

From: [Osborne, Jeanne](#)
To: [Smith, Randy](#)
Cc: [Reed, Katie](#); [Violet, Cynthia](#); [Lewandowski, Monica](#); [Barker, David](#); [Klooster, Wendy](#); [Lindsey, Alexander](#)
Subject: Information item for CAA: Corrected Update to the Sustainable Plant Systems - PBS BS AGR
Date: Friday, June 13, 2025 9:45:46 AM
Attachments: [image001.png](#)
[SPS Plant Biosciences \(eff AU22\) - Final CORRECTED.docx](#)
[SPS Plant Biosciences \(eff AU23\) 9.15.23 HIghlight CORRECTED.docx](#)

Dear Dr. Smith

Attached please find updated curriculum sheets for the Sustainable Plant Systems – Plant Biosciences Specialization BS AGR Effective AU22 and AU23, offered in the College of Food, Agricultural, and Environmental Sciences. There has been an additional updated to the AU22 version that was sent to you on 4 June. In the process of reviewing majors to be programmed into the new degree audit system, Buckeye Degree Planner, we are carefully reviewing all our curriculum sheets. For the SPS-PBS major, Effective AU22 and AU23, we identified a correction that is the result of a course implementation that is different than what was listed in the original curriculum sheets. Specifically:

- AU22 and AU23: HCS/AGSYSMT 3586 Digital Agriculture with Laboratory (4 cr) has been approved and is an alternative to HCS/AGSYSMT 3585 Digital Agriculture (3 cr) – this is listed in the Minor Equivalent.
- AU22: AGSYSMT 3580 as been replaced by AGSYSMT 5560 – this is listed in the Minor Equivalent

No current students will be impacted by this update.

Attached please find updated curriculum sheets highlighting the changes. I believe this can be shared as an information item with the Council on Academic Affairs – if you believe this will require a vote for approval (rather than shared as an information item), please let me know and I will prepare a formal proposal for revision.

Please let me know if you need additional information or clarification.

Thank you,

Jeanne



Jeanne M. Osborne | Pronouns: She, Her, Hers

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'Unexpected kindness is the most powerful, least costly, and most underrated agent of human change' (Bob Kerrey)

Bachelor of Science in Agriculture

Major: Sustainable Plant Systems

Specialization: Plant Biosciences

Plant Biosciences is a broad study of plant biology including plant form and function, diversity, reproduction, evolution, and uses of plants. This specialization is ideal for students wishing to pursue a diverse array of career pathways or pursue graduate study in the field of plant biology and related plant disciplines. Students in this major will complete a minimum of 121 hours outlined as follows.

General Education Requirements		
Requirement	Course Options	Hours
GE Launch Seminar	GENED 1201	1
Writing and Information Literacy	Major requirement: ENGLISH 1110 * (or <i>Student Choice – see below</i>)	3
Mathematical & Quantitative Reasoning/Data Analysis	Major requirement: MATH 1130, 1148, 1150, 1151, or 1156 * (or <i>Student Choice – see below</i>)	4-5
Literary, Visual and Performing Arts	Student Choice	3
Historical & Cultural Studies	Student Choice	3
Natural Science	Major requirement: BIOLOGY 1113 * (or <i>Student Choice – see below</i>)	4
Social & Behavioral Sciences	Major requirement: AEDECON 2001 or ECON 2001.01 * (or <i>Student Choice – see below</i>)	3
Race, Ethnic and Gender Diversity	Student Choice	3
Theme: Citizenship for a Diverse & Just World^a	Student Choice	4-6
Theme: Student Choice^a	Student Choice	4-6
GE Reflection	GENED 4001	1
Credit Hours:		33-38

* Indicates a pre/corequisite course for this major that also satisfies this GE category. If a student makes an alternative selection in this GE category, **they must also complete this course.**

B.S. in Agriculture Degree Requirements		
Requirement	Course Options	Hours
College & Department Survey	FAES 1100 (0.5) & HCS 1100 (0.5)	1
Oral Expression	AGRCOMM 3130 or COMM 2110	3
Additional Science	CHEM 1110, 1210, or 1220	5
Internship	FAES 3191 & HCS 4191.01	2
Minor Equiv. ^b	See pg. 2	15-18
Credit Hours:		26-29

General Education	33-38
Degree Requirements	26-29
Major Supporting Courses (see pg. 2)	8
Major	45-46
Open Electives	0-9
Minimum Total Credit Hours	121

^a Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If any major-required courses are identified as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ✦ symbol.

^b Students in this program complete a group of courses called a minor equivalent. Declaring an additional minor is not required.

^c Only up to 6 credits of any combination of 4193, 4998, 4999, or 4999H can count towards major electives.

^d If not selected as major capstone.

Major Coursework		
Course	Title	Hours
HCS 2202	Form and Function in Cultivated Plants	4
HCS 2201 -or-	Ecology of Managed Plant Systems (prior to AU22)	4
HCS 2204 &	Ecology of Managed Plant Systems ✦ (3)	
HCS 2205	Ecology of Managed Plant Systems Lab (1)	
HCS 2260	Data Analysis and Interpretation for Decision Making	3
HCS 3100 -or- 3200 -or- 3470	Intro to Agronomy -or- Intro to Horticulture -or- Intro to Turfgrass Mgmt.	3
HCS 3220	Crop Origins and Diversity	2
HCS 3310	Crop Responses to the Environment	3
HCS 5325 -or- MOLGEN 4500	Plant Genetics -or- General Genetics	3
HCS 5621	Physiology of Cultivated Plants	3
HCS 5622 -or- BIOCHEM 4511	Biochemical Processes in Cultivated Plants -or- Introduction to Biological Chemistry	3-4
ENR 3000	Soil Science	3
ENR 3001	Soil Science Laboratory	1
<i>Select one capstone course:</i>		3
HCS 5100	Advanced Cropping Systems	
HCS 5200	Advanced Horticultural Principles and Practices	
HCS 5602	The Ecology of Agriculture	
Major Electives: Select 10 credit hours from:		
HCS 2307	Sustainable Agr Practical Exp	2
HCS 3320	Plant Propagation	3
HCS 3420	Seed Science	3
HCS 3521	Greenhouse Systems and Management	2
HCS 4193	Individual Studies	1-3
HCS 4300	Hydroponic Crop Production	2
HCS 4301	Hydroponic Crop Production Lab	1
HCS 4520	Medicinal Plants	2
HCS 4570	Turfgrass Management and Science	3
HCS 4998, 4999, or 4999H^c	Undergraduate Research, Research with Distinction, or Honors Research with Distinction	1-6
HCS 5097.01-.04 & 5797.01-.04	Study Abroad Pre-Departure & Study Abroad	4
HCS 5100^d	Advanced Cropping Systems	3
HCS 5200^d	Advanced Horticultural Systems	3
HCS 5411	Domestication and Utilization of Agronomic Crops	3
HCS 5412	Agroecology of Grasslands and Prairies	3
HCS 5422	Biol & Mgmt. of Weeds and Invasive Plants	3
HCS 5450	Vegetable Crop Production and Physiology	3
HCS 5460	Fruit Crop Physiology and Production	3
HCS 5602^d	Ecology of Agriculture	3
HCS 5625	Applied Plant Biotechnology	2
HCS 5825	Plant Breeding	2
HCS 5887	Introduction to Experimental Design	3
Credit Hours:		45-46

Major Supporting Coursework		
Course	Title	Hours
BIOLOGY 1114	Biological Sciences: Form, Function, Diversity, and Ecology	4
CHEM 2310 or 2510 *	Introductory Organic Chem or Organic Chem I	4
Credit Hours:		8

Minor Equivalent (15-18 hours)*		
EEOB 3310.01 or .02	Evolution	4
EEOB 3410	Ecology	4
Select an additional 7-10 hours from supporting electives below:		
Course	Title	Hours
AGSYSMT 3580/5560	UAS and Remote Sensing in Agriculture	3
HCS/AGSYSMT 3585 or 3586	Digital Agriculture/with Laboratory ✧	3-4
CHEM 2520	Organic Chemistry II	4
CHEM 2540	Organic Chemistry Laboratory I	2
CHEM 2550	Organic Chemistry Laboratory II	2
EEOB 3320	Organismal Diversity	3
EEOB 4240	Ecology & Evolution of Plants and People	3
EEOB 5450	Population Ecology	3
ENR 3321	Biology and Identity of Woody Forest Plants	3
ENR 3700	Introduction to Spatial Information for ENR	3
ENR 5261	Environmental Soil Physics	3
ENR 5263	Biology of Soil Ecosystems	3
ENR 5273	Environmental Fate & Impact of Contamination in Soil & Water	3
ENR 5274	Ecosystem Simulation	3
ENTMLGY 4000	General Entomology	3
ENTMLGY 5420	Insect Behavior	3
ENTMLGY 6410	Insect Ecology & Evolution	3
GEOG 5900	Weather, Climate, & Global Warming	3
MOLGEN 4501	General Genetics Laboratory	1
MOLGEN 4502	Expanded General Genetics Laboratory	2
MOLGEN 5623	Genetics and Genomics	2
MOLGEN 5630	Plant Physiology	3
MOLGEN 5643	Plant Anatomy	3
MOLGEN 5701	DNA Transactions and Gene Regulation	3
MOLGEN 5735	Plant Biochemistry	3
PLNTPTH 3001	General Plant Pathology	3
PLNTPTH 3002	General Plant Pathology Lab	2
PLNTPTH 5010	Phytopathology	2
PLNTPTH 5020	Introductory Plant Virology	2
PLNTPTH 5030	Plant Nematology	2
PLNTPTH 5040	Science of Fungi: Mycology Lecture	3

* Students interested in a chemistry-enriched minor curriculum should plan to take CHEM 1220 and CHEM 2510.

– CHEM 2310 prerequisites: CHEM 1110, 1220 (122), 1250 (125), 1620, or 1920H.

– CHEM 2510 prerequisites: CHEM 1220 (123), 1620 or 1920H (203H).

* Students interested in a Molecular Genetics enriched minor curriculum should plan to take MOLGEN 4500.

* Students interested in an advanced plant pathology (5000-level) minor curriculum should plan to take PLNTPTH 3001 and 3002.

Policies and General Requirements for Degree

- A minimum of 121 total credit hours. Remedial coursework (English 1109; EDUTL 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1010; Mathematics 1040, 1050, 1073, 1074, 1075) do not count toward the 121-hour minimum requirement for the BS degree.
- A minimum of 30 semester hours of credit earned through regular course enrollment at this University, and regular course enrollment in the last semester in the College of Food, Agricultural, and Environmental Sciences.
- A cumulative point-hour ratio of at least 2.00 on all coursework completed at The Ohio State University as well as at least a 2.00 in the major.
- If a major-required course or major elective is a GE Theme course, two 3-4 cr courses (no more than one per theme area) is permitted to double count in the GE and major hours. GE Theme courses are indicated with a ✧ symbol.
- Students are encouraged to participate in education abroad opportunities. Consult with your advisor for how education abroad credit applies to your degree or consider the CFAES Global Option.
- Students must complete a minimum of 40 hours in major/major supporting coursework with at least 12 hours taken from the academic unit(s) offering the major at OSU in the baccalaureate program.
- Courses required in the major (including major supporting courses and major electives) may **not** be taken pass/non-pass.
- Coursework taken as open electives may include a maximum of 4 credit hours of physical activity courses (all 1139-1197 courses), and a maximum of 4 credit hours of campus music organizations.
- A college maximum of six hours of individual studies courses (x193) can be applied toward graduation; some majors may have a lower maximum.
- Students of CFAES must complete an internship of 1-2 hours as a requirement for degree. Any additional internship credit hours may count towards major hours (consult with your advisor). A college maximum of six hours of internship credit can be applied toward graduation; some majors may have a lower maximum.
- A maximum of three credits of 3488 can be applied toward graduation although some majors may have a lower maximum. A cumulative point-hour ratio of 2.0 is required to register for 3488 credit.
- Credit hours for 4999 ("with Research Distinction") and 4999H ("with Honors Research Distinction") are repeatable to maximum of six hours.
- **An application for degree must be submitted online at least two semesters prior to the intended graduation term. Application found at: <https://students.cfaes.ohio-state.edu/academics/undergraduate/graduation>**

Policies and General Requirements for Minors/Minor Equivalent

- The minor/minor equivalent must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e., if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
 - A 2.00 cumulative point-hour ratio is required in the minor/minor equivalent with a minimum C- grade for any course to be listed in the minor or minor equivalent (includes transfer credit).
 - For programs requiring a minor: minors should be declared by the time students complete 60 hours.
 - A student is permitted to count up to 6 credit-hours of transfer and/or EM credit in the minor or minor equivalent.
- Coursework graded Pass/Non-Pass cannot count in the minor. No more than 3 credit-hours of course work graded S/U may count toward the minor. Maximum of 3 credit-hours of xx93 are allowed to count in the minor.

Bachelor of Science in Agriculture
Major: Sustainable Plant Systems
Specialization: Plant Biosciences

Plant Biosciences is a broad study of plant biology including plant form and function, diversity, reproduction, evolution, and uses of plants. This specialization is ideal for students wishing to pursue a diverse array of career pathways or pursue graduate study in the field of plant biology and related plant disciplines. Students in this major will complete a minimum of 121 hours outlined as follows.

General Education Requirements		
Requirement	Course Options	Hours
GE Launch Seminar	GENED 1201	1
Writing and Information Literacy	Student Choice	3
Mathematical & Quantitative Reasoning/Data Analysis	Major requirement: MATH 1130, 1148, 1150, 1151, or 1156 * (or <i>Student Choice – see below</i>)	4-5
Literary, Visual and Performing Arts	Student Choice	3
Historical & Cultural Studies	Student Choice	3
Natural Science	Major requirement: BIOLOGY 1113 * (or <i>Student Choice – see below</i>)	4
Social & Behavioral Sciences	Major requirement: AEDECON 2001 or ECON 2001.01 * (or <i>Student Choice – see below</i>)	3
Race, Ethnic and Gender Diversity	Student Choice	3
Theme: Citizenship for a Diverse & Just World^a	Student Choice	4-6
Theme: Student Choice^a	Student Choice	4-6
GE Reflection	GENED 4001	1
Credit Hours:		33-38

* Indicates a pre/corequisite course for this major that also satisfies this GE category. If a student makes an alternative selection in this GE category, **they must also complete this course.**

B.S. in Agriculture Degree Requirements		
Requirement	Course Options	Hours
College & Department Survey	FAES 1100 (0.5) & HCS 1100 (0.5)	1
Oral Expression	AGRCOMM 3130 or COMM 2110	3
Additional Science	CHEM 1110, 1210, or 1220	5
Internship	FAES 3191 & HCS 4191.01	2
Minor Equiv. ^b	See pg. 2	15-18
Credit Hours:		26-29

General Education	33-38
Degree Requirements	26-29
Major Supporting Courses (see pg. 2)	8
Major	45-46
Open Electives	0-9
Minimum Total Credit Hours	121

^a Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If any major-required courses are identified as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ♦ symbol.

^b Students in this program complete a group of courses called a minor equivalent. Declaring an additional minor is not required.

^c Only up to 6 credits of any combination of 4193, 4998, 4999, or 4999H can count towards major electives.

^d If not selected as major capstone.

Major Coursework		
Course	Title	Hours
HCS 2202	Form and Function in Cultivated Plants	4
HCS 2204	Ecology of Managed Plant Systems ♦	3
HCS 2205	Ecology of Managed Plant Systems Lab	1
HCS 2260	Data Analysis and Interpretation for Decision Making	3
HCS 3100 -or- 3200 -or- 3470	Intro to Agronomy -or- Intro to Horticulture -or- Intro to Turfgrass Mgmt.	3
HCS 3220	Crop Origins and Diversity	2
HCS 3310	Crop Responses to the Environment	3
HCS 5325 -or- MOLGEN 4500	Plant Genetics -or- General Genetics	3
HCS 5621	Physiology of Cultivated Plants	3
HCS 5622 -or- BIOCHEM 4511	Biochemical Processes in Cultivated Plants -or- Introduction to Biological Chemistry	3-4
ENR 3000	Soil Science	3
ENR 3001	Soil Science Laboratory	1
<i>Select one capstone course:</i>		3
HCS 5100	Advanced Cropping Systems	
HCS 5200	Advanced Horticultural Principles and Practices	
HCS 5602	The Ecology of Agriculture	
Major Electives: Select 10 credit hours from:		
HCS 2307	Sustainable Agr Practical Exp	2
HCS 3320	Plant Propagation	3
HCS 3420	Seed Science	3
HCS 3521	Greenhouse Systems and Management	2
HCS 4193	Individual Studies	1-3
HCS 4300	Hydroponic Crop Production	2
HCS 4301	Hydroponic Crop Production Lab	1
HCS 4520	Medicinal Plants	2
HCS 4570	Turfgrass Management and Science	3
HCS 4998, 4999, or 4999H^c	Undergraduate Research, Research with Distinction, or Honors Research with Distinction	1-6
HCS 5097.01-.04 & 5797.01-.04	Study Abroad Pre-Departure & Study Abroad	4
HCS 5100^d	Advanced Cropping Systems	3
HCS 5200^d	Advanced Horticultural Systems	3
HCS 5411	Domestication and Utilization of Agronomic Crops	3
HCS 5412	Agroecology of Grasslands and Prairies	3
HCS 5422	Biol & Mgmt. of Weeds and Invasive Plants	3
HCS 5450	Vegetable Crop Production and Physiology	3
HCS 5460	Fruit Crop Physiology and Production	3
HCS 5602^d	Ecology of Agriculture	3
HCS 5625	Applied Plant Biotechnology	2
HCS 5825	Plant Breeding	2
HCS 5887	Introduction to Experimental Design	3
Credit Hours:		45-46

Major Supporting Coursework		
Course	Title	Hours
BIOLOGY 1114	Biological Sciences: Form, Function, Diversity, and Ecology	4
CHEM 2310 or 2510 *	Introductory Organic Chem or Organic Chem I	4
Credit Hours:		8

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EEOB 3310.01 or .02	Evolution	4
EEOB 3410	Ecology	4
Select an additional 7-10 hours from supporting electives below:		
Course	Title	Hours
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AGSYSMT 5560	UAS and Remote Sensing in Agriculture	3
CHEM 2520	Organic Chemistry II	4
CHEM 2540	Organic Chemistry Laboratory I	2
CHEM 2550	Organic Chemistry Laboratory II	2
EEOB 3320	Organismal Diversity	3
EEOB 4240	Ecology and Evolution- Plants and People	3
EEOB 5450	Population Ecology	3
ENR 3321	Biology and Identity of Woody Forest Plants	3
ENR 3700	Introduction to Spatial Information for ENR	3
ENR 5261	Environmental Soil Physics	3
ENR 5263	Biology of Soil Ecosystems	3
ENR 5273	Environmental Fate & Impact of Contaminants in Soil & Water	3
ENR 5274	Ecosystem Simulation	3
ENTMLGY 4000	General Entomology	3
ENTMLGY 5420	Insect Behavior	3
ENTMLGY 6410	Insect Ecology & Evolution	3
GEOG 5900	Weather, Climate, & Global Warming	3
MOLGEN 4501	General Genetics Laboratory	1
MOLGEN 4502	Expanded General Genetics Laboratory	2
MOLGEN 5623	Genetics and Genomics	2
MOLGEN 5630	Plant Physiology	3
MOLGEN 5643	Plant Anatomy	3
MOLGEN 5701	DNA Transactions and Gene Regulation	3
MOLGEN 5735	Plant Biochemistry	3
PLNTPTH 3001	General Plant Pathology	3
PLNTPTH 3002	General Plant Pathology Lab	2
PLNTPTH 5010	Phytobacteriology	2
PLNTPTH 5020	Introductory Plant Virology	2
PLNTPTH 5030	Plant Nematology	2
PLNTPTH 5040	Science of Fungi: Mycology Lecture	3

* Students interested in a chemistry-enriched minor curriculum should plan to take CHEM 1220 and CHEM 2510.

– CHEM 2310 prerequisites: CHEM 1110, 1220 (122), 1250 (125), 1620, or 1920H.

– CHEM 2510 prerequisites: CHEM 1220 (123), 1620 or 1920H (203H).

* Students interested in a Molecular Genetics enriched minor curriculum should plan to take MOLGEN 4500.

* Students interested in an advanced plant pathology (5000-level) minor curriculum should plan to take PLNTPTH 3001 and 3002.

Policies and General Requirements for Degree

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- A minimum of 30 semester hours of credit earned through regular course enrollment at this University, and regular course enrollment in the last semester in the College of Food, Agricultural, and Environmental Sciences.
- A cumulative point-hour ratio of at least **2.00** on all coursework completed at The Ohio State University as well as at least a 2.00 in the major.
- If a major-required course or major elective is a GE Theme course, two 3-4 cr courses (no more than one per theme area) is permitted to double count in the GE and major hours. GE Theme courses are indicated with a ❖ symbol.
- Students are encouraged to participate in education abroad opportunities. Consult with your advisor for how education abroad credit applies to your degree or consider the CFAES Global Option.
- Students must complete a minimum of 40 hours in major/major supporting coursework with at least 12 hours taken from the academic unit(s) offering the major at OSU in the baccalaureate program.
- Courses required in the major (including major supporting courses and major electives) may **not** be taken pass/non-pass.
- Coursework taken as open electives may include a maximum of 4 credit hours of physical activity courses (all 1139-1197 courses), and a maximum of 4 credit hours of campus music organizations.
- A college maximum of six hours of individual studies courses (x193) can be applied toward graduation; some majors may have a lower maximum.
- Students of CFAES must complete an internship of 1-2 hours as a requirement for degree. Any additional internship credit hours may count towards major hours (consult with your advisor). A college maximum of six hours of internship credit can be applied toward graduation; some majors may have a lower maximum.
- A maximum of three credits of 3488 can be applied toward graduation although some majors may have a lower maximum. A cumulative point-hour ratio of 2.0 is required to register for 3488 credit.
- Credit hours for 4999 ("with Research Distinction") and 4999H ("with Honors Research Distinction") are repeatable to maximum of six hours.
- **An application for degree must be submitted online at least two semesters prior to the intended graduation term. Application found at: <https://students.cfaes.ohio-state.edu/academics/undergraduate/graduation>**

Policies and General Requirements for Minors/Minor Equivalent

- The minor/minor equivalent must contain a minimum of 12 credit hours distinct from the major and/or additional minors (i.e., if a minor requires more than 12 credit hours, a student is permitted to overlap those hours beyond 12 with the major or with another minor).
- A 2.00 cumulative point-hour ratio is required in the minor/minor equivalent with a minimum C- grade for any course to be listed in the minor or minor equivalent (includes transfer credit).
- For programs requiring a minor: minors should be declared by the time students complete 60 hours.
- A student is permitted to count up to 6 credit-hours of transfer and/or EM credit in the minor or minor equivalent.
- Coursework graded Pass/Non-Pass cannot count in the minor. No more than 3 credit-hours of course work graded S/U may count toward the minor. Maximum of 3 credit-hours of xx93 are allowed to count in the minor.