

Date Submitted: 08/28/23 2:28 pm

Viewing: CPSCBS : Crop Science, Bachelor of Science in Agri Food & Life Sciences

Last approved: 03/22/23 9:58 am

Last edit: 02/09/24 2:58 pm

Changes proposed by: msavin

Catalog Pages Using this Program [Crop Science B.S.A.](#)
[Crop Science \(CPSC\)](#)
[Crop, Soil and Environmental Sciences \(CSES\).](#)

Submitter:	User ID:	msavin	Phone:	575-5740
Program Status	Active			
Academic Level	Undergraduate			
Type of proposal	Major/Field of Study			
Select a reason for this modification				
Making Minor Changes to an Existing Certificate, Degree or Program (including 15 or fewer hours, admission/graduation requirements, Focused Studies or Tracks)				
Are you adding a concentration?	No			
Are you adding or modifying a track?	No			
Are you adding or modifying a focused study?	No			
Effective Catalog Year	Fall 2024			
College/School Code	Bumpers College of Agricultural, Food, and Life Sciences (AFLS)			
Department Code	Department of Crop, Soil and Environmental Sciences (CSES)			
Program Code	CPSCBS			
Degree	Bachelor of Science in Agricultural, Food & Life Sciences			
CIP Code	01.1102 - Agronomy and Crop Science.			
Program Title	Crop Science, Bachelor of Science in Agri Food & Life Sciences			
Program Delivery Method	On Campus			
Is this program interdisciplinary?				
No				
Does this proposal impact any courses from another College/School?				
<u>No</u> Yes				
What are the total hours needed to complete the program?	120			

Program Requirements and Description

Requirements

In Workflow

1. AFLS Dean Initial
2. Director of Curriculum Review and Program Assessment
3. Registrar Initial
4. Institutional Research
5. CSES Chair
6. CSES Curriculum Committee
7. AFLS Faculty
8. AFLS Dean
9. Global Campus
10. Provost Review
11. Undergraduate Council
12. Faculty Senate
13. Provost Final
14. Registrar Final
15. Catalog Editor Final

Approval Path

1. 10/13/23 2:43 pm
Lona Robertson (ljrobert): Approved for AFLS Dean Initial
2. 11/03/23 5:20 pm
Lisa Kulczak (lkulcza): Approved for Director of Curriculum Review and Program Assessment
3. 11/06/23 8:39 am
Gina Daugherty (gdaugher): Approved for Registrar Initial
4. 11/06/23 11:05 am
Doug Miles (dmiles): Approved for Institutional Research
5. 11/07/23 12:42 pm
Jeff Edwards (jeffrey): Approved for CSES Chair
6. 12/12/23 2:10 pm
Nathan Kemper (nkemper): Approved for CSES Curriculum Committee
7. 02/15/24 11:26 am
Casey Owens Hanning

Requirements for a Major in Crop Science (CPSC)

[State minimum core](#) and discipline specific [general education requirements](#).

(Course work that meets state minimum core requirements is in bold.)

(cmowens):
Approved for AFLS
Faculty
8. 02/15/24 11:38 am
Lona Robertson
(lrobert): Approved
for AFLS Dean
9. 02/15/24 11:50 am
Suzanne Kenner
(skenner): Approved
for Global Campus
10. 02/15/24 9:18 pm
Matthew Ganio
(msganio):
Approved for
Provost Review

History

1. Aug 15, 2014 by
Leepfrog
Administrator
(clhelp)
2. Aug 31, 2017 by
Charlie Alison
(calison)
3. May 21, 2019 by
Mary Savin (msavin)
4. Dec 20, 2019 by
Charlie Alison
(calison)
5. May 15, 2020 by
Gina Daugherty
(gdaugher)
6. Jun 18, 2020 by Lisa
Kulczak (lkulcza)
7. Dec 10, 2020 by
Karen Turner
(kjvestal)
8. Dec 10, 2020 by
Karen Turner
(kjvestal)
9. Apr 7, 2021 by Lisa
Kulczak (lkulcza)
10. May 21, 2021 by
Lisa Kulczak (lkulcza)
11. Jan 3, 2023 by Mary
Savin (msavin)
12. Mar 22, 2023 by
Charlie Alison
(calison)

University Requirements		1
UNIV 1001	Course UNIV 1001 Not Found¹	
UNIV 10051	University Perspectives¹	
CSES 10101	Introduction to Crop, Soil, and Environmental Science	
Communications		12
ENGL 1013	Course ENGL 1013 Not Found	
ENGL 1023	Course ENGL 1023 Not Found	

<u>COMM 1313</u>	<u>Course COMM 1313 Not Found</u>
<u>CSES 3023</u>	<u>Course CSES 3023 Not Found</u>
<u>ENGL 10103</u>	<u>Composition I (ACTS Equivalency = ENGL 1013)</u>
<u>ENGL 10203</u>	<u>Composition II (ACTS Equivalency = ENGL 1023)</u>
<u>SPCH 10003</u>	<u>Public Speaking (ACTS Equivalency = SPCH 1003)</u>
<u>CSES 30203</u>	<u>Crop, Soil, and Environmental Sciences Colloquium</u>
U.S. History or Government ²	3
Select 3 hours US History or Government State Minimum Core	
Mathematics and Computer Science	6
<u>MATH 1203</u>	<u>Course MATH 1203 Not Found (or higher level MATH)</u>
<u>ASTM 2903</u>	<u>Course ASTM 2903 Not Found</u>
or <u>STAT 2303</u>	<u>Course STAT 2303 Not Found</u>
<u>MATH 11003</u>	<u>College Algebra (ACTS Equivalency = MATH 1103) (or higher level MATH)</u>
<u>ASTM 29003</u>	<u>Agricultural and Human Environmental Sciences Applications of Microcomputers</u>
or <u>MATH 21003</u>	<u>Principles of Statistics (ACTS Equivalency = MATH 2103)</u>
Physical and Biological Sciences	15-19
<u>BIOL 1543</u> & <u>BIOL 1541L</u>	<u>Course BIOL 1543 Not Found</u> and <u>Course BIOL 1541L Not Found</u>
<u>CHEM 2613</u> & <u>CHEM 2611L</u>	<u>Course CHEM 2613 Not Found</u> and <u>Course CHEM 2611L Not Found</u>
<u>ANSC 3123</u>	<u>Course ANSC 3123 Not Found</u>
or <u>POSC 3123</u>	<u>Course POSC 3123 Not Found</u>
or <u>BIOL 2323</u>	<u>Course BIOL 2323 Not Found</u>
<u>BIOL 10103</u> & <u>BIOL 10101</u>	<u>Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture)</u> and <u>Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)</u>
<u>CHEM 26103</u> & <u>CHEM 26101</u>	<u>Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture)</u> and <u>Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab)</u>
<u>ANSC 31203</u>	<u>Principles of Genetics</u>
or <u>POSC 31203</u>	<u>Principles of Genetics</u>
or <u>BIOL 23373</u>	<u>General Genetics</u>
Select one CHEM group (4-8 hours)	
<u>CHEM 1073</u> & <u>CHEM 1071L</u>	<u>Course CHEM 1073 Not Found</u> and <u>Course CHEM 1071L Not Found</u>
<u>CHEM 1103</u> & <u>CHEM 1101L</u> & <u>CHEM 1123</u> & <u>CHEM 1121L</u>	<u>Course CHEM 1103 Not Found</u> and <u>Course CHEM 1101L Not Found</u> and <u>Course CHEM 1123 Not Found</u> and <u>Course CHEM 1121L Not Found</u>
<u>CHEM 12103</u> & <u>CHEM 12101</u>	<u>Fundamentals of Chemistry (ACTS Equivalency = CHEM 1214 Lecture)</u> and <u>Fundamentals of Chemistry Laboratory (ACTS Equivalency = CHEM 1214 Lab)</u>
<u>CHEM 14103</u> & <u>CHEM 14101</u> & <u>CHEM 14203</u> & <u>CHEM 14201</u>	<u>University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)</u> and <u>University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)</u> and <u>University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture)</u> and <u>University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)</u>
Fine Arts and Humanities ²	6
Select 3 hours from Fine Arts State Minimum Core	
Select 3 hours from Humanities State Minimum Core	

AGEC 1103	Course AGEC 1103 Not Found
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<u>AGEC 11003</u>	<u>Principles of Agricultural Microeconomics</u>
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Select 6 hours from Social Sciences State Minimum Core

Crop Science Core

27

CSES 1203	Course CSES 1203 Not Found
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CSES 2103	Course CSES 2103 Not Found
& CSES 2101L	and Course CSES 2101L Not Found

CSES 2203	Course CSES 2203 Not Found
& CSES 2201L	and Course CSES 2201L Not Found

CSES 4013	Course CSES 4013 Not Found
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CSES 4224	Course CSES 4224 Not Found
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CSES 4143	Course CSES 4143 Not Found
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ENTO 3013	Course ENTO 3013 Not Found
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PLPA 3003	Course PLPA 3003 Not Found
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[CSES 2302 Professional Development in Crop, Soil, and Environmental Sciences](#)

<u>CSES 12003</u>	<u>Introduction to Plant Sciences</u>
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<u>CSES 21033</u>	<u>Crop Science</u>
<u>& CSES 21001</u>	<u>and Crop Science Laboratory</u>

<u>CSES 22003</u>	<u>Soil Science</u>
<u>& CSES 22001</u>	<u>and Soil Science Laboratory</u>

<u>CSES 40133</u>	<u>Advanced Crop Science</u>
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<u>CSES 42204</u>	<u>Soil Fertility</u>
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<u>CSES 41403</u>	<u>Principles of Weed Control</u>
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<u>ENTO 30103</u>	<u>Introduction to Entomology</u>
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<u>PLPA 30003</u>	<u>Principles of Plant Pathology</u>
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Crop Science Electives ³

21

Select Twenty-One (21) hours from the following:

CSES 3214	Course CSES 3214 Not Found
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CSES 3312	Course CSES 3312 Not Found
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CSES 3322	Course CSES 3322 Not Found
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CSES 3332	Course CSES 3332 Not Found
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CSES 3342	Course CSES 3342 Not Found
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CSES 3703	Course CSES 3703 Not Found
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ENSC 3003	Course ENSC 3003 Not Found
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ENSC 3263	Course ENSC 3263 Not Found
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ENSC 3603	Course ENSC 3603 Not Found
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CSES 4103	Course CSES 4103 Not Found
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CSES 4133	Course CSES 4133 Not Found
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or CSES 4143	Course CSES 4143 Not Found
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ENTO 4123	Course ENTO 4123 Not Found
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PLPA 4223	Course PLPA 4223 Not Found
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PLPA 4333	Course PLPA 4333 Not Found
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CSES 462V	Course CSES 462V Not Found (3 hours)
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<u>CSES 400V</u>	<u>Course CSES 400V Not Found (3 hours)</u>
<u>CSES 32104</u>	<u>Soil Resources and Nutrient Cycles</u>
<u>CSES 33102</u>	<u>Cotton Production</u>
<u>CSES 33202</u>	<u>Soybean Production</u>
<u>CSES 33302</u>	<u>Rice Production</u>
<u>CSES 33402</u>	<u>Cereal Grain Production</u>
<u>CSES 37003</u>	<u>Precision Agriculture for Crops</u>
<u>ENSC 30003</u>	<u>Introduction to Water Science</u>
<u>ENSC 32603</u>	<u>Soil and Water Conservation</u>
<u>ENSC 36003</u>	<u>GIS for Environmental Science</u>
<u>CSES 41003</u>	<u>Plant Breeding</u>
<u>CSES 41303</u>	<u>Ecology and Morphology of Weedy and Invasive Plants</u>
<u>or CSES 41403</u>	<u>Principles of Weed Control</u>
<u>ENTO 41203</u>	<u>Insect Pest Management</u>
<u>PLPA 42203</u>	<u>Plant Disease Control</u>
<u>PLPA 43303</u>	<u>Biotechnology in Agriculture</u>
<u>CSES 4620V</u>	<u>Internship (3 hours)</u>
<u>CSES 4000V</u>	<u>Special Problems (3 hours)</u>

General Electives

16-20

Total Hours

120

¹ UNIV 10051 University Perspectives is required for new freshmen or transfers with less than 24 hours.

² See student degree audit for approved course list.

³ One three (3) hour study abroad course may be used in fulfilling three (3) hours of Crop Science Electives.

Crop Science B.S.A.

Eight-Semester Degree Program

See more about the [Eight-Semester Degree Policy](#) for university requirements of the program.

First Year	Units
	FallSpring
ENGL 1013 Course ENGL 1013 Not Found (Satisfies General Education Outcome 1.1)	
MATH 1203 Course MATH 1203 Not Found (or higher level MATH (Satisfies General Education Outcome 2.1))	
<u>ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)</u>	<u>3</u> =
<u>MATH 11003 College Algebra (ACTS Equivalency = MATH 1103) (or higher level MATH (Satisfies General Education Outcome 2.1))</u>	<u>3</u> =
Satisfies General Education Outcome 3.4:	
BIOL 1543 Course BIOL 1543 Not Found	0 -
& BIOL 1541L Course BIOL 1541L Not Found	
CSES 1203 Course CSES 1203 Not Found	3 -
UNIV 1001 Course UNIV 1001 Not Found	1 -
<u>BIOL 10103 Principles of Biology (ACTS Equivalency = BIOL 1014 Lecture)</u>	<u>4</u> =
<u>& BIOL 10101 Principles of Biology Laboratory (ACTS Equivalency = BIOL 1014 Lab)</u>	
<u>CSES 12003 Introduction to Plant Sciences</u>	<u>3</u> =
<u>UNIV 10051 University Perspectives</u>	<u>1</u> =
<u>CSES 10101 Introduction to Crop, Soil, and Environmental Science</u>	<u>1</u> =
CSES 2103 Course CSES 2103 Not Found	- 4
& CSES 2101L Course CSES 2101L Not Found	
ENGL 1023 Course ENGL 1023 Not Found (If exempt, see adviser for communication courses.) (Satisfies General Education Outcome 1.1)	- 3
COMM 1313 Course COMM 1313 Not Found (Satisfies General Education Outcomes 1.2 and 5.1)	- 3
AGEC 1103 Course AGECE 1103 Not Found (Satisfies General Education Outcome 3.3)	- 3
<u>CSES 21033 Crop Science</u>	= <u>4</u>
<u>& CSES 21001 Crop Science Laboratory</u>	
<u>ENGL 10203 Composition II (ACTS Equivalency = ENGL 1023) (If exempt, see adviser for communication courses.) (Satisfies General Education Outcome 1.1)</u>	<u>3</u>
<u>SPCH 10003 Public Speaking (ACTS Equivalency = SPCH 1003) (Satisfies General Education Outcomes 1.2 and 5.1)</u>	= <u>3</u>
<u>AGEC 11003 Principles of Agricultural Microeconomics (Satisfies General Education Outcome 3.3)</u>	= <u>3</u>
U.S. History or Government Core Elective (Satisfies General Education Outcome 4.2) ⁵	3
Year Total:	15 16
Second Year	Units
	FallSpring
Satisfies General Education Outcome 3.4:	
CHEM 1103 Course CHEM 1103 Not Found	0 -
& CHEM 1101L Course CHEM 1101L Not Found	
or CHEM 1073 and CHEM 1071L	
<u>CHEM 14103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)</u>	<u>4</u> =
<u>& CHEM 14101 University Chemistry I Laboratory (ACTS Equivalency = CHEM 1414 Lab)</u>	
<u>or CHEM 12103 and CHEM 12101</u>	
Social Sciences State Minimum Core Elective (Satisfies General Education Outcome 3.3) ⁴	3
Fine Arts or Humanities State Minimum Core Elective (Satisfies General Education Outcome 3.1 or 3.2) ^{1,2}	3
Crop Science Elective ^{4,5}	3
Crop Science Elective ^{4,5}	2-3
<u>CSES 2302 Professional Development in Crop, Soil, and Environmental Sciences</u>	<u>2</u> =
CHEM 1123 Course CHEM 1123 Not Found	- 4
& CHEM 1121L Course CHEM 1121L Not Found	
or CHEM 2613 and CHEM 2611L	
ASTM 2903 Course ASTM 2903 Not Found	- 3
or STAT 2303 Course STAT 2303 Not Found	
<u>CHEM 14203 University Chemistry II (ACTS Equivalency = CHEM 1424 Lecture)</u>	= <u>4</u>
<u>& CHEM 14201 University Chemistry II Laboratory (ACTS Equivalency = CHEM 1424 Lab)</u>	
<u>or CHEM 26103 and CHEM 26101</u>	
<u>ASTM 29003 Agricultural and Human Environmental Sciences Applications of Microcomputers</u>	= <u>3</u>
<u>or MATH 21003 Principles of Statistics (ACTS Equivalency = MATH 2103)</u>	
Social Sciences State Minimum Core Elective (Satisfies General Education Outcomes 3.3 and 4.1) ⁴	3
Fine Arts or Humanities State Minimum Core Elective (Satisfies General Education Outcome 3.1 or 3.2) ^{1,2}	3
Crop Science Elective ^{4,5}	2-3

Year Total:		17 16
Third Year		Units FallSpring
CHEM 2613 Course CHEM 2613 Not Found		4 -
& CHEM 2611L Course CHEM 2611L Not Found		
or CHEM 1123 and CHEM 1121L		
PLPA 3003 Course PLPA 3003 Not Found		3 -
ENTO 3013 Course ENTO 3013 Not Found		3 -
General Elective ⁴		3 -
CSES 2203 Course CSES 2203 Not Found		0 -
& CSES 2201L Course CSES 2201L Not Found		
<u>CHEM 26103 Organic Physiological Chemistry (ACTS Equivalency = CHEM 1224 Lecture)</u>		<u>4 =</u>
<u>& CHEM 26101 Organic Physiological Chemistry Laboratory (ACTS Equivalency = CHEM 1224 Lab)</u>		
<u>or CHEM 14203 and CHEM 14201</u>		
<u>PLPA 30003 Principles of Plant Pathology</u>		<u>3 =</u>
<u>ENTO 30103 Introduction to Entomology</u>		<u>3 =</u>
<u>CSES 22003 Soil Science</u>		<u>4 =</u>
<u>& CSES 22001 Soil Science Laboratory</u>		
ANSC 3123 Course ANSC 3123 Not Found		
or POSC 3123 Course POSC 3123 Not Found		
or BIOL 2323 Course BIOL 2323 Not Found		
<u>ANSC 31203 Principles of Genetics</u>		<u>= 3</u>
<u>or POSC 31203 Principles of Genetics</u>		
<u>or BIOL 23373 General Genetics</u>		
Crop Science Elective ^{4,5}		2-3
Crop Science Elective ^{4,5}		3
General Elective ⁴		6
Year Total:		14 14
Fourth Year		Units FallSpring
CSES 3023 Course CSES 3023 Not Found (Satisfies General Education Outcome 6.1)		3 -
CSES 4224 Course CSES 4224 Not Found		4 -
<u>CSES 30203 Crop, Soil, and Environmental Sciences Colloquium (Satisfies General Education Outcome 6.1)</u>		<u>3 =</u>
<u>CSES 42204 Soil Fertility</u>		<u>4 =</u>
Crop Science Elective ^{4,5}		3
Crop Science Elective ^{4,5}		2-3
Crop Science Elective ^{4,5}		3
CSES 4013 Course CSES 4013 Not Found		- 3
CSES 4143 Course CSES 4143 Not Found		- 3
<u>CSES 40133 Advanced Crop Science</u>		<u>= 3</u>
<u>CSES 41403 Principles of Weed Control</u>		<u>= 3</u>
Crop Science Electives OR General Electives ²		0-7
Year Total:		16 12

Total Units in Sequence: 120

- 1 The Fine Arts Elective courses which satisfy General Education Outcome 3.1 include: [ARCH 10003](#), [ARHS 10003](#), [COMM 10003](#), [DANC 10003](#), [LARC 10003](#), [MUSC 10003](#), [THEAT 10003](#)
- 2 The Humanities Elective courses which satisfy General Education Outcome 3.2 include: [AAST 20203](#), [ANTH 10303](#), [ARCH 10103](#), [CLST 10003](#), [CLST 100H3](#), [CLST 10103](#), [COMM 12303](#), [DANC 10003](#), [ENGL 12103](#), [GNST 20003](#), [HIST 11193](#), [HIST 111H3](#), [HIST 11253](#) or Intermediate-level world language (usually 2003-level).
- 3 The Social Science Elective courses which satisfy General Education Outcomes 3.3 and 4.1 include: [ANTH 10203](#), [COMM 10203](#), [HDFS 14003](#), [HDFS 24103](#), [HIST 11193](#), [HIST 11253](#)
- 4 Students must complete 40 hours of upper division courses (3000-4000 level). It is recommended that students consult with their academic adviser when making course selection.
- 5 See student degree audit for approved course list.

No	Are Similar Programs available in the area?
Estimated Student Demand for Program	50

Scheduled Program 2029-2030

Review Date

Program Goals and Objectives

Program Goals and Objectives

1. Graduates have the discipline-specific knowledge in crop sciences required to perform successfully in private, government, or academic entry-level positions.
2. Graduates are able to critically analyze, synthesize, and evaluate new information to make informed decisions.
3. Graduates have the ability to solve complex, multidisciplinary problems.
4. Graduates are able to prepare and synthesize information to effectively communicate, both orally and in writing.

Learning Outcomes

Learning Outcomes

1. Students will demonstrate the discipline specific knowledge required to function as crop science professionals.
2. Students will demonstrate the ability to critically evaluate situations or scenarios to arrive at well thought out and supported decisions and outcomes.
3. Students will demonstrate the ability to work through and solve complex, multidisciplinary problems.
4. Communication skills
 - a. Students will demonstrate the skills required to effectively communicate technical/scientific information in oral platforms.
 - b. Students will demonstrate the ability to integrate, organize, and effectively present written reports of technical/scientific information.

Description and justification of the request

Description of specific change	Justification for this change
CSES is developing a freshmen (1 credit hour) and sophomore (2 credit hour) level course to add the CPSC degree as required courses. To include these 3 credit hours, 3 hours of general electives are being removed.	To better orient and integrate freshman into the department and help students develop professional skills to succeed in college and their future careers, these two courses are being added to the CPSC degree plan.

Upload attachments [24-25-cpscbs proposed.docx](#)

Reviewer Comments **Lisa Kulczak (lkulcza) (11/03/23 5:15 pm):** Added course information for courses not found; both are currently in the approval process.