RECEIVED BY SENATE
02/08/2021

EP.21.039
February 8, 2021

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN SENATE
COMMITTEE ON EDUCATIONAL POLICY
(Final; Information)

EP.21.039 Report of Administrative Approvals through January 25, 2021

Senate committees are authorized to act for and in the name of the Senate on minor matters. Below is a listing of the administrative approvals the Senate Committee on Educational Policy approved at its meeting on January 25, 2021. Additional information for each approval is attached.

A. Undergraduate Programs

1) **Companion Animal & Equine Science Concentration, BS in Animal Sciences** – from the list of Basic Science electives from which students are to select 6 hours, remove ANSC 510, Science of Animal Well-Being (1.5 hours), which has been deactivated. There is no change to the total hours required for the concentration or the degree.
2) **Pre-veterinary & Medical Concentration, BS in Animal Sciences** – from the list of Basic Science electives from which students are to select 6 hours, remove ANSC 510, Science of Animal Well-Being (1.5 hours), which has been deactivated. There is no change to the total hours required for the concentration or the degree.
3) **Food Animal Production & Management Concentration, BS in Animal Sciences** – from the list of Basic Science electives from which students are to select 6 hours, remove ANSC 510, Science of Animal Well-Being (1.5 hours), which has been deactivated. There is no change to the total hours required for the concentration or the degree.
4) **Health Diversity Concentration, BS in Interdisciplinary Health Sciences** – in the list of concentration-required courses, *remove* SHS 270, Comm Disability in the Media (4 hours), which is no longer being offered, and *add* SHS 222, Language & Culture of Deaf Communities (3 hours). There is no change to the total hours required for the concentration or the degree.
5) **Recreation, Sport, and Tourism Minor** – in the list of RST Electives from which students are to choose 4 to 6 hours, add RST 180, Professional Applications (3 hours); RST 185, Professional Field Experiences (1 hour); RST 205, Issues in Intercollegiate Athletics: The Big Ten Conference (3 hours); and RST 216, Technology in Recreation, Sport and Tourism (3 hours). In the list of courses from which students are to select 6 hours, add RST 301, Sport Brand Management (3 hours) and RST 360, Communication in Recreation, Sport & Tourism (3 hours). There is no change to the total hours required for the minor.
6) **BS in Chemistry** – in the 38 hours of Core Chemistry required courses, add two first-year experience courses, CHEM 150, First Semester Success in Chemistry (1 hour) and CHEM 152, College Success in Chemistry (1 hour). There is no change to the total hours required for the degree.
7) **BSLAS in Chemistry** – in the 38 hours of Core Chemistry required courses, a first-year experience course, CHEM 152, College Success in Chemistry (1 hour). There is no change to the total hours required for the degree.
8) **Chemistry Teaching Option, BSLAS in Chemistry** – in the 38 hours of Core Chemistry required courses, a first-year experience course, CHEM 152, College Success in Chemistry (1 hour). There is no change to the total hours required for the degree.

B. <u>Graduate Programs</u>

1) **Bioinformatics Concentration, MS in Crop Sciences** – in both the Thesis Option and Non-Thesis Option, in the list of Biology courses from which students are to select one, add CPSC 554, Quantitative Genetics and Genomics (3 hours). There is no change to the total hours required for the concentration or the degree.

5268: ANIMAL SCIENCES: COMPANION ANIMAL & EQUINE SCIENCE, BS

Completed Workflow

1. Provost (kmartens@illinois.edu)

Approval Path

1. Wed, 01 May 2019 15:48:57 GMT
   Kathy Martensen (kmartens): Approved for Provost

History

1. Jan 30, 2019 by Deb Forgacs (dforgacs)
2. Feb 21, 2019 by Deb Forgacs (dforgacs)
3. May 1, 2019 by Mary Lowry (lowry)

Date Submitted:Mon, 16 Nov 2020 22:43:09 GMT

Viewing:5268 : Animal Sciences: Companion Animal & Equine Science, BS

Changes proposed by: Mary Lowry

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

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*

Admin approval: Revise the concentration as follows -- Removal of elective ANSC 510- Course was deactivated
Companion Animal and Equine Science Concentration (key:530)
Food Animal Production and Management Concentration (key:531)
Science, Pre-Veterinary and Medical Concentration (key: 532)

EP Control Number

EP.21.039

Official Program Name

Animal Sciences: Companion Animal & Equine Science, BS

Effective Catalog Term

Spring 2021

Sponsor College

Agr, Consumer, & Env Sciences

Sponsor Department

Animal Sciences

Sponsor Name

Anna Dilger

Sponsor Email

adilger2@illinois.edu

College Contact

Brianna Gregg

College Contact Email

bjgray2@illinois.edu

Program Description and Justification

Justification for proposal change:

Removal of elective ANSC 510- Course was deactivated

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Animal Sciences, BS

Academic Level

Undergraduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

N/A

What is the typical time to completion of this program?

N/A

What are the minimum Total Credit Hours required for this program?

n/a

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

Attach File(s)

mansc_revision_lettersupportACE_seanfox_oct2020.docx

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.

N/A

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.

N/A

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 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?

n/a

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

No

Program Regulation and Assessment

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

n/a

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.

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Code	Title	Hours
Companion Animal and Equine Science Concentration Required		
Choose one group:[1]		6
ANSC 250 & ANSC 307	Companion Animals in Society and Companion Animal Management	
or		

ANSC 206 & ANSC 306	Horse Management and Equine Science	
Select two of the following Applied Sciences courses:[1]		6
ANSC 201	Principles of Dairy Production	
ANSC 204	Intro Dairy Cattle Evaluation	
ANSC 205	World Animal Resources	
ANSC 206	Horse Management[1]	
ANSC 211	Breeding Animal Evaluation	
ANSC 219	Meat Technology	
ANSC 250	Companion Animals in Society[1]	
ANSC 301	Food Animal Production, Management, and Evaluation	
ANSC 305	Human Animal Interactions	
ANSC 306	Equine Science	
ANSC 307	Companion Animal Management[1]	
ANSC 309	Meat Production and Marketing	
ANSC 310	Meat Selection and Grading	
ANSC 312	Advanced Livestock Evaluation	
ANSC 313	Horse Appraisal	
ANSC 314	Adv Dairy Cattle Evaluation	
ANSC 322	Livestock Feeds and Feeding	
ANSC 370	Companion Animal Policy	
ANSC 400	Dairy Herd Management	
ANSC 401	Beef Production	
ANSC 402	Sheep and Goat Production	
ANSC 403	Pork Production	
ANSC 404	Poultry Science	
ANSC 405	Advanced Dairy Management	
ANSC 407	Animal Shelter Management	
ANSC 424	Pet Food & Feed Manufacturing	
ANSC 435	Milk Quality and Udder Health	
ANSC 437	Adv Reproductive Management	
ANSC 471	ANSC Leaders & Entrepreneurs	
Select two of the following Basic Sciences courses:		6
ANSC 251	Epidemics and Infectious Diseases	
ANSC 331	Biology of Reproduction	
ANSC 350	Cellular Metabolism in Animals	
ANSC 363	Behavior of Domestic Animals	
ANSC 366	Animal Behavior	
ANSC 406	Zoo Animal Conservation Sci	
ANSC 409	Meat Science	
ANSC 420	Ruminant Nutrition	
ANSC 421	Minerals and Vitamins	
ANSC 422	Companion Animal Nutrition	
ANSC 431	Advanced Reproductive Biology	
ANSC 438	Lactation Biology	
ANSC 440	Applied Statistical Methods I	
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 445	Statistical Methods	
ANSC 446	Population Genetics	
ANSC 447	Advanced Genetics and Genomics	
ANSC 448	Math Modeling in Life Sciences	

ANSC 449	Biological Modeling	
ANSC 450	Comparative Immunobiology	
ANSC 451	Microbes and the Anim Indust	
ANSC 452	Animal Growth and Development	
ANSC 453	Stem Cell Biology	
ANSC 467	Applied Animal Ecology	
ANSC 509	Muscle Biology	
ANSC 510	Course ANSC 510 Not Found	
ANSC 520	Protein and Energy Nutrition	
ANSC 521	Regulation of Metabolism	
ANSC 522	Advanced Ruminant Nutrition	
ANSC 523	Techniques in Animal Nutrition	
ANSC 524	Nonruminant Nutrition Concepts	
ANSC 525	Topics in Nutrition Research	
ANSC 526	Adv Companion Animal Nutrition	
ANSC 533	Repro Physiology Lab Methods	
ANSC 541	Regression Analysis	
ANSC 542	Applied Bioinformatics	
ANSC 543	Bioinformatics	
ANSC 545	Statistical Genomics	
ANSC 554	Immunobiological Methods	
ANSC 561	Animal Stress Physiology	
Additional elective courses must be completed to yield at least 126 total Hours for graduation.		25-29
Total Hours		**126**

[1] ANSC 206, 250, 306 and 307 may NOT be used to meet more than one requirement.

EP Documentation

DMI Documentation

Banner/Codebook Name

Companion Animal and Equine Science

Program Code:

5268

Conc Code

5268

Program Reviewer Comments

Deb Forgacs (dforgacs) (Fri, 13 Nov 2020 20:15:38 GMT): Rollback: requested.
Anna Ball (aball) (Mon, 16 Nov 2020 20:10:36 GMT): Rollback: Per provost office rollback
Anna Ball (aball) (Fri, 20 Nov 2020 16:38:24 GMT): Rollback: Attachment needed
Kathy Martensen (kmartens) (Wed, 16 Dec 2020 17:54:28 GMT): Administrative approval: No change to total required hours for concentration or degree.

Key: 530

ILLINOIS

COLLEGE OF AGRICULTURAL, CONSUMER
& ENVIRONMENTAL SCIENCES

Department of Agricultural & Consumer Economics
326 Mumford Hall, MC-710
1301 W. Gregory Drive
Urbana, IL 61801

October 8, 2020

Dr. Rodney W. Johnson
Professor and Head
116 Animal Sciences Laboratory
1207 W. Gregory Drive
Urbana, IL 61801

Dear Rod

Thanks for sharing with us the exciting Master of Animal Sciences program that the Department of Animal Sciences offers, in addition to the traditional Master of Science and Doctor of Philosophy degrees in Animal Sciences. Our programs have a history of offering our in-person and online courses to students in both departments and look forward to extending this offer to your students in the Master of Animal Sciences program.

Sincerely,

Sean Fox,
Professor & Head, Dept. of Agricultural and Consumer Economics

RECEIVED BY SENATE
10/15/2018

EP.19.09
~~September 24, 2018~~
October 15. 2018

UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN SENATE
(Final; Information)

EP.19.09 Report of Administrative Approvals at the September 17, 2018 meeting of the EPC.

Graduate Programs

Graduate Concentration in Information Technology and Control – Add the part-time Master of Business Administration (PMBA) to the list of programs participating in the Graduate Concentration in Information Technology and Control offered by the Department of Business Administration. The concentration requirements would remain unchanged and would be the same for the PMBA as they are for all previously-approved programs that participate in the concentration.

Graduate Concentration in Accountancy – Add the part-time Master of Business Administration (PMBA) to the list of programs participating in the Graduate Concentration in Accountancy offered by the Department of Accountancy. The concentration requirements would remain unchanged and would be the same for the PMBA as they are for all previously-approved programs that participate in the concentration.

Ph.D. in Music Education – 1) Replace MUS 536, Soc-Cultur Inquiry Music Learn (4 hours) with MUS 543, Music Teacher Education (4 hours) as a specifically-required course and 2) Move MUS 536 to the list of Music Education Electives from which students are to select a total of 6 hours. This revision stems from the current faculty's revised goals for the program, which place emphasis on preparing students as educators of music teachers. It does not alter the total number of hours required for the degree.

Doctor of Musical Arts (DMA), Music Composition Concentration; Performance and Literature Concentration; and Vocal Coaching and Accompanying Concentration – In these three concentrations, add MUS 522, Special Topics Seminar (4 hours), to the list of Advanced Musicology courses from which students are to select 8 hours. There is no change to the total hours required for the concentrations or for the degree.

Master of Arts in Spanish, Concentration in Spanish Literatures and Cultures – Revise the "Other Requirements" to replace the requirement of completing three comprehensive exams with the requirement of submitting a research paper.

Current **-- Other Requirements**			***Proposed*** **-- Other Requirements**	
Requirement	**Description**		**Requirement**	**Description**
Other requirements may overlap			Other requirements may overlap	
A concentration is required			A concentration is required	
SPAN 571 is required of all teaching assistants			SPAN 571 is required of all teaching assistants	

Students must also complete three comprehensive exams on areas chosen in consultation with their advisors.			Students must also submit a research paper completed in consultation with their advisors.	
Minimum 500-level Hours Required Overall:	16		Minimum 500-level Hours Required Overall:	16
Minimum GPA:	3.0		Minimum GPA:	3.0

Undergraduate Programs

Bachelor of Science in Animal Sciences, all concentrations – Switch ANSC 306, Equine Science (3 hours) from the "Basic Science" list of courses from which students select 6 hours (all concentrations) to the "Applied Science" list of courses from which students select 6 hours in the Companion Animal and Equine Science Concentration and in the Science, Pre-Veterinary and Medical Concentration and 12 hours in the Food Animal Production and Management Concentration. In the Companion Animal and Equine Science Concentration, the course will remain in the specific course options where a student chooses one group (6 hours) from ANSC 206 and ANSC 306 or ANSC 250 and ANSC 307, and it will remain the case that the course cannot be used to meet more than one requirement.

This change does not alter the number of hours required for any of the concentrations or the total number of hours required for the degree.

~~**Undergraduate Minor in Business** – 1) Eliminate the currently required admission application. Requirements to officially declare the minor will be sophomore standing and completion and submission of the university's Minor Declaration Form. 2) Eliminate restrictions on courses that count toward the minor such that non-business major/minor students will be able to register. Non-business major students who wish to register for courses that are part of the Business Minor will be expected to enroll in online sections of these courses when online sections are available. 3) Revise the prerequisites for Business Minor core courses such that CS 105, Intro Computing: Non-Tech (3 hours), MATH 234, Calculus for Business I (4 hours), and STAT 100, Statistics (3 hours) will no longer be required but instead presented as *recommended* courses. Only ECON 102, Microeconomics (3 hours) remains a prerequisite to the core course FIN 221, Corporate Finance (3 hours). Other prerequisites do continue to apply to certain Business Minor elective courses. Documentation of notification of the Departments of Computer Science, Mathematics, and Statistics is attached.~~

~~None of these changes impact the total number of hours required for the minor.~~

The item struck through above has been submitted as EP.19.10.

5269: ANIMAL SCIENCES: SCIENCE, PRE-VETERINARY & MEDICAL, BS

In Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1538 Committee Chair (adilger2@illinois.edu)
3. 1538 Head (rwjohn@illinois.edu; jrevans@illinois.edu)
4. KL Committee Chair (bjgray2@illinois.edu)
5. KL Dean (aball@illinois.edu)
6. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Fri, 13 Nov 2020 20:19:18 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Fri, 13 Nov 2020 21:58:13 GMT
   Anna Dilger (adilger2): Approved for 1538 Committee Chair
3. Fri, 13 Nov 2020 22:52:38 GMT
   Rodney W. Johnson (rwjohn): Approved for 1538 Head
4. Mon, 16 Nov 2020 16:23:16 GMT
   Brianna Gregg (bjgray2): Approved for KL Committee Chair
5. Mon, 16 Nov 2020 20:11:14 GMT
   Anna Ball (aball): Approved for KL Dean
6. Mon, 16 Nov 2020 20:12:12 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
7. Thu, 19 Nov 2020 20:33:42 GMT
   Kathy Martensen (kmartens): Rollback to KL Dean for Provost
8. Fri, 20 Nov 2020 16:38:40 GMT
   Anna Ball (aball): Rollback to 1538 Committee Chair for KL Dean
9. Fri, 20 Nov 2020 21:32:55 GMT
   Anna Dilger (adilger2): Approved for 1538 Committee Chair
10. Mon, 23 Nov 2020 15:23:54 GMT
    Rodney W. Johnson (rwjohn): Approved for 1538 Head
11. Mon, 23 Nov 2020 15:45:27 GMT
    Brianna Gregg (bjgray2): Approved for KL Committee Chair
12. Wed, 02 Dec 2020 21:00:28 GMT
    Kathy Martensen (kmartens): Approved for KL Dean
13. Mon, 07 Dec 2020 21:23:00 GMT
    Kathy Martensen (kmartens): Approved for Senate EPC
14. Wed, 16 Dec 2020 17:54:58 GMT
    Kathy Martensen (kmartens): Approved for Provost

History

1. Jan 30, 2019 by Deb Forgacs (dforgacs)
2. Nov 21, 2019 by Deb Forgacs (dforgacs)
3. Nov 21, 2019 by Deb Forgacs (dforgacs)

Date Submitted:Fri, 13 Nov 2020 19:58:16 GMT

Viewing:5269 : Animal Sciences: Science, Pre-Veterinary & Medical, BS

Changes proposed by: Jamie Evans

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

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*

Admin approval: Revise concentration as follows -- Removal of elective ANSC 510 - course was deactivated.
Related to revisions of
Companion Animal and Equine Science Concentration (key: 530)
Food Animal Production and Management Concentration (key: 531)
Science, Pre-Veterinary and Medical Concentration (key: 532)

EP Control Number

EP.21.039

Official Program Name

Animal Sciences: Science, Pre-Veterinary & Medical, BS

Effective Catalog Term

Spring 2021

Sponsor College

Agr, Consumer, & Env Sciences

Sponsor Department

Animal Sciences

Sponsor Name

Anna Dilger

Sponsor Email

adilger2@illinois.edu

College Contact

Brianna Gregg

College Contact Email

bjgray2@illinois.edu

Program Description and Justification

Justification for proposal change:

Removal of elective ANSC 510 - course was deactivated.

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Animal Sciences, BS

Academic Level

Undergraduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

N/A

What is the typical time to completion of this program?

N/A

What are the minimum Total Credit Hours required for this program?

N/A

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

Attach File(s)

mansc_revision_lettersupportACE_seanfox_oct2020.docx

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.

N/A

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.

N/A

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

No

Financial Resources

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

No

Program Regulation and Assessment

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

N/A

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.

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Code	Title	Hours
Science, Pre-Veterinary and Medical Concentration Required		
Select two of the following Applied Sciences courses:		6
ANSC 201	Principles of Dairy Production	
ANSC 204	Intro Dairy Cattle Evaluation	
ANSC 205	World Animal Resources	
ANSC 206	Horse Management	
ANSC 211	Breeding Animal Evaluation	
ANSC 219	Meat Technology	
ANSC 250	Companion Animals in Society	
ANSC 301	Food Animal Production, Management, and Evaluation	
ANSC 305	Human Animal Interactions	
ANSC 306	Equine Science	
ANSC 307	Companion Animal Management	
ANSC 309	Meat Production and Marketing	
ANSC 310	Meat Selection and Grading	
ANSC 312	Advanced Livestock Evaluation	
ANSC 313	Horse Appraisal	

ANSC 314	Adv Dairy Cattle Evaluation	
ANSC 322	Livestock Feeds and Feeding	
ANSC 370	Companion Animal Policy	
ANSC 400	Dairy Herd Management	
ANSC 401	Beef Production	
ANSC 402	Sheep and Goat Production	
ANSC 403	Pork Production	
ANSC 404	Poultry Science	
ANSC 405	Advanced Dairy Management	
ANSC 407	Animal Shelter Management	
ANSC 424	Pet Food & Feed Manufacturing	
ANSC 435	Milk Quality and Udder Health	
ANSC 437	Adv Reproductive Management	
ANSC 471	ANSC Leaders & Entrepreneurs	
Select four of the following Basic Sciences courses:		12
ANSC 251	Epidemics and Infectious Diseases	
ANSC 331	Biology of Reproduction	
ANSC 350	Cellular Metabolism in Animals	
ANSC 363	Behavior of Domestic Animals	
ANSC 366	Animal Behavior	
ANSC 406	Zoo Animal Conservation Sci	
ANSC 409	Meat Science	
ANSC 420	Ruminant Nutrition	
ANSC 421	Minerals and Vitamins	
ANSC 422	Companion Animal Nutrition	
ANSC 431	Advanced Reproductive Biology	
ANSC 438	Lactation Biology	
ANSC 440	Applied Statistical Methods I	
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 445	Statistical Methods	
ANSC 446	Population Genetics	
ANSC 447	Advanced Genetics and Genomics	
ANSC 448	Math Modeling in Life Sciences	
ANSC 449	Biological Modeling	
ANSC 450	Comparative Immunobiology	
ANSC 451	Microbes and the Anim Indust	
ANSC 452	Animal Growth and Development	
ANSC 453	Stem Cell Biology	
ANSC 467	Applied Animal Ecology	
ANSC 509	Muscle Biology	
ANSC 510	Course ANSC 510 Not Found	
ANSC 520	Protein and Energy Nutrition	
ANSC 521	Regulation of Metabolism	
ANSC 522	Advanced Ruminant Nutrition	
ANSC 523	Techniques in Animal Nutrition	
ANSC 524	Nonruminant Nutrition Concepts	
ANSC 525	Topics in Nutrition Research	
ANSC 526	Adv Companion Animal Nutrition	
ANSC 533	Repro Physiology Lab Methods	
ANSC 541	Regression Analysis	
ANSC 542	Applied Bioinformatics	

ANSC 543	Bioinformatics	
ANSC 545	Statistical Genomics	
ANSC 554	Immunobiological Methods	
ANSC 561	Animal Stress Physiology	
Additional elective courses must be completed to yield at least 126 total Hours for graduation.		20-29
Total Hours		**126**

[1] ANSC 398 only fulfills the degree requirement when taken for a standard letter grade.

EP Documentation

DMI Documentation

Banner/Codebook Name

Science, Pre-Veterinary and Medical

Program Code:

5269

Conc Code

5269

Program Reviewer Comments

Kathy Martensen (kmartens) (Thu, 19 Nov 2020 20:33:42 GMT): Rollback: Rollback to attach letter of support per SRZ email 11/19/20
Anna Ball (aball) (Fri, 20 Nov 2020 16:38:40 GMT): Rollback: Attachment needed
Kathy Martensen (kmartens) (Wed, 16 Dec 2020 17:54:37 GMT): Administrative approval: No change to total required hours for concentration or degree.

Key: 532

ILLINOIS

COLLEGE OF AGRICULTURAL, CONSUMER
& ENVIRONMENTAL SCIENCES

Department of Agricultural & Consumer Economics
326 Mumford Hall, MC-710
1301 W. Gregory Drive
Urbana, IL 61801

October 8, 2020

Dr. Rodney W. Johnson
Professor and Head
116 Animal Sciences Laboratory
1207 W. Gregory Drive
Urbana, IL 61801

Dear Rod

Thanks for sharing with us the exciting Master of Animal Sciences program that the Department of Animal Sciences offers, in addition to the traditional Master of Science and Doctor of Philosophy degrees in Animal Sciences. Our programs have a history of offering our in-person and online courses to students in both departments and look forward to extending this offer to your students in the Master of Animal Sciences program.

Sincerely,

Sean Fox,
Professor & Head, Dept. of Agricultural and Consumer Economics

RECEIVED BY SENATE
10/15/2018

EP.19.09
~~September 24, 2018~~
October 15. 2018

UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN SENATE
(Final; Information)

EP.19.09 Report of Administrative Approvals at the September 17, 2018 meeting of the EPC.

Graduate Programs

Graduate Concentration in Information Technology and Control – Add the part-time Master of Business Administration (PMBA) to the list of programs participating in the Graduate Concentration in Information Technology and Control offered by the Department of Business Administration. The concentration requirements would remain unchanged and would be the same for the PMBA as they are for all previously-approved programs that participate in the concentration.

Graduate Concentration in Accountancy – Add the part-time Master of Business Administration (PMBA) to the list of programs participating in the Graduate Concentration in Accountancy offered by the Department of Accountancy. The concentration requirements would remain unchanged and would be the same for the PMBA as they are for all previously-approved programs that participate in the concentration.

Ph.D. in Music Education – 1) Replace MUS 536, Soc-Cultur Inquiry Music Learn (4 hours) with MUS 543, Music Teacher Education (4 hours) as a specifically-required course and 2) Move MUS 536 to the list of Music Education Electives from which students are to select a total of 6 hours. This revision stems from the current faculty's revised goals for the program, which place emphasis on preparing students as educators of music teachers. It does not alter the total number of hours required for the degree.

Doctor of Musical Arts (DMA), Music Composition Concentration; Performance and Literature Concentration; and Vocal Coaching and Accompanying Concentration – In these three concentrations, add MUS 522, Special Topics Seminar (4 hours), to the list of Advanced Musicology courses from which students are to select 8 hours. There is no change to the total hours required for the concentrations or for the degree.

Master of Arts in Spanish, Concentration in Spanish Literatures and Cultures – Revise the "Other Requirements" to replace the requirement of completing three comprehensive exams with the requirement of submitting a research paper.

Current **-- Other Requirements**			***Proposed*** **-- Other Requirements**	
Requirement	**Description**		**Requirement**	**Description**
Other requirements may overlap			Other requirements may overlap	
A concentration is required			A concentration is required	
SPAN 571 is required of all teaching assistants			SPAN 571 is required of all teaching assistants	

Students must also complete three comprehensive exams on areas chosen in consultation with their advisors.			Students must also submit a research paper completed in consultation with their advisors.	
Minimum 500-level Hours Required Overall:	16		Minimum 500-level Hours Required Overall:	16
Minimum GPA:	3.0		Minimum GPA:	3.0

Undergraduate Programs

Bachelor of Science in Animal Sciences, all concentrations – Switch ANSC 306, Equine Science (3 hours) from the "Basic Science" list of courses from which students select 6 hours (all concentrations) to the "Applied Science" list of courses from which students select 6 hours in the Companion Animal and Equine Science Concentration and in the Science, Pre-Veterinary and Medical Concentration and 12 hours in the Food Animal Production and Management Concentration. In the Companion Animal and Equine Science Concentration, the course will remain in the specific course options where a student chooses one group (6 hours) from ANSC 206 and ANSC 306 or ANSC 250 and ANSC 307, and it will remain the case that the course cannot be used to meet more than one requirement.

This change does not alter the number of hours required for any of the concentrations or the total number of hours required for the degree.

~~**Undergraduate Minor in Business** – 1) Eliminate the currently required admission application. Requirements to officially declare the minor will be sophomore standing and completion and submission of the university's Minor Declaration Form. 2) Eliminate restrictions on courses that count toward the minor such that non-business major/minor students will be able to register. Non-business major students who wish to register for courses that are part of the Business Minor will be expected to enroll in online sections of these courses when online sections are available. 3) Revise the prerequisites for Business Minor core courses such that CS 105, Intro Computing: Non-Tech (3 hours), MATH 234, Calculus for Business I (4 hours), and STAT 100, Statistics (3 hours) will no longer be required but instead presented as *recommended* courses. Only ECON 102, Microeconomics (3 hours) remains a prerequisite to the core course FIN 221, Corporate Finance (3 hours). Other prerequisites do continue to apply to certain Business Minor elective courses. Documentation of notification of the Departments of Computer Science, Mathematics, and Statistics is attached.~~

~~None of these changes impact the total number of hours required for the minor.~~

The item struck through above has been submitted as EP.19.10.

5588: ANIMAL SCIENCES: FOOD ANIMAL PRODUCTION & MANAGEMENT, BS

In Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1538 Committee Chair (adilger2@illinois.edu)
3. 1538 Head (rwjohn@illinois.edu; jrevans@illinois.edu)
4. KL Committee Chair (bjgray2@illinois.edu)
5. KL Dean (aball@illinois.edu)
6. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Fri, 13 Nov 2020 20:19:32 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Fri, 13 Nov 2020 21:58:17 GMT
   Anna Dilger (adilger2): Approved for 1538 Committee Chair
3. Fri, 13 Nov 2020 22:52:44 GMT
   Rodney W. Johnson (rwjohn): Approved for 1538 Head
4. Mon, 16 Nov 2020 16:22:38 GMT
   Brianna Gregg (bjgray2): Approved for KL Committee Chair
5. Mon, 16 Nov 2020 20:14:01 GMT
   Anna Ball (aball): Approved for KL Dean
6. Mon, 16 Nov 2020 20:14:31 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
7. Thu, 19 Nov 2020 20:34:22 GMT
   Kathy Martensen (kmartens): Rollback to KL Dean for Provost
8. Fri, 20 Nov 2020 16:38:55 GMT
   Anna Ball (aball): Rollback to 1538 Committee Chair for KL Dean
9. Fri, 20 Nov 2020 21:32:59 GMT
   Anna Dilger (adilger2): Approved for 1538 Committee Chair
10. Mon, 23 Nov 2020 15:24:03 GMT
    Rodney W. Johnson (rwjohn): Approved for 1538 Head
11. Mon, 23 Nov 2020 15:45:32 GMT
    Brianna Gregg (bjgray2): Approved for KL Committee Chair
12. Wed, 02 Dec 2020 21:01:19 GMT
    Kathy Martensen (kmartens): Approved for KL Dean
13. Mon, 07 Dec 2020 21:23:04 GMT
    Kathy Martensen (kmartens): Approved for Senate EPC
14. Wed, 16 Dec 2020 17:55:51 GMT
    Kathy Martensen (kmartens): Approved for Provost

History

1. Jan 30, 2019 by Deb Forgacs (dforgacs)
2. Mar 6, 2019 by Deb Forgacs (dforgacs)

Date Submitted:Fri, 13 Nov 2020 20:02:30 GMT

Viewing:5588 : Animal Sciences: Food Animal Production & Management, BS

Changes proposed by: Jamie Evans

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

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*

Admin approval: Revise concentration as follows -- Removal of elective ANSC 510- Course was deactivated Revise the
Companion Animal and & Equine Science Concentration (key:530)
Food Animal Production and Management Concentration (key:531)
Science, Pre-Veterinary and Medical Concentration (key: 532)

EP Control Number

EP.21.039

Official Program Name

Animal Sciences: Food Animal Production & Management, BS

Effective Catalog Term

Spring 2021

Sponsor College

Agr, Consumer, & Env Sciences

Sponsor Department

Animal Sciences

Sponsor Name

Anna Dilger

Sponsor Email

adilger2@illinois.edu

College Contact

Brianna Gregg

College Contact Email

bjgray2@illinois.edu

Program Description and Justification

Justification for proposal change:

Removal of elective ANSC 510- Course was deactivated

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Animal Sciences, BS

Academic Level

Undergraduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

n/a

What is the typical time to completion of this program?

n/a

What are the minimum Total Credit Hours required for this program?

n/a

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

Attach File(s)

mansc_revision_lettersupportACE_seanfox_oct2020.docx

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.

n/a

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.

n/a

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 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?

See attached.

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

No

Program Regulation and Assessment

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

n/a

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.

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Code	Title	Hours
Food Animal Production and Management Concentration Required		
Select four of the following Applied Sciences courses:		12
ANSC 201	Principles of Dairy Production	
ANSC 204	Intro Dairy Cattle Evaluation	
ANSC 205	World Animal Resources	
ANSC 206	Horse Management	
ANSC 211	Breeding Animal Evaluation	
ANSC 219	Meat Technology	
ANSC 250	Companion Animals in Society	
ANSC 301	Food Animal Production, Management, and Evaluation	
ANSC 305	Human Animal Interactions	
ANSC 306	Equine Science	
ANSC 307	Companion Animal Management	
ANSC 309	Meat Production and Marketing	
ANSC 310	Meat Selection and Grading	
ANSC 312	Advanced Livestock Evaluation	
ANSC 313	Horse Appraisal	

ANSC 314	Adv Dairy Cattle Evaluation	
ANSC 322	Livestock Feeds and Feeding	
ANSC 370	Companion Animal Policy	
ANSC 400	Dairy Herd Management	
ANSC 401	Beef Production	
ANSC 402	Sheep and Goat Production	
ANSC 403	Pork Production	
ANSC 404	Poultry Science	
ANSC 405	Advanced Dairy Management	
ANSC 407	Animal Shelter Management	
ANSC 424	Pet Food & Feed Manufacturing	
ANSC 435	Milk Quality and Udder Health	
ANSC 437	Adv Reproductive Management	
ANSC 471	ANSC Leaders & Entrepreneurs	
Select two of the following Basic Sciences courses:		6
ANSC 251	Epidemics and Infectious Diseases	
ANSC 331	Biology of Reproduction	
ANSC 350	Cellular Metabolism in Animals	
ANSC 363	Behavior of Domestic Animals	
ANSC 366	Animal Behavior	
ANSC 406	Zoo Animal Conservation Sci	
ANSC 409	Meat Science	
ANSC 420	Ruminant Nutrition	
ANSC 421	Minerals and Vitamins	
ANSC 422	Companion Animal Nutrition	
ANSC 431	Advanced Reproductive Biology	
ANSC 438	Lactation Biology	
ANSC 440	Applied Statistical Methods I	
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 445	Statistical Methods	
ANSC 446	Population Genetics	
ANSC 447	Advanced Genetics and Genomics	
ANSC 448	Math Modeling in Life Sciences	
ANSC 449	Biological Modeling	
ANSC 450	Comparative Immunobiology	
ANSC 451	Microbes and the Anim Indust	
ANSC 452	Animal Growth and Development	
ANSC 453	Stem Cell Biology	
ANSC 467	Applied Animal Ecology	
ANSC 509	Muscle Biology	
ANSC 510	Course ANSC 510 Not Found	
ANSC 520	Protein and Energy Nutrition	
ANSC 521	Regulation of Metabolism	
ANSC 522	Advanced Ruminant Nutrition	
ANSC 523	Techniques in Animal Nutrition	
ANSC 524	Nonruminant Nutrition Concepts	
ANSC 525	Topics in Nutrition Research	
ANSC 526	Adv Companion Animal Nutrition	
ANSC 533	Repro Physiology Lab Methods	
ANSC 541	Regression Analysis	
ANSC 542	Applied Bioinformatics	

ANSC 543	Bioinformatics	
ANSC 545	Statistical Genomics	
ANSC 554	Immunobiological Methods	
ANSC 561	Animal Stress Physiology	
Additional elective courses must be completed to yield at least 126 total Hours for graduation.		20-29
Total Hours		**126**

EP Documentation

DMI Documentation

Banner/Codebook Name

Food Animal Production and Management

Program Code:

5588

Conc Code

5588

Program Reviewer Comments

Kathy Martensen (kmartens) (Thu, 19 Nov 2020 20:34:22 GMT): Rollback: Rollback to attach letter of support per SRZ email 11/19/20
Anna Ball (aball) (Fri, 20 Nov 2020 16:38:55 GMT): Rollback: Attachment needed
Kathy Martensen (kmartens) (Wed, 16 Dec 2020 17:55:06 GMT): Administrative approval: No change to total required hours for concentration or degree.

Key: 531

RECEIVED BY SENATE
10/15/2018

EP.19.09
~~September 24, 2018~~
October 15. 2018

UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN SENATE
(Final; Information)

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Current **-- Other Requirements**			***Proposed*** **-- Other Requirements**	
Requirement	**Description**		**Requirement**	**Description**
Other requirements may overlap			Other requirements may overlap	
A concentration is required			A concentration is required	
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Students must also complete three comprehensive exams on areas chosen in consultation with their advisors.			Students must also submit a research paper completed in consultation with their advisors.	
Minimum 500-level Hours Required Overall:	16		Minimum 500-level Hours Required Overall:	16
Minimum GPA:	3.0		Minimum GPA:	3.0

Undergraduate Programs

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~~None of these changes impact the total number of hours required for the minor.~~

The item struck through above has been submitted as EP.19.10.

ILLINOIS

COLLEGE OF AGRICULTURAL, CONSUMER
& ENVIRONMENTAL SCIENCES

Department of Agricultural & Consumer Economics
326 Mumford Hall, MC-710
1301 W. Gregory Drive
Urbana, IL 61801

October 8, 2020

Dr. Rodney W. Johnson
Professor and Head
116 Animal Sciences Laboratory
1207 W. Gregory Drive
Urbana, IL 61801

Dear Rod

Thanks for sharing with us the exciting Master of Animal Sciences program that the Department of Animal Sciences offers, in addition to the traditional Master of Science and Doctor of Philosophy degrees in Animal Sciences. Our programs have a history of offering our in-person and online courses to students in both departments and look forward to extending this offer to your students in the Master of Animal Sciences program.

Sincerely,

Sean Fox,
Professor & Head, Dept. of Agricultural and Consumer Economics

5221: INTERDISCIPLINARY HEALTH SCIENCES: HEALTH DIVERSITY, BS

Completed Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1294 Committee Chair (carlso1@illinois.edu; jjenkns@illinois.edu)
3. 1581 Committee Chair (carlso1@illinois.edu; jjenkns@illinois.edu)
4. 1294 Head (kgraber@illinois.edu; jjenkns@illinois.edu)
5. 1581 Head (kgraber@illinois.edu; jjenkns@illinois.edu)
6. KY Committee Chair (alston@illinois.edu; rlking10@illinois.edu)
7. KY Dean (alston@illinois.edu; rlking10@illinois.edu)
8. University Librarian (jpwilkin@illinois.edu)
9. Provost (kmartens@illinois.edu)
10. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
11. Senate (jtempel@illinois.edu)
12. U Senate Conf (none)
13. Board of Trustees (none)
14. IBHE (none)
15. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Tue, 04 Feb 2020 19:45:47 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Tue, 04 Feb 2020 19:48:04 GMT
   Kristi Carlson (carlso1): Approved for 1294 Committee Chair
3. Tue, 04 Feb 2020 19:48:52 GMT
   Kristi Carlson (carlso1): Approved for 1581 Committee Chair
4. Wed, 05 Feb 2020 01:50:15 GMT
   Kim Graber (kgraber): Approved for 1294 Head
5. Wed, 05 Feb 2020 01:53:54 GMT
   Kim Graber (kgraber): Approved for 1581 Head
6. Wed, 12 Feb 2020 17:54:09 GMT
   Reggie Alston (alston): Approved for KY Committee Chair
7. Wed, 12 Feb 2020 17:54:39 GMT
   Reggie Alston (alston): Approved for KY Dean
8. Wed, 12 Feb 2020 17:57:59 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
9. Wed, 12 Feb 2020 19:14:02 GMT
   Kathy Martensen (kmartens): Approved for Provost
10. Tue, 03 Mar 2020 15:35:34 GMT
    Barbara Lehman (bjlehman): Approved for Senate EPC
11. Thu, 12 Mar 2020 16:40:10 GMT
    Jennifer Roether (jtempel): Approved for Senate
12. Thu, 02 Apr 2020 19:25:05 GMT
    Kathy Martensen (kmartens): Approved for U Senate Conf
13. Thu, 21 May 2020 19:39:54 GMT
    Kathy Martensen (kmartens): Approved for Board of Trustees
14. Mon, 15 Jun 2020 14:40:23 GMT
    Kathy Martensen (kmartens): Approved for IBHE
15. Wed, 01 Jul 2020 14:08:19 GMT
    Emily Stuby (eastuby): Approved for DMI

History

1. Sep 24, 2019 by Deb Forgacs (dforgacs)
2. Jul 1, 2020 by Kristi Carlson (carlso1)

Date Submitted:Wed, 18 Nov 2020 22:22:36 GMT

Viewing:5221 : Interdisciplinary Health Sciences: Health Diversity, BS

Changes proposed by: Kristi Carlson

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

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*

Administrative approval: This proposal is to revise the course of study, due to the fact that SHS 270 is no longer being offered by the Department of Speech and Hearing Sciences.

EP Control Number

EP.21.039

Official Program Name

Interdisciplinary Health Sciences: Health Diversity, BS

Effective Catalog Term

Spring 2021

Sponsor College

Applied Health Sciences

Sponsor Department

Kinesiology and Community Health

Sponsor Name

Dr. Amelia Mays Woods

Sponsor Email

amywoods@illinois.edu

College Contact

Dr. Kristi Carlson

College Contact Email

carlso1@illinois.edu

Program Description and Justification

Justification for proposal change:

SHS 270, which has been a required course for the Health Diversity concentration, is no longer being offered by the Department of Speech and Hearing Sciences. As such, this proposal would revise the course of study to replace SHS 270 with SHS 222. Faculty members from both I-Health and SHS worked together to select a course that would provide students with similar content. This change has been approved by both the I-Health Curriculum Committee, and the Department of Speech and Hearing Sciences. In addition, the Department of Speech and Hearing Sciences has agreed to hold a number of seats for I-Health students each semester (please see attached letter of support).

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Interdisciplinary Health Sciences, BS

Academic Level

Undergraduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

This revision will have no impact on enrollment or degrees awarded.

What is the typical time to completion of this program?

4 years

What are the minimum Total Credit Hours required for this program?

128

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

Attach File(s)

SHS 222 IHealth LOS.pdf

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.

This revision will have no impact on faculty resources.

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

No

Financial Resources

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

No

Program Regulation and Assessment

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

This revision will have no change on program regulation and assessment, as the content in SHS 222 is similar to the content in SHS 270.

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.

Revised programs

IHLT Program of Study.pdf

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Code	Title	Hours
SOC 162	Intro to Intl Health Policy	3
or GLBL 240	Global Health	
CHLH 409	Women's Health	3
EPS 310	Race and Cultural Diversity	4
SHS 270	Comm Disability in the Media	4
SHS 222	Language & Culture of Deaf Communities	3
Select three of the following (at least two at the 300- or 400- level):		8-9
AFRO 421	Racial and Ethnic Families	
ANTH 143	Biology of Human Behavior	
CHLH 415	International Health	
GLBL 100	Intro to Global Studies	
HDFS 322	US Latina and Latino Families	
HIST 263	History of Medicine in the United States	
HIST 281	Constructing Race in America	

IHLT 232	Health Disparities in the U.S.
IHLT 498	Interdisciplinary Health Study Abroad
LLS 387	Race, Gender and the Body
LLS 473	Immigration, Health & Society
LLS 479	Race, Medicine, and Society
MACS 356	Sex & Gender in Popular Media
RSOC 110	Intro to Rural Society
RST/KIN 230	Diversity in Recreation, Sport, and Tourism
PSYC 312	Psychology of Race & Ethnicity
SHS 271	Communication and Aging
SOCW 300	Diversity: Identities & Issues
Total Hours	21-22

EP Documentation

DMI Documentation

Banner/Codebook Name

Health Diversity

Program Code:

5221

Conc Code

5221

Degree Code

BS

Major Code

5460

Program Reviewer Comments

Liza Berdychevsky (lizabk) (Thu, 17 Dec 2020 17:20:28 GMT):SHS 270 is no longer offered and has to be removed from the concentration. Both Departments agree that SHS 222 is the closest substitute. Hence, this change makes sense.
Mary Flaherty (maryflah) (Thu, 17 Dec 2020 19:32:04 GMT): This curriculum revision to replace SHS270 with SHS222 has the support of both I-Health and SHS. Given that it is taught twice a year and is similar in content to SHS270 this appears to be a justified revision with no obvious problems.
Justin Aronoff (jaronoff) (Thu, 17 Dec 2020 21:09:15 GMT):I have no additional comments to add.
Naiman Khan (nakhan2) (Fri, 18 Dec 2020 03:48:54 GMT):I don't have any additional comments.
Suiwen Zou (szou) (Fri, 18 Dec 2020 17:06:17 GMT):I don't have any additional comments.
Kathy Martensen (kmartens) (Tue, 22 Dec 2020 16:39:49 GMT): Admin approval: No change to total hours required, does not restrict student options.

Key: 895

Current Program of Study

Code	Title	Hours
SOC 162	Intro to Intl Health Policy	3
or GLBL 240	Global Health	
CHLH 409	Women's Health	3
EPS 310	Race and Cultural Diversity	4
SHS 270	Comm Disability in the Media	4
Select three of the following (at least two at the 300- or 400- level):		8-9
AFRO 421	Racial and Ethnic Families	
ANTH 143	Biology of Human Behavior	
CHLH 415	International Health	
GLBL 100	Intro to Global Studies	
HDFS 322	US Latina and Latino Families	
HIST 263	History of Medicine in the United States	
HIST 281	Constructing Race in America	
IHLT 232	Health Disparities in the U.S.	
IHLT 498	Interdisciplinary Health Study Abroad	
LLS 387	Race, Gender and the Body	
LLS 473	Immigration, Health & Society	
LLS 479	Race, Medicine, and Society	
MACS 356	Sex & Gender in Popular Media	
RSOC 110	Intro to Rural Society	
RST/KIN 230	Diversity in Recreation, Sport, and Tourism	
PSYC 312	Psychology of Race & Ethnicity	
SHS 271	Communication and Aging	
SOCW 300	Diversity: Identities & Issues	
Total Hours		**22-23**

Course List

Proposed Program of Study

Code	Title	Hours
SOC 162	Intro to Intl Health Policy	3
or GLBL 240	Global Health	
CHLH 409	Women's Health	3
EPS 310	Race and Cultural Diversity	4
SHS 222	Language and Culture of Deaf Communities	3
Select three of the following (at least two at the 300- or 400- level):		8-9
AFRO 421	Racial and Ethnic Families	
ANTH 143	Biology of Human Behavior	
CHLH 415	International Health	
GLBL 100	Intro to Global Studies	
HDFS 322	US Latina and Latino Families	
HIST 263	History of Medicine in the United States	
HIST 281	Constructing Race in America	
IHLT 232	Health Disparities in the U.S.	
IHLT 498	Interdisciplinary Health Study Abroad	
LLS 387	Race, Gender and the Body	
LLS 473	Immigration, Health & Society	
LLS 479	Race, Medicine, and Society	
MACS 356	Sex & Gender in Popular Media	
RSOC 110	Intro to Rural Society	
RST/KIN 230	Diversity in Recreation, Sport, and Tourism	
PSYC 312	Psychology of Race & Ethnicity	
SHS 271	Communication and Aging	
SOCW 300	Diversity: Identities & Issues	
Total Hours		**22-23**

Course List

ILLINOIS
COLLEGE OF APPLIED HEALTH SCIENCES

Department of Speech and Hearing Science
901 S. Sixth St., MC-482
Champaign, IL 61820

February 14, 2020

Julie Bobitt, Ph.D.
Director of I-Health
228 Huff Hall

Dear Dr. Bobitt:

The Department of Speech and Hearing Science supports the curriculum revision to the existing Health Diversity concentration in the Interdisciplinary Health Sciences major. Specifically, we support the replacement of SHS 270 *Communication Disability in the Media* with the SHS 222 *Language and Culture in Deaf Communities.* This is an excellent choice because SHS 222 is offered twice each year and will introduce students to both diversity issues globally as well as issues related to minority groups in the US. We are also willing to accommodate students in the Health Diversity concentration by holding a number of seats each semester to support the completion of their degree requirements in a timely way. Please let me know if you have any additional questions about this course, or any other SHS courses that your students routinely take.

Sincerely,

Karen Iler Kirk, Ph.D., CCC-SLP, ASHA Fellow
Shahid and Ann Carlson Khan Professor
Head, Speech and Hearing Science

4043: RECREATION, SPORT AND TOURISM MINOR, UG

Completed Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1714 Committee Chair (shinew@illinois.edu)
3. 1714 Head (csantos@illinois.edu)
4. KY Committee Chair (alston@illinois.edu; rlking10@illinois.edu)
5. KY Dean (alston@illinois.edu; rlking10@illinois.edu)
6. University Librarian (jpwilkin@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Mon, 04 May 2020 21:36:35 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Mon, 04 May 2020 21:39:24 GMT
   Kim Shinew (shinew): Approved for 1714 Committee Chair
3. Mon, 04 May 2020 23:57:20 GMT
   Carla Santos (csantos): Approved for 1714 Head
4. Wed, 06 May 2020 22:40:40 GMT
   Reggie Alston (alston): Approved for KY Committee Chair
5. Wed, 06 May 2020 22:42:10 GMT
   Reggie Alston (alston): Approved for KY Dean
6. Wed, 06 May 2020 23:53:42 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
7. Thu, 07 May 2020 14:32:08 GMT
   Kathy Martensen (kmartens): Approved for Provost
8. Thu, 14 May 2020 16:27:58 GMT
   Barbara Lehman (bjlehman): Approved for Senate EPC
9. Wed, 27 May 2020 18:38:36 GMT
   Kathy Martensen (kmartens): Approved for Senate
10. Mon, 10 Aug 2020 13:56:43 GMT
    Kathy Martensen (kmartens): Approved for U Senate Conf
11. Mon, 10 Aug 2020 13:57:05 GMT
    Kathy Martensen (kmartens): Approved for Board of Trustees
12. Mon, 10 Aug 2020 13:57:26 GMT
    Kathy Martensen (kmartens): Approved for IBHE
13. Mon, 24 Aug 2020 19:41:42 GMT
    Emily Stuby (eastuby): Approved for DMI

History

1. Aug 24, 2020 by Kim Shinew (shinew)

Date Submitted:Tue, 22 Dec 2020 15:12:54 GMT

Viewing:4043 : Recreation, Sport and Tourism Minor, UG

Changes proposed by: Kim Shinew

Proposal Type

Proposal Type:

Minor (ex. European Union Studies)

This proposal is for a:

Revision

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*

Administrative approval: Revise the RST minor by adding course options.

EP Control Number

EP.21.039

Official Program Name

Recreation, Sport and Tourism Minor, UG

Effective Catalog Term

Spring 2021

Sponsor College

Applied Health Sciences

Sponsor Department

Recreation, Sport & Tourism

Sponsor Name

Dr. Kim Shinew

Sponsor Email

shinew@illinois.edu

College Contact

Dr. Carla Santos

College Contact Email

csantos@illinois.edu

Program Description and Justification

Justification for proposal change:

We would like to add additional courses to the RST Minor electives. The required courses (RST 100, RST 210 and RST 120/RST 130/RST 150) remain the same. The additional courses will provide students with more opportunities to take cutting-edge courses in our department. Some of these courses are new, and did not have permanent numbers when we proposed the RST Minor.
The courses we would like to add include:
RST 180- Professional Applications
RST 205 - Issues in Intercollegiate Athletics: The Big Ten Conference
RST 216 - Technology in Recreation, Sport and Tourism
RST 301 - Sport Brand Management
RST 185 - Professional Field Experiences
RST 360 - Communications in Recreation, Sport and Tourism

Is this program interdisciplinary?

No

Is this minor?

A Comprehensive study in a single discipline

Academic Level

Undergraduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Will the department limit enrollment to the minor?

No

Describe how the department will monitor the admission to/enrollment in the minor.

The RST Department will provide and coordinate two enrollment periods (fall and spring semesters) for the minor each academic year. Students will need to apply by the due date by submitting the following: 1) an application including their intent to minor, 2) a minor completion plan, and 3) any additional information they would like to be considered. Initially, the minor will be open to all undergraduates. If the minor develops in popularity beyond the department's ability to administer it effectively, the department will implement additional requirements (e.g., minimum GPA). RST has an undergraduate advisor who will work with the Director of Undergraduate Studies in guiding students in the minor.

Are there any prerequisites for the proposed minor?

No

Describe how this revision will impact enrollment and degrees awarded.

We are adding additional courses to the RST Minor to provide student with the opportunity to select among a greater number of options

What is the typical time to completion of this program?

3

What are the minimum Total Credit Hours required for this program?

19

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Other than certification via the students' degree audits, is there any additional planned mechanism to award/honor successful completion of the minor?

No

Budget

Are there budgetary implications for this revision?

No

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

No

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

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 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 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?

There are no foreseen budgetary implications to the proposed minor that will require additional financial support. The number of faculty in RST is sufficient to handle the anticipated demand for the minor. Also, the required courses are not currently at capacity and can handle more students without the need for additional financial resources. Thus, no resources are needed to develop new courses or add sections to existing courses. It is

anticipated that approximately 30 students will enroll in the minor when it is at full capacity. Current resources including classrooms and faculty are adequate to accommodate the additional students.

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

No

Program Regulation and Assessment

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

The learning objectives for RST Minors include the following:
1. Demonstrate a basic understanding of the history and theoretical underpinnings of recreation, sport and tourism in modern society.
2. Demonstrate a basic understanding of the essential management functions necessary to deliver and manage services in recreation, sport and tourism organizations.
3. Demonstrate an ability to apply knowledge of basic management principles to professional practice.

These learning objectives will be met for all minors as these are concepts covered in the three required courses.
Each RST course collects direct and/or indirect evidence every year to ensure learning objectives are being met, and then the assessment results are used to improve student learning.

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.

An undergraduate minor should consist of at least 16 - and no more than 21 hours - of course work, with at least 6 hours of 300- or 400- level courses. Except clearly remedial offerings, prerequisite courses within the sponsoring unit count towards the total; prerequisite courses outside the sponoring unit do not count toward this total. The unit sponsoring the minor and that unit's college may set educationally necessary prerequisites for eligibility for the minor within these constraints. Does this proposal meet these criteria?

Yes

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.

Revised programs

RST Minor Side By SIde-1.xlsx

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

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 Department also offers a Minor. The RST Minor is open to students both inside and outside the College of Applied Health Sciences. The minor is geared towards students who have an interest in working in the sports, recreation or tourism industries, or students who feel knowledge in these areas will help them succeed in their careers.
The course requirements for the minor are 19-21 hours. This includes three foundational courses (9 hours) that all students are required to take followed by 10-12 courses from a list of approved electives. The foundational courses will enable students to acquire knowledge about the broad range of the field and introduce them to the different areas of the industry. At least 6 hours will be advanced (300 or 400 level course), meeting the requirement for all minors. The elective courses will allow students to gain expertise in a particular area of the field, or develop a deeper knowledge base of the field and industry. Some electives may require completion of prerequisites.

Statement for Programs of Study Catalog

Minimum required course work: Students must complete 9 hours of foundational courses and 10-12 hours from approved electives, including at least six hours of advanced (300-level or 400-level courses) and six hours of coursework must be distinct from credit earned for the student's major or another minor.
Minimum hours required for completion: 19 hours.

Code	Title	Hours
Foundational Courses		**9**
RST 100	Recreation, Sport, and Tourism in Modern Society	3
RST 210	Management in Recreation, Sport and Tourism	3
One of the following:		
One of the following:		3
RST 120	Parks, Recreation, and Environments	
RST 130	Foundations of Sport Mgt	
RST 150	Foundations of Tourism	
RST Electives		**4 to 6**
RST 120	Parks, Recreation, and Environments	
RST 130	Foundations of Sport Mgt	
RST 150	Foundations of Tourism	
RST 180	Professional Applications	
RST 185	Professional Field Experiences	
RST 200	Leadership in Recreation, Sport and Tourism	
RST 205	Issues in Intercollegiate Athletics: The Big Ten Conference	
RST 216	Technology in Recreation, Sport and Tourism	
RST 230	Diversity in Recreation, Sport, and Tourism	
RST 240	Financial Resource Management in Recreation, Sport and Tourism	
RST 242	Nature and American Culture	
RST 255	Ethical Issues in Recreation, Sport and Tourism	
RST 260	Disability in Recreation, Sport and Tourism	
RST 270	Sport and Sustainability	
Six (6) hours from the following:		**6**
RST 301	Sport Brand Management	
RST 316	Human Development and Recreation, Sport and Tourism	
RST 317	Designing Parks and Recreation Experiences	
RST 325	Marketing in Recreation, Sport and Tourism	

RST 340	Facility Management in Recreation, Sport and Tourism	
RST 350	Tourism and Culture	
RST 354	Legal Aspects of Sport	
RST 360	Communication in Recreation, Sport & Tourism	
Total Hours:		**19 to 21**

EP Documentation

DMI Documentation

Banner/Codebook Name

Recreation, Sport and Tourism

Program Code:

4043

Minor Code

4043

Program Reviewer Comments

Deb Forgacs (dforgacs) (Mon, 30 Nov 2020 17:55:09 GMT): Rollback: requested
Liza Berdychevsky (lizabk) (Thu, 17 Dec 2020 17:07:08 GMT): This proposal expands the choice of electives available in the RST minor. Building in this additional flexibility makes perfect sense and has no budgetary implications.
Justin Aronoff (jaronoff) (Thu, 17 Dec 2020 21:00:47 GMT): It would be helpful to indicate that certain electives require taking other specific electives first.
Naiman Khan (nakhan2) (Fri, 18 Dec 2020 03:42:12 GMT): The revision is justified and clearly laid out. The additional courses for electives will give the student more options to meet their requirements for the minor. I don't have any additional comments.
Reggie Alston (alston) (Mon, 21 Dec 2020 23:05:33 GMT): Rollback: Hi Kim, the Ed Pol Cmte. had only one minor suggestions for the proposal. Include a statement indicating that some electives may require completion of prerequisites. Great job!
Kathy Martensen (kmartens) (Tue, 22 Dec 2020 21:52:07 GMT): Administrative approval: No change to total hours required, does not restrict options for students.

Key: 964

Current Program of Study

Minimum required course work: Students must complete 9 hours of foundational courses and 10-12 hours from approved electives, including at least six hours of advanced (300-level or 400-level courses) and six hours of coursework must be distinct from credit earned for the student's major or another minor.

Minimum hours required for completion: 19 hours.

Foundational Courses		9
RST 100	Recreation, Sport, and Tourism in Modern Society	3
RST 210	Management in Recreation, Sport and Tourism	3
One of the following:		
RST 120	Parks, Recreation, and Environments	
RST 130	Foundations of Sport Mgt	
RST 150	Foundations of Tourism	
RST Electives		4 to 6
RST 120	Parks, Recreation, and Environments	
RST 130	Foundations of Sport Mgt	
RST 150	Foundations of Tourism	
RST 200	Leadership in Recreation, Sport and Tourism	
RST 230	Diversity in Recreation, Sport, and Tourism	
RST 240	Financial Resource Management in Recreation, Sport and Tourism	
RST 242	Nature and American Culture	
RST 255	Ethical Issues in Recreation, Sport and Tourism	
RST 260	Disability in Recreation, Sport and Tourism	
RST 270	Sport and Sustainability	
Six (6) hours from the following:		6
RST 316	Human Development and Recreation, Sport and Tourism	
RST 317	Designing Parks and Recreation Experiences	
RST 325	Marketing in Recreation, Sport and Tourism	
RST 340	Facility Management in Recreation, Sport and Tourism	
RST 350	Tourism and Culture	
RST 354	Legal Aspects of Sport	
Total Hours:		19 to 21

Proposed Program of Study

Minimum required course work: Students must complete 9 hours of foundational courses and 10-12 hours from approved electives, including at least six hours of advanced (300-level or 400-level courses) and six hours of coursework must be distinct from credit earned for the student's major or another minor.

Minimum hours required for completion: 19 hours.

Foundational Courses		9
RST 100	Recreation, Sport, and Tourism in Modern Society	3
RST 210	Management in Recreation, Sport and Tourism	3
One of the following:		3
RST 120	Parks, Recreation, and Environments	
RST 130	Foundations of Sport Mgt	
RST 150	Foundations of Tourism	
RST Electives		4 to 6
RST 120	Parks, Recreation, and Environments	
RST 130	Foundations of Sport Mgt	
RST 150	Foundations of Tourism	
RST 180	Professional Applications	
RST 185	Professional Field Experiences	
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RST 240	Financial Resource Management in Recreation, Sport and Tourism	
RST 242	Nature and American Culture	
RST 255	Ethical Issues in Recreation, Sport and Tourism	
RST 260	Disability in Recreation, Sport and Tourism	
RST 270	Sport and Sustainability	
Six (6) hours from the following:		6
RST 301	Sport Brand Management	
RST 316	Human Development and Recreation, Sport and Tourism	
RST 317	Designing Parks and Recreation Experiences	
RST 325	Marketing in Recreation, Sport and Tourism	
RST 340	Facility Management in Recreation, Sport and Tourism	
RST 350	Tourism and Culture	
RST 354	Legal Aspects of Sport	
RST 360	Communication in Recreation, Sport & Tourism	
Total Hours:		19 to 21

The Department of Recreation, Sport and Tourism (RST) originated at the University of Illinois in 1940. Today, this program continues to rank nationally among the top three in the field, and takes pride in producing a large number of exceptional professionals in the field. The Department of Recreation, Sport and Tourism offers a bachelor of science degree with three areas of concentration: recreation management, sport management, and tourism management. The curriculum prepares students to design, manage, and deliver RST services to a variety of populations in diverse settings and provides a firm foundation from which students may pursue graduate studies. A broad general education is emphasized and complemented with a core of professional courses. Beyond a strong core integrating theory, management, and research, the program allows students to focus on a major market segment within the RST field by choosing an area of concentration. A total of 128 hours is needed for graduation. For further information, contact the Department of Recreation, Sport and Tourism, 219 Huff Hall, 1206 S. Fourth Street, Champaign, IL 61820, (217) 333-4410.

The Recreation, Sport & Tourism, BS degree program includes a set of three concentrations, of which a student must complete at least one:

Recreation Management Concentration

Sports Management Concentration

Tourism Management Concentration

Internship Program

All students in the Department of Recreation, Sport and Tourism must satisfactorily complete the Internship Program prior to graduation. The program is designed to augment formal classroom instruction with active experiential learning under the guidance of a university and an agency-based supervisor.

The program consists of two courses (RST 480 and RST 485). Students register for RST 480 after completing a series of required RST courses. During this semester, students make final arrangements for completing RST 485 the following semester.

The RST 485 Internship is taken after the student satisfactorily completes all required RST course work, including RST 480. RST 485 is taken in agencies that are approved by the department and contracted for this program. Since a limited number of assignments are available in the campus area, most students look forward to the opportunity of an off-campus assignment. Students have been placed across the United States and even abroad.

Minor in RST

The Department also offers a Minor. The RST Minor is directed toward students who are both inside and outside the College of Applied Health Sciences. The minor is directed towards students who have an interest in working in the sports, recreation or tourism industries, or students who feel knowledge in these areas will help them succeed in their careers.

The course requirements for the minor are 19-21 hours. This includes three foundational courses (9 hours) that all students are required to take followed by 10-12 courses from a list of approved electives. The foundational courses will enable students to acquire knowledge about the broad range of the field and introduce them to the different areas of the industry. At least 6 hours will be advanced (300 or 400 level course), meeting the requirement for all minors. The elective courses will allow students to gain expertise in a particular area of the field, or develop a deeper knowledge base of the field and industry.

Minimum required course work for an RST Minor: Students must complete 9 hours of foundational courses and 10-12 hours from approved electives, including at least 6 hours of 300- and 400-level courses. Minimum hours required for completion: 19-21 hours.

Foundational Courses - 9 hours
RST 100- RST in Modern Society - 3 hours
RST 210-Management in RST - 3 hours
One of the foundation courses – 3 hours
- RST 120- Parks, Rec & Environment
- RST 130- Foundations of Sport
- RST 150- Foundations of Tourism

RST Electives

4-6 hours from the list below

RST 120 - Parks, Recreation & Environment - 3 hours

RST 130 - Foundations of Sport - 3 hours

RST 150 - Foundations of Tourism - 3 hours

RST 200 - Leadership in RST - 2 hours

RST 240 - Financial Management - 3 hours

RST 255 - Ethical Issues in RST - 2 hours

RST 230 - Diversity in RST - 3 hours

RST 242 - Nature and American Culture - 3 hours

RST 260- Communications in RST- 3 hours

RST 270 - Sport and Sustainability- 3 hours

6 hours from the list below

RST 325 - Marketing in RST - 3 hours

RST 340 - Facility Management in RST - 3 hours

RST 316 - Leisure and Human Development - 3 hours

RST 317 - Designing Parks and Recreation Experiences - 3 hours

RST 354 - Legal Aspects of Sports - 3 hours

RST 350 - Tourism and Culture- 3 hours

10KV0335BS: CHEMISTRY, BS

In Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1413 Head (sks@illinois.edu)
3. SOCS Head (jsweedle@illinois.edu; dambache@illinois.edu)
4. KV Dean (las-catalog@illinois.edu)
5. University Librarian (jpwilkin@illinois.edu)
6. COTE Programs (nilatha@illinois.edu; bmclvngr@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Tue, 19 Jan 2021 17:10:24 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Tue, 19 Jan 2021 20:46:15 GMT
   Scott Silverman (sks): Approved for 1413 Head
3. Tue, 19 Jan 2021 22:58:24 GMT
   Jonathan Sweedler (jsweedle): Approved for SOCS Head
4. Tue, 19 Jan 2021 22:59:24 GMT
   Kelly Ritter (ritterk): Approved for KV Dean
5. Tue, 19 Jan 2021 23:07:28 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
6. Wed, 20 Jan 2021 15:11:02 GMT
   Brenda Clevenger (bmclvngr): Approved for COTE Programs
7. Wed, 20 Jan 2021 18:39:41 GMT
   Kathy Martensen (kmartens): Approved for Provost

History

1. Mar 21, 2019 by Deb Forgacs (dforgacs)
2. Apr 6, 2019 by Deb Forgacs (dforgacs)
3. May 12, 2020 by Amy Elli (amyelli)
4. May 18, 2020 by Deb Forgacs (dforgacs)

Date Submitted:Mon, 18 Jan 2021 22:37:53 GMT

Viewing:10KV0335BS : Chemistry, BS

Changes proposed by: Amy Elli

Proposal Type

Proposal Type:

Major (ex. Special Education)

This proposal is for a:

Revision

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*

Administrative approval: Update the BS in Chemistry to include required new first-year experience in Chemistry courses, CHEM 150 (BS, BSLAS) and CHEM 152 (BS only)

EP Control Number

EP.21.039

Official Program Name

Chemistry, BS

Effective Catalog Term

Fall 2021

Sponsor College

Liberal Arts & Sciences

Sponsor Department

Chemistry

Sponsor Name

Scott Silverman

Sponsor Email

sks@illinois.edu

College Contact

Kelly Ritter

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ritterk@illinois.edu

Program Description and Justification

Justification for proposal change:

The Department of Chemistry proposes to require students in the BS in Chemistry and BSLAS in Chemistry degree to take either one or two new First-Year Experience in Chemistry courses — CHEM 150 (1 hour) and CHEM 152 (1 hour) — as follows. See the highlighted entries in the accompanying tables (separate document), and see the two separately provided New Course Outline documents for CHEM 150 and 152.
1) All new first-year students in the BS in Chemistry degree, including those in the Environmental Chemistry Concentration, will be required to take CHEM 150 (1 hour) in their first semester and CHEM 152 (1 hour) in their second semester. CHEM 150 will focus on successfully transitioning into a STEM major. CHEM 152 will focus in on using students' interests in a particular area of science as the engaging point of instruction and using peer mentors to help the students to (a) design curricula, (b) develop skills, and (c) plan extracurricular activities including research to explore those interests to seek out research positions, which are an important component of the BS in Chemistry degree. These combined 2 credit hours will be added to the Core Chemistry requirements, increasing those requirements from 36 to 38 hours. To account for this increase, 2 hours will be removed from the current 31 hours of required free electives, reducing those requirements from 31 to 29 hours.
On- and off-campus students who transfer into the BS in Chemistry or BSLAS in Chemistry degrees will be allowed to substitute other courses for CHEM 150, as follows:
1) BS in Chemistry – Transfer students may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, 397, 496, 497, or 499) for CHEM 150. This may not include CHEM 222 or 223 for students who took the CHEM 102, 103, 104, & 105 sequence instead of CHEM 202, 203, 204, & 205.
2) BSLAS in Chemistry – Transfer students may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.
Transfer students in the BS in Chemistry program must take CHEM 152, and no substitutions will be allowed.
The objective of creating the two new courses CHEM 150 and 152 is to recruit, educate, and retain undergraduate students who are interested in chemistry majors. We found from our experience that many first-year students feel lost during the first year in college, resulting in poor performance and dropping out of the program or even the university entirely. Even though LAS has a course (LAS 101) called Design Your First Year Experience, our survey of BS and BSLAS in Chemistry students found that LAS 101 is not specific enough to cater to the needs of our Chemistry students who face special challenges in their own major and need more personalized help to navigate the curriculum and to plan their careers in college and beyond.
The two courses build upon current understandings of science education and innovations and address a fundamental issue in that the starting/focal point of course instruction is often course content instead of students' interests or individual experiences, resulting in a weak link between the courses and students' interests and experiences. By using students' interests as the starting point to guide the content of the course, by emphasizing the individual experience and needs of the students, and by creating a supportive and communicative learning community, the two courses will strengthen the currently weak link between science course content and students' interests and individuality.
Specifically, the two new courses CHEM 150 and 152 will
- operate in tandem with traditional science courses,
- use students' scientific interests as the starting and focal points of course instruction and provide direct links between course content and the students' backgrounds and interests;
- personalize the students' individual experiences through exploration of their interests via critical literature survey and laboratory exploration;
- model interdisciplinary research groups, a hallmark of American graduate education, in undergraduate courses by building a community of students with similar interests;
- promote peer mentoring involving students from all levels of college years in the same course;
- improve students' competencies in scientific research through building research skills, such as searching the chemical literature and writing scientifically, early and throughout the college years;
- engage students in carrying out scientific investigations of their topics of interests in a research group that matches their interests;
- prepare the students for summer internships and future careers in science.

Kimberly Powers has taught CHEM 199FY in 2019 and 2020. Yi Lu has taught CHEM 199L since 2003. They have tested all of the above practices and now are ready to convert them into CHEM 150 and CHEM 152, respectively. Note that while CHEM 199FY will translate directly to CHEM 150 (with some components from CHEM 199L), there will be some changes from CHEM 199L to CHEM 152, as described in the separate New Course Outline documents.

The proposed CHEM courses are similar to first-year courses offered or required in other LAS departments, such as such as BIOC 190 (Biochemistry Orientation), CHBE 121 (CHBE Profession),. ECON 198 (Economics at Illinois), PHYS 110 (Physics Careers), and PSYC 102 (Psych Orientation).

Corresponding Degree

BS Bachelor of Science

Is this program interdisciplinary?

No

Academic Level

Undergraduate

Will you admit to the concentration directly?

No

Is a concentration required for graduation?

No

CIP Code

400501 - Chemistry, General.

Is This a Teacher Certification Program?

Yes

Will specialized accreditation be sought for this program?

No

Admission Requirements

Desired Effective Admissions Term

Fall 2021

Is this revision a change to the admission status of the program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

The department does not anticipate any impact to enrollment or degrees awarded

Estimated Annual Number of Degrees Awarded

What is the matriculation term for this program?

Fall

What is the typical time to completion of this program?

4 years

What are the minimum Total Credit Hours required for this program?

120 hours

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

Additional Budget Information

We have used unpaid peer mentors in the teaching of both CHEM 199FY (150) and CHEM 199L (152). Because the peer mentors receive course credit for their role, there is no budget impact in that regard. The use of unpaid peer mentors will continue for both CHEM 150 and CHEM 152.
The teaching of CHEM 199L has involved both graduate TAs and undergraduate student hourly TAs, and this will continue with the course formally offered as CHEM 152. There will likely be a slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152.

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

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.

There is no impact on faculty resources. Kimberly Powers has been teaching CHEM 199FY, which will be converted to CHEM 150 in this revised curriculum. Once approved, she will teach CHEM 150. Similarly, Yi Lu has been teaching CHEM 199L, which will be converted to CHEM 152. Once approved, he will teach CHEM 152. Even if different people later teach CHEM 150 and 152, there will still be one person teaching each course, so there will be no change in overall teaching loads. SCS Advising has already been advising Chemistry majors with regard to CHEM 199FY and CHEM 199L, and this advising will continue when these courses are offered as CHEM 150 and CHEM 152.

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.

None

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 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?

The primary recurring financial impact on the Department of Chemistry will be the slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152. This is a relatively small financial burden in the context of Chemistry's overall TA budget.

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

No

Are you seeking a change in the tuition rate or differential for this program?

No

Program Regulation and Assessment

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

In addition to campus ICES forms at the end of the semester, we will use a combination of the Classroom Undergraduate Research Experience (CURE) survey and students' interviews to assess and improve student learning.

1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by many institutions. The survey utilizes questions from pretest at the beginning of the semester and posttest at the end of the semester to assess student learning. The survey is "open source" – any higher education organization or program that has classroom or laboratory components of undergraduate research education can access and freely distribute the survey to students. Having been vetted and utilized nationally, the survey is additionally useful in that a baseline of mean ratings by a reference cohort is reported and contrasted to our institution's results. Yi Lu has used this survey to assess CHEM 199L previously. See Denofrio LA, Russell B, Lopatto D & Lu Y (2007) Mentoring: Linking student interests to science curricula. Science 318: 1872-1873.

2. Interviews: we will conduct interviews of the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.

We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

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.

Revised programs

01 Chem BS and BSLAS Curricula Revised.docx
Chemistry BS Comparative Table.docx

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

General education:Students must complete the Campus General Education (https://courses.illinois.edu/gened/DEFAULT/DEFAULT/)**requirements including the campus general education language requirement.**
Minimum hours required for graduation:120 hours.

Code	Title	Hours
Core Chemistry[1]		38
CHEM 150	First Semester Success in Chemistry[2]	
CHEM 152	College Success in Chemistry	
CHEM 202	Accelerated Chemistry I	
CHEM 203	Accelerated Chemistry Lab I	
CHEM 204	Accelerated Chemistry II	
CHEM 205	Accelerated Chemistry Lab II[3]	
CHEM 236	Fundamental Organic Chem I	
CHEM 237	Structure and Synthesis	
CHEM 312	Inorganic Chemistry	
CHEM 315	Instrumental Chem Systems Lab	
CHEM 420	Instrumental Characterization	
CHEM 436	Fundamental Organic Chem II	
CHEM 442	Physical Chemistry I	
CHEM 444	Physical Chemistry II	
CHEM 445	Physical Principles Lab I	
Advanced Chemistry		11
Chemistry/Biochemistry courses numbered 300 or higher, which must include one from the following:[3]		
Chemistry/Biochemistry courses numbered 300 or higher, which must include one from the following:		
CHEM 317	Inorganic Chemistry Lab	
CHEM 437	Organic Chemistry Lab	
CHEM 447	Physical Principles Lab II[4]	
Additional laboratory work:		
BIOC 455	Technqs Biochem & Biotech	
CHEM 317	Inorganic Chemistry Lab	
CHEM 437	Organic Chemistry Lab	
CHEM 447	Physical Principles Lab II	
CHEM 483	Solid State Structural Anlys[5]	
Additional chemistry/biochemistry courses to complete the 11-hour requirement in advanced chemistry		
Mathematics:		11-12
MATH 220	Calculus	
or MATH 221	Calculus I	

MATH 231	Calculus II	
MATH 241	Calculus III	
Physics:[1]		10
PHYS 211	University Physics: Mechanics	
PHYS 212	University Physics: Elec & Mag	
PHYS 214	Univ Physics: Quantum Physics	
Technical Electives, including the following[4]		14
Technical Electives, including the following		14
Required Mathematics:		
MATH 225	Introductory Matrix Theory[6]	
or MATH 415	Applied Linear Algebra	
MATH 285or equivalent		
Strongly Recommended:		
CHEM 499	Senior Thesis (maximum of 10 hours)	
Recommended: basic computer science		
Other technical courses chosen from:		14
Chemistry (300 or higher), biochemistry, chemical engineering (200 or higher)		
Courses in life sciences (all courses at 200 or higher)		
Mathematics or computer science above the basic level		
Other courses in the physical and biological sciences and engineering includingCHEM 199[7]		
Nontechnical Requirements[7]		variable
Nontechnical Requirements[8]		Variable
General education:		
Foreign language - three semesters of college study (or three years of high school study) in a single foreign language		
Composition I writing requirement (RHET 105,CMN 111andCMN 112, or equivalent)		
Advanced Composition writing requirement[8]		
Composition I		
Advanced Composition[9]		
Free electives[10]		31
Humanities/Arts to satisfy the campus general education requirements		
Social/Behavioral sciences to satisfy the campus general education requirements		
Cultural Studies to satisfy the campus general education requirement[10]		
Free electives[11]		29

1 *Hours given are those typical to meet requirement.*

2 *On and off-campus transfer students in the BS curriculum may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, CHEM 397, CHEM 496, CHEM 497, or CHEM 499) for CHEM 150. This may not include CHEM 222 or CHEM 223 for students who took the*CHEM 102,CHEM 103,CHEM 104*and*CHEM 105*sequence instead of CHEM 202, CHEM 203, CHEM 204, and CHEM 205.*

3 *If necessary, CHEM 102 and CHEM 103, CHEM 104 and CHEM 105, CHEM 222, and CHEM 223 may be substituted for CHEM 202, CHEM 203, CHEM 204, and CHEM 205. Warning: CHEM 222 and CHEM 223 are offered only in the fall semester.*

4 *The course chosen from CHEM 317, CHEM 437, or CHEM 447 cannot be used to satisfy the additional chemistry lab requirement.*

5 *Students who present less than 6 semester hours credit in a combination of CHEM 397, CHEM 497 and/or CHEM 499 for graduation must complete two additional courses chosen from the list. Students who will present at least 6 semester hours credit in a combination of CHEM 397, CHEM 497 and/or CHEM 499 for graduation are required to complete only one laboratory course from the list.*

6 *Students contemplating transfer to the chemical engineering curriculum should choose MATH 415.*

7 *Three hours maximum credit in CHEM 199. Additional courses in the sciences and engineering can be taken upon the approval of the chair of the chemistry department advising committee. Most approved courses must have a strong technical prerequisite, such as one year of college-level math or science.*

8 *The requirements for the Campus General Education categories Natural Sciences and Technology and Quantitative Reasoning I and II are fulfilled through required coursework in the curriculum.*

9 *The courses taken to satisfy Advanced Composition requirement may also be used to partially satisfy one of the core chemistry, advanced chemistry, mathematics, physics, or technical electives requirements (if appropriate), or may be used to partially satisfy the free electives requirements.*

10 *The courses taken to satisfy Western and/or Non-Western Civilization requirements may also be used to satisfy nontechnical and/or free elective categories.*

[11] *Restrictions: (1) Courses preparatory to or used to satisfy the minimum requirements specified in the above requirements may not be included as free electives. (2) No first-year foreign language course (e.g., 101, 102, or equivalent) may be included unless it is a different language than used to satisfy the foreign language nontechnical requirement.*

EP Documentation

DMI Documentation

Banner/Codebook Name

BS:Chemistry -UIUC

Program Code:

10KV0335BS

Degree Code

BS

Major Code

0335

Program Reviewer Comments

Kathy Martensen (kmartens) (Wed, 20 Jan 2021 18:39:37 GMT): Admin approval: No change in total hours required for degree; although free electives are reduced, there is also no change in the total # of major core required hours.

Key: 272

Proposal for revised curricula (degree, major, concentration, minor)

Submit completed proposals via email to Associate Dean Kelly Ritter (ritterk@illinois.edu). Please obtain Executive Officer and School Director (if applicable) approval via email and forward with the proposal to LAS.

Proposal Title: **Proposal to update the BS in Chemistry and the BSLAS in Chemistry to include required new first-year experience in Chemistry courses, CHEM 150 (BS, BSLAS) and CHEM 152 (BS only)**

Proposed effective date: **Fall 2021** *(Proposals may not be implemented until they go through all necessary levels of approval. Proposed changes may not be publicized as final on any web sites, printed documents, etc. until written confirmation of final approval is issued. For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year).*

Sponsor(s): *(Please include name, title, and email address of a faculty member knowledgeable about the proposal who will serve as the primary contact for the proposal. This person must be authorized to make changes in the proposal on behalf of the department. In case of multiple units, give information for each unit.)* **Prof. Scott K. Silverman, Associate Head of Budget and Operations, Department of Chemistry, sks@illinois.edu**

College contact: Kelly Ritter, Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, ritterk@illinois.edu

For Minors ONLY-

1) Is this minor:

- **A comprehensive study in a single discipline**
- **An interdisciplinary study focusing on a single theme**
- **Exception**

PROGRAM DESCRIPTION and JUSTIFICATION

1) **Provide a brief description but concise description of your proposal.** For example, if proposing revisions to a curriculum, state specifically what is changing. Where applicable, note whether stated program changes include additional requirements in the form of prerequisite courses. Requests for curriculum revisions must be accompanied by a table which clearly outlines the current requirements and the proposed revisions. This information may be submitted as an appendix. See Appendix A for an example. Please provide pertinent information only.

The Department of Chemistry proposes to require students in the BS in Chemistry and BSLAS in Chemistry degree to take either one two new First-Year Experience in Chemistry courses — **CHEM 150 (1 hour)** and

CHEM 152 (1 hour) — as follows. See the highlighted entries in the accompanying tables (separate document), and see the two separately provided New Course Outline documents for CHEM 150 and 152.

1) All new first-year students in the **BS in Chemistry degree**, including those in the **Environmental Chemistry Concentration**, will be required to take CHEM 150 (1 hour) in their first semester and CHEM 152 (1 hour) in their second semester. CHEM 150 will focus on successfully transitioning into a STEM major. CHEM 152 will focus in on using students' interests in a particular area of science as the engaging point of instruction and using peer mentors to help the students to (a) design curricula, (b) develop skills, and (c) plan extracurricular activities including research to explore those interests to seek out research positions, which are an important component of the BS in Chemistry degree. These combined 2 credit hours will be added to the Core Chemistry requirements, increasing those requirements from 36 to 38 hours. To account for this increase, 2 hours will be removed from the current 31 hours of required free electives, reducing those requirements from 31 to 29 hours.

2) All new first-year students in the **BSLAS in Chemistry degree**, including those in the **Chemistry Teaching Concentration**, will be required to take CHEM 150 (1 hour) in their first semester. However, students in the CS+Chemistry major will not be required to take CHEM 150, because they are already taking CS 101.

For the BSLAS in Chemistry, 1 hour out of the 22-26 hours required for the degree is now specified for CHEM 150. No hours are subtracted from any other degree requirements.

For the BSLAS in Chemistry with the Chemistry Teaching Concentration, 1 hour is added to the additional requirements, so the student must take a total of 76-77 hours rather than 75-76 hours. The hour will not be subtracted from any other categories, in part because these requirements are all part of a certification program. It is not necessary to subtract any hours because the current total requirements for the degree add up to less than the 120 hours minimum required.

On- and off-campus students who **transfer** into the BS in Chemistry or BSLAS in Chemistry degrees will be allowed to substitute other courses for CHEM 150, as follows:

1) BS in Chemistry – Transfer students may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, 397, 496, 497, or 499) for CHEM 150. This may not include CHEM 222 or 223 for students who took the CHEM 102, 103, 104, & 105 sequence instead of CHEM 202, 203, 204, & 205.
2) BSLAS in Chemistry – Transfer students may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.

Transfer students in the BS in Chemistry program must take CHEM 152, and no substitutions will be allowed.

2) **Provide a justification of the program**, including how your unit decided to create this program, highlights of the program objectives, and the careers, occupations, or further educational opportunities for which the program will prepare graduates, when appropriate.

The objective of creating the two new courses CHEM 150 and 152 is to recruit, educate, and retain undergraduate students who are interested in chemistry majors. We found from our experience that many first-year students feel lost during the first year in college, resulting in poor performance and dropping out of the program or even the university entirely. Even though LAS has a course (LAS 101) called Design Your First Year Experience, our survey of BS and BSLAS in Chemistry students found that LAS 101 is not specific enough to cater to the needs of our Chemistry students who face special challenges in their own major and need more personalized help to navigate the curriculum and to plan their careers in college and beyond.

The two courses build upon current understandings of science education and innovations and address a fundamental issue in that the starting/focal point of course instruction is often course content instead of students' interests or individual experiences, resulting in a weak link between the courses and students' interests and experiences. By using students' interests as the starting point to guide the content of the course, by emphasizing the individual experience and needs of the students, and by creating a supportive and communicative learning community, the two courses will strengthen the currently weak link between science course content and students' interests and individuality.

Specifically, the two new courses CHEM 150 and 152 will

- operate in tandem with traditional science courses,
- use students' scientific interests as the starting and focal points of course instruction and provide direct links between course content and the students' backgrounds and interests;
- personalize the students' individual experiences through exploration of their interests via critical literature survey and laboratory exploration;
- model interdisciplinary research groups, a hallmark of American graduate education, in undergraduate courses by building a community of students with similar interests;
- promote peer mentoring involving students from all levels of college years in the same course;
- improve students' competencies in scientific research through building research skills, such as searching the chemical literature and writing scientifically, early and throughout the college years;
- engage students in carrying out scientific investigations of their topics of interests in a research group that matches their interests;
- prepare the students for summer internships and future careers in science.

Kimberly Powers has taught CHEM 199FY in 2019 and 2020. Yi Lu has taught CHEM 199L since 2003. They have tested all of the above practices and now are ready to convert them into CHEM 150 and CHEM 152, respectively. Note that while CHEM 199FY will translate directly to CHEM 150 (with some components from CHEM 199L), there will be some changes from CHEM 199L to CHEM 152, as described in the separate New Course Outline documents.

The proposed CHEM courses are similar to first-year courses offered or required in other LAS departments, such as such as BIOC 190 (Biochemistry Orientation), CHBE 121 (CHBE Profession),. ECON 198 (Economics at Illinois), PHYS 110 (Physics Careers), and PSYC 102 (Psych Orientation).

3) In addition, please provide an answer as to how your undergraduate degree (120 hours of coursework) will satisfy this requirement: IBHE requires that all degree programs contain at least 40 credit hours in upper division courses. Upper division courses have been described as 300- and 400-level coursework and some 200-level courses in which multiple prerequisites are required.

The combined 2 credit hours of CHEM 150 (1 hour) and CHEM 152 (1 hour) can be accommodated in the current 120 hours of coursework requirement, without affecting the minimum of 40 credit hours in upper-division courses. See the highlighted entries in the accompanying tables (separate document).

Is this program interdisciplinary? No.

If a proposal for a concentration-

will you admit to the concentration directly? n/a

is a concentration required for graduation? n/a

Will specialized accreditation be sought for this program? No. The BS in Chemistry degree is already certified by the American Chemical Society (ACS).

ADMISSION REQUIREMENTS

1) Desired admissions term: *For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year*

Fall, 2021
Is this revision a change to the admission status of the program? No**.**

2) Provide a brief narrative description of the admission requirements for this program. Where relevant, include information about licensure requirements, student background checks, GRE and TOEFL scores, and admission requirements for transfer students. (degrees, majors, concentrations ONLY). n/a

3) Describe how critical academic functions such as admissions and student advising are managed. n/a

ENROLLMENT – n/a

1) Describe how this revision will impact enrollment and degrees awarded.

2) Estimated Annual Number of Degrees Awarded **(degrees, majors, concentrations ONLY)**

Year 1:

Year 5 (or when fully implemented):

3) What is the matriculation term for this program? Fall OR Spring/summer/other

4) What is the typical time to completion of this program?

Note: grad certificates require at least 10 weeks. Other examples: BALAS= 4years, MA=2.5 years

5) What are the minimum Total Credit Hours required for this program?

6) Delivery Method, what is the program's primary delivery method?

Face to Face; Online & Face to Face; Online Only; Other- specify

If NOT face to face, please describe the use of this delivery method:

5) MINORS ONLY:

Will the department limit enrollment in the minor?

Describe how the department will monitor admission to/enrollment in the minor.

Are there any prerequisites for the proposed minor? If yes, please list the courses and whether or not these course count in the total hours for the minor.

Other than certification via the students' degree audits, is there any additional planned mechanism to award/honor successful completion of the minor? If yes, please describe.

BUDGET

1) Please describe any budgetary implications for this revision- addressing applicable personnel, facilities, technology and supply costs.

2) Will the revision require staffing (faculty, advisors, etc.) beyond what is currently available? If yes, please describe.

No

3) Please provide any additional budget information needed to effectively evaluate the proposal.

We have used unpaid peer mentors in the teaching of both CHEM 199FY (150) and CHEM 199L (152). Because the peer mentors receive course credit for their role, there is no budget impact in that regard. The use of unpaid peer mentors will continue for both CHEM 150 and CHEM 152.

The teaching of CHEM 199L has involved both graduate TAs and undergraduate student hourly TAs, and this will continue with the course formally offered as CHEM 152. There will likely be a slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152.

RESOURCE IMPLICATIONS

1) Facilities- Will the program require new or additional facilities or significant improvements to already existing facilities? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

2) Technology- Will the program need additional technology beyond what is currently available for the unit? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

3) Non-Technical Resources- Will the program require additional supplies, services or equipment (non-technical)? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

RESOURCES

1) 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.

There is no impact on faculty resources. Kimberly Powers has been teaching CHEM 199FY, which will be converted to CHEM 150 in this revised curriculum. Once approved, she will teach CHEM 150. Similarly, Yi Lu has been teaching CHEM 199L, which will be converted to CHEM 152. Once approved, he will teach CHEM 152. Even if different people later teach CHEM 150 and 152, there will still be one person teaching each course, so there will be no change in overall teaching loads. SCS Advising has already been advising Chemistry majors with regard to CHEM 199FY and CHEM 199L, and this advising will continue when these courses are offered as CHEM 150 and CHEM 152.

2) 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.
No

3) 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? If yes, please describe.
No

4) Does this new program/proposed change result in the replacement of another program? If yes, please specify the program.
No

5) Does the program include any required or recommended subjects that are offered by other departments? If yes, please list the courses. Explain how these additional courses will be used by the program and provide letters of support from the departments.
No

FINANCIAL RESOURCES

1) How does the unit intend to financially support this proposal?
The primary recurring financial impact on the Department of Chemistry will be the slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152. This is a relatively small financial burden in the context of Chemistry's overall TA budget.

2) Will the unit need to seek campus or other external resources? If yes, please provide a summary of the sources and an indication of the approved support.
No

3) Are you seeking a change in the tuition rate or differential for this program? (degrees, majors, concentrations ONLY) *If this program requires a tuition or differential change, initiate a discussion with the LAS curricula contact, LAS budget officer, and LAS Associate Dean.*
No

4) Is this program requesting self-supporting status? (degrees, majors and concentrations ONLY)? If yes, please explain.
No

PROGRAM REGULATION & ASSESSMENT

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

In addition to campus ICES forms at the end of the semester, we will use a combination of the Classroom Undergraduate Research Experience (CURE) survey and students' interviews to assess and improve student learning.

1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by many institutions. The survey utilizes questions from pretest at the beginning of the semester and posttest at the end of the semester to assess student learning. The survey is "open source" – any higher education organization or program that has classroom or laboratory components of undergraduate research education can access and freely distribute the survey to students. Having been vetted and utilized nationally, the survey is additionally useful in that a baseline of mean ratings by a reference cohort is reported and contrasted to our institution's results. Yi Lu has used this survey to assess CHEM 199L previously. See Denofrio LA, Russell B, Lopatto D & Lu Y (2007) Mentoring: Linking student interests to science curricula. Science 318: 1872-1873.

2. Interviews: we will conduct interviews of the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.

We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

2) Is the career/profession for graduates of this program regulated by the State of Illinois? If yes, please describe.
No

ACADEMIC CATALOG ENTRY

1) All proposals must submit the major requirements (courses, hours) for the proposed curricula. Please see the University of Illinois Academic Catalog- http://catalog.illinois.edu/ for your unit for an example of the entry.

CHEM 150: First Semester Success in Chem

CHEM 150		Lecture-Discussion	D	02:00PM - 02:50PM	M	165 Noyes Laboratory	Powers, K

Availability	Yes
Credit	1 hours
Date Range	Meets 08/24/20-10/16/20
Part of Term	A

Section Info	First Semester Experience course to help first year Chemistry students learn about department and campus resources, develop successful study skills and habits, and begin to explore the career options related to their major. Class time will be structured around lectures, site visits, and student discussion.
Restriction(s)	For Chemistry (BS & BSLAS) majors only; freshmen only

CHEM 152: College Success in Chemistry

CHEM 152		Lecture-Discussion	L-D	12:00PM - 12:50PM	WF	165 Noyes Laboratory	Lu, Y

Availability	Yes
Credit	1 hours
Date Range	Meets 01/21/20-05/06/20
Part of Term	1
Section Info	The goal is to strengthen the link between science curricula and students' interests and individual needs, through: 1) using students' interests as the starting and focal points to guide the content of the course, 2) creating a supportive and communicative learning environment using peer mentoring and the structure of a scientific research group as cornerstones in the curricular design, and 3) emphasizing the individual experiences and anticipating needs of the students while encouraging students to engage in authentic scientific research as undergraduates. The Chemistry course is delivered through a series of programs and activities, including skill lectures on scientific literature and research, peer mentoring, small group meetings, literature reviews, special topics discussions on science and public policy, technical writing seminars, and research investigation.
Restriction(s)	For Chemistry (BS & BSLAS) majors only (required for Chemistry (BS) majors and optional for Chemistry (BSLAS) majors); freshmen only

2) Include a comparative table of the current and proposed requirements.

Please see tables in accompanying document.

Comparative Table of Proposed Changes

Current Requirements	Current Hours	Proposed Requirements	Proposed Hours

Current & Proposed requirements for **Chemistry, BS (degree of Bachelor of Science in Chemistry)**: http://catalog.illinois.edu/undergraduate/las/chemistry-bs/#degreerequirementstext

Includes all details about current curriculum and proposed changes. Changes are highlighted in yellow. Footnotes from the original catalog entry are included, along with an update for CHEM 150 for transfer students (also highlighted in yellow).

*Please note that this number is erroneously shown as "35" in the online listing (above URL).

Current Requirements	Current Hours	Proposed Requirements	Proposed Hours
Core Chemistry: CHEM 202 (3) CHEM 203 (2) CHEM 204 (3) CHEM 205 (2) CHEM 236 (4) CHEM 237 (2) CHEM 312 (3) CHEM 315 (2) CHEM 420 (2) CHEM 436 (3) CHEM 442 (4) CHEM 444 (4) CHEM 445 (2)	36*	Core Chemistry:[1] CHEM 150 (1)[2] CHEM 152 (1) CHEM 202 (3) CHEM 203 (2) CHEM 204 (3) CHEM 205 (2)[3] CHEM 236 (4) CHEM 237 (2) CHEM 312 (3) CHEM 315 (2) CHEM 420 (2) CHEM 436 (3) CHEM 442 (4) CHEM 444 (4) CHEM 445 (2)	38
Advanced Chemistry: -Chemistry/Biochemistry courses number 300 or higher, which must include one from the following: CHEM 317, 437, or 447	11	**[no change]** Advanced Chemistry: -Chemistry/Biochemistry courses number 300 or higher, which must include one from the following: CHEM 317, 437, or 447[4]	11

[1] Hours given are those typical to meet requirement.
[2] On and off-campus transfer students in the BS curriculum may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, 397, 496, 497, or 499) for CHEM 150. This may not include CHEM 222 or 223 for students who took the CHEM 102, 103, 104, & 105 sequence instead of CHEM 202, 203, 204, & 205.
[3] If necessary, CHEM 102 and CHEM 103, CHEM 104 and CHEM 105, CHEM 222, and CHEM 223 may be substituted for CHEM 202, CHEM 203, CHEM 204, and CHEM 205. Warning: CHEM 222 and CHEM 223 are offered only in the fall semester.
[4] The course chosen from CHEM 317, CHEM 437, or CHEM 447 cannot be used to satisfy the additional chemistry lab requirement.

-Additional laboratory work: BIOC 455, CHEM 317, CHEM 437, CHEM 447, CHEM 483 -Additional Chemistry/Biochemistry courses to complete the 11-hour requirement in advanced Chemistry		-Additional laboratory work: BIOC 455, CHEM 317, CHEM 437, CHEM 447, CHEM 483[5] -Additional Chemistry/Biochemistry courses to complete the 11-hour requirement in advanced Chemistry	
Mathematics: MATH 220 or 221, 231, and 241	11-12	**[no change]** Mathematics: MATH 220 or 221, 231, and 241	11-12
Physics: PHYS 211, 212, and 214	10	**[no change]** Physics: PHYS 211, 212, and 214	10
Technical Electives, including the following: MATH 225 or 415 (2 or 3) MATH 285 or equivalent (3) Strongly recommended: CHEM 499 Recommended: Basic computer science Other technical courses chosen from: Chemistry (300 or higher), biochemistry, chemical engineering (200 or higher); courses in life sciences (all courses at 200 or higher); Mathematics or computer science above the basic level; Other courses in the physical and biological sciences and engineering including CHEM 199	14	**[no change]** Technical Electives, including the following: MATH 225 or 415[6] (2 or 3) MATH 285 or equivalent (3) Strongly recommended: CHEM 499 Recommended: Basic computer science Other technical courses chosen from: Chemistry (300 or higher), biochemistry, chemical engineering (200 or higher); courses in life sciences (all courses at 200 or higher); Mathematics or computer science above the basic level; Other courses in the physical and biological sciences and engineering including CHEM 199[7]	14

[5] Students who present less than 6 semester hours credit in a combination of CHEM 397, CHEM 497 and/or CHEM 499 for graduation must complete two additional courses chosen from the list. Students who will present at least 6 semester hours credit in a combination of CHEM 397, CHEM 497 and /or CHEM 499 for graduation are required to complete only one laboratory course from the list.

[6] Students contemplating transfer to the chemical engineering curriculum should choose MATH 415 .

[7] Three hours maximum credit in CHEM 199. Additional courses in the sciences and engineering can be taken upon the approval of the chair of the chemistry department advising committee. Most approved courses must have a strong technical prerequisite, such as one year of college-level math or science.

Nontechnical requirements: General education: Foreign language – three semesters of college study (or three years of high school study) in a single foreign language Composition I Advanced Composition Humanities/Arts to satisfy Gen Ed requirements Social/Behavioral Sciences to satisfy Gen Ed requirements Cultural Studies to satisfy Gen Ed requirements	Variable	Nontechnical requirements:[8] General education: Foreign language – three semesters of college study (or three years of high school study) in a single foreign language Composition I Advanced Composition[9] Humanities/Arts to satisfy Gen Ed requirements Social/Behavioral Sciences to satisfy Gen Ed requirements Cultural Studies to satisfy Gen Ed requirements[10]	Variable
Free electives	31	Free electives[11]	29

[8] The requirements for the Campus General Education categories Natural Sciences and Technology and Quantitative Reasoning I and II are fulfilled through required course work in the curriculum.

[9] The course taken to satisfy the Advanced Composition requirement may also be used to partially satisfy one of the core chemistry, advanced chemistry, mathematics, physics, or technical electives requirements (if appropriate), or may be used to partially satisfy the free electives requirements.

[10] The courses taken to satisfy Western and/or Non-Western Civilization requirements may also be used to satisfy nontechnical and/or free elective categories.

[11] Restrictions: (1) Courses preparatory to or used to satisfy the minimum requirements specified in the above requirements may not be included as free electives. (2) No first-year foreign language course (e.g., 101, 102, or equivalent) may be included unless it is a different language than used to satisfy the foreign language nontechnical requirement.

Current & Proposed requirements for Chemistry, BS (degree of Bachelor of Science in Chemistry) with a concentration in **Environmental Chemistry**: http://catalog.illinois.edu/undergraduate/las/chemistry-bs/environmental-chemistry/#requirementstext

Same as above. Only difference is the concentration includes an additional catalog entry as follows:

Required Technical Elective Courses for the Environmental Chemistry Concentration		
Basic Courses		
CHEM 360 or CEE 330	Chemistry of the Environment Environmental Engineering	3
Advanced Courses: Select three courses from the following:		9
CHEM 460	Green Chemistry	
CEE 443	Env Eng Principles, Chemical	
GEOL 380	Environmental Geology	
IB 485	Environ Toxicology & Health	
CHEM 397	Individual Study Junior	
CHEM 497	Individual Study Senior	
CHEM 499	Senior Thesis	
Other 400-level courses dealing with economic, engineering, biological aspects of environmental chemistry upon consultation with the faculty advisor.		

This will not need to be updated with the proposed additions of CHEM 150 & 152 to the Core Chemistry requirements for the BS in Chemistry.

10KV0335BSLA: CHEMISTRY, BSLAS

In Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1413 Head (sks@illinois.edu)
3. SOCS Head (jsweedle@illinois.edu; dambache@illinois.edu)
4. KV Dean (las-catalog@illinois.edu)
5. University Librarian (jpwilkin@illinois.edu)
6. COTE Programs (nilatha@illinois.edu; bmclvngr@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Tue, 19 Jan 2021 17:10:35 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Tue, 19 Jan 2021 20:46:18 GMT
   Scott Silverman (sks): Approved for 1413 Head
3. Tue, 19 Jan 2021 22:58:37 GMT
   Jonathan Sweedler (jsweedle): Approved for SOCS Head
4. Tue, 19 Jan 2021 22:59:28 GMT
   Kelly Ritter (ritterk): Approved for KV Dean
5. Tue, 19 Jan 2021 23:07:37 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
6. Wed, 20 Jan 2021 15:11:45 GMT
   Brenda Clevenger (bmclvngr): Approved for COTE Programs
7. Wed, 20 Jan 2021 18:41:12 GMT
   Kathy Martensen (kmartens): Approved for Provost

History

1. Mar 21, 2019 by Deb Forgacs (dforgacs)
2. Mar 21, 2019 by Deb Forgacs (dforgacs)
3. Apr 6, 2019 by Deb Forgacs (dforgacs)

Date Submitted:Mon, 18 Jan 2021 22:37:40 GMT

Viewing:10KV0335BSLA : Chemistry, BSLAS

Changes proposed by: Amy Elli

Proposal Type

Proposal Type:

Major (ex. Special Education)

This proposal is for a:

Revision

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*

Administrative approval: Update the BSLAS in Chemistry to include required new first-year experience in Chemistry courses, CHEM 150 (BS, BSLAS) and CHEM 152 (BS only)

EP Control Number

EP.21.039

Official Program Name

Chemistry, BSLAS

Effective Catalog Term

Fall 2021

Sponsor College

Liberal Arts & Sciences

Sponsor Department

Chemistry

Sponsor Name

Scott K. Silverman

Sponsor Email

sks@illinois.edu

College Contact

Kelly Ritter

College Contact Email

ritterk@illinois.edu

Program Description and Justification

Justification for proposal change:

The Department of Chemistry proposes to require students in the BS in Chemistry and BSLAS in Chemistry degree to take either one or two new First-Year Experience in Chemistry courses — CHEM 150 (1 hour) and CHEM 152 (1 hour) — as follows. See the highlighted entries in the accompanying tables (separate document), and see the two separately provided New Course Outline documents for CHEM 150 and 152.

2) All new first-year students in the BSLAS in Chemistry degree, including those in the Chemistry Teaching Concentration, will be required to take CHEM 150 (1 hour) in their first semester. However, students in the CS+Chemistry major will not be required to take CHEM 150, because they are already taking CS 101.
For the BSLAS in Chemistry, 1 hour out of the 22-26 hours required for the degree is now specified for CHEM 150. No hours are subtracted from any other degree requirements.
For the BSLAS in Chemistry with the Chemistry Teaching Concentration, 1 hour is added to the additional requirements, so the student must take a total of 76-77 hours rather than 75-76 hours. The hour will not be subtracted from any other categories, in part because these requirements are all part of a certification program. It is not necessary to subtract any hours because the current total requirements for the degree add up to less than the 120 hours minimum required.
On- and off-campus students who transfer into the BS in Chemistry or BSLAS in Chemistry degrees will be allowed to substitute other courses for CHEM 150, as follows:
1) BS in Chemistry – Transfer students may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, 397, 496, 497, or 499) for CHEM 150. This may not include CHEM 222 or 223 for students who took the CHEM 102, 103, 104, & 105 sequence instead of CHEM 202, 203, 204, & 205.
2) BSLAS in Chemistry – Transfer students may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.
Transfer students in the BS in Chemistry program must take CHEM 152, and no substitutions will be allowed.
The objective of creating the two new courses CHEM 150 and 152 is to recruit, educate, and retain undergraduate students who are interested in chemistry majors. We found from our experience that many first-year students feel lost during the first year in college, resulting in poor performance and dropping out of the program or even the university entirely. Even though LAS has a course (LAS 101) called Design Your First Year Experience, our survey of BS and BSLAS in Chemistry students found that LAS 101 is not specific enough to cater to the needs of our Chemistry students who face special challenges in their own major and need more personalized help to navigate the curriculum and to plan their careers in college and beyond.
The two courses build upon current understandings of science education and innovations and address a fundamental issue in that the starting/focal point of course instruction is often course content instead of students' interests or individual experiences, resulting in a weak link between the courses and students' interests and experiences. By using students' interests as the starting point to guide the content of the course, by emphasizing the individual experience and needs of the students, and by creating a supportive and communicative learning community, the two courses will strengthen the currently weak link between science course content and students' interests and individuality.
Specifically, the two new courses CHEM 150 and 152 will
- operate in tandem with traditional science courses,
- use students' scientific interests as the starting and focal points of course instruction and provide direct links between course content and the students' backgrounds and interests;
- personalize the students' individual experiences through exploration of their interests via critical literature survey and laboratory exploration;
- model interdisciplinary research groups, a hallmark of American graduate education, in undergraduate courses by building a community of students with similar interests;
- promote peer mentoring involving students from all levels of college years in the same course;
- improve students' competencies in scientific research through building research skills, such as searching the chemical literature and writing scientifically, early and throughout the college years;
- engage students in carrying out scientific investigations of their topics of interests in a research group that matches their interests;
- prepare the students for summer internships and future careers in science.

Kimberly Powers has taught CHEM 199FY in 2019 and 2020. Yi Lu has taught CHEM 199L since 2003. They have tested all of the above practices and now are ready to convert them into CHEM 150 and CHEM 152, respectively. Note that while CHEM 199FY will translate directly to CHEM 150 (with some components from CHEM 199L), there will be some changes from CHEM 199L to CHEM 152, as described in the separate New Course Outline documents.

The proposed CHEM courses are similar to first-year courses offered or required in other LAS departments, such as such as BIOC 190 (Biochemistry Orientation), CHBE 121 (CHBE Profession),. ECON 198 (Economics at Illinois), PHYS 110 (Physics Careers), and PSYC 102 (Psych Orientation).

Corresponding Degree

BSLAS Bachelor of Science in Liberal Arts and Sciences

Is this program interdisciplinary?

No

Academic Level

Undergraduate

Will you admit to the concentration directly?

No

Is a concentration required for graduation?

No

CIP Code

400501 - Chemistry, General.

Is This a Teacher Certification Program?

Yes

Will specialized accreditation be sought for this program?

No

Admission Requirements

Desired Effective Admissions Term

Fall 2021

Is this revision a change to the admission status of the program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

The department does not anticipate any impact to enrollment or degrees awarded.

Estimated Annual Number of Degrees Awarded

What is the matriculation term for this program?

Fall

What is the typical time to completion of this program?

4 years

What are the minimum Total Credit Hours required for this program?

120

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

Additional Budget Information

We have used unpaid peer mentors in the teaching of both CHEM 199FY (150) and CHEM 199L (152). Because the peer mentors receive course credit for their role, there is no budget impact in that regard. The use of unpaid peer mentors will continue for both CHEM 150 and CHEM 152.
The teaching of CHEM 199L has involved both graduate TAs and undergraduate student hourly TAs, and this will continue with the course formally offered as CHEM 152. There will likely be a slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152.

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

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.

There is no impact on faculty resources. Kimberly Powers has been teaching CHEM 199FY, which will be converted to CHEM 150 in this revised curriculum. Once approved, she will teach CHEM 150. Similarly, Yi Lu has been teaching CHEM 199L, which will be converted to CHEM 152. Once approved, he will teach CHEM 152. Even if different people later teach CHEM 150 and 152, there will still be one person teaching each course, so there will be no change in overall teaching loads. SCS Advising has already been advising Chemistry majors with regard to CHEM 199FY and CHEM 199L, and this advising will continue when these courses are offered as CHEM 150 and CHEM 152.

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.

None

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 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?

The primary recurring financial impact on the Department of Chemistry will be the slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152. This is a relatively small financial burden in the context of Chemistry's overall TA budget.

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

No

Are you seeking a change in the tuition rate or differential for this program?

No

Program Regulation and Assessment

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

In addition to campus ICES forms at the end of the semester, we will use a combination of the Classroom Undergraduate Research Experience (CURE) survey and students' interviews to assess and improve student learning.

1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by many institutions. The survey utilizes questions from pretest at the beginning of the semester and posttest at the end of the semester to assess student learning. The survey is "open source" – any higher education organization or program that has classroom or laboratory components of undergraduate research education can access and freely distribute the survey to students. Having been vetted and utilized nationally, the survey is additionally useful in that a baseline of mean ratings by a reference cohort is reported and contrasted to our institution's results. Yi Lu has used this survey to assess CHEM 199L previously. See Denofrio LA, Russell B, Lopatto D & Lu Y (2007) Mentoring: Linking student interests to science curricula. Science 318: 1872-1873.

2. Interviews: we will conduct interviews of the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.

We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

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.

Revised programs

01 Chem BS and BSLAS Curricula Revised.docx
Chemistry BSLAS Comparative Table.docx

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

General education:Students must complete the Campus General Education (https://courses.illinois.edu/gened/DEFAULT/DEFAULT/)**requirements including the campus general education language requirement.**
Minimum required major and supporting course work: Minimum required major and supporting course work normally equates to 48-51 hours including at least 30 hours in Chemistry or Biochemistry courses. Twelve hours of 300- and 400-level in in Chemistry and/or Biochemistry must be taken on this campus. Transfer credit in chemistry must be approved by an adviser in chemistry in order to be included in the 30 hours.
Minimum hours required for graduation:120 hours.

Code	Title	Hours
Chemistry and biochemistry courses including:[1, 2]		22-26
CHEM 150	First Semester Success in Chemistry[3]	
CHEM 440	Physical Chemistry Principles	
or CHEM 442	Physical Chemistry I	
Two other 300- or 400-level courses, at least one of which must be outside physical chemistry.		4-8
MATH 220	Calculus	4-5
or MATH 221	Calculus I	
MATH 231	Calculus II	3
MATH 241	Calculus III	4
Select one of the following:		8-10
PHYS 101 & PHYS 102	College Physics: Mech & Heat and College Physics: E&M & Modern	
PHYS 211 & PHYS 212	University Physics: Mechanics and University Physics: Elec & Mag	

1 *Excluding*CHEM 101,CHEM 108*, and*CHEM 199.

2 *No more than 10 hours of the following courses may count toward the 22-26 hours in Chemistry:*CHEM 197,CHEM 199,CHEM 297,CHEM 397,CHEM 496,CHEM 497*, and*CHEM 499.

3 On- and off-campus transfer students in the BSLAS curriculum may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, CHEM 397, CHEM 496, CHEM 497, or CHEM 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from CHEM 297, CHEM 397, CHEM 496, CHEM 497, CHEM 499.

EP Documentation

DMI Documentation

Banner/Codebook Name

BSLAS:Chemistry -UIUC

Program Code:

10KV0335BSLA

Degree Code

BSLAS

Major Code

0335

Program Reviewer Comments

Kathy Martensen (kmartens) (Wed, 20 Jan 2021 18:40:27 GMT): Admin approval: No change in total hours required for the degree. Although free electives are reduced, there's no change in total Core Chemistry hours required for the major.

Key: 271

Proposal for revised curricula (degree, major, concentration, minor)

Submit completed proposals via email to Associate Dean Kelly Ritter (ritterk@illinois.edu). Please obtain Executive Officer and School Director (if applicable) approval via email and forward with the proposal to LAS.

Proposal Title: **Proposal to update the BS in Chemistry and the BSLAS in Chemistry to include required new first-year experience in Chemistry courses, CHEM 150 (BS, BSLAS) and CHEM 152 (BS only)**

Proposed effective date: **Fall 2021** *(Proposals may not be implemented until they go through all necessary levels of approval. Proposed changes may not be publicized as final on any web sites, printed documents, etc. until written confirmation of final approval is issued. For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year).*

Sponsor(s): *(Please include name, title, and email address of a faculty member knowledgeable about the proposal who will serve as the primary contact for the proposal. This person must be authorized to make changes in the proposal on behalf of the department. In case of multiple units, give information for each unit.)* **Prof. Scott K. Silverman, Associate Head of Budget and Operations, Department of Chemistry, sks@illinois.edu**

College contact: Kelly Ritter, Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, ritterk@illinois.edu

For Minors ONLY-

1) Is this minor:

- **A comprehensive study in a single discipline**
- **An interdisciplinary study focusing on a single theme**
- **Exception**

PROGRAM DESCRIPTION and JUSTIFICATION

1) **Provide a brief description but concise description of your proposal.** For example, if proposing revisions to a curriculum, state specifically what is changing. Where applicable, note whether stated program changes include additional requirements in the form of prerequisite courses. Requests for curriculum revisions must be accompanied by a table which clearly outlines the current requirements and the proposed revisions. This information may be submitted as an appendix. See Appendix A for an example. Please provide pertinent information only.

The Department of Chemistry proposes to require students in the BS in Chemistry and BSLAS in Chemistry degree to take either one two new First-Year Experience in Chemistry courses — **CHEM 150 (1 hour)** and

CHEM 152 (1 hour) — as follows. See the highlighted entries in the accompanying tables (separate document), and see the two separately provided New Course Outline documents for CHEM 150 and 152.

1) All new first-year students in the **BS in Chemistry degree**, including those in the **Environmental Chemistry Concentration**, will be required to take CHEM 150 (1 hour) in their first semester and CHEM 152 (1 hour) in their second semester. CHEM 150 will focus on successfully transitioning into a STEM major. CHEM 152 will focus in on using students' interests in a particular area of science as the engaging point of instruction and using peer mentors to help the students to (a) design curricula, (b) develop skills, and (c) plan extracurricular activities including research to explore those interests to seek out research positions, which are an important component of the BS in Chemistry degree. These combined 2 credit hours will be added to the Core Chemistry requirements, increasing those requirements from 36 to 38 hours. To account for this increase, 2 hours will be removed from the current 31 hours of required free electives, reducing those requirements from 31 to 29 hours.

2) All new first-year students in the **BSLAS in Chemistry degree**, including those in the **Chemistry Teaching Concentration**, will be required to take CHEM 150 (1 hour) in their first semester. However, students in the CS+Chemistry major will not be required to take CHEM 150, because they are already taking CS 101.

For the BSLAS in Chemistry, 1 hour out of the 22-26 hours required for the degree is now specified for CHEM 150. No hours are subtracted from any other degree requirements.

For the BSLAS in Chemistry with the Chemistry Teaching Concentration, 1 hour is added to the additional requirements, so the student must take a total of 76-77 hours rather than 75-76 hours. The hour will not be subtracted from any other categories, in part because these requirements are all part of a certification program. It is not necessary to subtract any hours because the current total requirements for the degree add up to less than the 120 hours minimum required.

On- and off-campus students who **transfer** into the BS in Chemistry or BSLAS in Chemistry degrees will be allowed to substitute other courses for CHEM 150, as follows:

1) BS in Chemistry – Transfer students may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, 397, 496, 497, or 499) for CHEM 150. This may not include CHEM 222 or 223 for students who took the CHEM 102, 103, 104, & 105 sequence instead of CHEM 202, 203, 204, & 205.
2) BSLAS in Chemistry – Transfer students may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.

Transfer students in the BS in Chemistry program must take CHEM 152, and no substitutions will be allowed.

2) **Provide a justification of the program**, including how your unit decided to create this program, highlights of the program objectives, and the careers, occupations, or further educational opportunities for which the program will prepare graduates, when appropriate.

The objective of creating the two new courses CHEM 150 and 152 is to recruit, educate, and retain undergraduate students who are interested in chemistry majors. We found from our experience that many first-year students feel lost during the first year in college, resulting in poor performance and dropping out of the program or even the university entirely. Even though LAS has a course (LAS 101) called Design Your First Year Experience, our survey of BS and BSLAS in Chemistry students found that LAS 101 is not specific enough to cater to the needs of our Chemistry students who face special challenges in their own major and need more personalized help to navigate the curriculum and to plan their careers in college and beyond.

The two courses build upon current understandings of science education and innovations and address a fundamental issue in that the starting/focal point of course instruction is often course content instead of students' interests or individual experiences, resulting in a weak link between the courses and students' interests and experiences. By using students' interests as the starting point to guide the content of the course, by emphasizing the individual experience and needs of the students, and by creating a supportive and communicative learning community, the two courses will strengthen the currently weak link between science course content and students' interests and individuality.

Specifically, the two new courses CHEM 150 and 152 will

- operate in tandem with traditional science courses,
- use students' scientific interests as the starting and focal points of course instruction and provide direct links between course content and the students' backgrounds and interests;
- personalize the students' individual experiences through exploration of their interests via critical literature survey and laboratory exploration;
- model interdisciplinary research groups, a hallmark of American graduate education, in undergraduate courses by building a community of students with similar interests;
- promote peer mentoring involving students from all levels of college years in the same course;
- improve students' competencies in scientific research through building research skills, such as searching the chemical literature and writing scientifically, early and throughout the college years;
- engage students in carrying out scientific investigations of their topics of interests in a research group that matches their interests;
- prepare the students for summer internships and future careers in science.

Kimberly Powers has taught CHEM 199FY in 2019 and 2020. Yi Lu has taught CHEM 199L since 2003. They have tested all of the above practices and now are ready to convert them into CHEM 150 and CHEM 152, respectively. Note that while CHEM 199FY will translate directly to CHEM 150 (with some components from CHEM 199L), there will be some changes from CHEM 199L to CHEM 152, as described in the separate New Course Outline documents.

The proposed CHEM courses are similar to first-year courses offered or required in other LAS departments, such as such as BIOC 190 (Biochemistry Orientation), CHBE 121 (CHBE Profession),. ECON 198 (Economics at Illinois), PHYS 110 (Physics Careers), and PSYC 102 (Psych Orientation).

3) In addition, please provide an answer as to how your undergraduate degree (120 hours of coursework) will satisfy this requirement: IBHE requires that all degree programs contain at least 40 credit hours in upper division courses. Upper division courses have been described as 300- and 400-level coursework and some 200-level courses in which multiple prerequisites are required.

The combined 2 credit hours of CHEM 150 (1 hour) and CHEM 152 (1 hour) can be accommodated in the current 120 hours of coursework requirement, without affecting the minimum of 40 credit hours in upper-division courses. See the highlighted entries in the accompanying tables (separate document).

Is this program interdisciplinary? No.

If a proposal for a concentration-

will you admit to the concentration directly? n/a

is a concentration required for graduation? n/a

Will specialized accreditation be sought for this program? No. The BS in Chemistry degree is already certified by the American Chemical Society (ACS).

ADMISSION REQUIREMENTS

1) Desired admissions term: *For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year*

Fall, 2021
Is this revision a change to the admission status of the program? No**.**

2) Provide a brief narrative description of the admission requirements for this program. Where relevant, include information about licensure requirements, student background checks, GRE and TOEFL scores, and admission requirements for transfer students. (degrees, majors, concentrations ONLY). n/a

3) Describe how critical academic functions such as admissions and student advising are managed. n/a

ENROLLMENT – n/a

1) Describe how this revision will impact enrollment and degrees awarded.

2) Estimated Annual Number of Degrees Awarded **(degrees, majors, concentrations ONLY)**

Year 1:

Year 5 (or when fully implemented):

3) What is the matriculation term for this program? Fall OR Spring/summer/other

4) What is the typical time to completion of this program?

Note: grad certificates require at least 10 weeks. Other examples: BALAS= 4years, MA=2.5 years

5) What are the minimum Total Credit Hours required for this program?

6) Delivery Method, what is the program's primary delivery method?

Face to Face; Online & Face to Face; Online Only; Other- specify

If NOT face to face, please describe the use of this delivery method:

5) MINORS ONLY:

Will the department limit enrollment in the minor?

Describe how the department will monitor admission to/enrollment in the minor.

Are there any prerequisites for the proposed minor? If yes, please list the courses and whether or not these course count in the total hours for the minor.

Other than certification via the students' degree audits, is there any additional planned mechanism to award/honor successful completion of the minor? If yes, please describe.

BUDGET

1) Please describe any budgetary implications for this revision- addressing applicable personnel, facilities, technology and supply costs.

2) Will the revision require staffing (faculty, advisors, etc.) beyond what is currently available? If yes, please describe.

No

3) Please provide any additional budget information needed to effectively evaluate the proposal.

We have used unpaid peer mentors in the teaching of both CHEM 199FY (150) and CHEM 199L (152). Because the peer mentors receive course credit for their role, there is no budget impact in that regard. The use of unpaid peer mentors will continue for both CHEM 150 and CHEM 152.

The teaching of CHEM 199L has involved both graduate TAs and undergraduate student hourly TAs, and this will continue with the course formally offered as CHEM 152. There will likely be a slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152.

RESOURCE IMPLICATIONS

1) Facilities- Will the program require new or additional facilities or significant improvements to already existing facilities? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

2) Technology- Will the program need additional technology beyond what is currently available for the unit? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

3) Non-Technical Resources- Will the program require additional supplies, services or equipment (non-technical)? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

RESOURCES

1) 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.

There is no impact on faculty resources. Kimberly Powers has been teaching CHEM 199FY, which will be converted to CHEM 150 in this revised curriculum. Once approved, she will teach CHEM 150. Similarly, Yi Lu has been teaching CHEM 199L, which will be converted to CHEM 152. Once approved, he will teach CHEM 152. Even if different people later teach CHEM 150 and 152, there will still be one person teaching each course, so there will be no change in overall teaching loads. SCS Advising has already been advising Chemistry majors with regard to CHEM 199FY and CHEM 199L, and this advising will continue when these courses are offered as CHEM 150 and CHEM 152.

2) 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.
No

3) 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? If yes, please describe.
No

4) Does this new program/proposed change result in the replacement of another program? If yes, please specify the program.
No

5) Does the program include any required or recommended subjects that are offered by other departments? If yes, please list the courses. Explain how these additional courses will be used by the program and provide letters of support from the departments.
No

FINANCIAL RESOURCES

1) How does the unit intend to financially support this proposal?
The primary recurring financial impact on the Department of Chemistry will be the slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152. This is a relatively small financial burden in the context of Chemistry's overall TA budget.

2) Will the unit need to seek campus or other external resources? If yes, please provide a summary of the sources and an indication of the approved support.
No

3) Are you seeking a change in the tuition rate or differential for this program? (degrees, majors, concentrations ONLY) *If this program requires a tuition or differential change, initiate a discussion with the LAS curricula contact, LAS budget officer, and LAS Associate Dean.*
No

4) Is this program requesting self-supporting status? (degrees, majors and concentrations ONLY)? If yes, please explain.
No

PROGRAM REGULATION & ASSESSMENT

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

In addition to campus ICES forms at the end of the semester, we will use a combination of the Classroom Undergraduate Research Experience (CURE) survey and students' interviews to assess and improve student learning.

1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by many institutions. The survey utilizes questions from pretest at the beginning of the semester and posttest at the end of the semester to assess student learning. The survey is "open source" – any higher education organization or program that has classroom or laboratory components of undergraduate research education can access and freely distribute the survey to students. Having been vetted and utilized nationally, the survey is additionally useful in that a baseline of mean ratings by a reference cohort is reported and contrasted to our institution's results. Yi Lu has used this survey to assess CHEM 199L previously. See Denofrio LA, Russell B, Lopatto D & Lu Y (2007) Mentoring: Linking student interests to science curricula. Science 318: 1872-1873.

2. Interviews: we will conduct interviews of the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.

We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

2) Is the career/profession for graduates of this program regulated by the State of Illinois? If yes, please describe.
No

ACADEMIC CATALOG ENTRY

1) All proposals must submit the major requirements (courses, hours) for the proposed curricula. Please see the University of Illinois Academic Catalog- http://catalog.illinois.edu/ for your unit for an example of the entry.

CHEM 150: First Semester Success in Chem

CHEM 150		Lecture-Discussion	D	02:00PM - 02:50PM	M	165 Noyes Laboratory	Powers, K

Availability	Yes
Credit	1 hours
Date Range	Meets 08/24/20-10/16/20
Part of Term	A

Section Info	First Semester Experience course to help first year Chemistry students learn about department and campus resources, develop successful study skills and habits, and begin to explore the career options related to their major. Class time will be structured around lectures, site visits, and student discussion.
Restriction(s)	For Chemistry (BS & BSLAS) majors only; freshmen only

CHEM 152: College Success in Chemistry

CHEM 152		Lecture-Discussion	L-D	12:00PM - 12:50PM	WF	165 Noyes Laboratory	Lu, Y

Availability	Yes
Credit	1 hours
Date Range	Meets 01/21/20-05/06/20
Part of Term	1
Section Info	The goal is to strengthen the link between science curricula and students' interests and individual needs, through: 1) using students' interests as the starting and focal points to guide the content of the course, 2) creating a supportive and communicative learning environment using peer mentoring and the structure of a scientific research group as cornerstones in the curricular design, and 3) emphasizing the individual experiences and anticipating needs of the students while encouraging students to engage in authentic scientific research as undergraduates. The Chemistry course is delivered through a series of programs and activities, including skill lectures on scientific literature and research, peer mentoring, small group meetings, literature reviews, special topics discussions on science and public policy, technical writing seminars, and research investigation.
Restriction(s)	For Chemistry (BS & BSLAS) majors only (required for Chemistry (BS) majors and optional for Chemistry (BSLAS) majors); freshmen only

2) Include a comparative table of the current and proposed requirements.

Please see tables in accompanying document.

Comparative Table of Proposed Changes

Current Requirements	Current Hours	Proposed Requirements	Proposed Hours

Current & Proposed requirements for **Chemistry, BSLAS (degree of Bachelor of Science in Liberal Arts and Sciences Major in Chemistry)**:
http://catalog.illinois.edu/undergraduate/las/chemistry-bslas/#degreerequirementstext

Includes all details about current curriculum and proposed changes. Changes are highlighted in green. Footnotes from the original catalog entry have been included, along with an update for CHEM 150 for transfer students (also highlighted in green).

Current Requirements	Current Hours	Proposed Requirements	Proposed Hours
Chemistry and biochemistry courses including:[1] [2] CHEM 440 (4) or CHEM 442 (4)	22-26	Chemistry and biochemistry courses including: CHEM 440 (4) or 442 (4) and CHEM 150 (1)[3]	22-26*
Two other 300 or 400-level courses, at least one of which must be outside Physical Chemistry	4-8	Two other 300 or 400-level courses, at least one of which must be outside Physical Chemistry	4-8
MATH 220 or 221	4-5	MATH 220 or 221	4-5
MATH 231	3	MATH 231	3
MATH 241	4	MATH 241	4
Select one of the following: PHYS 101 & 102 or PHYS 211 & 212	8-10	Select one of the following: PHYS 101 & 102 or PHYS 211 & 212	8-10

*With this curriculum revision, the overall hours required for the BSLAS in Chemistry degree does not change. Instead, 1 hour of the 22-26 hours requirement is specified as CHEM 150. This is analogous to how that 4 hours of the 22-26 hours are currently specified as Physical Chemistry (CHEM 440 or 442).

[1] Excluding CHEM 101, CHEM 108, and CHEM 199.
[2] *No more than 10 hours of the following courses may count toward the 22-26 hours in Chemistry: CHEM 197, CHEM 199, CHEM 297, CHEM 397, CHEM 496, CHEM 497, and CHEM 499.*
[3] On- and off-campus transfer students in the BSLAS curriculum may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.

10KV3918BSLA: CHEMISTRY: CHEMISTRY TEACHING OPTION, BSLAS

In Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1413 Head (sks@illinois.edu)
3. SOCS Head (jsweedle@illinois.edu; dambache@illinois.edu)
4. KV Dean (las-catalog@illinois.edu)
5. University Librarian (jpwilkin@illinois.edu)
6. COTE Programs (nilatha@illinois.edu; bmclvngr@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Tue, 19 Jan 2021 17:10:52 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Tue, 19 Jan 2021 20:46:21 GMT
   Scott Silverman (sks): Approved for 1413 Head
3. Tue, 19 Jan 2021 22:58:45 GMT
   Jonathan Sweedler (jsweedle): Approved for SOCS Head
4. Tue, 19 Jan 2021 22:59:38 GMT
   Kelly Ritter (ritterk): Approved for KV Dean
5. Tue, 19 Jan 2021 23:07:51 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
6. Wed, 20 Jan 2021 15:12:31 GMT
   Brenda Clevenger (bmclvngr): Approved for COTE Programs
7. Wed, 20 Jan 2021 18:44:02 GMT
   Kathy Martensen (kmartens): Approved for Provost

History

1. Mar 30, 2019 by Deb Forgacs (dforgacs)

Date Submitted:Mon, 18 Jan 2021 22:38:03 GMT

Viewing:10KV3918BSLA : Chemistry: Chemistry Teaching Option, BSLAS

Changes proposed by: Amy Elli

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

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*

Administrative approval: Update the BS in Chemistry and the BSLAS in Chemistry to include required new first-year experience in Chemistry courses, CHEM 150 (BS, BSLAS) and CHEM 152 (BS only)

EP Control Number

EP.21.039

Official Program Name

Chemistry: Chemistry Teaching Option, BSLAS

Effective Catalog Term

Fall 2021

Sponsor College

Liberal Arts & Sciences

Sponsor Department

Chemistry

Sponsor Name

Scott K. Silverman

Sponsor Email

sks@illinois.edu

College Contact

Kelly Ritter

College Contact Email

ritterk@illinois.edu

Program Description and Justification

Justification for proposal change:

The Department of Chemistry proposes to require students in the BS in Chemistry and BSLAS in Chemistry degree to take either one or two new First-Year Experience in Chemistry courses — CHEM 150 (1 hour) and CHEM 152 (1 hour) — as follows. See the highlighted entries in the accompanying tables (separate document), and see the two separately provided New Course Outline documents for CHEM 150 and 152.

All new first-year students in the BSLAS in Chemistry degree, including those in the Chemistry Teaching Concentration, will be required to take CHEM 150 (1 hour) in their first semester. However, students in the CS+Chemistry major will not be required to take CHEM 150, because they are already taking CS 101.
For the BSLAS in Chemistry with the Chemistry Teaching Concentration, 1 hour is added to the additional requirements, so the student must take a total of 76-77 hours rather than 75-76 hours. The hour will not be subtracted from any other categories, in part because these requirements are all part of a certification program. It is not necessary to subtract any hours because the current total requirements for the degree add up to less than the 120 hours minimum required.
The objective of creating the two new courses CHEM 150 and 152 is to recruit, educate, and retain undergraduate students who are interested in chemistry majors. We found from our experience that many first-year students feel lost during the first year in college, resulting in poor performance and dropping out of the program or even the university entirely. Even though LAS has a course (LAS 101) called Design Your First Year Experience, our survey of BS and BSLAS in Chemistry students found that LAS 101 is not specific enough to cater to the needs of our Chemistry students who face special challenges in their own major and need more personalized help to navigate the curriculum and to plan their careers in college and beyond.
The two courses build upon current understandings of science education and innovations and address a fundamental issue in that the starting/focal point of course instruction is often course content instead of students' interests or individual experiences, resulting in a weak link between the courses and students' interests and experiences. By using students' interests as the starting point to guide the content of the course, by emphasizing the individual experience and needs of the students, and by creating a supportive and communicative learning community, the two courses will strengthen the currently weak link between science course content and students' interests and individuality.
Specifically, the two new courses CHEM 150 and 152 will
- operate in tandem with traditional science courses,
- use students' scientific interests as the starting and focal points of course instruction and provide direct links between course content and the students' backgrounds and interests;
- personalize the students' individual experiences through exploration of their interests via critical literature survey and laboratory exploration;
- model interdisciplinary research groups, a hallmark of American graduate education, in undergraduate courses by building a community of students with similar interests;
- promote peer mentoring involving students from all levels of college years in the same course;
- improve students' competencies in scientific research through building research skills, such as searching the chemical literature and writing scientifically, early and throughout the college years;
- engage students in carrying out scientific investigations of their topics of interests in a research group that matches their interests;
- prepare the students for summer internships and future careers in science.

Kimberly Powers has taught CHEM 199FY in 2019 and 2020. Yi Lu has taught CHEM 199L since 2003. They have tested all of the above practices and now are ready to convert them into CHEM 150 and CHEM 152, respectively. Note that while CHEM 199FY will translate directly to CHEM 150 (with some components from CHEM 199L), there will be some changes from CHEM 199L to CHEM 152, as described in the separate New Course Outline documents.

The proposed CHEM courses are similar to first-year courses offered or required in other LAS departments, such as such as BIOC 190 (Biochemistry Orientation), CHBE 121 (CHBE Profession), ECON 198 (Economics at Illinois), PHYS 110 (Physics Careers), and PSYC 102 (Psych Orientation).

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Chemistry, BSLAS

Academic Level

Undergraduate

Is This a Teacher Certification Program?

Yes

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

The department does not anticipate any impact to enrollment or degrees awarded.

What is the typical time to completion of this program?

4 years

What are the minimum Total Credit Hours required for this program?

120

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

Additional Budget Information

We have used unpaid peer mentors in the teaching of both CHEM 199FY (150) and CHEM 199L (152). Because the peer mentors receive course credit for their role, there is no budget impact in that regard. The use of unpaid peer mentors will continue for both CHEM 150 and CHEM 152.
The teaching of CHEM 199L has involved both graduate TAs and undergraduate student hourly TAs, and this will continue with the course formally offered as CHEM 152. There will likely be a slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152.

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

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.

There is no impact on faculty resources. Kimberly Powers has been teaching CHEM 199FY, which will be converted to CHEM 150 in this revised curriculum. Once approved, she will teach CHEM 150. Similarly, Yi Lu has been teaching CHEM 199L, which will be converted to CHEM 152. Once approved, he will teach CHEM 152. Even if different people later teach CHEM 150 and 152, there will still be one person teaching each course, so there will be no change in overall teaching loads. SCS Advising has already been advising Chemistry majors with regard to CHEM 199FY and CHEM 199L, and this advising will continue when these courses are offered as CHEM 150 and CHEM 152.

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.

None

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 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?

The primary recurring financial impact on the Department of Chemistry will be the slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152. This is a relatively small financial burden in the context of Chemistry's overall TA budget.

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

No

Program Regulation and Assessment

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

In addition to campus ICES forms at the end of the semester, we will use a combination of the Classroom Undergraduate Research Experience (CURE) survey and students' interviews to assess and improve student learning.

1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by many institutions. The survey utilizes questions from pretest at the beginning of the semester and posttest at the end of the semester to assess student learning. The survey is "open source" – any higher education organization or program that has classroom or laboratory components of undergraduate research education can access and freely distribute the survey to students. Having been vetted and utilized nationally, the survey is additionally useful in that a baseline of mean ratings by a reference cohort is reported and contrasted to our institution's results. Yi Lu has used this survey to assess CHEM 199L previously. See Denofrio LA, Russell B, Lopatto D & Lu Y (2007) Mentoring: Linking student interests to science curricula. Science 318: 1872-1873.

2. Interviews: we will conduct interviews of the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.

We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

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.

Revised programs

01 Chem BS and BSLAS Curricula Revised.docx
Chemistry BSLAS Teaching Concentration Comparative Table.docx

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Code	Title	Hours
Foundation Courses		
The following courses must be completed or in progress when students apply to the Secondary Education minor.		
Select one group of courses (Accelerated or General Chemistry):		10-12
CHEM 202	Accelerated Chemistry I	
& CHEM 203	and Accelerated Chemistry Lab I	
& CHEM 204	and Accelerated Chemistry II	
& CHEM 205	and Accelerated Chemistry Lab II	
or		
CHEM 102	General Chemistry I	
& CHEM 103	and General Chemistry Lab I	
& CHEM 104	and General Chemistry II	
& CHEM 105	and General Chemistry Lab II	
& CHEM 222	and Quantitative Analysis Lecture	
& CHEM 223	and Quantitative Analysis Lab	
Select one of the following Organic Chemistry course groups:		5-6
CHEM 236	Fundamental Organic Chem I	
& CHEM 237	and Structure and Synthesis	
or		
CHEM 232	Elementary Organic Chemistry I	
& CHEM 233	and Elementary Organic Chem Lab I	
MATH 220	Calculus	4-5
or MATH 221	Calculus I	
MATH 231	Calculus II	3
Additional Required Coursework		
Teacher Education Minor in Secondary School Teaching (http://catalog.illinois.edu/undergraduate/education/secondary/)		39
CHEM 495	Teaching Secondary Chemistry	4
CHEM 150	First Semester Success in Chemistry[1]	1
CHEM 440	Physical Chemistry Principles	4
or CHEM 442	Physical Chemistry I	
At least four additional hours of 300- or 400-level chemistry and/or biochemistry course work.		4
ASTR 100	Introduction to Astronomy	3
GEOL 107	Physical Geology	4
IB 100	Biology in Today's World	3

MATH 241	Calculus III	4
PHYS 211	University Physics: Mechanics	4
PHYS 212	University Physics: Elec & Mag	4
PHYS 214	Univ Physics: Quantum Physics	2

[1] On- and off-campus transfer students in the BSLAS curriculum may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from CHEM 297, CHEM 397, CHEM 496, CHEM 497, CHEM 499.

EP Documentation

DMI Documentation

Banner/Codebook Name

BSLAS:Chemistry:Teach Op-UIUC

Program Code:

10KV3918BSLA

Conc Code

3918

Degree Code

BSLAS

Major Code

0335

Program Reviewer Comments

Kathy Martensen (kmartens) (Wed, 20 Jan 2021 18:43:30 GMT): Admin approval: No change to total hours required for the degree. Although free electives are reduced, there is no change to the # of Core Chemistry courses required for the major.

Key: 692

Proposal for revised curricula (degree, major, concentration, minor)

Submit completed proposals via email to Associate Dean Kelly Ritter (ritterk@illinois.edu). Please obtain Executive Officer and School Director (if applicable) approval via email and forward with the proposal to LAS.

Proposal Title: **Proposal to update the BS in Chemistry and the BSLAS in Chemistry to include required new first-year experience in Chemistry courses, CHEM 150 (BS, BSLAS) and CHEM 152 (BS only)**

Proposed effective date: **Fall 2021** *(Proposals may not be implemented until they go through all necessary levels of approval. Proposed changes may not be publicized as final on any web sites, printed documents, etc. until written confirmation of final approval is issued. For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year).*

Sponsor(s): *(Please include name, title, and email address of a faculty member knowledgeable about the proposal who will serve as the primary contact for the proposal. This person must be authorized to make changes in the proposal on behalf of the department. In case of multiple units, give information for each unit.)* **Prof. Scott K. Silverman, Associate Head of Budget and Operations, Department of Chemistry, sks@illinois.edu**

College contact: Kelly Ritter, Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, ritterk@illinois.edu

For Minors ONLY-

1) Is this minor:

- **A comprehensive study in a single discipline**
- **An interdisciplinary study focusing on a single theme**
- **Exception**

PROGRAM DESCRIPTION and JUSTIFICATION

1) **Provide a brief description but concise description of your proposal.** For example, if proposing revisions to a curriculum, state specifically what is changing. Where applicable, note whether stated program changes include additional requirements in the form of prerequisite courses. Requests for curriculum revisions must be accompanied by a table which clearly outlines the current requirements and the proposed revisions. This information may be submitted as an appendix. See Appendix A for an example. Please provide pertinent information only.

The Department of Chemistry proposes to require students in the BS in Chemistry and BSLAS in Chemistry degree to take either one two new First-Year Experience in Chemistry courses — **CHEM 150 (1 hour)** and

CHEM 152 (1 hour) — as follows. See the highlighted entries in the accompanying tables (separate document), and see the two separately provided New Course Outline documents for CHEM 150 and 152.

1) All new first-year students in the **BS in Chemistry degree**, including those in the **Environmental Chemistry Concentration**, will be required to take CHEM 150 (1 hour) in their first semester and CHEM 152 (1 hour) in their second semester. CHEM 150 will focus on successfully transitioning into a STEM major. CHEM 152 will focus in on using students' interests in a particular area of science as the engaging point of instruction and using peer mentors to help the students to (a) design curricula, (b) develop skills, and (c) plan extracurricular activities including research to explore those interests to seek out research positions, which are an important component of the BS in Chemistry degree. These combined 2 credit hours will be added to the Core Chemistry requirements, increasing those requirements from 36 to 38 hours. To account for this increase, 2 hours will be removed from the current 31 hours of required free electives, reducing those requirements from 31 to 29 hours.

2) All new first-year students in the **BSLAS in Chemistry degree**, including those in the **Chemistry Teaching Concentration**, will be required to take CHEM 150 (1 hour) in their first semester. However, students in the CS+Chemistry major will not be required to take CHEM 150, because they are already taking CS 101.

For the BSLAS in Chemistry, 1 hour out of the 22-26 hours required for the degree is now specified for CHEM 150. No hours are subtracted from any other degree requirements.

For the BSLAS in Chemistry with the Chemistry Teaching Concentration, 1 hour is added to the additional requirements, so the student must take a total of 76-77 hours rather than 75-76 hours. The hour will not be subtracted from any other categories, in part because these requirements are all part of a certification program. It is not necessary to subtract any hours because the current total requirements for the degree add up to less than the 120 hours minimum required.

On- and off-campus students who **transfer** into the BS in Chemistry or BSLAS in Chemistry degrees will be allowed to substitute other courses for CHEM 150, as follows:

1) BS in Chemistry – Transfer students may substitute 1 additional hour of 200 level or higher Chemistry (including CHEM 297, 397, 496, 497, or 499) for CHEM 150. This may not include CHEM 222 or 223 for students who took the CHEM 102, 103, 104, & 105 sequence instead of CHEM 202, 203, 204, & 205.
2) BSLAS in Chemistry – Transfer students may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.

Transfer students in the BS in Chemistry program must take CHEM 152, and no substitutions will be allowed.

2) **Provide a justification of the program**, including how your unit decided to create this program, highlights of the program objectives, and the careers, occupations, or further educational opportunities for which the program will prepare graduates, when appropriate.

The objective of creating the two new courses CHEM 150 and 152 is to recruit, educate, and retain undergraduate students who are interested in chemistry majors. We found from our experience that many first-year students feel lost during the first year in college, resulting in poor performance and dropping out of the program or even the university entirely. Even though LAS has a course (LAS 101) called Design Your First Year Experience, our survey of BS and BSLAS in Chemistry students found that LAS 101 is not specific enough to cater to the needs of our Chemistry students who face special challenges in their own major and need more personalized help to navigate the curriculum and to plan their careers in college and beyond.

The two courses build upon current understandings of science education and innovations and address a fundamental issue in that the starting/focal point of course instruction is often course content instead of students' interests or individual experiences, resulting in a weak link between the courses and students' interests and experiences. By using students' interests as the starting point to guide the content of the course, by emphasizing the individual experience and needs of the students, and by creating a supportive and communicative learning community, the two courses will strengthen the currently weak link between science course content and students' interests and individuality.

Specifically, the two new courses CHEM 150 and 152 will

- operate in tandem with traditional science courses,
- use students' scientific interests as the starting and focal points of course instruction and provide direct links between course content and the students' backgrounds and interests;
- personalize the students' individual experiences through exploration of their interests via critical literature survey and laboratory exploration;
- model interdisciplinary research groups, a hallmark of American graduate education, in undergraduate courses by building a community of students with similar interests;
- promote peer mentoring involving students from all levels of college years in the same course;
- improve students' competencies in scientific research through building research skills, such as searching the chemical literature and writing scientifically, early and throughout the college years;
- engage students in carrying out scientific investigations of their topics of interests in a research group that matches their interests;
- prepare the students for summer internships and future careers in science.

Kimberly Powers has taught CHEM 199FY in 2019 and 2020. Yi Lu has taught CHEM 199L since 2003. They have tested all of the above practices and now are ready to convert them into CHEM 150 and CHEM 152, respectively. Note that while CHEM 199FY will translate directly to CHEM 150 (with some components from CHEM 199L), there will be some changes from CHEM 199L to CHEM 152, as described in the separate New Course Outline documents.

The proposed CHEM courses are similar to first-year courses offered or required in other LAS departments, such as such as BIOC 190 (Biochemistry Orientation), CHBE 121 (CHBE Profession),. ECON 198 (Economics at Illinois), PHYS 110 (Physics Careers), and PSYC 102 (Psych Orientation).

3) In addition, please provide an answer as to how your undergraduate degree (120 hours of coursework) will satisfy this requirement: IBHE requires that all degree programs contain at least 40 credit hours in upper division courses. Upper division courses have been described as 300- and 400-level coursework and some 200-level courses in which multiple prerequisites are required.

The combined 2 credit hours of CHEM 150 (1 hour) and CHEM 152 (1 hour) can be accommodated in the current 120 hours of coursework requirement, without affecting the minimum of 40 credit hours in upper-division courses. See the highlighted entries in the accompanying tables (separate document).

Is this program interdisciplinary? No.

If a proposal for a concentration-

will you admit to the concentration directly? n/a

is a concentration required for graduation? n/a

Will specialized accreditation be sought for this program? No. The BS in Chemistry degree is already certified by the American Chemical Society (ACS).

ADMISSION REQUIREMENTS

1) Desired admissions term: *For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year*

Fall, 2021
Is this revision a change to the admission status of the program? No**.**

2) Provide a brief narrative description of the admission requirements for this program. Where relevant, include information about licensure requirements, student background checks, GRE and TOEFL scores, and admission requirements for transfer students. (degrees, majors, concentrations ONLY). n/a

3) Describe how critical academic functions such as admissions and student advising are managed. n/a

ENROLLMENT – n/a

1) Describe how this revision will impact enrollment and degrees awarded.

2) Estimated Annual Number of Degrees Awarded **(degrees, majors, concentrations ONLY)**

Year 1:

Year 5 (or when fully implemented):

3) What is the matriculation term for this program? Fall OR Spring/summer/other

4) What is the typical time to completion of this program?

Note: grad certificates require at least 10 weeks. Other examples: BALAS= 4years, MA=2.5 years

5) What are the minimum Total Credit Hours required for this program?

6) Delivery Method, what is the program's primary delivery method?

Face to Face; Online & Face to Face; Online Only; Other- specify

If NOT face to face, please describe the use of this delivery method:

5) MINORS ONLY:

Will the department limit enrollment in the minor?

Describe how the department will monitor admission to/enrollment in the minor.

Are there any prerequisites for the proposed minor? If yes, please list the courses and whether or not these course count in the total hours for the minor.

Other than certification via the students' degree audits, is there any additional planned mechanism to award/honor successful completion of the minor? If yes, please describe.

BUDGET

1) Please describe any budgetary implications for this revision- addressing applicable personnel, facilities, technology and supply costs.

2) Will the revision require staffing (faculty, advisors, etc.) beyond what is currently available? If yes, please describe.

No

3) Please provide any additional budget information needed to effectively evaluate the proposal.

We have used unpaid peer mentors in the teaching of both CHEM 199FY (150) and CHEM 199L (152). Because the peer mentors receive course credit for their role, there is no budget impact in that regard. The use of unpaid peer mentors will continue for both CHEM 150 and CHEM 152.

The teaching of CHEM 199L has involved both graduate TAs and undergraduate student hourly TAs, and this will continue with the course formally offered as CHEM 152. There will likely be a slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152.

RESOURCE IMPLICATIONS

1) Facilities- Will the program require new or additional facilities or significant improvements to already existing facilities? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

2) Technology- Will the program need additional technology beyond what is currently available for the unit? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

3) Non-Technical Resources- Will the program require additional supplies, services or equipment (non-technical)? If yes, please outline the specific need and Year 1 and Year 5 cost.
No

RESOURCES

1) 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.

There is no impact on faculty resources. Kimberly Powers has been teaching CHEM 199FY, which will be converted to CHEM 150 in this revised curriculum. Once approved, she will teach CHEM 150. Similarly, Yi Lu has been teaching CHEM 199L, which will be converted to CHEM 152. Once approved, he will teach CHEM 152. Even if different people later teach CHEM 150 and 152, there will still be one person teaching each course, so there will be no change in overall teaching loads. SCS Advising has already been advising Chemistry majors with regard to CHEM 199FY and CHEM 199L, and this advising will continue when these courses are offered as CHEM 150 and CHEM 152.

2) 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.
No

3) 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? If yes, please describe.
No

4) Does this new program/proposed change result in the replacement of another program? If yes, please specify the program.
No

5) Does the program include any required or recommended subjects that are offered by other departments? If yes, please list the courses. Explain how these additional courses will be used by the program and provide letters of support from the departments.
No

FINANCIAL RESOURCES

1) How does the unit intend to financially support this proposal?
The primary recurring financial impact on the Department of Chemistry will be the slight increase in the graduate TA usage (e.g., from 0.75 FTE per semester to 1.0 FTE per semester), to accommodate the increased enrollment due to the now-required nature of CHEM 152. This is a relatively small financial burden in the context of Chemistry's overall TA budget.

2) Will the unit need to seek campus or other external resources? If yes, please provide a summary of the sources and an indication of the approved support.
No

3) Are you seeking a change in the tuition rate or differential for this program? (degrees, majors, concentrations ONLY) *If this program requires a tuition or differential change, initiate a discussion with the LAS curricula contact, LAS budget officer, and LAS Associate Dean.*
No

4) Is this program requesting self-supporting status? (degrees, majors and concentrations ONLY)? If yes, please explain.
No

PROGRAM REGULATION & ASSESSMENT

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

In addition to campus ICES forms at the end of the semester, we will use a combination of the Classroom Undergraduate Research Experience (CURE) survey and students' interviews to assess and improve student learning.

1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by many institutions. The survey utilizes questions from pretest at the beginning of the semester and posttest at the end of the semester to assess student learning. The survey is "open source" – any higher education organization or program that has classroom or laboratory components of undergraduate research education can access and freely distribute the survey to students. Having been vetted and utilized nationally, the survey is additionally useful in that a baseline of mean ratings by a reference cohort is reported and contrasted to our institution's results. Yi Lu has used this survey to assess CHEM 199L previously. See Denofrio LA, Russell B, Lopatto D & Lu Y (2007) Mentoring: Linking student interests to science curricula. Science 318: 1872-1873.

2. Interviews: we will conduct interviews of the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.

We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

2) Is the career/profession for graduates of this program regulated by the State of Illinois? If yes, please describe.
No

ACADEMIC CATALOG ENTRY

1) All proposals must submit the major requirements (courses, hours) for the proposed curricula. Please see the University of Illinois Academic Catalog- http://catalog.illinois.edu/ for your unit for an example of the entry.

CHEM 150: First Semester Success in Chem

CHEM 150		Lecture-Discussion	D	02:00PM - 02:50PM	M	165 Noyes Laboratory	Powers, K

Availability	Yes
Credit	1 hours
Date Range	Meets 08/24/20-10/16/20
Part of Term	A

Section Info	First Semester Experience course to help first year Chemistry students learn about department and campus resources, develop successful study skills and habits, and begin to explore the career options related to their major. Class time will be structured around lectures, site visits, and student discussion.
Restriction(s)	For Chemistry (BS & BSLAS) majors only; freshmen only

CHEM 152: College Success in Chemistry

CHEM 152		Lecture-Discussion	L-D	12:00PM - 12:50PM	WF	165 Noyes Laboratory	Lu, Y

Availability	Yes
Credit	1 hours
Date Range	Meets 01/21/20-05/06/20
Part of Term	1
Section Info	The goal is to strengthen the link between science curricula and students' interests and individual needs, through: 1) using students' interests as the starting and focal points to guide the content of the course, 2) creating a supportive and communicative learning environment using peer mentoring and the structure of a scientific research group as cornerstones in the curricular design, and 3) emphasizing the individual experiences and anticipating needs of the students while encouraging students to engage in authentic scientific research as undergraduates. The Chemistry course is delivered through a series of programs and activities, including skill lectures on scientific literature and research, peer mentoring, small group meetings, literature reviews, special topics discussions on science and public policy, technical writing seminars, and research investigation.
Restriction(s)	For Chemistry (BS & BSLAS) majors only (required for Chemistry (BS) majors and optional for Chemistry (BSLAS) majors); freshmen only

2) Include a comparative table of the current and proposed requirements.

Please see tables in accompanying document.

Comparative Table of Proposed Changes

Current Requirements	Current Hours	Proposed Requirements	Proposed Hours

Current & Proposed requirements for Chemistry Teaching, BSLAS (degree of Bachelor of Science in Liberal Arts and Sciences Major in Chemistry, **Chemistry Teaching Concentration**): http://catalog.illinois.edu/undergraduate/las/chemistry-bslas/chemistry-teaching/#degreerequirementstext

Current Requirements	Current Hours	Proposed Requirements	Proposed Hours
Accelerated or General Chemistry sequence: CHEM 202, 203, 204, & 205 OR CHEM 102, 103, 104, 105, 222, & 223	10-12	Accelerated or General Chemistry sequence: CHEM 202, 203, 204, & 205 OR CHEM 102, 103, 104, 105, 222, & 223	10-12
Select 1 Organic Chem sequence: CHEM 236 & 237 OR CHEM 232 & 233	5-6	Select 1 Organic Chem sequence: CHEM 236 & 237 OR CHEM 232 & 233	5-6
MATH 220 or 221	4-5	MATH 220 or 221	4-5
MATH 231	3	MATH 231	3
Additional required coursework: CHEM 495 (4) CHEM 440 or 442 (4) At least 4 additional hours of 300 or 400-level Chemistry and/or Biochemistry coursework (4) ASTR 100 (3) GEOL 107 (4) IB 100 (3) MATH 241 (4) PHYS 211 (4) PHYS 212 (4) PHYS 214 (2) Teacher Education Minor in Secondary School Teaching (see below for details, 39-40 hours)	75-76	Additional required coursework: CHEM 495 (4) CHEM 440 or 442 (4) At least 4 additional hours of 300 or 400-level Chemistry and/or Biochemistry coursework (4) CHEM 150 (1)[1] ASTR 100 (3) GEOL 107 (4) IB 100 (3) MATH 241 (4) PHYS 211 (4) PHYS 212 (4) PHYS 214 (2) Teacher Education Minor in Secondary School Teaching (see below for details, 39-40 hours)	76-77

[1] On- and off-campus transfer students in the BSLAS curriculum may substitute CHEM 152 for CHEM 150. Alternatively, transfer students may elect to take an additional 1 hour of 200 level or higher Chemistry, including CHEM 297, 397, 496, 497, or 499 as long as no more than 10 total hours of the total 22-26 required Chemistry hours come from 297/397/496/497/499.

Requirements for the Teacher Education in Secondary School Teaching Minor

Professional Education Required Courses		
EDUC 201	Identity and Difference in Education [1]	3
EDUC 202	Social Justice, School and Society [1]	3
CI 401	Introductory Teaching in a Diverse Society	3
CI 403	Teaching a Diverse High School Student Population	3
CI 404	Teaching and Assessing Secondary School Students	3
CI 473	Disciplinary Literacy	3
EPSY 201	Educational Psychology [1, 2]	3
EPSY 485	Assessing Student Performance	3
SPED 405	General Educator's Role in Special Education	3
EDPR 442	Educational Practice in Secondary Education	12
Total Hours		**39-40**

10KS5100MS: BIOINFORMATICS: CROP SCIENCES, MS

Completed Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1802 Committee Chair (arayburn@illinois.edu)
3. 1802 Head (asdavis1@illinois.edu)
4. KL Committee Chair (bjgray2@illinois.edu)
5. KL Dean (aball@illinois.edu)
6. University Librarian (jpwilkin@illinois.edu)
7. Grad_College (agrindly@illinois.edu; jch@illinois.edu; lowry@illinois.edu)
8. Provost (kmartens@illinois.edu)
9. Senate EPC (bjlehman@illinois.edu; kmartens@illinois.edu; moorhouz@illinois.edu)
10. Senate (jtempel@illinois.edu)
11. U Senate Conf (none)
12. Board of Trustees (none)
13. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path

1. Wed, 21 Oct 2020 22:04:18 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Sat, 24 Oct 2020 16:11:28 GMT
   Lane Rayburn (arayburn): Approved for 1802 Committee Chair
3. Sun, 25 Oct 2020 00:00:07 GMT
   Adam Davis (asdavis1): Approved for 1802 Head
4. Mon, 26 Oct 2020 19:50:54 GMT
   Brianna Gregg (bjgray2): Approved for KL Committee Chair
5. Mon, 26 Oct 2020 22:53:09 GMT
   Anna Ball (aball): Approved for KL Dean
6. Mon, 26 Oct 2020 23:53:15 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
7. Tue, 27 Oct 2020 18:13:53 GMT
   Allison McKinney (agrindly): Approved for Grad_College
8. Wed, 28 Oct 2020 19:58:54 GMT
   Kathy Martensen (kmartens): Approved for Provost
9. Thu, 05 Nov 2020 16:16:57 GMT
   Barbara Lehman (bjlehman): Approved for Senate EPC
10. Tue, 17 Nov 2020 16:31:54 GMT
    Jennifer Roether (jtempel): Approved for Senate
11. Tue, 24 Nov 2020 14:32:28 GMT
    Kathy Martensen (kmartens): Approved for U Senate Conf
12. Tue, 24 Nov 2020 14:35:07 GMT
    Kathy Martensen (kmartens): Approved for Board of Trustees
13. Tue, 08 Dec 2020 19:30:00 GMT
    Emily Stuby (eastuby): Approved for DMI

History

1. Sep 4, 2019 by Mary Lowry (lowry)
2. Sep 6, 2019 by Mary Lowry (lowry)
3. Dec 8, 2020 by Scott Bartlett (sbartlet)

Date Submitted:Tue, 08 Dec 2020 23:15:56 GMT

Viewing:10KS5100MS : Bioinformatics: Crop Sciences, MS

Changes proposed by: Scott Bartlett

Proposal Type

Proposal Type:

Concentration (ex. Dietetics)

This proposal is for a:

Revision

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*

Administrative approval: Revise the concentration as follows -- CPSC 564: Molecular Marker Data was recently removed since it has been deactivated (effective Spring 2021). CPSC 554: Quantitative Genetics and Genomics (new course effective Spring 2021) is replacing CPSC 564 and has been added as a course option in this program.

EP Control Number

EP.21.039

Official Program Name

Bioinformatics: Crop Sciences, MS

Effective Catalog Term

Spring 2021

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

Program Description and Justification

Justification for proposal change:

CPSC 564: Molecular Marker Data was recently removed since it has been deactivated (effective Spring 2021). CPSC 554: Quantitative Genetics and Genomics (new course effective Spring 2021) is replacing CPSC 564 and has been added as a course option in this program.

Is this program interdisciplinary?

No

Corresponding Program(s):

Corresponding Program(s)
Bioinformatics, MS

Academic Level

Graduate

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

No impact.

What is the typical time to completion of this program?

2 years

What are the minimum Total Credit Hours required for this program?

32 (Thesis), 36 (Non-Thesis)

Delivery Method

Is this program available on campus and online?

No

This program is available:

On Campus

Budget

Are there budgetary implications for this revision?

No

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

No

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

For each of these items, be sure to include in the response if the proposed new program or change will result in replacement of another program(s). If so, which program(s), what is the anticipated impact on faculty, students, and instructional resources? Please attach any letters of support/ acknowledgement from faculty, students, and/or other impacted units as appropriate.

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.

None

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.

None

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

No

Financial Resources

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

No

Is this program requesting self-supporting status?

No

Program Regulation and Assessment

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

N/A

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.

Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Statement for Programs of Study Catalog

Thesis Option

Code	Title	Hours
Biology (choose one)		4
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 446	Population Genetics	
BIOP 401	Introduction to Biophysics	
BIOP 550	Biomolecular Physics	
CPSC 452	Advanced Plant Genetics	
CPSC 466	Genomics for Plant Improvement	
CPSC 554	Quantitative Genetics and Genomics	
CPSC 563	Chromosomes	
CPSC 566	Plant Gene Regulation	
MCB 400	Cancer Cell Biology	
MCB 450	Introductory Biochemistry	
MCB 501	Advanced Biochemistry	
MCB 502	Advanced Molecular Genetics	
Fundamental Bioinformatics (choose one)		4

ANSC 542	Applied Bioinformatics	
ANSC 545	Statistical Genomics	
CHBE 571	Bioinformatics	
CPSC 567	Bioinformatics & Systems Biol	
CS 466	Introduction to Bioinformatics	
IB 467	Principles of Systematics	
MCB 432	Computing in Molecular Biology	
Computer Science and Informatics (choose one)		4
CS 411	Database Systems	
CS 466	Introduction to Bioinformatics	
CS 473	Algorithms	
CPSC 565	Perl & UNIX for Bioinformatics	
IS 455	Database Design and Prototyping	
IS 507	Data, Statistical Models and Information	
STAT 428	Statistical Computing	
STAT 440	Statistical Data Management	
STAT 448	Advanced Data Analysis	
STAT 480	Data Science Foundations	
STAT 525	Computational Statistics	
Seminar (1 per semester)		
Electives		16
CPSC 599	Thesis Research	4
or PLPA 599	Thesis Research	
Total Hours		**32**

Other Requirements

Code	Title	Hours
Other requirements and conditions may overlap		
A concentration is required		
Minimum Hours Required Within the Unit:		5
Minimum 500-level Hours Required overall:		12
Minimum GPA:		3.0

Non-Thesis Option

Code	Title	Hours
Biology (choose one)		4
ANSC 441	Human Genetics	
ANSC 444	Applied Animal Genetics	
ANSC 446	Population Genetics	
BIOP 401	Introduction to Biophysics	
BIOP 550	Biomolecular Physics	
CPSC 452	Advanced Plant Genetics	
CPSC 466	Genomics for Plant Improvement	
CPSC 554	Quantitative Genetics and Genomics	
CPSC 563	Chromosomes	
CPSC 566	Plant Gene Regulation	
MCB 400	Cancer Cell Biology	
MCB 450	Introductory Biochemistry	
MCB 501	Advanced Biochemistry	
MCB 502	Advanced Molecular Genetics	
Fundamental Bioinformatics (choose one)		4
ANSC 542	Applied Bioinformatics	
ANSC 545	Statistical Genomics	

CHBE 571	Bioinformatics	
CPSC 567	Bioinformatics & Systems Biol	
CS 466	Introduction to Bioinformatics	
IB 467	Principles of Systematics	
MCB 432	Computing in Molecular Biology	
Computer Science and Informatics (choose one)		4
CS 411	Database Systems	
CS 466	Introduction to Bioinformatics	
CS 473	Algorithms	
CPSC 565	Perl & UNIX for Bioinformatics	
IS 455	Database Design and Prototyping	
IS 507	Data, Statistical Models and Information	
STAT 428	Statistical Computing	
STAT 440	Statistical Data Management	
STAT 448	Advanced Data Analysis	
STAT 480	Data Science Foundations	
STAT 525	Computational Statistics	
Seminar (1 per semester)		
Electives		24
Total Hours		**36**

Other Requirements

Code	Title	Hours
Other requirements and conditions may overlap		
A concentration is required		
Minimum Hours Required Within the Unit:		5
Minimum 500-level Hours Required overall:		12
Minimum GPA:		3.0

EP Documentation

DMI Documentation

Banner/Codebook Name

MS: Bioinformatics: CropS-UIUC

Program Code:

10KS5100MS

Conc Code

5100

Degree Code

MS

Major Code

4026

Program Reviewer Comments

Kathy Martensen (kmartens) (Wed, 16 Dec 2020 17:53:11 GMT): Admin approval: No change to total required hours, adds to range of options available to students.

Key: 615