THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Effective Term: Autumn 2023

Bachelor of Science in Agriculture
Major: Plant Pathology
Specialization: Plant Health Management

The study of plant diseases, plant -microbe interactions, and plant health management to enhance food security, global sustainability, and human welfare. 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 1148** or **MATH 1150** * *(or Student Choice – see below)*	4-5
Literary, Visual and Performing Arts	***Student Choice***	3
Historical & Cultural Studies	***Student Choice***	3
Natural Science	Major requirement: **BIOLOGY 1101, BIOLOGY 1113, ENTMLGY 1101,** or **HCS 2202** * *(or Student Choice – see below)*	4
Social & Behavioral Sciences	**AEDECON 2001 or ECON 2001.01** *	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
General Education 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) & PLNTPTH/ENTMLGY 1100 (0.5)**	1
Oral Expression	**AGRCOMM 3130 or COMM 2110**	3
Additional Science	**BIOLOGY 1114, ENTMLGY 2101, HCS 2202, or MOLGEN 3300**	3-4
Internship	**FAES 3191 & PLNTPTH 4191**	2
Minor or Equiv. [b]	***Student Choice***	12-15
	Credit Hours:	**21-25**

[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 must complete a minor. A minor should be declared by the time 60 credit hours are accumulated. A minor in Plant Pathology is not permitted.
**Consult prerequisites

General Education	**33-38**
Degree Requirements & Minor	**21-25**
Major Supporting Courses	**13**
Major	**36**
Open Electives	**8-18**
Minimum Total Credit Hours	**121**

Major Supporting Coursework		
Course	**Title**	**Hours**
CHEM 1210 or **1910H**	**General Chemistry I**	5
CHEM 1220 or **1920H**	**General Chemistry II**	5
Data Analysis: Select from **HCS 2260, STAT 1450, ENR 2000, AEDECON 2005, COMLDR 3537,** or **ANIMSCI 2260**		3
	Credit Hours:	**13**

Major Coursework		
Course	**Title**	**Hours**
Plant Pathology Core (13 hrs)		
PLNTPTH 3001 & 3002	General Plant Pathology Lecture (3) & Lab (2)	5
PLNTPTH 5603	Plant Disease Management	3
PLNTPTH 5604	Capstone: Prob.-Based Studies in Plant Health	2
MOLGEN 3436	Introductory Plant Physiology	3
Plant Systems: Select one (if not taken as GE or Additional Science option) (4 hrs)		
HCS 2201 or 2204/05	Ecology of Managed Plant Systems	4
HCS 2202	Form and Functions of Cultivated Plants	4
Plant Systems: Select one (3 hrs)		
HCS 3100	Introduction to Agronomy	3
HCS 3200	Introduction to Horticulture	3
Plant Systems (3 hrs)		
HCS 5422	Biology and Mgt of Weeds and Invasive Plants	3
Entomology: Select two (5 hrs)		
ENTMLGY 4000	General Entomology	3
ENTMLGY 4601**	General Insect Pest Management	2
ENTMLGY 4602**	Urban Landscape & Greenhouse Entomology	2
ENTMLGY 4603**	Agricultural Entomology	2
Discipline Specific: Select two (4-8 cr)		
PLNTPTH 3333	Field and Woodland Fungi	2
PLNTPTH 5003	Princ. of Molecular Plant-Microbe Interactions	2
PLNTPTH 5004	Current Topics Mol. Plant Microbe Interactions	2
PLNTPTH 5005	Beneficial Plant-associated Microbiomes	2
PLNTPTH 5010	Phytobacteriology	2
PLNTPTH 5020	Introductory Plant Virology	2
PLNTPTH 5030	Nematology	2
PLNTPTH 5040 &41	Science of Fungi: Mycology Lecture and Lab	4
PLNTPTH 5050	Plant Pathogenic Fungi	3
PLNTPTH 5060	Pract. Exp. in Plant Health: Insects & Diseases	2
PLNTPTH 5110	Eco. & Mgmt of Path. & Insects Affecting Trees	3
PLNTPTH 5120	Diseases of Ornamentals	2
PLNTPTH 5130	Turf Diseases & Integrated Turf Health Mgmt	4
PLNTPTH 5140	Diseases of Field Crops	2
PLNTPTH 5150	Fruit and Vegetable Diseases	2
PLNTPTH 5685	Plant Disease Diagnosis	2
Major Electives: Select remaining credit hours from list on pg. 2		0-4
	Credit Hours:	**36**

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Major Elective Options		
Note: Courses present as options elsewhere in the major may only be selected for credit in one area.		
Course	**Title**	**Hours**
BIOCHEM 2210	Elements of Biochemistry	4
BIOCHEM 4511	Introduction to Biological Chemistry	4
CHEM 2310	Introductory Organic Chemistry	4
EEOB 3310.01 or .02	Evolution	4
EEOB 3410	Ecology	4
ENR 3000, or 3000 & 3001	Soil Science Lecture & Laboratory	4
ENR 5270	Soil Fertility	3
ENTMLGY 5150**	Pollinator Biology & Conservation	2
ENTMLGY 5420	Insect Behavior Mechanisms and Function	3
ENTMLGY 5500	Biological Control of Arthropod Pests	3
ENTMLGY 5600	Principles and Applications of IPM	3
ENTMLGY 5608	Turfgrass Insect and Mite Pests - Identification, Biology, and Management	2
ENTMLGY 5609	Landscape Ornamental Plant Insect and Mite Pests - Identification, Biology and Management	3
ENTMLOGY 5610	Greenhouse Plant Health and Pest Management	3
ENTMLGY 5800	Pesticide Science	3
HCS 2201 or 2204/05	Ecology of Managed Plant Systems	4
HCS 2202	Form and Functions of Cultivated Plants	4
HCS 5422**	Biology & Mgt of Weeds & Invasive Plants	3
HCS 5325	Plant Genetics	3
MICRBIO 4000.01 or .02	Basic and Practical Microbiology	4
MICRBIO 4100	General Microbiology	5
MICRBIO 4130	Microbial Genetics	3
MOLGEN 4500	General Genetics	3
PLNTPTH 2001	Sick Plants and a Hungry World	2
PLNTPTH 3333	Field and Woodland Fungi	2
PLNTPTH 3920	Psychedelic Studies: Neurochemistry, Plants, Fungi, and Society	3
PLNTPTH 4597	Contemporary Issues: Pesticides, Genetic Engineering, and the Environment	3
PLNTPTH 4998	Undergraduate Research	1-2
PLNTPTH 4999 / 4999H	Research with Distinction / Honors Research with Distinction	1-2
PLNTPTH 5003	Princ. of Molec. Plant-Microbe Interactions	2
PLNTPTH 5004	Curr. Topics Molec. Plant Microbe Interact	2
PLNTPTH 5005	Beneficial Plant-Associated Microbiomes and Plant Pathology Research	2
PLNTPTH 5010	Phytobacteriology	2
PLNTPTH 5020	Introductory Plant Virology	2
PLNTPTH 5030	Nematology	2
PLNTPTH 5040/5041	Science of Fungi: Mycology Lecture and Lab	4
PLNTPTH 5060	Practical Experiences in Plant Health: Insects & Diseases of Plants	2
PLNTPTH 5110	Ecology & Mgt of Pathogens and Insects Affecting Trees in Forest and Urban Envts.	3
PLNTPTH 5120	Diseases of Ornamentals	2
PLNTPTH 5130	Turf Diseases & Integr. Turf Health Mgmt.	4
PLNTPTH 5140	Diseases of Field Crops	2
PLNTPTH 5150	Fruit and Vegetable Diseases	2
PLNTPTH 5685	Plant Disease Diagnosis	2
Study Abroad	Study abroad at a foreign institution	varies

**Consult prerequisites

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 pursuing a B.S. in Agriculture 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.

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4-Year Course Plan
B.S. in Agriculture
Major: Plant Pathology
Specialization: Plant Health Management

This model plan of study is presented as a suggested path to graduate in four years. It is intended to be a useful guide; however, each student is unique and should review the Degree Requirements for their catalog year and work with their advisor to develop an individualized course plan that best fits their personal academic background and goals.

NOTE: This sheet should not be used in isolation. To graduate in a timely manner, students must consult their academic advisor on a regular basis.

Freshman Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Complete Math requirement *-Complete at least one science* *-Complete GE: WIL*	FAES 1100	College Survey	.5	CHEM 1210	General Chemistry I	5
	PLNTPTH 1100	Dept Survey	.5	GE Lit, Vis and Perf Arts		3
	GE Math: MATH 1148 [a]	College Algebra	4	GE WIL		3
	GE Natural Science	*See options*	4-5	Additional Science	*See options*	3-4
	Open Elective		3	GENED 1201	GE Launch Seminar	1
	Open Elective		2-3			
Hours: 30		**Total:**	**15**		**Total:**	**15**
Sophomore Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Declare minor *-Complete three science courses by the end of this year* *-Begin to consider an internship location*	CHEM 1220	General Chemistry II	5	GE Theme Choice #1 [b]		3
	Data Analysis	*See options*	3	GE SBS: AEDECON 2001	Prin. of Food & Res. Econ.	3
	GE Hist. & Cultural Studies		3	GE R.E. & G. Diversity		3
	HCS 2201 or 2204/05[a]	Ecology of Mg. Plant Systems	4	AGRCOMM 3130 [a]	Oral Expression	3
				Open Elective		3
Hours: 60		**Total:**	**15**		**Total:**	**15**
Junior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Apply to graduate *-Complete internship by end of the summer* *-Half of major hours to be completed by the end of the year*	MOLGEN 3436	Intro Plant Physiology	3	PLNTPTH 4191 & FAES 3191	Internship	2
	HCS 3100 or HCS 3200	Intro to Agronomy or Intro to Horticulture	3	PLNTPTH 5603	Plant Disease Management	3
	GE Citizenship #1 [b]		3	Major or Discipline Specific Elective, or Open Elective	*See options*	2-4
	PLNTPTH 3001 & 3002	General Plant Pathology Lecture (3) and Lab (2)	5	Minor Course		3-4
				GE Citizenship #2 [b]		3
Hours: 90		**Total:**	**14**		**Total:**	**13-16**
Senior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**	**Course Name**	**Hours**	**Course/Requirement**	**Course Name**	**Hours**
-Meet graduation requirements *-Meet with a Career Services Advisor*	GE Theme Choice #2 [b]		3	Major or Discipline Specific Elective, or Open Elective	*See options*	2-4
	ENTMLGY (from list)	*See options under Major Coursework*	2-3	PLNTPTH 5604	Capstone	2
	HCS 5422	Biology and Mgt of Weeds and Invasive Plants	3	ENTMLGY (from list)	*See options under Major Coursework*	2-3
	Major or Discipline Specific Elective, or Open Elective	*See options*	2-4	Minor Course		3-4
	GENED 4001	GE Reflection	1	Minor Course		3-4
	Minor Course		2-3			
		Total:	**14-16**		**Total:**	**12-17**
					Total credit hours for Bachelor of Science Degree:	**121**

[a] One possible course from approved GE list or major requirement that has multiple options, as outlined in corresponding Degree Requirements document.
[b] 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.

Degree requirements and course offerings are subject to change. This page was last updated on: 5/26/23

4-Year Completion Checklist

Freshman Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Complete Math requirement*	FAES 1100					
	PLNTPTH 1100					
☐ *Complete at least one science*						
☐ *Complete GE: WIL*						
Hours: _____	*Notes:*			*Notes:*		
Sophomore Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Declare minor*						
☐ *Complete three science courses by the end of this year*						
☐ *Begin to consider an internship location*						
Hours: _____	*Notes:*			*Notes:*		
Junior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Apply to graduate*						
☐ *Complete internship by end of the summer*						
☐ *Half of major hours to be completed by the end of the year*						
Hours: _____	*Notes:*			*Notes:*		
Senior Year	**Autumn Semester**			**Spring Semester**		
Benchmarks	**Course/Requirement**		✓	**Course/Requirement**		✓
☐ *Meet graduation requirements*						
☐ *Meet with a Career Services Advisor*						
Hours: _____	*Notes:*			*Notes:*		
				Total credit hours for Bachelor of Science Degree:		**121**

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