

<b>Fiscal Unit/Academic Org</b>	Horticulture & Crop Science - D1127
<b>Administering College/Academic Group</b>	Food, Agric & Environ Science
<b>Co-administering College/Academic Group</b>	
<b>Semester Conversion Designation</b>	Re-envisioned with significant changes to program goals and/or curricular requirements (e.g., degree/major name changes, changes in program goals, changes in core requirements, structural changes to tracks/options/courses)
<b>Current Program/Plan Name</b>	Crop Science Minor
<b>Proposed Program/Plan Name</b>	Agronomy Minor
<b>Program/Plan Code Abbreviation</b>	CROPSCI-MN
<b>Current Degree Title</b>	

## 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		20	13.3	13	0.3
Required credit hours offered by the unit	Minimum	20	13.3	4	9.3
	Maximum	25	16.7	15	1.7
Required credit hours offered outside of the unit	Minimum	0	0.0	0	0.0
	Maximum	12	8.0	9	1.0
Required prerequisite credit hours not included above	Minimum	0	0.0	0	0.0
	Maximum	0	0.0	0	0.0

**Explain any change in credit hours if the difference is more than 4 semester credit hours between the values listed in columns B and C for any row in the above table**

Soil and fertility (ENR) courses were added as electives because soils and fertility are an important part of growing agronomic crops. The previous crop science minor did not include soils/fertility options.

## 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 be able to make decisions for growing crops based on a basic understanding of plant growth and crop production methods.
- Students will be able to predict crop responses to specific production regimes and environmental influences.

## 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**

- DeptHCSSupportLetter.jpg  
*(Letter from Program-offering Unit. Owner: McMahon, Margaret Jane)*
- CropSciMinor.pdf: Under quarters the agronomy minor was Crop Sci.  
*(Quarter Advising Sheet(s). Owner: McMahon, Margaret Jane)*
- AgronomyMINOR.doc  
*(List of Semester Courses. Owner: McMahon, Margaret Jane)*
- H&CSTransition Policy-Minors.docx  
*(Transition Policy. Owner: McMahon, Margaret Jane)*
- CCI Subcommittee Chair Letter FAESMinors.doc: CCI Subcommittee Chair Letter  
*(Other Supporting Documentation. Owner: Vankeerbergen, Bernadette Chantal)*

**Comments**

- We would like to have the abbreviated name changed to AGRON. Agronomy is a term similar in meaning to Crop Science but better understood in the farming community. Other than the name, there is very little different from the previous minor. *(by McMahon, Margaret Jane on 12/06/2010 03:17 PM)*

**Workflow Information**

Status	User(s)	Date/Time	Step
Submitted	McMahon, Margaret Jane	10/06/2010 02:54 PM	Submitted for Approval
Approved	McMahon, Margaret Jane	10/06/2010 02:58 PM	Unit Approval
Revision Requested	Pfister, Jill Ann	11/24/2010 02:21 PM	College Approval
Submitted	McMahon, Margaret Jane	12/07/2010 09:26 AM	Submitted for Approval
Revision Requested	Pfister, Jill Ann	12/17/2010 05:16 PM	Unit Approval
Submitted	McMahon, Margaret Jane	12/17/2010 06:42 PM	Submitted for Approval
Approved	McMahon, Margaret Jane	12/20/2010 10:30 AM	Unit Approval
Approved	Stokoe, Laurie Anne	01/14/2011 04:10 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	02/15/2011 02:28 PM	ASCCAO Approval
Submitted	McMahon, Margaret Jane	03/03/2011 08:59 AM	Submitted for Approval
Approved	McMahon, Margaret Jane	03/03/2011 12:41 PM	Unit Approval
Approved	Pfister, Jill Ann	03/03/2011 01:23 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	03/08/2011 11:52 AM	ASCCAO Approval
Submitted	McMahon, Margaret Jane	04/12/2011 01:51 PM	Submitted for Approval
Approved	Pfister, Jill Ann	05/05/2011 08:22 AM	Unit Approval
Approved	Pfister, Jill Ann	05/05/2011 08:24 AM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	05/20/2011 05:18 PM	ASCCAO Approval
Submitted	McMahon, Margaret Jane	05/23/2011 11:24 AM	Submitted for Approval
Approved	McMahon, Margaret Jane	05/23/2011 02:57 PM	Unit Approval
Approved	Pfister, Jill Ann	05/26/2011 05:24 PM	College Approval
Pending Approval	Hanlin, Deborah Kay Vankeerbergen, Bernadette Chantal Meyers, Catherine Anne Jenkins, Mary Ellen Bigler Nolen, Dawn	05/26/2011 05:24 PM	ASCCAO Approval





Department of English

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To: Larry Krissek, Chair, Committee on Curriculum and Instruction (CCI)  
From: James Fredal, Chair, CCI Social, Behavioral, Biological, Mathematical and Physical Sciences Subcommittee  
Re: Semester Conversion Proposals for FAES Minors

Date: May 10, 2011

Larry:

The Sciences subcommittee of the CCI has been reviewing semester conversion proposals for the a number of minors from FAES. All but two were approved with contingencies which have since been addressed and they have been resubmitted. The final two were approved recently (5/9) with contingencies and forward directly to CCI for review and final revision. A few of these minors have added a prerequisite of Econ/AED Econ 2001 (noted below). The PACER chart in some cases also shows this as a quarter prerequisite (of 5 hours) though such a prerequisite does not appear on the relevant quarter advising sheets. We missed this on the first pass, and CCI may want to ask them to change the prerequisite/quarter box on those PACER charts from 5 back to 0 (zero). Comments for each minor are listed below. Comment for the final two a slightly more substantial as they have not yet been sent back for revision.

- 1) **Turfgrass Management:** This minor converts from its quarter equivalent with only minor changes. It includes a core of two courses (down from three quarter courses), and 6-8 hours of elective courses for a total of 13-15 hours. The proposal had a couple of errors on the PACER form which have been corrected and it now appears ready to move forward.
- 2) **Landscape Design and Management** (formerly Landscape Horticulture): This minor is being proposed with a name change to better reflect the breadth and focus of the minor. The minor will include 2 required core courses (from three semester courses) and 6-9 hours of elective courses (from 9-10 semester hours). In other ways, the proposal amounts to a straightforward conversion from the quarter version. The PACER form lists it as having minimal changes, but that should probably be changed because it's undergoing a name change. A few extraneous documents were removed and credit hour numbers corrected, and it seems now ready for approval.
- 3) **Horticulture:** Horticulture converts unproblematically from its quarter version. Students will take 1 core course (from two choices, vs. two of three choices in the quarter version) and 9-11 elective hours (vs. 10-16 quarter hours) for a minor of 13-15 hours (vs. 20-25 quarter hours). We asked that some extraneous documents be removed and approved the proposal for CCI consideration.
- 4) **Agronomy:** This minor also includes a request for a name change from Crop Science to Agronomy as more widely used and better understood among the farming community. In other ways, the conversion is straightforward, involving one required course and a set of electives. As with other minors, we asked that some extraneous material be removed. The PACER chart, it seems, still needs correction though: The minimum required hours offered by the unit should be 4

rather than 13. Also, since it's going to get a name change, it should be listed as undergoing significant rather than minimal change on the PACER form. Otherwise this proposal seems to be ready for full CCI approval.

- 5) **Environmental Economics:** Unfortunately, the dreaded “will” in the program learning goals escaped the detection of the subcommittee and will need to be excised (or the entire learning goal amputated) before this program sees the light of day. It is not clear at this point just how the word-which-shall-not-be-used escaped detection; however, inquiries are being made. In other ways, the proposal seems tolerable and is a straightforward conversion from its quarter version, including one prerequisite (AED Econ or Econ 2001), two required courses (AED Econ 4310 and 5310), and 6-9 additional elective hours.
- 6) **Outreach Education:** This minor is now called Agricultural and Extension Education but has outgrown that name and would like in the future to be called simply the Outreach Education Minor. It was submitted with one error, listing AEE 342 as 3 rather than 5 credits. That has been fixed and the minor is now ready to move forward.
- 7) **Farm Management:** The Sciences subcommittee regrets that this minor too includes a program learning goal which asserts that students “will” do things. This will have to be changed. Otherwise this proposal looks fine and converts exactly from its quarter equivalent: one prerequisite and a set of required courses complemented by a range of electives.
- 8) **International Economic and Social Development:** This seems to be a straightforward conversion: Two required quarter courses convert to two required semester courses. 10-15 additional quarter hours convert to 6-9 additional semester hours. However, they did add a 3 hour prerequisite of Econ or AED Econ 2001. Otherwise it looks ready to move forward.
- 9) **Agribusiness:** The PACER form for this minor is wrong, it seems. The maximum required hours offered by the unit should be 12, I think, not 9. Otherwise, the minor has been reduced (more than required by the 2/3 or 3/5 ratios) from 23-25 hours down to 12-15 hours. That's why some of the PACER conversion numbers are so high.
- 10) **Plant Pathology:** The Plant Pathology minor is being reduced as well, from 25 hours down to 12-14 hours, and with a slightly simpler structure than its quarter version. Students will take three required plant pathology courses; they'll select one course on plant diseases from a set of electives, and they'll then chose 1-2 additional elective courses to reach the minimum 12-14 hours. We had initially requested a few changes to the proposal (PACER numbers, typos, and GEC language) which have all been addressed.
- 11) **Food Processing Minor:** Contrary to popular belief, this minor is not just about juicers and Cuisinarts. The Sciences subcommittee reviewed this proposal on May 9<sup>th</sup>, after CCI had altered the document flow process. Hence, we are forwarding this proposal directly to CCI along with our comments and corrections. The minor is listed as including minimal changes and is generally a straightforward conversion from the quarter version.

First, the PACER form will need a few corrections:

On the Credit Hour Explanation:

- Column C, 5th line: The maximum required credit hours offered outside the unit is listed as 4, but should be 11.
- Column C, last line: The maximum required prerequisite credit hours not included above is listed as 9, though it is not clear where they come from. The proposal should identify and explain the prerequisites or change this number to 0 (zero).

The program learning goals contain the hated “will [be able to]” formation. The proposal should remove the “students will.” The goals might then read (for example), “Students integrate...” and “Students understand...”

Also, there are a few errors on the list of semester courses to match those on the Semester Advising Sheet:

- Microbiology 4090 will be Microbiology 4000 (4 cr)
- Microbiology 5000 will be Microbiology 4100 and will be 5 credit hours.

Finally, for the sake of clarity and consistency, the proposal should include all credit hour numbers (including for Fd Sc&Te 5420, 5430, 5410, 5400, Anim Sci 4500, and Fa&B Eng 3481) on both the course list and the Semester Advising sheet.

12) **Food Safety:**

First, the PACER form Credit Hour Explanation:

- Column C, 5th line: The maximum required credit hours offered outside the unit should be 8 (instead of 7).
- Column C, last line: The maximum prerequisite hours not included above is listed as 9. The proposal should identify and explain the required prerequisite courses or change that number to 0.

Then, the PACER Program learning goals: Rephrase these goals without “will” to read: “Students understand...” and “Students apply principles...”etc.

Finally, the list of semester courses:

- Microbiology 4090 will be Microbiology 4000 (4 cr)
- Microbiology 5000 will be Microbiology 4100 and will be 5 credit hours.

Thank you.  
Jim F.

November 16, 2010

The Department of Horticulture and Crop Science is submitting and supports the following semester programs:

Phone (614) 292-2001  
Fax (614) 292-7162 Ext. (Kottman)  
Fax (614) 292-3505  
(Howlett)  
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Revised major:

*Professional Golf Management*

New major (replaces the current Crop Science, Landscape Horticulture, and Turfgrass Science majors):

*Sustainable Plant Systems with 4 specializations: Agronomy, Horticulture, Landscape Design and Management, and Turfgrass Science.*

Revised graduate programs:

*Horticulture and Crop Science MS*

*Horticulture and Crop Science PH*

Revised minors:

*Agronomy (formerly Crop Science)*

*Horticulture*

*Landscape Design and Management (formerly Landscape Horticulture)*

*Turfgrass Science*

The programs are the result of an extensive review of our current curriculum that began in early 2009. The review included input from our industry stakeholders and partners, graduate and undergraduate students, all departmental faculty and staff, other OSU departments, as well as with faculty at benchmark programs at other institutions. The results of the collected data were discussed at a day-long faculty and staff retreat in December 2009.

As a result of that retreat and subsequent weekly meetings of faculty, staff, and students from January through early September 2010, the following has occurred. A set of learning outcomes were developed for both the graduate and undergraduate programs. Courses were created, revised, or dropped as the curriculum was developed to meet those goals at the appropriate level. Currently a plan is being developed to make sure that the outcomes, courses, and curriculum continue to provide the best education possible for our students.

The faculty voted unanimously to approve the undergraduate majors and minors (25 for, 0 against). The faculty vote for approval of the graduate programs will be taken at the December faculty meeting.

Respectfully,



William Randle

Professor and Chair

Department of Horticulture and Crop Science

(New abbreviations requested for: Landscape Design and Management Minor = LNDESMG-MN  
Agronomy Minor = AGRON-MN)

## AGRONOMY MINOR

College of Food, Agricultural,  
and Environmental Sciences  
The Ohio State University

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292-5056  
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An Agronomy minor is useful for students in Agriculture and Biological Sciences who plan to seek employment in areas of agronomic crop production, marketing, management, etc., where decision making requires a basic understanding of plant growth and crop production. Students taking this minor will gain insights into the environmental, genetic, and cultural factors that influence crop productivity. Such insights will enable the student to anticipate crop response under specific production regimes and environmental influences.

An Agronomy minor consists of 13-15 hours selected as follows (at least 6 credits must be taken at the 3000 level or higher):

Required: 4 hours (choose one of the courses below)

Credit Hours

HCS 2201	Ecology of Managed Plant Systems	4
<u>or</u>		
HCS 2202	Form and Function in Cultivated Plants	4

Required Electives: 9-11 hours

HCS 2201	Ecology of Managed Plant Systems ( <i>if not taken above</i> )	4
HCS 2202	Form and Function in Cultivated Plants ( <i>if not taken above</i> )	4
HCS 3380	Latino Workforce in Land-Based Industries	2
HCS 3420	Seed Science	3
HCS 4325	Plant Genetics	3
HCS 4411	Grain, Oilseed, and Fiber Crops	3
HCS 5412	Forages, Grasslands, and Prairies	3
HCS 5422	Principles of Weed Ecology and Management	3
HCS 5602	Ecology of Agriculture	3
HCS 5621	Crop Physiology	3
HCS 5630	Seed Production	2
HCS 5730	Seed Ecology and Physiology	2
HCS 3797.04 (temp. #)	Agricul. & Agro-Ecosys. Chile	3
HCS 3797.05 (temp. #)	Latinos In Land-based Industries	3
ENR 3000.01	Soil Science	3
ENR 4260	Soil Management	3
ENR 5270	Soil Fertility and Fertilizers	3

### Restrictions and General Information

1. This minor is not available to students majoring in Sustainable Plant Systems, Crop Science, Horticulture, Landscape Horticulture or Turfgrass Science.
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 GE (Writing and Communication, Foreign Language, Literature, Visual and Performing Arts, Culture and Ideas, Historical Study, Quantitative Reasoning, Data Analysis, Natural Science, Social Science, Cross-Disciplinary Seminar, Service-Learning, Education Abroad).
5. Courses taken on a pass/non pass basis may not be applied to the minor.



## CROP SCIENCE MINOR (108)

College of Food, Agricultural,  
and Environmental Sciences  
The Ohio State University

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A Crop Science minor is useful for students in Agriculture and Biological Sciences who plan to seek employment in areas of agricultural production, marketing, management, etc., where decision making requires a basic understanding of plant growth and crop production. Students taking this minor will gain insights into the environmental, genetic, and cultural factors that influence crop productivity. Such insights will enable the student to anticipate crop response under specific production regimes.

A Crop Science minor consists of 20-25 hours selected as follows:

<b>Required: 5 hours</b>		<b>Credit Hours</b>
H&CS 200	Crop Science	5
<b>Required Electives: 15-20 hours</b>		
H&CS 310	Control of Crop Development	4
H&CS 325	Crop Genetic Resources	4
H&CS 411	Grain Crops	3
H&CS 412	Forage Crops	3
H&CS 414	Crop Sciences Laboratory	2
H&CS 420	Seed Science	4
H&CS 422	Principles of Weed Science	4
H&CS 488	Professional Development in Horticulture & Crop Science	1-3
H&CS 450	Principles of Vegetables Crop Production	5
H&CS 460	Fruit Crop Physiology	5
H&CS 510	Crop Production in Developing Countries	5
H&CS 521	Greenhouse Environmental Control	5
H&CS 522	Commercial Production of Floriculture Crops	5
H&CS 593	Individual Studies	5
H&CS 602-636	Excluding 610	3-5

### Restrictions and General Information

1. This minor is not available to students majoring in Agronomy, Crop Science, Horticulture or Landscape Horticulture.
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 maximum of five credit hours may overlap between the minor and the GEC (foundations, natural sciences, arts and humanities and social sciences).
5. Courses taken on a pass/non pass basis may not be applied to the minor.

## Horticulture and Crop Science Transition Policy for Minors

The university Pledge to Undergraduate Students will be followed by the minor coordinators in Horticulture and Crop Science. Minor coordinators will encourage transition students in the minors to be proactive in getting help with scheduling courses in the minor before and after the conversion to make sure progress toward graduation is not impeded as long as the students follow a course of action that promotes progress.

Minor courses that are a one for one switch from quarter to semester versions should be relatively easy to incorporate into a student's program. For quarter courses that are dropped or significantly altered, or semester versions that will not be available before the student's projected graduation date, suitable semester alternatives will be substituted. The substitutions will be based on course content and meeting the knowledge and skill needs of the student's and time to graduation.

Minor coordinators will be kept up-to-date with advising policies, resources, and tips via the HCS Q2S Carmen website and other communication formats.

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