F courses.

School Of Environmental & Natural Resources

http://senr.osu.edu/secondaryprint.asp?id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=Q2S_and_Earned_Credits



Quarter-to-Semester Update

SENR Quarter to Semester Conversion

How will earned course credits be handled?

For transition students (those who start under quarters and finish under semesters), the credit hours for quarter courses will be converted to semester credits at the conversion rate of 0.6667.

For example, a 5 hr quarter course will be converted to $5 \times 0.6667 = 3.3$, 4 qtr. credits will convert to 2.6, and 3 credits become 2 under semesters.

Required Hours for Graduation:

For most majors, a minimum of 121 semester hours (to fill the required categories) will be required for graduation. (For most current SENR majors the minimum amount is 181 quarter hours to fill the required categories). Transition students will graduate when they have the required number of semester hours and those hours fill required categories.

School Of Environmental & Natural Resources

http://senr.osu.edu/secondaryprint.asp?id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=Q2S_Course_Numbering



SENR Quarter to Semester Conversion

Q2S Course Numbering

All semester courses will be 4 digits, to distinguish them from quarter courses.

- 1000- UG (undergrad) – Non Credit Courses for orientation, remedial, or other non-college
- 1099 level experiences (like math 040 and 075 currently).
- 1100- UG – Basic courses providing undergraduate credit, but not to be counted toward a
- 1199 major or field of specialization in any department. Courses at this level are beginning courses, required or elective courses that may be prerequisite to other courses.
- 2000- UG – Intermediate courses providing undergraduate credit and may be counted
- 2099 toward major or field of specialization.
- 3000- UG – Upper level courses providing undergraduate credit that may be counted
- 3099 toward major or field of specialization.
- 4000- UG – Advanced courses providing undergraduate credit that may be counted
- 4099 toward major or field of specialization. Graduate students may receive graduate credit outside their own graduate program.
- 5000- UG and Graduate (G) courses providing undergraduate credit that may be counted
- 5099 toward major or field of specialization and foundation graduate credit.
- 6000- G – Foundational level graduate courses and research
- 6099
- 7000- G – Foundational level graduate courses and research
- 7099
- 8000- G – Advanced level graduate courses and research
- 8099

School Of Environmental & Natural Resources

<http://senr.osu.edu/secondaryprint.asp?>

[id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=OSU_Pledge_to_Undergraduate_Students](http://senr.osu.edu/secondaryprint.asp?id=1c=SENR_Quarter_to_Semester_Conversion&info=&pageid=OSU_Pledge_to_Undergraduate_Students)



Quarter-to-Semester Update

[SENR Quarter to Semester Conversion](#)

OSU Pledge to Undergraduate Students

In planning and implementing its conversion from quarters to semesters for summer 2012, The Ohio State University is committed to protecting the academic progress of students. Students should find that the shift from quarters to semesters does not disrupt progress toward their degrees if they:

1. decide on their major and degree within a time compatible with four-year graduation;
2. meet the standards for progress defined by their academic unit and continue to complete appropriate course loads successfully; and
3. actively develop and follow academic plans in consultation with their academic advisors.

Students completing a quarter-plus-semester degree program will receive approximately the same amount of instruction, and the changes to the calendar and to courses should only improve the quality of programs. Full-time tuition (general and instructional fees) for an academic year under semesters will not cost more than what tuition would have cost for that same year under quarters, and the change should not adversely affect students' financial aid.

To ensure that the conversion will not harm students' progress, academic units will continue to provide intentional, purposeful advising. Academic advisors will understand how the changes in courses and curricula may affect students' degree programs, will know where and how programs can be flexible, and will be prepared to assist students in planning their remaining semesters to graduation. Good planning around a student's major will be particularly important, and the university will provide that support to students who begin their academic career under quarters and complete it under semesters.

Students will vary considerably in their academic progress, and each student's plan for completing degree requirements will need to be determined individually. Every student will be responsible for getting and using the advice essential to assure progress toward his or her degree. Advising is a joint endeavor, and we are confident that students and their advisors, working together, can develop effective plans leading to timely graduation as the university converts to semesters.

The Ohio State University (<http://www.osu.edu/>) **University Registrar** ([../../index.html](http://www.osu.edu/ureg/index.html))

Academic Calendar

Ohio State's **conversion to semesters** will begin in [Summer 2012 \(bigcal.html\)](#). See the [Quarter to Semester Calendar Conversion website \(http://oaa.osu.edu/semesterconversion.html\)](#) for more details.

- [Quarter Calendars for Academic Years 2012-2013 through 2016-2017 \(html\) \(bigcal.html\)](#)
- [Printer-friendly Quarter Calendars for Academic Years 2009-2010 through 2011-2012 \(pdf\) \(bigcal_pdf.pdf\)](#)
- [Printer-friendly Semester Calendars for Academic Years 2012-2013 through 2016-2017\(pdf\) \(bigcalsem.pdf\)](#)
- [OSU Events Calendar \(http://www.osu.edu/events/indexWeek.php\)](http://www.osu.edu/events/indexWeek.php)
- [Get Adobe Acrobat Reader to read pdfs \(new window\) \(http://www.adobe.com/products/acrobat/readstep.html\)](http://www.adobe.com/products/acrobat/readstep.html)

The calendar was last updated on May 27, 2010 and is subject to change. For questions, contact the [Office of the University Registrar \(mailto:registrar@osu.edu\)](#).

ACADEMIC YEAR (SEMESTERS)	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
AUTUMN SEMESTER	Autumn 2012	Autumn 2013	Autumn 2014	Autumn 2015	Autumn 2016
Classes begin	Aug 22 (W)	Aug 21 (W)	Aug 27 (W)	Aug 26 (W)	Aug 24 (W)
Labor Day - no classes, offices closed	Sept 3 (M)	Sept 2 (M)	Sept 1 (M)	Sept 7 (M)	Sept 5 (M)
Veterans' Day observed - no classes, offices closed	Nov 12 (M)	Nov 11 (M)	Nov 11 (T)	Nov 11 (W)	Nov 11 (F)
Thanksgiving - no classes, offices closed	Nov 21-23 (W-F)	Nov 27-29 (W-F)	Nov 26-28 (W-F)	Nov 25-27 (W-F)	Nov 23-25 (W-F)
Last day of regularly scheduled classes	Dec 4 (T)	Dec 3 (T)	Dec 9 (T)	Dec 8 (T)	Dec 6 (T)
			Dec 11-17 (R-)	Dec 10-16 (R-)	

Final examinations	Dec 6-12 (R-W)	Dec 5-11 (R-W)	Dec 11-17 (R-W)	Dec 10-16 (R-W)	Dec 8-14 (R-W)
Fall commencement	Dec 16 (Sun)	Dec 15 (Sun)	Dec 21 (Sun)	Dec 20 (Sun)	Dec 18 (Sun)
SPRING SEMESTER	Spring 2013	Spring 2014	Spring 2015	Spring 2016	Spring 2017
Classes begin	Jan 7 (M)	Jan 6 (M)	Jan 12 (M)	Jan 11 (M)	Jan 9 (M)
Martin Luther King Day - no classes, offices closed	Jan 21 (M)	Jan 20 (M)	Jan 19 (M)	Jan 18 (M)	Jan 16 (M)
Spring Break	March 11-15 (M-F)	March 10-14 (M-F)	March 16-20 (M-F)	March 14-18 (M-F)	March 13-17 (M-F)
Last day of regularly scheduled classes	April 22 (M)	April 21 (M)	April 27 (M)	April 25 (M)	April 24 (M)
Final examinations	April 24-30 (W-T)	April 23-29 (W-T)	April 29-May 5 (W-T)	April 27-May 3 (W-T)	April 26-May 2 (W-T)
Spring commencement	May 5 (Sun)	May 4 (Sun)	May 10 (Sun)	May 8 (Sun)	May 7 (Sun)
SUMMER SEMESTER	Summer 2013	Summer 2014	Summer 2015	Summer 2016	Summer 2017
May Session Begins	May 6 (M)	May 5 (M)	May 11 (M)	May 9 (M)	May 8 (M)
Memorial Day - no classes, offices closed	May 27 (M)	May 26 (M)	May 25 (M)	May 30 (M)	May 29 (M)
May Session Ends	May 31 (F)	May 30 (F)	June 5 (F)	June 3 (F)	June 2 (F)
Summer Session Begins	June 10 (M)	June 16 (M)	June 15 (M)	June 13 (M)	June 12 (M)
Independence Day - no classes, offices closed	July 4 (R)	July 4 (F)	July 3 (F)	July 4 (M)	July 4 (T)
Last day of regularly scheduled classes	July 26 (F)	Aug 1 (F)	July 31 (F)	July 29 (F)	July 28 (F)
Final examinations	July 29-31 (M-W)	Aug 4-6 (M-W)	Aug 3-5 (M-W)	Aug 1-3 (M-W)	July 31-Aug 2 (M-W)
Summer commencement	Aug 4 (Sun)	Aug 10 (Sun)	Aug 9 (Sun)	Aug 7 (Sun)	Aug 6 (Sun)

The Ohio State University

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Undergraduate Minor in Soil Science Course List

A total of 16 semester hours are required.

Required Environment and Natural Resources Courses (4 units):

ENR 300.01/3000 Introduction to Soil Science (3 units)

ENR 300.02/3001 Soil Science Laboratory (1 unit)

Electives (12 units) – choose from below (courses are 3 units unless noted otherwise):

ENR 442/4260 Soil Management

ENR 5279 Urban Soil and Ecosystem Services: Assessment and Restoration

[ENR 540/5272](#) Urban and Sports Turf Soils

[ENR 580/5270](#) Soil Fertility and Fertilizers

[ENR 650/5260](#) Soil Landscapes: Morphology, Genesis & Classification

[ENR 660/5262](#) Soil Chemical Processes and Environmental Quality

[ENR 665/5263](#) Biology of Soil Ecosystems

[ENR 671/655/5261](#) Environmental Soil Physics

[ENR 675/5273](#) Environmental Fate and Impact of Contaminants in Soil and Water

[ENR 720/5265](#) Characterization of Soil in the Field and Laboratory (2 cr)

[ENR 730/5274](#) Computer Simulation of Soil Hydrological and Biogeochemical Processes (2 cr)

[ENR 740/5266](#) Field Soil Investigation: Soil Chemistry, Fertility and Biology

[ENR 753/7530](#) Soil Mineralogy

[ENR 761/6610](#) Soil and Environmental Biochemistry



School of Environment and Natural Resources

Undergraduate Minor

■ Soil Resources Minor

A minor in soil resources

is useful for students majoring in agriculture who plan to seek employment in areas of agricultural production, marketing, management, and conservation, i.e., areas in which decision-making requires a basic understanding of soils.

This minor is available to limited majors in the College of Food, Agricultural, and Environmental Sciences and the School of Environment and Natural Resources (see restrictions below). The minor is also valuable for students in the Arts and Sciences and other students who would like to understand the fate of chemicals and waste products that are applied to or buried in the soil. For students in Geology, Geography, Anthropology and Archeology, this minor will provide background information for identifying and understanding soils and the climate and processes under which they are formed. Since soil is the basic resource on which civilizations are built, students in an international program, or who are interested in working in developing countries of the world, will acquire a background in soils that will help them relate to the economic and political problems of these developing countries.

A Soil Resources minor consists of 23-25 hours chosen as follows:

Required Environment and Natural Resources Courses (10 hrs):

Environment and Natural Resources 300.01 & 300.02* <i>Soil Science</i>	5 hrs
Environment and Natural Resources 650** <i>Soil Landscapes: Morphology, Genesis and Classification</i>	5 hrs

Required Electives (13-15 hrs):

Environment and Natural Resources 442 <i>Soil Management</i>	5 hrs
Environment and Natural Resources 540** <i>Urban and Sports Turf Soils</i>	3 hrs
Environment and Natural Resources 580 <i>Soil Fertility and Fertilizers</i>	3 hrs
Environment and Natural Resources 645** <i>Soils of the Tropics</i>	3 hrs
Environment and Natural Resources 671** <i>Soil Physics</i>	5 hrs
Environment and Natural Resources 675** <i>Environmental Fate and Impact of Contaminants in Soil & Water</i>	4 hrs
Environment and Natural Resources 660** <i>Soil Chemical Processes and Environmental Quality</i>	5 hrs
Environment and Natural Resources 693 <i>Individual Studies</i>	2-5 hrs

* Students using Environment and Natural Resources 300.01 and/or 300.02 for a major requirement must select an additional 5 hours of Environment and Natural Resources curriculum (200 level or above) to satisfy the minor requirements.

** Prerequisites are required.

General Information & Restrictions

1. This minor is not available to students majoring in Agronomy, Horticulture & Crop Science, Plant Health Management, Turfgrass Science, Soil Science or Environmental Science.
2. A minimum overall CPHR for courses comprising the minor shall be 2.0.
3. A minor should be declared at the time a student accumulates 90 hours.
4. A student may double count courses between the minor and GEC requirements only.
5. Courses taken on a pass/non pass basis may not be applied to the minor.

■ For more information contact

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Undergraduate Minor in Soil Science

Soil is a fundamental resource for ecosystem function and environmental health. It is a living filter that provides vital ecosystem services – including food production, water purification, carbon sequestration, nutrient recycling, and assimilation of waste products. Soil is a key component of natural agricultural, wildland, and urban ecosystems that sustain all global processes. Soil science is highly interdisciplinary; soil scientists apply biology and microbial ecology, chemistry, earth sciences, ecology, hydrology, mineralogy, mathematics, nutrition, toxicology, and physics to understand, sustain, and improve the environment.

The minor in Soil Science is designed to introduce students to basic soil environmental science concepts, techniques and practices. A diverse range of soil science course offerings provide experience with geospatial analysis, computer modeling, spectroscopy, bioassays, molecular biology, and other advanced field and lab technology for soil investigation. A total of 16 semester hours are required.

Required Environment and Natural Resources Courses (4 units):

ENR 300.01/3000 Introduction to Soil Science (3 units)

ENR 300.02/3001 Soil Science Laboratory (1 unit)

Electives (12 units) – choose from below (courses are 3 units unless noted otherwise):

ENR 442/4260 Soil Management

ENR 5279 Urban Soil and Ecosystem Services: Assessment and Restoration

[ENR 540/5272](#) Urban and Sports Turf Soils

[ENR 580/5270](#) Soil Fertility and Fertilizers

[ENR 650/5260](#) Soil Landscapes: Morphology, Genesis & Classification

[ENR 660/5262](#) Soil Chemical Processes and Environmental Quality

[ENR 665/5263](#) Biology of Soil Ecosystems

[ENR 671/655/5261](#) Environmental Soil Physics

[ENR 675/5273](#) Environmental Fate and Impact of Contaminants in Soil and Water

[ENR 720/5265](#) Characterization of Soil in the Field and Laboratory (2 cr)

[ENR 730/5274](#) Computer Simulation of Soil Hydrological and Biogeochemical Processes (2 cr)

[ENR 740/5266](#) Field Soil Investigation: Soil Chemistry, Fertility and Biology

[ENR 753/7530](#) Soil Mineralogy

[ENR 761/6610](#) Soil and Environmental Biochemistry

1. The minor is not available to student majoring in Environmental Policy and Decision Making; Environmental Science; Natural Resources Management; or Forestry, Fisheries and Wildlife.
2. A minimum overall GPA for courses comprising the minor shall be 2.00.
3. A minor should be declared at the time a student accumulates 60 hours.
4. A maximum of one course may overlap between the minor and the GEC (Writing, literature, Arts, Natural Sciences, Historical Study, Social Sciences, Culture and Ideas, Contemporary Issues).
5. Courses taken on a pass/non pass basis may not be applied to the minor.