**APPROVED BY SENATE
12/09/2019**

New Proposal

Date Submitted: 08/23/19 4:06 pm

Viewing: **: JP: Computer Science + Crop Sciences, BS and Crop Sciences, MS**

Last edit: 11/05/19 8:56 am

Changes proposed by: Brianna Gregg

In Workflow

1. **U Program Review**
2. **1802 Head**
3. **1434 Head**
4. **KP Committee Chair**
5. **KP Dean**
6. **KL Committee Chair**
7. **KL Dean**
8. **University Librarian**
9. **Grad_College**
10. **Provost**
11. **Senate EPC**
12. Senate
13. U Senate Conf
14. Board of Trustees
15. IBHE
16. DMI

Approval Path

1. 08/26/19 8:56 am
   Deb Forgacs
   (dforgacs):
   Approved for U
   Program Review
2. 08/26/19 10:18 am
   Adam Davis
   (asdavis1):
   Approved for 1802
   Head
3. 09/17/19 4:58 pm
   Elsa Gunter
   (egunter):
   Approved for 1434
   Head
4. 10/29/19 11:24 am
   Brooke Newell

(bsnewell):
Approved for KP
Committee Chair

5. 10/30/19 9:11 am
Jean Hanks
(jhanks):
Approved for KP
Dean

6. 10/30/19 11:12
am
Anthony Yannarell
(acyann):
Approved for KL
Committee Chair

7. 10/30/19 12:50
pm
Anna Ball (aball):
Approved for KL
Dean

8. 10/30/19 1:43 pm
John Wilkin
(jpwilkin):
Approved for
University
Librarian

9. 11/04/19 11:53
am
Allison McKinney
(agrindly):
Approved for
Grad_College

10. 11/04/19 6:21 pm
Kathy Martensen
(kmartens):
Approved for
Provost

Proposal Type

Proposal Type:
Joint Program (ex. Master of Public Health & PhD. in Community Health)

Proposal Title:

if this proposal is one piece of a multi-element change please include the other impacted programs here. *example: A BS revision with multiple concentration revisions*

Establish joint program in the Department of Crop Sciences for the BS of Computer Science + Crop Sciences and MS in Crop Sciences. This proposal includes the updates proposed for the Fall 2020 changes to the Computer Science + Crop Sciences, BS.

Official Program Name	JP: Computer Science + Crop Sciences, BS and Crop Sciences, MS
Banner/Codebook Name	

Program Code:

Major Code	Minor Code	Conc Code	Degree Code

EP Control Number	EP.20.41
Senate Approval Date	
Senate Conference Approval Date	
BOT Approval Date	
IBHE Approval Date	

Effective Date:

Effective Catalog Term	Fall 2020
Sponsor College	Agr, Consumer, & Env Sciences
Sponsor Department	Crop Sciences

Sponsor Name	Nathan Schroeder	Sponsor Email	nes@illinois.edu
College Contact	Brianna Gregg	College Contact Email	bjgray2@illinois.edu

Academic Level

Graduate
Undergraduate

Program Description and Justification

Provide a *brief* description and justification of the program, including highlights of the program objectives, and the careers, occupations, or further educational opportunities for which the program will prepare graduates, when appropriate.

The Department of Crop Sciences requests two new joint degree programs: I) a Bachelor of Science in Crop Sciences and non-thesis Master of Science in Crop Sciences and 2) a Bachelor of Science in Computer Science and Crop Sciences and non-thesis Master of Science in Crop Sciences. Students enrolled in the joint programs will obtain both degrees following the completion of 146 hours, which is the sum of 126 required to complete the B.S. degree and 32 hours to complete the M.S. degree, minus 12 of those hours which will be applied to both degrees.
The benefit of the program will be in allowing students to concurrently receive a B.S. and a non-thesis MS in Crop Sciences over a period of five years. The program is targeted toward students interested in obtaining graduate training to work in crop production, biotechnology, or other related fields .

Is This a Teacher Certification Program?
                         No

Will specialized accreditation be sought for this program?

No

Institutional Context

University of Illinois at Urbana-Champaign

Describe the historical and university context of the program's development. Include a short summary of any existing program(s) upon which this program will be built.

Explain the nature and degree of overlap with existing programs and, if such overlap exists, document consultation with the impacted program's home department(s).

This is an existing program.

University of Illinois

Briefly describe how this program will support the University's mission, focus and/or current priorities. Demonstrate the program's consistency with and centrality to that mission.

This is an existing program.

State of Illinois

Indicate which of the following goals of the Illinois Board of Higher Education's Strategic Initiative are supported by this program: (choose all that apply)

Educational Attainment - increase educational attainment to match the best-performing states.
High Quality Credentials to Meet Economic Demand - Increase the number of high-quality post-secondary credentials to meet the demands of the economy and an increasingly global society.

Describe how the proposed program supports these goals.

This is an existing program.

Enrollment

Number of Students in Program (estimate)

Year One Estimate	5	5th Year Estimate (or when fully implemented)
	20	

Estimated Annual Number of Degrees Awarded

Year One Estimate	0	5th Year Estimate (or when fully implemented)
	10	

Delivery Method

This program is available:
Face-to-Face and Online

Describe the use of this delivery method:

This program is available on campus and online.

Budget

Will the program or revision require staffing (faculty, advisors, etc.) beyond what is currently available?

No

Additional Budget Information

Attach File(s)

Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?

No

Technology

Will the program need additional technology beyond what is currently available for the unit?

No

Non-Technical Resources

Will the program require additional supplies, services or equipment (non-technical)?

No

Resources

Faculty Resources

Please address the impact on faculty resources including any changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc. Describe how the unit will support student advising, including job placement and/or admission to advanced studies.

The overall impact on faculty resources is expected to be minimal. Courses currently offered by Crop Sciences are sufficient to satisfy proposed program requirements, and capacity in these courses exists to accommodate the additional students this program offering is anticipated to generate. Thus, no new courses or additional sections of existing courses would be needed at this time. A subset of faculty will serve as advisors for the program as part of their teaching requirement.

Library Resources

Describe your proposal's impact on the University Library's resources, collections, and services. If necessary please consult with the appropriate disciplinary specialist within the University Library.

There is no impact on the Library resources.

Instructional Resources

Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change?

No

Does this new program/proposed change result in the replacement of another program?

No

Does the program include other courses/subjects impacted by the creation/revision of this program?

No

Financial Resources

How does the unit intend to financially support this proposal?

This proposal is building on programs that already exist within the department, including an established non-thesis M.S. option, so no additional costs are expected. Upon formal acceptance into the graduate program, students will be assessed graduate student tuition.

Will the unit need to seek campus or other external resources?

No

Attach letters of support

[Memorandum of Understanding CS+X_MSX joint degrees in ACES.pdf](#)

Will an existing tuition rate be used or continue to be used for this program?

Yes

Market Demand

What market indicators are driving this proposal? If similar programs exist in the state, describe how this program offers a unique opportunity for students:

This is an existing program.

What type of employment outlook should these graduates expect? Explain how the program will meet the needs of regional and state employers, including any state agencies, industries, research centers, or other educational institutions that expressly encourage the program's development.

This is an existing program.

What resources will be provided to assist students with job placement?

This is an existing program.

If letters of support are available attach them here:

Program Regulation

Describe how the program is aligned with or meets licensure, certification, and/or entitlement requirements, if applicable.

Briefly describe the plan to assess and improve student learning, including the program's learning objectives; when, how, and where these learning objectives will be assessed; what metrics will be used to signify student's achievement of the stated learning objectives; and the process to ensure assessment results are used to improve student learning.

The are no licensure, certification, and/or entitlement requirements.

Is the career/profession for graduates of this program regulated by the State of Illinois?

No

Program of Study

"Baccalaureate degree requires at least 120 semester credit hours or 180 quarter credit hours and at least 40 semester credit hours (60 quarter credit hours) in upper division courses" (source: https://www.ibhe.org/assets/files/PrivateAdminRules2017.pdf). For proposals for new bachelor's degrees, if this minimum is not explicitly met by specifically-required 300- and/or 400-level courses, please provide information on how the upper-division hours requirement will be satisfied.

All proposals must attach the new or revised version of the Academic Catalog program of study entry. Contact your college office if you have questions.

For new
programs, attach
Program of Study

BSMSCPSC.pdf

Catalog Page Text

Catalog Page Text: Description of program for the catalog page. This is not official content, it is used to help build the catalog pages for the program. Can be edited in the catalog by the college or department.

The five-year joint B.S.-M.S. program in Crop Sciences combines a B.S. in Crop Sciences with a non-thesis M.S. in Crop Sciences or a B.S. in Computer Science and Crop Sciences with a nonthesis M.S. in Crop Sciences. Current University of Illinois at Urbana-Champaign undergraduate students enrolled in the Department of Crop Sciences who have completed between 60 and 96 credit hours, maintain superior academic performance are eligible to apply for this program. Students admitted to the program will receive both degrees once all requirements for the B.S.-M.S. program are completed.

Statement for Programs of Study Catalog

For the Computer Science + Crop Sciences, BS

Prescribed Courses including Campus General Education

Course List

Code	Title	Hours

Code	Title	Hours
Composition I and Speech		
RHET 105	Writing and Research	6-7
& CMN 101	and Public Speaking	
Advanced Composition		
Select from campus-approved list.		3-4
Cultural Studies		
Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.		9
Foreign Language		
Coursework at or above the third level is required for graduation.		0-15
Quantitative Reasoning I		
See Mathematical Foundations for specific requirement.		3
Quantitative Reasoning II		
See Mathematical Foundations for specific requirement.		3
Natural Sciences and Technology		
See Crop Sciences Core for specific requirement.		6
Humanities and the Arts		
Select from campus-approved list.		6
Social and Behavioral Sciences		
Select from campus-approved list.		6
ACES Required		
ACES 101	Contemporary Issues in ACES	2
Computer Science Core		22
CS 100	Freshman Orientation (recommended)	1
CS 125	Intro to Computer Science	4
CS 126	Software Design Studio	3
CS 173	Discrete Structures	3
CS 225	Data Structures	4
CS 374	Introduction to Algorithms & Models of Computation	4
CS 421	Programming Languages & Compilers	3
Computer Science Technical Track		8-11
Choose from the following options:		
CS 233	Computer Architecture	
& CS 241	and System Programming	
OR		
CS 240	Introduction to Computer Systems	
& Two CS 4XX	Any two (2) 400 Level CS courses except CS 491	
Mathematical Foundations (fulfills Quantitative Reasoning I and II)		12-13
CS 361	Probability & Statistics for Computer Science	3
MATH 220	Calculus	4-5
or MATH 221	Calculus I	
MATH 225	Introductory Matrix Theory	2
MATH 231	Calculus II	3
Crop Sciences Core		15
CPSC 102	Research in Crop Sciences	1

Code	Title	Hours
CPSC 112	Introduction to Crop Sciences	4
CPSC 393	Crop Sciences Internship	3
or CPSC 395	Undergrad Research or Thesis	
CPSC 498	Crop Sci Professional Develpmt	1
Select two of the following:		6
CPSC 226	Introduction to Weed Science	
CPSC 270	Applied Entomology	
PLPA 204	Introductory Plant Pathology	
Foundational Data Analytics		6-8
CPSC 440	Applied Statistical Methods I	4
And select one of the following:		
CPSC 441	Introduction to R Programming	
CPSC 444	Introduction to Spatial Analytics	
Crop Sciences Electives		6
CPSC/HORT/PLPA 4XX	At least one (1) 400-level CPSC/HORT/PLPA course	
CPSC/HORT/PLPA XXX	Any CPSC/HORT/PLPA course except CPSC 241	
Total Hours		126

For the Crop Sciences, MS Non-Thesis Option

Course List

Code	Title	Hours
CPSC 594	Professional Orientation CPSC	1
CPSC 598	Seminar (when presenting)	1
Electives including at least 4 hours of graded coursework at the 500 level other than CPSC 599		30
Total Hours 1		32

Other Requirements

Grad Other Degree Requirements Single Column

Requirement

Other requirements and conditions may overlap

Minimum Hours Required Within the Unit: 1

Minimum 500-level Hours Required overall: 12

Minimum GPA: 3.0

1Twelve (12) hours of graduate level concentration electives in the BS requirements will overlap with 12 hours of electives required for the MS requirements.

EP Documentation

Attach
Rollback/Approval
Notices

DMI Documentation

Attach Final
Approval Notices

Attached
Document

Justification for
this request

Program Reviewer
Comments

Key: 867

Memorandum of Understanding (MOU)
Between
The Grainger College of Engineering and The College of Agricultural, Consumer &
Environmental Sciences

The goal of this Memorandum of Understanding (MOU) is to outline logistics surrounding the administration of the joint degree programs of BS (CS+ANSC)/MANSC in the Department of Animal Sciences and the BS (CS+Crop Sciences)/MS in Crop Sciences in the Department of Crop Sciences.

Of specific focus is how and when students transition from the BS portion of the joint degree (during which they pay undergraduate tuition including engineering differential and have preferential access to coursework in the Department of Computer Science required to complete the degree and services provided by the Grainger College of Engineering), to the MS portion of the joint degree (during which they pay graduate tuition which includes neither engineering differential nor preferential access to coursework in the Department of Computer Science nor services provided by the Grainger College of Engineering).

Specifically, it is understood and agreed that:
1) A student who is accepted into either joint degree program continues to pay the engineering tuition and differential assessed to undergraduate students in the relevant CS+X program until requirements are completed for the CS+X undergraduate degree (less "shared" credits in the related graduate degree, which must be in the X discipline). During this time, the student continues to have preferred access to Computer Science undergraduate courses (through the 400 level) required to complete their undergraduate degree. They also continue to have access to support services provided by the Grainger College of Engineering (e.g., Computer Science departmental advising, Engineering Career Services, International Programs in Engineering, Engineering City Scholars).
2) Once a student has completed the undergraduate degree requirements for the CS+X degree (less "shared" credits), they are coded as a graduate student in the department offering the graduate degree within the joint degree, begin paying the graduate student tuition associated with that graduate degree, and lose preferred access to courses offered by the Department of Computer Science and other services offered by the Grainger College of Engineering.
3) It is the responsibility of the Department/College offering the joint program to certify that the undergraduate degree requirements (less "shared" credits) are satisfied before transferring the student to the graduate program. This specifically includes that all Computer Science courses required for the undergraduate CS+X degree are completed. It is also the responsibility of the offering Department/College to advise the student about the implications of losing future preferential access to Computer Science courses and engineering services.

4) A student who has been transferred to the graduate program and decides not to complete the graduate degree may petition the offering Department/College to withdraw from the combined program. They may request to have their graduate hours earned converted to undergraduate hours and applied toward the completion of the traditional undergraduate CS+X degree (full credit hour version without a reduction for "shared" credits).

Both parties agree to these arrangements for the initial implementation of the joint degree programs. Modifications may be requested by either party and enacted, through an addendum to this agreement, if agreed to by both parties.

Agreement entered into on October 22, 2019.

Jonathan J. Makela
Associate Dean for Undergraduate Programs
Grainger College of Engineering

Anna Ball
Associate Dean for Academic Programs
College of Agricultural, Consumer & Environmental Sciences

Graduate College

110 Coble Hall
801 South Wright Street
Champaign, IL 61820-6210

Executive Committee

2018-2019 Members

Wojtek Chodzko-Zajko
Dean & Chair
Graduate College

Members

Conrad Bakker
Art & Design

Zachary Berent
Graduate Student, Mechanical
Science & Engineering

Xiaoling Chen
Accountancy

Lee DeVille
Mathematics

Lilya Kaganovsky
Comparative & World
Literature

Becky Fuller
Animal Biology

Justine Murison
English

Denice Hood
Education

Tania Ionin
Linguistics

Brian Bailey
Computer Science

Lori Raetzman
Molecular & Integrative
Physiology

Katie Ranard
Graduate Student, Nutritional
Sciences

Sandra Rodriguez-Zas
Animal Sciences

Sela Sar
Advertising

Mark Steinberg
History

Terri Weissman
Art & Design

April 2, 2019

Kathy Martensen
Office of the Provost

Dear Kathy,

Included is a proposal from the College of Agricultural, Consumer and Environmental Sciences to **"Establish joint programs in the Department of Crop Science for the BS/MS (non-thesis) and the BS Computer Science and Crop Science/MS (non-thesis)"**.

The proposal was received on March 5, 2019 and reviewed at the Graduate College Executive Committee meeting on March 12, 2019. The committee approved proposal without revision.

We find that this proposal meets the standards of Graduate Education at Illinois and we now forward for your review.

Sincerely,

Wojtek Chodzko-Zajko
Dean
Graduate College

c: N. Schroeder
   M. Lowry

COLLEGE OF AGRICULTURAL, CONSUMER AND ENVIRONMENTAL SCIENCES

Academic Programs
, MC-710
128 Mumford Hall
1301 W. Gregory Drive
Urbana, IL 61801

March 4, 2019

Allison McKinney, Director of Academic Affairs
Graduate College
204 Coble Hall   Campus
MC-322

Dear Allison:

I am writing to request the Graduate College review and approval for the following proposal:

Establish joint programs in the Department of Crop Sciences to allow accelerated completion of a non-thesis Master of Science in Crop Sciences by students also completing either the B.S. in Crop Sciences or the B.S in Computer Science and Crop Sciences in the Department of Crop Sciences, College of Agricultural, Consumer and Environmental Sciences.

Please find the attached proposal (in Senate format) for documentation and justification. The Proposal has been reviewed and approved by the College of ACES Courses and Curricula Committee.

Thank you for your consideration. I look forward to receiving your reply.

Sincerely,

David M. Rosch
Interim Associate Dean
ACES Academic Programs

DMR/eal

c: N. Schroeder
M. K. Lowry
A. Davis
CPSC C&C Binder

ILLINOIS

Proposal to the Senate Educational Policy Committee

Master of Science 4+1 Proposal

PROPOSAL TITLE: Establish joint programs in the Department of Crop Sciences to allow accelerated completion of a non-thesis Master of Science in Crop Sciences by students also completing either the B.S. in Crop Sciences or the B.S in Computer Science and Crop Sciences in the Department of Crop Sciences, College of Agricultural, Consumer and Environmental Sciences.

SPONSOR: Nathan Schroeder, Assistant Professor, Department of Crop Sciences, College of ACES, 217-244-6128, nes@illinois.edu

COLLEGE CONTACT: Mary Lowry, Assistant Dean, ACES Office of Academic Programs, 217-333-9391, lowrv@illinois.edu

BRIEF DESCRIPTION:

The Department of Crop Sciences requests two new joint degree programs: 1) a Bachelor of Science in Crop Sciences and non-thesis Master of Science in Crop Sciences and 2) a Bachelor of Science in Computer Science and Crop Sciences and non-thesis Master of Science in Crop Sciences. Students enrolled in the joint programs will obtain both degrees following the completion of 146 hours, which is the sum of 126 required to complete the B.S. degree and 32 hours to complete the M.S. degree, minus 12 of those hours which will be applied to both degrees. The benefit of the program will be in allowing students to concurrently receive a B.S. and a non-thesis M.S. in Crop Sciences over a period of five years. The program is targeted toward students interested in obtaining graduate training to work in crop production, biotechnology, or other related fields.

JUSTIFICATION:

The joint program will:

- Offer an attractive option for current undergraduate students in Crop Sciences. The joint program will serve as an incentive for undergraduates to maintain high academic performance.
- Help recruit highly talented high school and transfer students to the University of Illinois who may otherwise select another more affordable option.
- Serve a strong need for M.S. level qualified scientists in industry, government, extension, and other organizations requiring advanced degrees. The joint program

will augment the Department's current strength in job placement within these fields. There are currently 35 students enrolled in the non-thesis option.

Program requirements:
Students enrolled in the joint 4+1 program will be able to complete a maximum of 12 credit hours of CPSC graduate level coursework and apply those hours to meet requirements of both degrees. These CPSC 400-level courses will generally be taken during the senior year and must be taken for graduate credit. Students in the joint program would complete requirements for both degrees, allowing them to receive both degrees in 5 years (10 semesters) rather than the typical 6 years (12 semesters) for both degrees independently.

Admission to the program:
- To be eligible, students must be in their junior year of the B.S. of Crop Sciences or B.S. of Crop Sciences + Computer Science programs (>60 credit hours completed) with at least one year of undergraduate coursework remaining.
- Students must have 3.0 or higher overall GPA to receive admission.
- Admission to this program will occur during the fall and spring terms. The application deadline for fall admission will be March 15th. The deadline for spring admission will be October 15th.
- Applications for admission will be reviewed by a subgroup of the Crop Sciences Graduate Committee and Undergraduate Teaching Committee. Upon acceptance, students will be admitted to the joint program and meet with their advisor to determine which courses will be taken in their senior year will apply to both degrees.
- Students in the joint program will then apply to the Graduate College for admission at the time when they have two semesters of coursework remaining. To be admitted to the Graduate College, students must have maintained an overall GPA of 3.0 or higher. In this way students are formally admitted to the Graduate College following the completion of all undergraduate requirements and will be assessed graduate tuition for the remaineder of their program.
- Students admitted to the graduate program must maintain an overall 3.0 GPA to remain in good standing.

Program Implementation:
- The Department of Crop Sciences Director of Graduate Studies and Graduate committee will work with the Departmental Director of Undergraduate Studies to implement and oversee this program.
- Students will be assigned advisors by the Director of Graduate Studies.
- We anticipate 10-20 students to enroll in this program.
- Course and hours requirements for the joint program will be the same as the current requirements for the degrees separately with the exception of the 12 hours of graduate level work that are shared by the two programs, and will change with catalog year, as approved.
- Students admitted to the joint program will receive both the B.S. and the M.S. degree once all requirements for the joint degree program have been completed.

BUDGETARY AND STAFF IMPLICATIONS:

1) Resources

    a. How does the unit intend to financially support this proposal?

        This proposal is building on programs that already exist within the department, including an established non-thesis M.S. option, so no additional costs are expected. Upon formal acceptance into the graduate program, students will be assessed graduate student tuition.

    b. How will the unit create capacity or surplus to appropriately resource this program? If applicable, what functions or programs will the unit no longer support to create capacity?

        The proposed curriculum will use existing Crop Sciences courses (See Appendix A), which have capacity for increased enrollment. No new combined program specific courses are being proposed at this time.

    c. Will the unit need to seek campus or other external resources? If so, please provide a summary of the sources and an indication of the approved support.

        No.

    d. Please provide a letter of acknowledgment from the college that outlines the financial arrangements for the proposed program.

        See Appendix B.

2) Resource Implications

    a. Please address the impact on faculty resources including the changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc.

        The overall impact on faculty resources is expected to be minimal. Courses currently offered by Crop Sciences are sufficient to satisfy proposed program requirements, and capacity in these courses exists to accommodate the additional students this program offering is anticipated to generate. Thus, no new courses or additional sections of existing courses would be needed at this time. A subset of faculty will serve as advisors for the program as part of their teaching requirement.

    b. Please address the impact on course enrollment in other units and provide an explanation of discussions with representatives of those units.

        No major impact expected for graduate courses in other units, since there are no specifically required courses from other units.

c. Please address the impact on the University Library

See Appendix C.

d. Please address the impact on technology and space (e.g. computer use, laboratory use, equipment, etc.)

None anticipated. As this is a non-thesis M.S. option, there will be no impact on laboratory space or equipment.

DESIRED EFFECTIVE DATE:

Fall 2019

STATEMENT FOR PROGRAMS OF STUDY CATALOG: *(All proposals must include either a new or revised version of the entry in the Programs of Study Catalog, if applicable. Entries will be published as approved by the Senate. Future changes in the statement for Programs of Study Catalog which reflect changes in the curriculum, must go through the normal review process at the appropriate levels.)*

The five-year joint B.S.-M.S. program in Crop Sciences combines a B.S. in Crop Sciences with a non-thesis M.S. in Crop Sciences or a B.S. in Computer Science and Crop Sciences with a non-thesis M.S. in Crop Sciences. Current University of Illinois at Urbana-Champaign undergraduate students enrolled in the Department of Crop Sciences who have completed between 60 and 96 credit hours, maintain superior academic performance are eligible to apply for this program. Students admitted to the program will receive both degrees once all requirements for the B.S.-M.S. program are completed.

See Appendix A for course requirements, admission, and withdrawal policies.

CLEARANCES: *(Clearances should include signatures and dates of approval. These signatures must appear on a separate sheet. If multiple departments or colleges are sponsoring the proposal, please add the appropriate signature lines below.)*

Signatures:

Digitally signed by Adam Davis
Adam Davis Date: 2019.01.10 06:12:42 -08'00'

_____   _____
Unit Representative: Date:
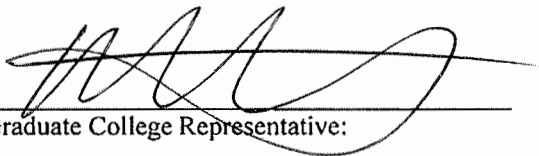
_____   _____
College Representative: Date: 3/4/19

_____   _____
Graduate College Representative: Date:

_____   _____
Council on Teacher Education Representative: Date:

Appendix A:

B.S. Crop Sciences Requirements

Prescribed Courses including Campus General Education

Code	Title	Hours
Composition I and Speech		
RHET 105	Writing and Research	4
or equivalent - see College Composition I requirement (3 or 4)		
CMN 101	Public Speaking	3
Advanced Composition		
Select from campus approved list.		3-4
Cultural Studies		
Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.		9
Foreign Language		
Coursework at or above the third level is required for graduation.		
Quantitative Reasoning I		
Select one of the following:		4-5
MATH 220	Calculus	
MATH 221	Calculus I	
MATH 234	Calculus for Business I	
Quantitative Reasoning II		
CPSC 241	Intro to Applied Statistics	3
Natural Sciences and Technology		
See Specific Concentration Requirements		
Humanities and the Arts		
Select from campus approved list		6
Social and Behavioral Sciences		
ACE 100	Agr Cons and Resource Econ ¹	3-4
or ECON 102	Microeconomic Principles	
Select from campus approved list.		3-4
ACES required		
ACES 101	Contemporary Issues in ACES	2
**Required Concentration		58-79

Code	Title	Hours
Concentration prescribed courses. See specific concentration requirements.		
Total Hours		126

[1] ACE 100 or ECON 102 are not required for the Biological Sciences Concentration.

M.S. Crop Sciences Requirements
Non-Thesis Option

Code	Title	Hours
CPSC 594	Professional Orientation CPSC	1
CPSC 598	Seminar (when presenting)	1
**Electives including at least 4 hours of graded coursework at the 500 level other than CPSC 599		30
Total Hours		32

Other Requirements[1]

Requirement
Other requirements and conditions may overlap
Minimum Hours Required Within the Unit: 1
Minimum 500-level Hours Required overall: 12
Minimum GPA: 3.0

**12 hours of graduate level Concentration Electives in the B.S requirements will overlap with 12 hours of Electives required for the M.S. requirements.

B.S. Computer Science and Crop Sciences Requirements

Prescribed Courses including Campus General Education

Code	Title	Hours
Composition I and Speech		
RHET 105 & CMN 101	Writing and Research and Public Speaking	6-7
Advanced Composition		
Select from campus-approved list.		3-4
Cultural Studies		
Select one course from Western culture, one from non-Western culture, and one from U.S. minority culture from campus approved lists.		9
Foreign Language		
Coursework at or above the third level is required for graduation.		0-15
Quantitative Reasoning I		
See Mathematical Foundations for specific requirement.		3
Quantitative Reasoning II		
See Mathematical Foundations for specific requirement.		3
Natural Sciences and Technology		
See Crop Sciences Core for specific requirement.		6
Humanities and the Arts		
Select from campus-approved list.		6
Social and Behavioral Sciences		
Select from campus-approved list.		6
ACES Required		
ACES 101	Contemporary Issues in ACES	2
Computer Science Core		22
CS 100	Freshman Orientation	1
CS 125	Intro to Computer Science	4
CS 126	Software Design Studio	3
CS 173	Discrete Structures	3
CS 225	Data Structures	4
CS 374	Introduction to Algorithms & Models of Computation	4

Code	Title	Hours
CS 421	Programming Languages & Compilers	3
Computer Science Technical Track		9-11
To include either CS 240, or CS 233 and CS 241, plus up to two CS 400-level classes per approved list and constraints maintained on Computer Science department website.		
Mathematical Foundations (fulfills Quantitative Reasoning I and II)		12-13
CS 361	Probability & Statistics for Computer Science	3
MATH 220 or MATH 221	Calculus Calculus I	4-5
MATH 225	Introductory Matrix Theory	2
MATH 231	Calculus II	3
Crop Sciences Core		34-36
CPSC 112	Introduction to Crop Sciences	4
Select two of the following:		6
CPSC 226	Introduction to Weed Science	
CPSC 270	Applied Entomology	
PLPA 204	Introductory Plant Pathology	
CPSC 261	Biotechnology in Agriculture	3
CPSC 265	Genetic Engineering Lab	3
CPSC 266	Data in Biology and Agriculture	4
CPSC 352	Plant Genetics	4
CPSC 440	Applied Statistical Methods I	4
Select two of the following:		5-7
CPSC 418	Crop Growth and Management	
CPSC 452	Advanced Plant Genetics	
CPSC 453	Principles of Plant Breeding	
CPSC 466	Genomics for Plant Improvement	
CPSC 498	Crop Sci Professional Develpmt	1
Total Hours**		126

M.S. Crop Sciences Requirements
Non-Thesis Option

Code	Title	Hours
CPSC 594	Professional Orientation CPSC	1
CPSC 598	Seminar (when presenting)	1
**Electives including at least 4 hours of graded coursework at the 500 level other than CPSC 599		30
Total Hours		32

Course List

Other Requirements[1]

Requirement
Other requirements and conditions may overlap
Minimum Hours Required Within the Unit: 1
Minimum 500-level Hours Required overall: 12
Minimum GPA: 3.0

**12 hours of graduate level Concentration Electives in the B.S requirements will overlap with 12 hours of Electives required for the M.S. requirements.

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COLLEGE OF AGRICULTURAL, CONSUMER AND ENVIRONMENTAL SCIENCES

Academic Programs
128 Mumford Hall, MC-710
1301 W. Gregory Drive
Urbana, IL 61801

January 8, 2019

To Whom It May Concern:

This letter serves as a support document for the proposal to create two joint B.S./M.S. programs in the Department of Crop Sciences in the College of Agricultural, Consumer and Environmental Sciences (ACES). The Department of Crop Sciences is not requesting any additional funding from the College of ACES to implement this proposal. The bachelors and masters programs already exist, and have capacity to handle the number of students expected to enroll. If there are any questions, please contact me.

Sincerely,

David Rosch
Associate Dean

Appendix C:

December 3, 2018

Mary Lowry
Assistant Dean for Student Success
College of ACES
128 Mumford
1301 West Gregory Dr.
M/C 710

Dear Dean. Lowry:

The University Library recently received a proposal from you outlining the plans of the departments of Animal Sciences and Computer Science to Establish a New Major in Computer Science and Animal Sciences for the Bachelor of Science in the Department of Animal Sciences in the College of Agricultural, Consumer and Environmental Sciences.

Based upon the documents received and reviewed by Erin Kerby in the Funk ACES Library, it is our belief that there will be no impact on the University Library. We are already supporting services in this area and see no meaningful changes in our operations as a result of this move.

If additional services or materials are required as the program further develops, we will be happy to discuss those needs as they emerge.

Sincerely,

John P. Wilkin
Juanita J. and Robert E. Simpson
Dean of Libraries and University Librarian

e-c: Elsa Gunter, Research Professor and Director of Undergraduate Programs, Computer Science
        Erin Kerby
        David J. Miller, Professor and Undergraduate Teaching Coordinator, Department of Animal
            Sciences
        Thomas Teper