# University of Illinois Urbana-Champaign Senate <br> Committee on Educational Policy (Final; Information) 

EP.24.051 Report of Administrative Approvals through January 29, 2024
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 29. For each program listing, there is no change to the total hours required. Additional information for each approval is attached.

## A. Undergraduate Programs

1) Revise the Bachelor of Science in Journalism in the College of Media - updates learning outcomes, removes course from core curriculum and thus updates hours of required major courses, two instances of adding an alternative course to a core curriculum course, adds 3 courses to a choose from list, adds clarifying text, updates the Journalism elective requirement to allow any journalism course not already being used to fulfill a major requirement, and removes the breakdown of general education courses from the bottom of the table and adds General Education statement to the top of the Program of Study table.
2) Revise the Bachelor of Science in Liberal Arts and Sciences in Actuarial Science in the College of Liberal Arts \& Sciences - removes course option from choose from list, replaces one 3 credit hour required course with another required course at 4 credit hours, adds several advanced elective options from a choose from list, revises advanced electives requirement from a specific number of courses to a specific number of credits, adds LAS Orientation coursework to the Program of Study table, and revises minimum required major and supporting coursework range of hours.
3) Revise the Bachelor of Fine Arts in Dance in the College of Fine and Applied Arts - decreases 1 credit hour of DANC 360 and adds 1 credit hour of DANC 370 (thus: 1 less hour in physical practice and 1 additional hour in context) and adds advanced hours statement to program of study table.
4) Revise the Bachelor of Science in Chemistry in the College of Liberal Arts and Sciences - removes CHEM 496, moves all footnotes up into the Program of Study degree requirements table, adds the college orientation course, e.g., LAS 101, combines the Technical Electives and Other technical courses sections, moves MATH courses from Technical Electives to the Mathematics section, removes the formal Free Electives requirement, and adds two MATH course options.
5) Revise the Concentration in Environmental Chemistry in the Bachelor of Science in Chemistry in the College of Liberal Arts and Sciences - removes CHEM 496, moves all footnotes up into the Program of Study degree requirements table, adds the college orientation course, e.g., LAS 101, combines the Technical Electives and Other technical courses sections, moves MATH courses from Technical Electives to the Mathematics section, removes the formal Free Electives requirement, adds the major requirements as part of the campuswide concentration transparency project, adds several additional advanced course options into the required Technical Elective Courses list for this concentration, removes IB 485 from the list of Technical Elective Courses for the concentration, clarifies that the Technical

Elective Courses for the concentration can be used to satisfy the Technical Electives for the major itself, and updates the MATH course options that may be used to satisfy the Technical Electives.
6) Revise the Bachelor of Science in Liberal Arts and Sciences in Chemistry in the College of Liberal Arts and Sciences - removes CHEM 496, moves all footnotes up into the Program of Study degree requirements table, adds the college orientation course, e.g., LAS 101., simplifies the POS header text, and revises the displayed number of "Chemistry and biochemistry" hours.

## B. Graduate Programs

1) Revise the Concentration in Data Science and Engineering in the Grainger College of Engineering and the Graduate College - adds 4 participating programs and changes the elective statement from choosing two additional courses from an approved list to choosing two additional courses in consultation with the CSE Education Coordinator or CSE Director.
2) Revise the Campus Graduate Certificate in CPA Pathways in the Gies College of Business and the Graduate College - revising program requirements from requiring at least one course from the first list of elective options and selection of 4 hours from the second list of elective options to select at least 2 credit hours from the first list of electives and select the balance of 12 credit hours from the first and second lists of electives.
3) Revise the Joint Program in the Master of Urban Planning in Urban Planning and the Juris Doctorate in Law in the College of Fine and Applied Arts, the College of Law and the Graduate College - copies degree requirements and learning outcomes from MUP and JD distinct program pages and brings them into the Joint Program program page; embeds newly revised MUP requirements into this joint program; and creates joint program degree table and minimum hours tables to align with all MUP joint programs.
4) Revise the Master of Engineering in Mechanical Engineering in the Grainger College of Engineering and the Graduate College - creates a sub-heading "Technical Core" to encompass the ME or TAM course work; removes the Applied Math/Computational Science requirement, and increases the minimum credit hours of ME and TAM coursework from 12 to 16 and maximum from 20 to 24 ; moves the Professional Development Requirement up in the Program of Study to above the Elective requirement section and adds the word "Coursework" to the heading; explicitly lists the courses approved to count toward the professional development requirement in the Degree Requirements Table, replacing a broad statement that provided only one example; edits the statement requiring a minimum of 4 credit hours to be taken outside of the major department to "outside the ME rubric" and moves this statement from "Other Requirements and Conditions" to under the Elective Coursework section; deletes statements from Other Conditions and Requirements (1) "Elective course category may include a maximum of 4 hours of special topics credit" and (2) "Professional development category may include a maximum of 4 hours of special topics credit."; adds requirement: "No credit given towards degree for S/U or CR/NC graded classes."; deletes statement "Requirements and conditions may overlap." and adds (may overlap) next to the other requirements and conditions heading; revises Delivery Method responses and program code information to correct an administrative mistake; and changes the typical time to completion from 2 years to 5 years to correct administrative mistake.
5) Revise the Concentration in Autonomy and Robotics in the Master of Engineering in Engineering in the Grainger College of Engineering and Graduate College - revises the requirement "A minimum of 12 500-level credit hours" to "A minimum of 12500 -level credit hours. ENG 572 and ENG 573 may not be used to satisfy this requirement."; and updates the list of electives. This list was included in the original proposals, but was never added to the catalog as intended. This revision puts the approved elective
course list into the Program of Study section, removes 3 courses (one deactivated, 2 not currently taught), and lists cross-listed courses once.
6) Revise the Master of Social Work in Social Work in the School of Social Work and the Graduate College - revises delivery mode from distance learning off site in Chicago to online learning, revises program of study table for concentration transparency by including core curriculum categories, and updates time to degree for accuracy.
7) Revise the Concentration in Advanced Clinical Practice in the Master of Social Work in Social Work in the School of Social Work and the Graduate College- revises delivery mode from distance learning to online learning and revises program of study to allow waiving of up to 8 hours of foundation coursework for those entering without a BSW due to coursework potentially taken during undergraduate program and moves up elective rows for transparency.
8) Revise the Concentration in Leadership \& Social Change in the Master of Social Work in Social Work in the School of Social Work and the Graduate College - removes 3 SOCW courses and adds 3 SOCW courses to keep relevant to changing macro social work practices and skill development, revises delivery mode from distance learning to online learning, and revises program of study to allow waiving of up to 8 hours of foundation coursework for those entering without a BSW due to coursework potentially taken during undergraduate program, moves up elective rows for transparency, and removes Focus Area from elective heading due to focus areas no longer existing.
9) Revise the Joint Program in the Master of Landscape Architecture in Landscape Architecture and the Master of Urban Planning in Urban Planning in the College of Fine and Applied Arts and the Graduate College - copies learning outcomes from the MUP and MLA distinct program pages and embeds new revisions made to the MUP and MLA programs to bring them into the Joint Programs record, including adding 500 level hour requirement for UP to align with regular MUP program and clarifying that all MLA students would receive 8 hours counted from UP, so that the total degree hours is 80 for the joint program.

Viewing: 10KT0278BS : Journalism, BS
Last approved: 05/11/21 9:51 am
Last edit: 12/01/23 1:00 pm
Changes proposed by: Mira Sotirovic
Journalism, BS
Catalog Pages
Using this
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1642 Committee Chair
3. 1642 Head
4. KT Committee

Chair
5. KT Dean
6. University

Librarian
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DMI

## Approval Path

1. 11/01/23 10:47
am
Donna Butler
(dbutler):
Approved for U
Program Review
2. 11/03/23 12:59
pm
Alison Davis
(alison7):
Approved for 1642
Committee Chair
3. 11/06/23 9:58 am

Mira Sotirovic
(sotirovi):
Approved for 1642 Head
4. $11 / 07 / 231: 32 \mathrm{pm}$

Jenny Oyallon Koloski (joyallon):
Approved for KT
5. $11 / 13 / 2310: 48$
am
Katie Clark
(keclark):
Approved for KT
Dean
6. $11 / 21 / 2312: 12$
pm
Claire Stewart (clairest):
Approved for
University
Librarian
7. 11/21/23 2:35 pm

Suzanne Lee (suzannel):
Approved for COTE Programs
8. 11/27/23 9:27 am

Brooke Newell (bsnewell):
Rollback to KT
Dean for Provost
9. 11/27/23 11:05
am
Katie Clark
(keclark):
Approved for KT
Dean
10. 11/27/23 11:53
am
Claire Stewart (clairest):
Approved for University Librarian
11. 11/27/23 3:12 pm

Suzanne Lee
(suzannel):
Approved for COTE Programs
12. 11/30/23 8:51 am Brooke Newell (bsnewell):
Approved for Provost

## History

1. May 11, 2021 by Stephanie Craft (scraft)

Major (ex. Special Education)
This proposal is
for a:
Revision

## Administration Details

Official Program Journalism, BS
Name
Diploma Title
Sponsor College Media, College of
Sponsor Journalism
Department
Sponsor Name Mira Sotirovic Stephanie Craft
Sponsor Email sotirovi@illinois.edu scraft@illinois.edu
College Contact Katie Clark College Contact
Email
keclark@illinois.edu
College Budget
Officer
College Budget
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

## College Contact

Does this program have inter-departmental administration?
No

## Proposal Title

Effective Catalog Spring 2024
Term

Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Bachelor of Science in Journalism in the College of Media
Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567 ) is related to the Concentration A proposal (key 145)."

## Program Justification

Provide a brief 1. Updating learning outcomes to reflect the outcomes listed in the Catalog. description of what changes are being made to the program.
2. Removing JOUR 220 from the core curriculum.
3. Adding JOUR 456 as an alternative course to JOUR 250 in the core curriculum.
4. Adding JOUR 310 as an alternative to JOUR 311 in the core curriculum.
5. Adding JOUR 400, JOUR 410, and JOUR 440 to the advanced skills course list.
6. Added the qualifier "department approval required" to JOUR 480.
7. Updating the Journalism elective requirement to allow any journalism course, not already being used to fulfill a major requirement.
8. Added headings to the program of study table - Intermediate Skills Courses, Advanced Skills Courses, Context Courses.
9. Updated the hours of required major courses to 40 hours to reflect the removal of JOUR 220 from the core curriculum. Total credit hours for the degree will remain at 124 hours.
10. Removed the breakdown of general education courses from the bottom of the Program of Study table and added General Education statement to the top of the table.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Why are these changes necessary?

1. Updating learning outcomes to reflect the outcomes listed in the Catalog. These were updated with the Learning Outcomes Assessment team and approved in the catalog but not updated in CIM-P.
2. Removing JOUR 220 from the core curriculum. This change is being made due to the changing composition of faculty and the inability to have someone available to teach it every semester. It will be available for students to take as a Journalism elective.
3. Adding JOUR 456 as an alternative course to JOUR 250 in the core curriculum. Both courses cover similar topics and meet the requirement set out by the Accrediting Council on Education in Journalism and Mass Communication. The choice provides students with additional flexibility. JOUR 456 is a new course that will give students a deeper understanding of how racial, ethnic and gender inclusion is critical for news media functioning and performance in a democratic society.
4. Adding JOUR 310 as an alternative to JOUR 311. Both courses discuss media law, with JOUR 310 contextualizing key media court cases in the era in which they took place and provides insights into how journalism and the news media evolved.
5. Adding JOUR 400, JOUR 410, and JOUR 440 to the advanced skills course list. These courses have been created since the last curriculum revision. They will provide the skills, knowledge, and experience required to be part of the advanced skills course list.
6. Added the qualifier "department approval required" to JOUR 480. This is an advanced reporting topics course, but it is possible that not all sections would be appropriate as advanced skills course. The qualifier helps to provide that clarity to students.
7. Updating the Journalism elective requirement to allow any journalism course, not already being used to fulfill a major requirement. The current curriculum requires that courses must be at the 200-level or higher, which limits the access students have to some introductory courses that may be of interest to them.
8. Added headings to the program of study table - Intermediate Skills Courses, Advanced Skills Courses, Context Courses. These headings were being used as descriptors to students within advising appointments and in curriculum plans but were not appearing in the Catalog. These headings will help provide clarity for students regarding the degree requirements.
9. Updated the hours of required major courses to 40 hours to reflect the removal of JOUR 220 from the core curriculum. Total credit hours for the degree will remain at 124 hours. While it is likely students will take more than 40 hours due to many skills courses being 4 hours, we were encouraged to list the lowest number of hours required.
10. Removed the breakdown of general education courses from the bottom of the Program of Study table and added General Education statement to the top of the table. We made the change to simplify the look of the table and make it easier to read and
understand the major curriculum. We linked to the General Education requirements in the statement to make them accessible to those with questions.

40 hours of advanced coursework

4 hours - JOUR 215 (pre-reqs JOUR 200, JOUR 210)
3 hours - JOUR 310 or JOUR 311
8 hours - Choose 2: JOUR 315, JOUR 340, JOUR 425
9 hours - Choose 3: JOUR 400, JOUR 410, JOUR 335, JOUR 430, JOUR 440, JOUR 445, JOUR 471, JOUR 472, JOUR 480, JOUR 482, JOUR 483
3 hours - Choose 1: JOUR 450, JOUR 451, JOUR 454 or JOUR 460
6 hours - Required minor or specialization
7 hours - Free electives

As explained in the Program of Study table a specialization is a campus-approved minor, or one 18 -hour specialization, or two 9 -hour specializations (with at least 6 hours at the 300-level or above), approved by advisor.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

No

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

The learning outcomes have been revised to match the catalog description. The learning outcomes are:

1. The Journalism major meets the standards set forth by the Accrediting Council on Education in Journalism and Mass Communication and undergoes re-accreditation on a six-yearcycle.Assessment is one of the eight accreditationstandards.Our curriculum is aligned with the competencies students in accredited programs are expected to achieve, whichinclude:understanding prineiples of free expression, journalism history, ethics and diversity; conducting and evaluating research and applying basic statistical concepts; mastery of reporting, visual, writing, editing and presentationskills.Understand We employ multiple direct and apply principles and laws related to media and freedom indirect measures of information
2. student learning (e.g. Write correctly and clearly in appropriate forms and styles
3. Apply basic numerical and statistical concepts
4. Apply current tools and technologies appropriate for the communications profession and to understand the digital world.
5. Demonstrate understanding principles of the history of free expression, journalism development history, ethics and the role of professionals diversity; conducting and institutions in shaping communications
6. evaluating research and applying basic statistical concepts; mastery of reporting, visual, writing, editing and presentation skills. Demonstrate an understanding of journalism ethical principles
7. Demonstrate understanding of diversity, both domestic and global
8. Understand concepts and apply theories in the use and presentation of images
9. Conduct research and evaluate information by methods appropriate to the profession
10. Demonstrate an ability to think critically and evaluate their own work and that of others
11. Document professional practice through internships, student media and other publication of student work. entrance and exit exams, portfolio reviews, internship evaluations, focus groups and grading data) as the accreditation standard requires.

Describe how, when, and where these learning outcomes will be assessed.

## Describe here:

The Journalism major meets the standards set forth by the Accrediting Council on
Education in Journalism and Mass Communication and undergoes re-accreditation on a
six-year cycle. Assessment is one of the eight accreditation standards. Our curriculum
is aligned with the competencies students in accredited programs are expected to
achieve, which include: understanding principles of free expression, journalism history,
ethics and diversity; conducting and evaluating research and applying basic statistical
concepts; mastery of reporting, visual, writing, editing and presentation skills. We
employ multiple direct and indirect measures of student learning (e.g. entrance and
exit exams, portfolio reviews, internship evaluations, focus groups and grading data)
as the accreditation standard requires.

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Program

Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?

## 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/PublicAdminRules2017.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.

Revised programs SampleSequence_JOUR_FA24.pdf
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab
Description of program for the catalog page. This is not official content, it is used to help build the new catalog page for the program. Can be edited in the catalog by the college or department.

JOURNALISM (JOUR), prepares the next generation of journalists to explore and report on the diversity of ideas, people and events in a democratic society. Students learn the reporting, writing, editing, producing, and multimedia skills and concepts required to produce accurate, fair and thorough journalism and to navigate the ever-changing news media landscape. Journalism graduates combine strong professional training with a broad liberal arts education to pursue careers in online newsrooms, television and radio stations, newspapers and magazines and emerging media.

Statement for

Programs of
Study Catalog

Minimum hours for graduation is 124 , to include a minimum of 40 hours of upperdivision coursework generally at the 300- and 400-level. These hours can be drawn from all elements of the degree.
Students must complete the Campus General Education requirements including the campus general education language requirement.
All required courses must be taken for a letter grade.
Course List
Code Title Hours

Required Major Courses All required courses must be taken for a letter grade. 44-47
Required Major Courses

Code
Title
Introduction to Journalism
History of American Journalism Hours
JOUR 200
Great Books of Journalism
or JOUR 452
JOUR 210
Newsgathering Across Platforms
JOUR 215
Multimedia Reporting
News Editing
Journalism Ethics \& Diversity
Race, Ethnicity \& Gender in Journalism
Media Law
Media Law in Historical Context
Media Law
or JOUR 311

## Intermediate Skills Courses

Select two of the following:
JOUR 315 Adv Public Affairs Reporting
JOUR $340 \quad$ Video Reporting \& Storytelling
JOUR $425 \quad$ Multimedia Editing and Design
Advanced Skills Courses
Select three of the following:
JOUR 335 Audio Journalism
JOUR 400 Newsroom Experience
JOUR 410 Data Storytelling for Journalists
JOUR $430 \quad$ Augmented and Virtual Reality
JOUR 440 Advanced Documentary Storytelling \& Production
JOUR 445 Advanced Television Reporting
JOUR 471 Science Journalism
JOUR $472 \quad$ Business Reporting
JOUR 480 Advanced Reporting Topics (department approval required)
JOUR 482 Immersion Journalism
JOUR 483 Investigative Journalism

## Context Courses

Select one of the following:
3
JOUR $450 \quad$ Media and Public Opinion
JOUR 451 Research Methods in Journalism (or equivalent)
JOUR $454 \quad$ Propaganda \& the News Media
JOUR 460 Special Topics (department approval required)
Journalism Electives
Any Journalism course. Courses from the list above not used to complete requirements may be taken as electives.
Minor or Specialization
A campus-approved minor, or one 18 -hour specialization, or two 9 -hour specializations (with at
least 6 hours at the 300 -level or above), approved by advisor.
Statistical Methods Course (Choose 1)
STAT 107 Data Science Discovery (recommended)
STAT 100
Statistics
Intro to Social Statistics
Intro to Statistics
Economic Statistics I
CodeTitleHoursEPSY 280Elements of Statistics
UP 116 Urban Informatics I
or other approved statistical methods course
General Education Requirements ..... 29-41
The department maintains a list of recommended courses to fulfill General Education requirements.Some courses may fulfill multiple General Education categories. Courses may also fulfill both majorrequirements and General Education categories.
Composition I ..... 4
Advanced Composition (JOUR 200 can fulfill) ..... 3
Quantitative Reasoning I (statistical methods courses listed above can fulfill) ..... 3-4
Quantitative Reasoning II (JOUR 451 can fulfill) ..... 3
Humanities and the Arts (JOUR 205, JOUR 452 can fulfill) ..... 3
Cultural Studies: Western Comparative ..... 3
Cultural Studies: US Minority Cultures ..... 3
Cultural Studies: Non-Western Cultures ..... 3
Natural Science and Technology ..... 6
Social and Behavioral Sciences ..... 6
Minimum Total Hours required for graduation ..... 124
Corresponding BS Bachelor of Science
Degree
Program Features
Academic Level Undergraduate
Does this major ..... No
have transcripted
concentrations?
What is the typical time to completion of this program?
4 years
What are the minimum Total Credit Hours required for this program?124
CIP Code 090401 - Journalism.
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.

## Admission Requirements

Desired Effective Spring 2024
Admissions Term
Is this revision a change to the admission status of the program?

No
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.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

The revision will streamline the program, remove barriers to graduation and potentially increase enrollment.

Estimated Annual Number of Degrees Awarded
Year One Estimate
5th Year Estimate (or when
fully implemented)
What is the Fall matriculation
term for this
program?

## Budget

Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?

Will the unit need to seek campus or other external resources?
No
Attach letters of support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

## Media rate

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

## No

## Faculty Resources

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

The revisions will offer a greater number of options for students to complete the program requirements. They will not have the impact on the numbers of faculty, class size, teaching loads or student-faculty ratios.

## 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.

Library collections, resources and services are sufficient to support this program.

## EP Documentation

EP Control
EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook
BS: Journalism -UIUC
Name
Minor Conc

| Degree BS | Major |
| :--- | :--- |
| Code | Code |

0278
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for
this request

Program Reviewer Comments

Conc
Code

Degree BS
Code

## Journalism, BS

For students starting in Fall 2024 and beyond

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

| First Year |  |  | Hours |
| :--- | :---: | :--- | ---: |
| First Semester | Hours | Second Semester | 4 |
| JOUR 200, Intro to Journalism | 3 | $\begin{array}{l}\text { JOUR 210, Newsgathering Across } \\ \text { Platforms }\end{array}$ | 3 |
| Journalism Elective | 3 | Statistical Methods Course | $3-4$ |
| $\begin{array}{l}\text { Composition I or General } \\ \text { Education course }\end{array}$ | $4-3$ | $\begin{array}{l}\text { General Education course or } \\ \text { Composition I }\end{array}$ | 3 |
| General Education course | 3 | General Education course |  |$]$| 4-3 |
| :--- |
| General Education course or <br> Language Other Than English <br> (3rd level) |


|  | Second Year |  | Hours |
| :--- | :---: | :--- | ---: |
| First Semseter | Hours | Second Semester | 4 |
| JOUR 205, History of American <br> Journalism or JOUR 452, Great <br> Books of Journalism | 3 | Intermediate Skills Course |  |
| JOUR 215, Multimedia Reporting | 4 |  <br> Diversity or JOUR 456, Race, <br> Ethnicity \& Gender in Journalism | 3 |
| General Education course | 3 | General Education course | 3 |
| General Education course | 3 | General Education course | 3 |
| Minor/Specialization course | 3 | Free Elective | $\mathbf{3}$ |
|  | $\mathbf{1 6}$ |  | $\mathbf{1 6}$ |


| Third Year |  |  |  |
| :--- | :---: | :--- | ---: |
| First Semester | Hours | Second Semester | Hours |
| JOUR 310, Media Law in <br> Historical Context or JOUR 311, <br> Media Law | 3 | Advanced Skills Course | $3-4$ |
| Intermediate Skills course | 4 | Journalism Elective | 3 |
| General Education course | 3 | Minor/Specialization course | 3 |
| Minor/Specialization course | 3 | Minor/Specialization course | 3 |
| Minor/Specialization course | 3 | Free Elective | 3 |
|  | $\mathbf{1 6}$ |  | $\mathbf{1 5}$ |


| Fourth Year |  |  |  |
| :--- | ---: | :--- | ---: |
| First Semseter | Hours | Second Semester | Hours |
| Advanced Skills course | $3-4$ | Advanced Skills course | $4-3$ |
| Context course | 3 | Journalism Elective | 3 |
| Minor/Specialization course | 3 | Free Elective | 3 |
| Free Elective | 3 | Free Elective | 3 |
| Free Elective | 3 |  | $\mathbf{1 3}$ |
|  | $\mathbf{1 5}$ |  |  |
|  |  | $\mathbf{1 2 4}$ |  |

## Date Submitted: 11/08/23 8:23 am

## Viewing: 10KV0461BSLA : Actuarial Science, BSLAS

Last approved: 01/24/22 10:49 am
Last edit: 12/01/23 1:01 pm
Changes proposed by: Lee DeVille
Actuarial Science, BSLAS
Catalog Pages
Using this
Program

## In Workflow

1. U Program

Review
2. 1257 Head
3. KV Dean
4. University

Librarian
5. COTE Programs
6. Provost
7. Senate EPC
8. Senate
9. U Senate Conf
10. Board of Trustees
11. IBHE
12. HLC
13. DMI

## Approval Path

1. $11 / 10 / 235: 41 \mathrm{pm}$ Donna Butler (dbutler):
Approved for U
Program Review
2. 11/11/23 7:34 pm Lee DeVille
(rdeville):
Approved for 1257
Head
3. $11 / 21 / 23$ 11:46
am
Stephen Downie (sdownie):
Approved for KV
Dean
4. $11 / 26 / 2311: 37$
am
Claire Stewart
(clairest):
Approved for
University
Librarian
5. 11/26/23 9:11 pm

Suzanne Lee
(suzannel):
Approved for COTE Programs
6. 11/30/23 8:51 am

Brooke Newell
(bsnewell):
Approved for Provost

## History

1. Feb 23, 2019 by Deb Forgacs (dforgacs)
2. Aug 23, 2019 by Deb Forgacs (dforgacs)
3. Jan 24, 2022 by Andrea Ray (aray)

## Major (ex. Special Education)

This proposal is
for a:
Revision

## Administration Details

| Official Program Name | Actuarial Science, BSLAS |
| :---: | :---: |
| Diploma Title |  |
| Sponsor College | Liberal Arts \& Sciences |
| Sponsor Department | Mathematics |
| Sponsor Name | Wei Wei Randy McCarthy, Professor and Director of Undergraduate Studies |
| Sponsor Email | weiw@illinois.edu rmecrthy@illinois.edu |
| College Contact | $\begin{array}{ll}\text { Stephen R. Downie } & \text { College Contact } \\ \text { Email }\end{array}$ |
| sdownie@illinois.edu |  |
| College Budget Officer | Michael Wellens |
| College Budget Officer Email | wellens@illinois.edu |

List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

> Alison Champion, abc@illinois.edu, edits
> Lee DeVille, rdeville@illinois.edu, edits
> Claudia Freiji, cnassif@illinois.edu, expert on SOA UEC program Alison Champion, abc@illinois.edu

Does this program have inter-departmental administration? No

## Proposal Title

Effective Catalog
Fall 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Bachelor of Science in Liberal Arts and Sciences in Actuarial Science in the College of Liberal Arts \& Sciences

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

## Program Justification

description of what changes are being made to the program.
Provide a brief The computer programming requirement is being updated to:

The computer programming requirement is being updated to:

1. Remove the less-major-focused CS 105
2. A Statistics-controlled 3-credit required course, ASRM 450, which is cross-listed with STAT 420, is being replaced by a 4 -credit ASRM course, ASRM 441, designed to meet requirements of the Society of Actuaries' (SOA) University-Earned Credit (UEC) program
3. Several new ASRM UEC courses are being added as options to the advanced electives: ASRM 442, ASRM 454, ASRM 455, ASRM 462. Additionally, since many of the new courses are more intense 4-hour classes, while the older offerings are mainly 3 hours, the advanced electives requirement is changed to a specific number of credits (12) instead of a specific number of courses (formerly 4).
4. Add LAS Orientation coursework to Program of Study table to fulfill University's
5. The minimum required major and supporting course work range of hours has been changed to reflect a change in hours of one added course, but the total hours of the program remain unchanged.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Why are these changes necessary?

1. With a well-staffed, fully-developed programming option available from ASRM, namely ASRM 195, it was felt that CS 105 could be dropped, both because ASRM students get a more intense or more major-specific experience from ASRM 195 or CS 124 , and because ASRM is able to cover a significant amount of the instruction, with less-restricted course availability than when ASRM 195 was created.
2. The ASRM 441 course was created to provide a very tailored experience for Actuarial Science majors, which would also give all Actuarial Science students an equal footing to be prepared for the ASRM 441-442 sequence that offers a University-Earned Credit option.
3. Because we have a whole new set of courses that provide students with background to work towards their Associates and their Fellow in either the Society of Actuaries or the Casualty Actuarial Society, the two major accreditation bodies for the profession, it is clear that we should offer these options to students. To avoid penalizing students for choosing the more intense 4 -credit UEC courses, we change the requirement to a credit hour requirement instead of a number of courses requirement. In the past, our students typically graduated with 3 actuarial exams completed. With the updated options, a student taking a path through the major with a minimal number of courses could graduate with credit for 5 exams.
4. Due to new guidance from campus for student transparency and clarity, we are also adding the required college orientation course into the POS.

40 hours of upper-division coursework:

MATH 241-4 hours (prerequisite MATH 231 + sequential prerequisite MATH 220)
ASRM 401 or STAT 400-4 hours
ASRM 402 or STAT 410-4 hours
ASRM 406-3 hours
ASRM 441-4 hours
"Select three or more of the following" list - 12 hours
"Three additional courses from" list, Free Electives - 9 hours

Total $=40$ hours

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

## No

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

Yes
Courses outside
of the sponsoring
department/interdisciplinary
departments
CS 105- Intro Computing: Non-Tech
STAT 420 - Methods of Applied Statistics
Please attach any STAT controlling dept LOA for ASRM cross listing in POS.pdf
letters of CS 105 approval.pdf
support/acknowledgement
for any
Instructional
Resources
consider faculty,
students, and/or
other impacted
units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

Student Learning Outcomes:

1. Have sufficient exposure to actuarial and financial mathematics to be familiar with at least $80 \%$ of the material on five of the preliminary Society of Actuaries (SOA) credentialing exams.
2. Be familiar with the role of insurance in society, basic economic theory, and the basics of how insurance and financial markets operate.
3. Have familiarity with several of the technical tools, computer languages or software packages used by actuaries.
4. Develop communication, leadership and teamwork skills, and understand their importance in the actuarial industry.
5. Be able to apply this knowledge and these skills in new combinations and to new problems.

Questions explored towards these ends include:
What is the average number of professional exams passed before graduation?
What is the passing rate of actuarial exams among graduating students?
How many students find full-time jobs or are admitted to graduate schools?
To earn the Society of Actuaries' Center of Actuarial Excellence designation, our program is required to submit an annual report to the SOA that outlines key features of our program. Every five years, our program must submit to a thorough review by the SOA. The annual report contains information that aligns with Learning Outcomes outlined above. The key features included in the annual report include information on:

Curriculum: aligns with learning outcome 1
We must demonstrate that our courses cover $80 \%$ of 4 of the 6 preliminary actuarial exams offered by the SOA.

Graduate quality: indirect measure of all learning outcomes
Our program must produce graduates who are in demand by employers.
Integration with other relevant fields: aligns with learning outcomes 2, 3 and 4 Our program must demonstrate a connection to fields such as business and communication through coursework or other activities.

Connection to industry: indirect measure of all learning outcomes We must demonstrate a connection to industry via recruiting efforts, guest speakers, an advisory board, faculty experience and applied research.

Describe how, when, and where these learning outcomes will be assessed.

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

```
Program
Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?
```


## 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/PublicAdminRules2017.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.

Revised programs 20231107 - Sample Sequence Actuarial
Science, BSLAS.docx
Comparative Table_Actuarial Science.xlsx
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab
Description of program for the catalog page. This is not official content, it is used to help build the new catalog page for the program. Can be edited in the catalog by the college or department.

Departmental distinction: To qualify for distinction, the student must have a grade point average in ASRM courses of at least 3.25, and pass at least three examinations offered by the professional actuarial societies. To qualify for high or highest distinction, the student must have passed at least three professional exams, with highest distinction going to those whose grade point averages in mathematics are at least 3.75. Additional professional exams and participation in Illinois Risk Lab research may contribute to distinction decisions.

Statement for
Programs of
Study Catalog

General education: Students must complete the Campus General Education requirements including the campus general education language requirement.

Minimum required major and supporting course work: normally equates to 58-61 57-61
hours including 32-33 hours of actuarial courses beyond calculus. Twelve hours of 300- or 400-level courses in the major must be taken on this campus.
Minimum hours required for graduation: 120 hours. Students will complete 40 hours of upper division
coursework generally at (these hours can be drawn from all elements of the $300-$ and 400-level. degree). These hours can be drawn from all elements of the degree.

## Course List



| Code | Title |
| :--- | :--- |
| \|Calculus sequence: |  |
| MATH 220 Calculus <br> MATH 231 221 Calculus I <br> MATH 241 Calculus II | Calculus III (or equivalent ) |

Select one of the following:

Hours

ASRM 195 Foundations of Data Management
CS 101 Intro Computing: Engrg \& Sci
CS 105 Intro Computing: Non-Tech
CS 124 Introduction to Computer Science I
CS 125 Introduction to Computer Science
ASRM 210 Theory of Interest
3
Select one of the following sequences (ASRM preferred): 7-8
ASRM 401
\& ASRM 402
Actuarial Statistics I and Actuarial Statistics II
OR
STAT 400
\& STAT 410
ASRM 406
ASRM 450
Select four of the following:
ASRM 441
Select three or more of the following for a total of at least 12 credits:
ASRM 409
ASRM 410
ASRM 442
ASRM 451
ASRM 454
ASRM 455
ASRM 461
ASRM 462
ASRM 469
ASRM 471
ASRM 472

Stochastic Processes for Finance and Insurance
Investments and Financial Markets
Statistics for Risk Modeling II
Basics of Statistical Learning
Generalized Linear Models
Predictive Analytics
Loss Models
Advanced Loss Models, Credibility, and Ratemaking
Casualty Actuarial Mathematics
Life Contingencies I
Life Contingencies II

Select an additional course from the above list or an approved section of ASRM 499
Announcements for ASRM 499 topics courses will include information about whether the topic is approved for use in the major, as will the course syllabus.

```
FIN 221 Corporate Finance
```

Three additional courses from:

ACCY 200
ECON 302
ECON 303
FIN 230
FIN 300
FIN 321
FIN 431
FIN 432
FIN 434
|Total Hours

Fundamentals of Accounting
Inter Microeconomic Theory
Inter Macroeconomic Theory
Introduction to Insurance
Financial Markets
Advanced Corporate Finance
Property-Liability Insurance
Managing Market Risks for Financial Institutions
Employee Benefit Plans

## Corresponding BSLAS Bachelor of Science in Liberal Arts <br> Degree and Sciences

## Program Features

Academic Level Undergraduate
Does this major No
have transcripted
concentrations?
What is the typical time to completion of this program?
4 years
What are the minimum Total Credit Hours required for this program?
120
CIP Code 521304-Actuarial Science.
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is
available:
On Campus - Students are required to be on campus, they may take some online courses.

## Desired Effective

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

## No

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.

No change to current admission requirements: Freshmen must meet LAS Admissions requirements. On-campus transfer students must complete the calculus sequence as prerequisites, plus ASRM 210 and one of ASRM 401 or STAT 400 with grades of B- or higher in each. Off-campus transfer students must meet LAS transfer requirements and complete at least Calculus II (sophomore transfer) or Calculus III and computer programming (junior transfer) with grades of $B$ or higher in each math course taken.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

This revision may reduce the number of double-majors with Statistics but otherwise should maintain or increase the number of students who find the major to be of interest.

Estimated Annual Number of Degrees Awarded
Year One Estimate
5th Year Estimate (or when
fully implemented)
What is the Fall
matriculation
term for this
program?

## Budget

Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information
N/A
Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
We anticipate the same resources will be devoted to the revised program as are devoted to the program in its current form.

Will the unit need to seek campus or other external resources?
No
Attach letters of support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

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

## No

## Faculty Resources

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

No expected 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.

Library collections, resources and services are sufficient to support this program.

## EP Documentation

EP Control
EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook BSLAS:Actuarial Science -UIUC

Name
Program Code: 10KV0461BSLA
Minor Conc
Code
0461
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for this request

Program Reviewer Brooke Newell (bsnewell) (08/02/23 8:39 am): Rollback: Requested revisions to Comments Justification, Instructional resources, Program of Study, and Library Resources sections. Email sent to Lee, Alison, Stephen, and Andrea
Brooke Newell (bsnewell) (10/16/23 7:39 am): Rollback: Per request from Lee Brooke Newell (bsnewell) (10/19/23 3:40 pm): Rollback: Email sent to Lee, Alison, Wei, Andrea and Stephen

Actuarial Science, BSLAS


| ASRM 461 |  |
| :--- | :---: |
|  |  |
| ASRM 469 |  |
| ASRM 471 |  |
| ASRM 472 |  |
|  | 3 |
| Select an additional course from the above <br> list or an approved section of ASRM 499 |  |
|  |  |
|  |  |
| FIN 221 |  |
|  | 9 |
| Three additional courses from: |  |
| ACCY 200 |  |
| ECON 302 |  |
| ECON 303 |  |
| FIN 230 |  |
| FIN 300 |  |
| FIN 321 |  |
| FIN 431 |  |
| FIN 432 |  |
| FIN 434 |  |
|  |  |
| Total Hours |  |


| ASRM 461 |  |
| :--- | :---: |
| ASRM 462 |  |
| ASRM 469 |  |
| ASRM 471 |  |
| ASRM 472 |  |
|  | 3 |
| Select an additional course from the above <br> list or an approved section of ASRM 499 |  |
| Announcements for ASRM 499 topics <br> courses will include information about <br> whether the topic is approved for use in the <br> major, as weill the course syllabus. |  |
|  |  |
| FIN 221 |  |
|  | 3 |
| Three additional courses from: | 9 |
| ACCY 200 |  |
| ECON 302 |  |
| ECON 303 |  |
| FIN 230 |  |
| FIN 300 |  |
| FIN 321 |  |
| FIN 431 |  |
| FIN 432 |  |
| FIN 434 |  |
|  | Total Hours |

Sample Sequence for Actuarial Science, BSLAS
http://catalog.illinois.edu/undergraduate/las/actuarial-sciencebslas/\#degreerequirementstext

| First Year |  |  |  |
| :--- | :---: | :--- | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| LAS 101 | 1 | Free elective course | 3 |
| $\begin{array}{l}\text { MATH 220 or MATH 221 } \\ \text { (Gen Ed: QR I) }\end{array}$ | $4-5$ (use 4) | MATH 231 (Gen Ed: QR I) | 3 |
| $\begin{array}{l}\text { ASRM 195 or CS 101 or CS 124 or } \\ \text { CS 125 }\end{array}$ | $3-4$ (use 3) | General Education Course | 3 |
| $\begin{array}{l}\text { Language Other Than English } \\ \text { (3rd level) }\end{array}$ | 4 | $\begin{array}{l}\text { Language Other Than English } \\ \text { (4th level) }\end{array}$ | 4 |
| $\begin{array}{l}\text { Composition I or General } \\ \text { Education Course }\end{array}$ | 4 | $\begin{array}{l}\text { General Education Course or } \\ \text { Composition I }\end{array}$ | 3 |
| semester sum | 16 |  | semester sum |$] 16$


| Third Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| ASRM 402 or STAT 410 | 3-4 (use 3) | ASRM 400-level course from list | 3 |
| ASRM 441 | 4 | ASRM 400-level course from list | 3 |
| ACCY, FIN, or ECON from list | 3 | ACCY, FIN, or ECON from list | 3 |
| General Education Course | 3 | General Education Course | 3 |
| General Education Course | 3 | General Education Course | 3 |
| semester sum | 16 | semester sum | 15 |
| Fourth Year |  |  |  |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| ASRM 400-level course from list | 3 | ASRM 400- level course from list or approved ASRM 499 | 3 |
| Free elective course | 3 | Free elective course | 3 |
| Free elective course | 3 | Free elective course | 3 |
| Free elective course | 4 | Free elective course | 3 |
| semester sum | 13 | semester sum | 12 |
| Total Hours: $\qquad$ (Add up individual semester sums. Must equal degree total minimum hours requirement listed on the degree's requirements page in the catalog.) |  |  |  |

## Acknowledgement of change to Actuarial Science program

Gunter, Elsa [egunter@illinois.edu](mailto:egunter@illinois.edu)
Wed 10/11/2023 4:26 PM
To:DeVille, Lee Xavier [rdeville@illinois.edu](mailto:rdeville@illinois.edu)
Cc:Champion, Alison B [abc@illinois.edu](mailto:abc@illinois.edu);Fleck, Margaret M [mfleck@illinois.edu](mailto:mfleck@illinois.edu);Amato, Nancy [namato@illinois.edu](mailto:namato@illinois.edu)

Dear Prof DeVille,
The Department of Computer Science is aware of the Mathematics Department's intent to remove CS 105 from the Actuarial Science BSLAS degree and supports this change.
---Elsa
--
Elsa L Gunter
Research Professor
Associate Head for Academics
Department of Computer Science
University of Illinois at Urbana - Champaign

## ILLINOIS

Department of Statistics
Illini Hall, Room 101 725 South Wright Street
Champaign, IL 61820 USA

August 9, 2023
Dear Professor Lee DeVille:
I would like to acknowledge that the Department of Statistics is aware that STAT 420/ASRM 450 will be dropped from the Actuarial Science major and we fully support this. We were in discussion with ASRM faculty about the new needs of the statistical modeling course and the close coordination with the Society of Actuaries this requires and agreed it makes sense to replace STAT 420 with the more specialized ASRM 441. Best of luck with this major and please let us know how we can help.

Sincerely,


## Jeff Douglas

Professor and Associate Chair
Department of Statistics


Proposal Type:

Suzanne Lee (suzannel): Approved for COTE Programs
6. 11/01/23 8:40 am Brooke Newell (bsnewell):
Rollback to KR
Dean for Provost
7. 12/01/23 8:52 am Nicole Turner (nicturn): Approved for KR Dean
8. $12 / 01 / 235: 11 \mathrm{pm}$ Claire Stewart (clairest):
Approved for University Librarian
9. $12 / 01 / 235: 33 \mathrm{pm}$ Suzanne Lee (suzannel): Approved for COTE Programs
10. 12/07/23 9:32 am Brooke Newell (bsnewell):
Approved for Provost

## History

1. Mar 21, 2019 by Deb Forgacs (dforgacs)
2. Dec 5, 2019 by Nicole Turner (nicturn)
3. Apr 16, 2021 by John Toenjes (jtoenjes)
4. Mar 16, 2022 by Nicole Turner (nicturn)
5. Sep 27, 2022 by Nicole Turner

Major (ex. Special Education)
This proposal is
for a:
Revision

## Administration Details

| Official Program Name | Dance, BFA |  |
| :---: | :---: | :---: |
| Diploma Title | Bachelor of Fine Arts in Dance |  |
| Sponsor College | Fine \& Applied Arts |  |
| Sponsor <br> Department | Dance |  |
| Sponsor Name | Prof. Rachel Rizzuto John Toenjes |  |
| Sponsor Email | rizzuto3@illinois.edu jitoenjes@illinois.edu |  |
| College Contact | Dr. Nicole Turner | College Contact Email |
| nicturn@illinois.edu |  |  |
| College Budget Officer | Greg Anderson |  |
| College Budget Officer Email | gnanders@illinois.edu |  |

List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

KR Dean (nicturn@illinois.edu)
Does this program have inter-departmental administration?
No

## Proposal Title

Effective Catalog Fall 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Bachelor of Fine Arts in Dance in the College of Fine and Applied Arts

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

## Program Justification

Provide a brief Decrease 1 course hour (1 credit hour less of DANC 360) and add 1 new course hour
description of what changes are being made to the program.
(DANC 370 for 1 hour) to BFA program. Adding advanced hours statement to degree table. No change to total degree hour requirement hours or total degree hours.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

No
Why are these changes necessary?
Reason for changes:
In a review of the Dance BFA, the unit desired to minimally reduce the credit hours in physical practice to enable students to earn appropriate curricular credit for required work previously completed outside of designated curricular credit. DANC 370 allows for students to earn 1 credit hour while they complete their junior spring articulation proposals, previously completed outside of designated curricular credit.

Details of changes:

1. Decrease total hours required of DANC 360 [course title: Dancing Tech III] ( -1 hr )
2. Add new course DANC 370 [course title: Articulate] for 1 credit hour ( +1 hr )
3. These changes lead to 1 less hour in physical practice and 1 additional hour in context, with no change to total degree hour requirements or total degree hours. 4. Adding recommended text for minimum degree hours and advanced hours as required by IBHE.

40 advanced hours requirement:
DANC 360-2 hrs
DANC 460-4 hrs
DANC 370-1 hr
Creative Prac elective - 3 hrs
DANC 345-3 hrs
DANC 350-4 hrs
DANC 441-3 hrs
DANC 495-2 hrs
DANC 375-1 hr
DANC 498-2 hrs
DANC 499-2 hrs
13 hrs general education or free electives

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

No

## Program Regulation and Assessment Plan to Assess and Improve Student Learning

Illinois Administrative Code: $1050.30(b)(1)(D)$ Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

Upon graduation, new alumni of the Bachelor of Fine Arts Program will be able to:

1. Dance with full mind-body awareness, energy, skill, musicality, passion and imagination in African-and European-informed movement practices.
2. Confidently teach a class that evinces deep physical and contextual understanding of a movement practice while paying attention to community building, safety, inclusiveness, and strategic educational engagement.
3. Communicate ideas about dance through physicality, written and oral platforms both in person and online, in publication or publicity that evidence clarity and consideration of multiple perspectives.
4. Utilize technology and various media both as a creative tool and as a means for increasing positive visibility for dance.
5. Articulate the socio-political, cultural, historical impact of Dance and its potential to contribute to global dialogue and inquiry.
6. Participate in and develop creative processes, conduct choreographic and performative research, and disseminate that research in theatrical events.
7. Utilize various approaches to the body and understand the context in which those approaches were founded.
8. Model good citizenship and community-building in their future environments.

The Undergraduate Director leads the assessment process. The director works with the department head and the Undergraduate Committee to accomplish the goals of the program. The Department of Dance holds two annual "retreat" style faculty meetings to study assessment processes and make evaluations for curricular change. Regular assessment reports based upon student surveys, as well as larger efforts such as the National Association of Schools of Dance assessment review, last completed in 2017, and Provost's Academic Review, last completed in 2021, are reviewed and analyzed, and changes/updates are implemented.

Assessment Instruments include:

- Undergraduate and Graduate Exit Surveys
- Alumni Surveys
- Guest Artist Surveys
- Undergraduate and graduate student boards meet regularly with the Head and/or UG/G Directors to assess the program
- Townhalls: Sophomore Review: Faculty evaluate student progress towards graduation and career potential through performance and written materials and aninterview. Townhalls:1-2 departmental meetings each semester for information and resource sharing between students and faculty.
- UG Curricular Feedback Session: Annual spring forum for UG to provide feedback to the Head and UG Director about curriculum, performance, casting, or other issues.
- One-on-one evaluative meetings at midterm in every course between students and faculty each semester

Metrics include:

- BFA senior thesis project, in which faculty assess the achievement of the programmatic objectives
- Faculty observations of student performance on a regular basis to make sure students are progressing toward meeting objectives
- Regular review of alumni employment, entrance into graduate programs, performances mounted, and awards and honors received

The University of Illinois at Urbana-Champaign is accredited by the National Association of Schools of Dance, and regularly undergoes accreditation review.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

Program
Description and
Requirements
Attach Documents
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/PublicAdminRules2017.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.

Revised programs Dance BFA FA 24 Sample Schedule.docx
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab

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

The BFA program in Dance offers intense dance training, multicultural movement practices, and meaningful interactions with faculty that prepare students to enter the world of dance as professional dancers and informed citizens. Each year of the students' education has a theme that designates a gestalt of competencies designed to progress yearly through the curriculum. First-years ACTIVATE (through technique classes, repertory and a first semester performance experience); sophomores DELVE (taking multiple physical practice, context and creative practice classes and being reviewed by a faculty committee); juniors ARTICULATE (with one semester spent abroad or on campus taking multi-disciplinary coursework); and seniors LAUNCH (taking career seminar, connecting with an alumni mentor, and producing their own work).

The BFA curriculum offers coursework in the areas of technique, composition, performance, theory, media, career preparation, improvisation, music studies, pedagogy, history, movement sciences, and repertory. Electives may be taken in a range of techniques, choreographic laboratory, and independent studies.

Specific Program requirement areas are as follows:
4 credits in Foundations, $\underline{\underline{26}} 27$ credits in Physical Practice, 8 credits in Creative Practice, 8 credits in Performance, 3 credits in Production, $\underline{\underline{21}} 20$ credits in Context, 5 credits in Synthesis, and 5-7 credits in Focused Electives.

Evaluation of majors is an ongoing process. Continued enrollment in the program is contingent upon satisfactory performance. A student is expected to maintain a minimum 2.75 grade point average in all dance coursework in order to remain in good standing in the department.

It is possible for transfer students to complete degree requirements in a three-year period contingent upon prior completion of general education requirements.

A total of 130 hours is required for this degree.
Statement for

Programs of
Study Catalog

Minimum hours for graduation is 130, to include a minimum of 40 hours of upperdivision coursework generally at the 300- and 400-level. These hours can be drawn from all elements of the degree.
Minimum hours forgraduation:130hours.Dance coursework grade point average minimum: $\underline{\underline{2.75}}$

|  | Course List | Hours |
| :--- | ---: | ---: |
| Code | Title | $4-6$ |
| General Education Requirements |  | $3-4$ |
| Composition I |  | $6-8$ |
| Advanced Composition | $6-8$ |  |
| Humanities \& the Arts | $3-4$ |  |
| Social \& Behavioral Sciences | $3-4$ |  |
| Cultural Studies: Non-Western Cultures |  |  |
| Cultural Studies: U.S. Minority Cultures |  |  |

Title

Hours4-6Humanities \& the Arts6-8Cultural Studies: Non-Western Cultures3-4

Cultural Studies: Western/Comparative Culture(s)
Natural Sciences \& Technology
Quantitative Reasoning
The Language Requirement may be satisfied by:
-Successfully completing a third-semester college-level course in a language other than English;
-Successful completion, in high school, of the third year of a language other than English; or -Demonstrating proficiency at the third-semester level in a language proficiency examination approved by the College of Liberal Arts and Sciences and the appropriate department.

Course List

| Code $\quad$ Title | Hours |
| :--- | :---: |
| Foundation Courses | 4 |
| FAA 101 Arts at Illinois | 1 |
| DANC 150The Green Room (variable \& repeatable)3 |  |
| Course List |  |

Code Title Hours
|Physical Practice 26
DANC 160 Dancing Techniques I (variable \& repeatable) 4
DANC 245 Mindful Movement (repeatable) 2
DANC 256 Choreographic Laboratory I 1
DANC 260 Dancing Techniques II (variable \& repeatable) 5
DANC 270 Dancing in Community I \& II (repeatable) 3
|DANC 360 Dancing Techniques III (variable \& repeatable)2
DANC 460 Dancing Techniques IV (variable \& repeatable) 4
Pick from the following Physical Practice electives:
DANC 209Lyric Theatre Dance
DANC 212Musical Theater Dance
DANC 316Dancing Techniques Elective
DANC 456Choreographic Laboratory II DANC 468Physical Practice Study Abroad
DANC 470Dancing in Community III \& IV
Course List
Code Title Hours
Creative Practice 7-8
DANC 259 Dance Improvisation I 2
DANC 262 Choreographic Process I 2
Choose from the following Creative Practice electives:
DANC 362 Choreographic Process II (repeatable) 4
DANC 465 Screendance 3
Course List
Code Title Hours
Performance
DANC 220Undergraduate Performance Practice (variable \& repeatable)4
DANC 232Repertory Company (repeatable)
4
Course List

Code Title
Production
Hours

Choose from the following:

## DANC 131Production Practicum I

DANC 231Production Practicum II
DANC 330Dance Documentation
DANC 331Production Practicum III
DANC 431Production Practicum IV
Course List

| Code | Title | Hours |  |
| :---: | :---: | :---: | :---: |
| \|Context |  | 21 |  |
| DANC 162 | Viewing Dance | 1 |  |
| DANC 240 | Context | 4 |  |
| DANC 345 | Dance Anatomy and Kinesiology | 3 |  |
| DANC 350 | Teaching Dance | 4 |  |
| DANC 370 | Articulate | $\underline{\underline{1}}$ |  |
| DANC 441 | Dance History Seminar | 3 |  |
| DANC 495 | Senior Career Seminar (repeatable) | 2 |  |
| Course in School of Art + Design, School of Music, or Theatre Department3 |  |  |  |
| Course List |  |  |  |
| Code | Title |  | Hours |
| Synthesis |  |  | 5 |
| DANC 375 | Thesis Think Tank |  | 1 |
| DANC 498 | BFA Thesis Production |  | 2 |
| DANC 499 | BFA Thesis Project |  | 2 |
| Focused El |  |  | 5-7 |

Focused electives, chosen in consultation with an advisor. Additional courses in dance such as technique, mindful movement, performance, study abroad credit, collaborative performance, or coursework in performance/performance studies in the departments of Theater or Media \& Cinema Studies or the Schools of Music or Art and Design.
Free electives as needed to reach a minimum of 130 hours
A minimum of 40 credits at the 300 or 400 course level are required
Total Hours for the Bachelor of Fine Arts in Dance

Corresponding
BFA Bachelor of Fine Arts
Degree

## Program Features

Academic Level Undergraduate
Does this major No
have transcripted
concentrations?
What is the typical time to completion of this program?
4 years

What are the minimum Total Credit Hours required for this program?
130
CIP Code

No

## Delivery Method

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.

## Admission Requirements

## Desired Effective

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

## No

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.

In addition to university admission requirements-application, high school transcript, and test scores (where applicable)-admission requirements for the BFA in dance include successful completion of an audition process, comprised of dance technique class, a solo performance, and interview with faculty. Transfer students must follow same audition process for admission.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

No impact.

Estimated Annual Number of Degrees Awarded
Year One Estimate
5th Year Estimate (or when
fully implemented)
What is the Fall matriculation
term for this
program?

## Budget

Are there No
budgetary
implications for this revision?

Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
Program revision does not alter current financial resources used to support the program.

Will the unit need to seek campus or other external resources?
No
Attach letters of
support
What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

Fine \& Applied Arts Differential Undergraduate Rate
Are you seeking a change in the tuition rate or differential for this program?

## No

## Faculty Resources

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

No impact to 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.

Library collections, resources and services are sufficient to support this BFA program revision.

## EP Documentation

EP Control
EP.24.051
Number
Attach

Rollback/Approval
Notices
This proposal No requires HLC inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook BFA:Dance -UIUC
Name
Program Code: 10KR0261BFA
Minor Conc
Code
Code

| Degree BFA | Major |
| :--- | :--- |
| Code |  |

0261
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval NA
Date
Effective Date:
Attached
Document
Justification for this request

Program Reviewer Brooke Newell (bsnewell) (10/03/23 3:17 pm): Rollback: Email sent to Nicole Comments Brooke Newell (bsnewell) (11/01/23 8:40 am): Rollback: Per discussion with Nicole, Waiting on DANC 370 to go through workflow.

## Dance, BFA Sample Schedule

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| FIRST SEMESTER | HOURS | SECOND SEMESTER | HOURS |
| Composition I or Language Other than English (3rd level) | 4 | Composition I or Language Other than English (3rd level) | 4 |
| FAA 101 | 1 | DANC 150 | 1 |
| DANC 150 | 1 | DANC 160 | 2 |
| DANC 160 | 2 | DANC 270 | 1 |
| DANC 270 | 1 | DANC 232 | 2 |
| General Education course | 3 | DANC 162 | 1 |
| General Education course | 3 | General Education course | 3 |
|  |  | Free Elective course | 2 |
|  | 15 |  | 16 |
| Second Year |  |  |  |
| FIRST SEMESTER | HOURS | SECOND SEMESTER | HOURS |
| DANC 150 | 1 | DANC 245 | 1 |
| DANC 256 | 1 | DANC 260 | 3 |
| DANC 260 | 2 | DANC 362 | 2 |
| DANC 270 | 1 | DANC 220 | 1 |
| DANC 259 | 2 | Production Course List course | 1 |
| DANC 262 | 2 | DANC 240 | 4 |
| DANC 220 | 1 | DANC 350 | 4 |
| DANC 232 | 2 | Free Elective course | 1 |
| General Education course | 3 |  |  |
| Free Elective course | 1 |  |  |
|  | 16 |  | 17 |
| Third Year |  |  |  |
| FIRST SEMESTER | HOURS | SECOND SEMESTER | HOURS |
| DANC 245 | 1 | DANC 375 | 1 |
| DANC 360 | 2 | Focused Electives | 3 |
| DANC 362 | 2 | Physical Practice course from '5 hours' list | 2 |
| Physical Practice course from '5 hours' list | 2 | General Education course | 3 |
| DANC 220 | 1 | General Education course | 3 |
| DANC 345 | 3 | General Education course | 3 |
| DANC 441 | 3 | Free Elective course | 2 |
| Free Elective course | 2 |  |  |
| DANC 370 | 1 |  |  |
|  | 17 |  | 17 |
| Fourth Year |  |  |  |
| FIRST SEMESTER | HOURS | SECOND SEMESTER | HOURS |
| DANC 460 | 2 | DANC 460 | 2 |
| Production Course List course | 1 | Production Course List course | 1 |
| DANC 495 | 1 | DANC 495 | 1 |
| DANC 498 | 1 | DANC 498 | 1 |
| DANC 499 | 1 | DANC 499 | 1 |
| Physical Practice course from '5 hours' list | 1 | Course in School of Art + Design, School of Music, or Theatre Department | 3 |
| DANC 220 | 1 | General Education course | 3 |
| Focused Electives | 2 | Free Elective course | 3 |
| General Education course | 3 | Free Elective course | 1 |
| General Education course | 3 |  |  |
| 16 |  |  | 16 |

Date Submitted: 12/15/23 12:22 pm


Last approved: 05/11/21 3:22 pm
Last edit: 01/12/24 9:32 am
Changes proposed by: Scott Silverman

## Chemistry, BS

Catalog Pages Chemistry: Environmental Chemistry, BS
Program

Proposal Type:

In Workflow

1. U Program

Review
2. 1413 Head
3. SOCS Head
4. KV Dean
5. University

Librarian
6. COTE Programs
7. Provost
8. Senate EPC
9. Senate
10. U Senate Conf
11. Board of Trustees
12. IBHE
13. HLC
14. DMI

## Approval Path

1. $12 / 18 / 235: 27 \mathrm{pm}$ Donna Butler (dbutler):
Approved for $U$
Program Review
2. $12 / 18 / 235: 53 \mathrm{pm}$

Scott Silverman
(sks): Approved
for 1413 Head
3. $12 / 18 / 237: 51 \mathrm{pm}$

Paul Kenis (kenis):
Approved for
SOCS Head
4. 01/04/24 4:12 pm

Stephen Downie (sdownie):
Approved for KV
Dean
5. $01 / 04 / 244: 40 \mathrm{pm}$

Claire Stewart (clairest):
Approved for University
Librarian
6. 01/04/24 8:31 pm Suzanne Lee (suzannel): Approved for COTE Programs
7. 01/11/24 9:30 am Brooke Newell (bsnewell): 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)
5. Feb 11, 2021 by Amy Elli (amyelli)
6. May 11, 2021 by Amy Elli (amyelli)

Major (ex. Special Education)
This proposal is
for a:
Revision

## Administration Details

| Official Program | Chemistry, BS |  |
| :--- | :--- | :--- |
| Name |  |  |
| Diploma Title |  |  |
| Sponsor College | Liberal Arts \& Sciences |  |
| Sponsor <br> Department | Chemistry |  |
| Sponsor Name | Scott K. Silverman Silverman |  |
| Sponsor Email | sks@illinois.edu |  |
| College Contact | $\underline{\underline{\text { Stephen R. Downie Kelly Rittef }}}$College Contact |  |

College Budget Michael Wellens
Officer
College Budget wellens@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Scott K. Silverman, sks@illinois.edu
Does this program have inter-departmental administration?
No

## Proposal Title

Effective Catalog
Fall 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Bachelor of Science in Chemistry in the College of Liberal Arts and Sciences
Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

This Chemistry, BS proposal (key 272) is related to the Chemistry, BSLAS proposal (key 271) and the Chemistry: Environmental Chemistry, BS proposal (key 623).

## Program Justification

Provide a brief We are proposing six changes. (1) Removing CHEM 496, which has been deactivated. description of what changes are being made to the program. This was a footnote as a substitution option for transfer students only. (2) Moving all footnotes up into the Program of Study degree requirements table. (3) Adding the college orientation course, e.g., LAS 101. (4) In the POS table, combining the Technical Electives and Other technical courses sections, and moving MATH courses from Technical Electives to the Mathematics section. (5) Removing the formal Free Electives requirement, which served no purpose in that the students are already taking all such courses simply to reach the 120 hours degree requirement. (6) Adding two MATH course options.

Total credit hours will not change.
Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021

No

1. Removal of CHEM 496 because the course has been deactivated. This was a footnote as a substitution option for transfer students only.
2. Due to new guidance from campus for student transparency and clarity, footnotes are integrated into the POS.
3. The required college orientation course is added into the POS.
4. In the POS table, we are combining Technical Electives and Other technical courses into one category, because these were not actually separate requirements, which led to confusion. Also we are moving all MATH courses into a single Mathematics category, rather than split between two categories. The POS now more clearly, and without any overlap between categories, lists the requirements for each category of course work: Core Chemistry, Advanced Chemistry, Mathematics, Physics, and Technical Electives. The underlying requirements and number of hours (both for each category and in total) are not changed.

Explanation of why the Technical Electives requirement is listed as "7-9 hours": The existing Technical Electives requirement is 14 hours, but this includes one of MATH 225 ( 2 hours) or MATH 415 (3 or 4 hours) as well as MATH 285 ( 3 hours). Therefore, the actual existing Technical Electives requirement, after subtracting the two MATH courses, is 7-9 hours. We are maintaining this Technical Electives requirement, now that Mathematics is listed as a separate category.
5. We are removing the formal Free Electives requirement, which served no purpose in that the students are already taking all such courses simply to reach the 120 hours degree requirement.
6. We are updating the MATH course options to include two additional options, MATH 227 and MATH 257, each of which has a valuable computational component. The detailed justification follows.

At present, the Chemistry, BS program currently allows the linear algebra requirement to be satisfied by taking either MATH 225 (Introductory Matrix Theory) or MATH 415 (Applied Linear Algebra). We are proposing to add both MATH 227 (Linear Algebra for Data Science) and MATH 257 (Linear Algebra with Computational Applications) to the options satisfying the linear algebra requirements. With this proposal, the options will include that any of MATH 225, MATH 227, MATH 257, or MATH 415 can be used by Chemistry, BS majors to satisfy the linear algebra requirement.

MATH 227 and MATH 257 serve similar purposes as MATH 225 and MATH 415 in that they are introductory linear algebra linear algebra courses. From the perspective of the Chemistry, BS major, linear algebra is necessary to prepare students for CHEM 442 and CHEM 444, Physical Chemistry I and II, which require students to have a preexisting knowledge of matrices, vectors, matrix-matrix and matrix vector multiplication, determinants, dot products, orthonormalization, and diagonalization. All four MATH courses teach all of these subjects and are thus well-suited to satisfying the Chemistry, BS major requirements.

There are additional merits to including MATH 227 and MATH 257, which provide potential future advantages compared to the existing MATH 225 and MATH 415 options. First, MATH 227 and MATH 257 include computational components that MATH 225 lacks. These computational components allow students to develop practical programming skills for applying linear algebra to real science and engineering problems of relevant to modern society. Second, both MATH 227 and MATH 257 are lower-level course listings (200-level) than MATH 415, which is a course targeted primarily to Math or CS majors. In the modern era, data science and machine learning dominate the news headlines, and we believe that allowing Chemistry majors to fulfill the linear algebra requirement with MATH 227 or MATH 257 is critical to aligning the undergraduate Chemistry curriculum with modern standards in which computing and data analysis are essential. This direction is also tightly aligned with broader campus efforts to develop CS+X and DS+X degree programs, which use MATH 227 and MATH 257 as their baseline linear algebra courses. Third, adding this flexibility to the linear algebra requirement will future-proof the Chemistry major to modifications in the linear algebra courses offered on campus, while still allowing classes to transfer as courses that work for the Chemistry degree so that our transfer students can graduate in a reasonable amount of time.

Chemistry, BS (Specialized Curriculum) 40 hours upper division sample plan:

Required courses:
CHEM 312-3 hours
CHEM 315-2 hours
CHEM 420-2 hours
CHEM 436-3 hours
CHEM 442-4 hours
CHEM 444-4 hours
CHEM 445-2 hours
sum: 20 hours

11 hours Advanced Chemistry - all options are 300 or 400 level

The above add up to 31 hours, so at least 9 more qualifying hours are needed, likely coming from some combination of the following:

CHEM 236-4 hours (prerequisites: CHEM 104 or 204 or 222/223, all of which require CHEM 102)
CHEM 237-2 hours (prerequisites: credit or concurrent registration in CHEM 236, which requires CHEM 104 or 204 or $222 / 223$, all of which require CHEM 102)
MATH 241-4 hours (prerequisites: MATH 220/221 and 231)
MATH 257-3 hours (prerequisites: CS 101 and MATH 220/221)
MATH 285-3 hours (prerequisites: MATH 241, which requires MATH 220/221 and 231)
MATH 415-3 hours (prerequisites: MATH 241, which requires MATH 220/221 and 231)
PHYS 212-4 hours (prerequisites: PHYS 211 and credit or concurrent enrollment in
MATH 241, which requires MATH 220/221 and 231)
PHYS 214-2 hours (drereauisites: PHYS 211 and 212)

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

Yes
Courses outside
of the sponsoring
department/interdisciplinary
departments
MATH 227 - Linear Algebra for Data Sci
MATH 257 - Linear Algebra w Computat Appl
Please attach any supportingletter MATH.pdf
letters of
support/acknowledgement
for any
Instructional
Resources
consider faculty, students, and/or
other impacted
units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

## Unchanged from the Learning Outcomes listed at http://catalog.illinois.edu /undergraduate/las/chemistry-bs/\#learningoutcomestext

Students graduating with the BS in Chemistry will have:

1. A thorough knowledge of the basic principles of chemistry, including atomic and molecular structure, chemical dynamics and the chemical and physical properties of substances.
2. An exposure to the subfields of chemistry, such as analytical, organic, physical, materials, inorganic, as well as chemical biology.
3. The ability to read, evaluate, interpret, and present (via oral and written communication) numerical, chemical and general scientific data, information and literature.
4. The ability to carry out experiments, use appropriate experimental apparatus effectively, and demonstrate proper laboratory safety skills. Because we are removing the CHEM 152 requirement that was never actually implemented in the first place, we have no plan to do such an assessment.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

Program
Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?

## 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/PublicAdminRules2017.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.

Attach a revised Sample Sequence (for undergraduate program) or college-level forms.

## Catalog Page Text - Overview Tab

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

Specialized Curriculum

Graduation requires grade point averages of at least 2.0 overall and 2.0 in chemistry, mathematics, and physics courses.

Students in the Specialized Curriculum in Chemistry must include a course in Biochemistry in the Advanced Chemistry area or the Technical Electives area to be certified by the American Chemical Society as having met its specifications.

Departmental distinction: Students qualify for graduation with distinction by exhibiting superior performance in both course work and in senior thesis research. To be eligible, a student must have a UIUC coursework major grade point average of 3.25 , must take CHEM 499 (normally for two semesters) and submit a senior thesis for evaluation, and must have their undergraduate research advisor submit to the department Head a letter of support attesting to the effort invested by the student. The minimum major GPAs for Distinction, High Distinction, and Highest Distinction are 3.25, 3.5, and 3.75, respectively. Final decisions on awarding Distinction honors will be made by the Head or designee.

## Statement for

Programs of
Study Catalog
General education: Students must complete the Campus General Education requirements including the campus general education language requirement.
Minimum hours required for graduation: 120 hours, to include a minimum of 40 hours of upperdivision coursework generally at the 300 and 400 level. These hours can be drawn from all elements of the degree.

## Course List

Code Title Hours

Orientation and Professional Development
LAS 101 Design Your First Year Experience $\underline{\underline{1}}$
OR
LAS 100 Success in LAS for International Students3
\& LAS 101 and Design Your First Year Experience OR
LAS 102 Transfer Advantage $\underline{\underline{1}}$
Total Hours
1 or 3
Course List

| Code Title | Hours |
| :--- | :--- |
| Core Chemistry 1 | 37 |
| Major Core Requirements and Electives |  |

CHEM 150 First Semester Success in Chemistry (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 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.)
CHEM 202 Accelerated Chemistry I
CHEM 203 Accelerated Chemistry Lab I
CHEM 204 Accelerated Chemistry II
CHEM 205 Accelerated Chemistry Lab II
If necessary, CHEM 102, CHEM 103, CHEM 104, CHEM 105, CHEM 222, and CHEM 223 may be substituted for CHEM 202, CHEM 203, CHEM 204, and CHEM 205.
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
CHEM or BIOC courses numbered 300 or higher, which must include three laboratory courses from the following:
CHEM 317 Inorganic Chemistry Lab
CHEM 437 Organic Chemistry Lab
CHEM-447 Physical Principles Lab II 4
CHEM 447 Physical Principles Lab II
CHEM 483 Solid State Structural Anlys
BIOC 455 Technqs Biochem \& Biotech
CHEM 317 Inorganic Chemistry Lab
CHEM 437 Organic Chemistry Lab
A student who has earned at least 6 credit hours in any combination of CHEM 397, CHEM 497, or CHEM 499 must complete only two laboratory courses from the list, one of which must be CHEM 317, CHEM 437, or CHEM 447.
Mathematics:
Mathematics
MATH 220 Calculus
or MATH 221 Calculus I
MATH 225 Introductory Matrix Theory
or MATH 227Linear Algebra for Data Science
or MATH 257Linear Algebra with Computational Applications
or MATH 415Applied Linear Algebra
MATH 231 Calculus II
MATH 241 Calculus III

PHYS 211 University Physics: Mechanics
PHYS 212 University Physics: Elec \& Mag
PHYS 214 Univ Physics: Quantum Physics
Fechnical Electives, including the following
Technical Electives
CHEM (300 or higher), BIOC, CHBE (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 1997
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
Advanced Composition 9
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
Other courses in the physical and biological sciences and engineering including CHEM 199 (Three hours maximum credit in CHEM 199. Additional courses in sciences and engineering can be taken, upon consultation with the SCS advisor and approval from the chemistry department. Approved courses must generally have a strong technical prerequisite, such as one year of college-level math or science.)
Strongly Recommended:
CHEM-499 Senior Thesis (maximum of 10 hours)
Recommended: basic computer science
Other technical courses chosen from:
Chemistry ( 300 or higher), biochemistry, chemical engineering (200 or higher)
120 hours.
$\mathbf{4}$ Hours given are those typical to meet requirement. $\mathbf{z}$
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\%7C, CHEM 103\%7C,
CHEM 104\%7C and CHEM 105\%7C 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 effered only in the fall semester.
4
The course chosen from CHEM 317, CHEM 437, or CHEM 447 cannot be used to satisfy the additionat chemistry lab requirement.

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.
6Students 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.
41
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 tanguage nontechnical requirement.

```
Corresponding BS Bachelor of Science
Degree
```


## Program Features

Academic Level Undergraduate
Does this major Yes
have transcripted
concentrations?
Will you admit to No
the concentration
directly?
Is a concentration No
required for
graduation?
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
CIP Code 400501 - Chemistry, General.

Is This a Teacher Certification Program?
Yes
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is
available:
On Campus - Students are required to be on campus, they may take some online courses.

## Admission Requirements

Desired Effective Fall 2024
Admissions Term
Is this revision a change to the admission status of the program?

No
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.

## N/A

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

No impact on enrollment and degrees awarded is expected.
Estimated Annual Number of Degrees Awarded
Year One Estimate
5th Year Estimate (or when
fully implemented)
What is the Fall
matriculation
term for this
program?

## Budget

Are there
No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.) beyond what is currently available?

There is no budget implication, other than perhaps a slight reduction in graduate TA usage relative to the situation in which CHEM 152 is required. However, because CHEM
152 was never offered as a required course, the actual budget implication is zero,
relative to the situation before CHEM 152 was first proposed.
Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
No impact on There is no financial resources is expected. impact.
Will the unit need to seek campus or other external resources?
No
Attach letters of support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

## Chemistry Differential

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

## No

## Faculty Resources

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

This will not affect 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.

We shared and discussed this revision with Mary Schlembach, Chemistry Librarian. The library collections, resources and services are sufficient to support this proposal.

## EP Documentation

EP Control<br>Number<br>Attach<br>Rollback/Approval<br>Notices

EP.24.051

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook
BS:Chemistry -UIUC
Name
Program Code: 10KV0335BS
Minor Conc 0335

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for this request

Program Reviewer Comments

Brooke Newell (bsnewell) (10/09/23 12:27 pm): Rollback: Email sent to Scott, Andrea and Stephen
Brooke Newell (bsnewell) (11/30/23 2:54 pm): Rollback: Email sent to Scott, Andrea and Stephen
Brooke Newell (bsnewell) (12/12/23 1:53 pm): Rollback: Per conversation with Scott, rolled back


Department of Mathematics, 273 Altgeld Hall
1409 W. Green St. (MC-382), Urbana, IL 60801

October 9, 2023

To whom it may concern:

The Department of Mathematics supports the Department of Chemistry proposal to revise the Chemistry, BS degree and its Environmental Chemistry concentration with regard to the Technical Electives for Required Mathematics.

The two current options in this regard are MATH 225 (Introductory Matrix Theory) and MATH 415 (Applied Linear Algebra). The proposal is to add MATH 227 (Linear Algebra for Data Science) and MATH 257 (Linear Algebra with Computational Applications) as two additional options. Because the number of Chemistry, BS majors who take MATH 415 is currently <10 students per semester, and likely not all of those students will move to take MATH 227 or 257 instead, the anticipated instructional impact on Math is low. Therefore, we are pleased to support this proposal, in the context that increasing numbers of Chemistry majors are interested in mathematics that includes a component relevant to computational applications, as is covered by MATH 227 and 257.

Sincerely,


Vera Hur
Professor and Chair, Mathematics

Sample Sequence for Chemistry, BS
http://catalog.illinois.edu/undergraduate/las/chemistrybs/\#degreerequirementstext

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| LAS 101 | 1 | CHEM 204 (Gen Ed: NST) | 3 |
| CHEM 150 | 1 | CHEM 205 | 2 |
| CHEM 202 (Gen Ed: NST) | 3 | MATH 231 (Gen Ed: QRI) | 3 |
| CHEM 203 | 2 | PHYS 211 (Gen Ed: NST \& QR II) | 4 |
| MATH 220 or MATH 221 (Gen Ed: QRI) | 4-5 (use 4) | Composition I course - or, LOTE (3rd level) | 3 |
| LOTE (3rd level) - or Composition I course | 4 |  |  |
| semester sum | 15 | semester sum | 15 |
| Second Year |  |  |  |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| CHEM 236 | 4 | CHEM 436 | 3 |
| CHEM 237 | 2 | Advanced Chemistry course (Lab) | 3 |
| PHYS 212 (Gen Ed: NST \& QR II) | 4 | PHYS 214 (Gen Ed: NST \& QR II) | 2 |
| MATH 241 (Gen Ed: QR II) | 4 | MATH 225 or MATH 227 or MATH 257 or MATH 415 | 2-4 (use 3) |
| General Education course | 3 | MATH 285 (Gen Ed: QR II) | 3 |
|  |  | General Education course | 3 |
| semester sum | 17 | semester sum | 17 |



Chemistry, BS




| ${ }^{10}$ 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 firstyear 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. |  |

Date Submitted: 12/15/23 12:23 pm

## Viewing: 10KV5023BS : Chemistry: Environmental Chemistry, BS

Last approved: 03/07/19 2:20 pm
Last edit: 01/12/24 9:32 am
Changes proposed by: Scott Silverman
Chemistry: Environmental Chemistry, BS
Catalog Pages
Using this
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1413 Head
3. SOCS Head
4. KV Dean
5. University

Librarian
6. COTE Programs
7. Provost
8. Senate EPC
9. Senate
10. U Senate Conf
11. Board of Trustees
12. IBHE
13. HLC
14. DMI

## Approval Path

1. $12 / 18 / 235: 27 \mathrm{pm}$ Donna Butler (dbutler):
Approved for U
Program Review
2. $12 / 18 / 235: 53 \mathrm{pm}$

Scott Silverman
(sks): Approved
for 1413 Head
3. $12 / 18 / 237: 52 \mathrm{pm}$

Paul Kenis (kenis):
Approved for
SOCS Head
4. 01/04/24 4:12 pm

Stephen Downie (sdownie):
Approved for KV
Dean
5. 01/04/24 4:37 pm

Claire Stewart (clairest):
Approved for University
Librarian
6. 01/04/24 8:32 pm

Suzanne Lee (suzannel): Approved for COTE Programs
7. 01/11/24 9:30 am Brooke Newell (bsnewell): Approved for Provost

## History

1. Mar 7, 2019 by Deb Forgacs (dforgacs)

Concentration (ex. Dietetics)
This proposal is
for a:
Revision

## Administration Details

Official Program Chemistry: Environmental Chemistry, BS
Name
Diploma Title
Sponsor College Liberal Arts \& Sciences
Sponsor Chemistry
Department

| Sponsor Name | $\underline{\underline{\text { Scott K. Silverman }}}$ |  |
| :--- | :--- | :--- |
| Sponsor Email | $\underline{\underline{\text { sks@illinois.edu }}}$ |  |
| College Contact | $\underline{\underline{\text { Stephen R. Downie }}}$ | College Contact |

sdownie@illinois.edu
College Budget Michael Wellens
Officer
College Budget wellens@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Scott K. Silverman, sks@illinois.edu

## Proposal Title

## Effective Catalog

Fall 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Concentration in Environmental Chemistry in the Bachelor of Science in Chemistry in the College of Liberal Arts and Sciences

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567 ) is related to the Concentration A proposal (key 145)."

This Chemistry: Environmental Chemistry, BS proposal (key 623) is related to the Chemistry, BSLAS proposal (key 271) and the Chemistry, BS proposal (key 272).

## Program Justification

Provide a brief We are proposing ten changes. (1) Removing CHEM 496, which has been deactivated.
description of what changes are being made to the program. This was a footnote as a substitution option for transfer students only. (2) Moving all footnotes up into the Program of Study degree requirements table. (3) Adding the college orientation course, e.g., LAS 101. (4) In the POS table, combining the Technical Electives and Other technical courses sections, and moving MATH courses from Technical Electives to the Mathematics section. (5) Removing the formal Free Electives requirement, which served no purpose in that the students are already taking all such courses simply to reach the 120 hours degree requirement. (6) Adding the major requirements as part of the campuswide concentration transparency project. (7) Adding several addition advanced course options into the required Technical Elective Courses list for this concentration. (8) Removing IB 485 from the list of Technical Elective Courses for the concentration because this course was deactivated. (9) Clarifying that the Technical Elective Courses for the concentration can be used to satisfy the Technical Electives for the major itself. (10) Updating the MATH course options that may be used to satisfy the Technical Electives.

Total credit hours will not change.
Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

1. Removal of CHEM 496 because the course has been deactivated. This was a footnote as a substitution option for transfer students only.
2. Due to new guidance from campus for student transparency and clarity, footnotes are integrated into the POS.
3. The required college orientation course is added into the POS.
4. In the POS table, we are combining Technical Electives and Other technical courses into one category, because these were not actually separate requirements, which led to confusion. Also we are moving all MATH courses into a single Mathematics category, rather than split between two categories. The POS now more clearly, and without any overlap between categories, lists the requirements for each category of course work: Core Chemistry, Advanced Chemistry, Mathematics, Physics, and Technical Electives. The underlying requirements and number of hours (both for each category and in total) are not changed.

Explanation of why the Technical Electives requirement is listed as "7-9 hours": The existing Technical Electives requirement is 14 hours, but this includes one of MATH 225 ( 2 hours) or MATH 415 (3 or 4 hours) as well as MATH 285 ( 3 hours). Therefore, the actual existing Technical Electives requirement, after subtracting the two MATH courses, is 7-9 hours. We are maintaining this Technical Electives requirement, now that Mathematics is listed as a separate category.
5. We are removing the formal Free Electives requirement, which served no purpose in that the students are already taking all such courses simply to reach the 120 hours degree requirement.
6. Adding the major requirements as part of the campuswide concentration transparency project.
7. The existing listing of required Technical Elective Courses for the Environmental Chemistry Concentration does not include several courses in other units that currently are routinely approved on a case-by-case basis when students inquire. It will be simpler for everyone, especially students, if these courses are present as approved directly within the listing.
8. Removing IB 485 from the list of Technical Elective Courses for the concentration because this course was deactivated.
9. In the Technical Elective Courses for the concentration, we now state, "These courses can contribute, in whole or in part, to the required 7-9 hours of technical electives for the Specialized Curriculum in Chemistry." This states explicitly what has always been the practice, which is that the technical electives taken to satisfy the concentration can be used to satisfy the major itself.
10. We are updating the MATH course options for the Technical Electives to include two additional options, MATH 227 and MATH 257, each of which has a valuable
computational component. The detailed justification follows.

At present, the Chemistry, BS program currently allows the linear algebra requirement to be satisfied by taking either MATH 225 (Introductory Matrix Theory) or MATH 415 (Applied Linear Algebra). We are proposing to add both MATH 227 (Linear Algebra for Data Science) and MATH 257 (Linear Algebra with Computational Applications) to the options satisfying the linear algebra requirements. With this proposal, the options will include that any of MATH 225, MATH 227, MATH 257, or MATH 415 can be used by Chemistry, BS majors to satisfy the linear algebra requirement.

MATH 227 and MATH 257 serve similar purposes as MATH 225 and MATH 415 in that they are introductory linear algebra linear algebra courses. From the perspective of the Chemistry, BS major, linear algebra is necessary to prepare students for CHEM 442 and CHEM 444, Physical Chemistry I and II, which require students to have a preexisting knowledge of matrices, vectors, matrix-matrix and matrix vector multiplication, determinants, dot products, orthonormalization, and diagonalization. All four MATH courses teach all of these subjects and are thus well-suited to satisfying the Chemistry, BS major requirements.

There are additional merits to including MATH 227 and MATH 257, which provide potential future advantages compared to the existing MATH 225 and MATH 415 options. First, MATH 227 and MATH 257 include computational components that MATH 225 lacks. These computational components allow students to develop practical programming skills for applying linear algebra to real science and engineering problems of relevant to modern society. Second, both MATH 227 and MATH 257 are lower-level course listings (200-level) than MATH 415, which is a course targeted primarily to Math or CS majors. In the modern era, data science and machine learning dominate the news headlines, and we believe that allowing Chemistry majors to fulfill the linear algebra requirement with MATH 227 or MATH 257 is critical to aligning the undergraduate Chemistry curriculum with modern standards in which computing and data analysis are essential. This direction is also tightly aligned with broader campus efforts to develop CS+X and DS+X degree programs, which use MATH 227 and MATH 257 as their baseline linear algebra courses. Third, adding this flexibility to the linear algebra requirement will future-proof the Chemistry major to modifications in the linear algebra courses offered on campus, while still allowing classes to transfer as courses that work for the Chemistry degree so that our transfer students can graduate in a reasonable amount of time.

Environmental Chemistry concentration 40 hours upper division sample plan:

Required courses:
CHEM 312-3 hours
CHEM 315-2 hours
CHEM 420-2 hours
CHEM 436-3 hours
CHEM 442-4 hours
CHEM 444-4 hours
CHEM 445-2 hours

11 hours Advanced Chemistry - all options are 300 or 400 level

The above add up to 31 hours, so at least 9 more qualifying hours are needed, likely coming from some combination of the following:

CHEM 236-4 hours (prerequisites: CHEM 104 or 204 or 222/223, all of which require CHEM 102)
CHEM 237-2 hours (prerequisites: credit or concurrent registration in CHEM 236, which requires CHEM 104 or 204 or 222/223, all of which require CHEM 102)
MATH 241-4 hours (prerequisites: MATH 220/221 and 231)
MATH 257-3 hours (prerequisites: CS 101 and MATH 220/221)
MATH 285-3 hours (prerequisites: MATH 241, which requires MATH 220/221 and 231)
MATH 415-3 hours (prerequisites: MATH 241, which requires MATH 220/221 and 231)
PHYS 212-4 hours (prerequisites: PHYS 211 and credit or concurrent enrollment in MATH 241, which requires MATH 220/221 and 231)
PHYS 214-2 hours (prerequisites: PHYS 211 and 212)
(Degree requirements for Environmental Chemistry concentration: Students will take a 3-hour, 300 level basic course in environmental chemistry and three 3-hour, upperlevel advanced technical courses in environmental areas. These courses can be used as part of the required 7-9 hours of technical electives for the Specialized Curriculum in Chemistry.)

Required Technical Elective Courses for the Environmental Chemistry Concentration Basic courses - 3 hours
CHEM 360 Chemistry of the Environment - 3 hours
or CEE 330 Environmental Engineering - 3 hours
Advanced Courses: Select three courses from the following: - 9 hours
ATMS 420 Atmospheric Chemistry - 4 hours
ATMS 449-Biogeochemical Cycles - 4 hours
CEE 443 - Env Eng Principles, Chemical - 4 hours
CHEM 397 Individual Study Junior - 1-3 hours
CHEM 460 Green Chemistry - 3 or 4 hours
CHEM 497 Individual Study Senior - 1-3 hours
CHEM 499 Senior Thesis - 2-6 hours
GEOL 380 Environmental Geology - 4 hours
GEOL 460 Geochemistry - 4 hours
NRES 351 Introduction to Environmental Chemistry - 3 hours
NRES 487 Soil Chemistry - 3 hours
NRES 490 Surface Water System Chemistry - 4 hours
Other 400 level courses dealing with economic, engineering, biological aspects of environmental chemistry upon consultation with the faculty advisor.

Total equals 40 hours

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

Yes
Courses outside
of the sponsoring
department/interdisciplinary
departments
ATMS 420-Atmospheric Chemistry
ATMS 449- Biogeochemical Cycles
GEOL 460 - Geochemistry
NRES 351 - Introduction to Environmental Chemistry
NRES 487-Soil Chemistry
NRES 490 - Surface Water System Chemistry
MATH 227 - Linear Algebra for Data Sci
MATH 257 - Linear Algebra w Computat Appl
Please attach any supporting letter NRES.pdf
letters of supporting letter ESEC.pdf
support/acknowledgesomepptortingletter ATMS.pdf
for any supporting letter MATH.pdf
Instructional
Resources
consider faculty, students, and/or
other impacted
units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

## Unchanged from the Learning Outcomes listed at http://catalog.illinois.edu /undergraduate/las/chemistry-bs/\#learningoutcomestext

Students graduating with the BS in Chemistry will have:

1. A thorough knowledge of the basic principles of chemistry, including atomic and molecular structure, chemical dynamics and the chemical and physical properties of substances.
2. An exposure to the subfields of chemistry, such as analytical, organic, physical, materials, inorganic, as well as chemical biology.
3. The ability to read, evaluate, interpret, and present (via oral and written communication) numerical, chemical and general scientific data, information and literature.
4. The ability to carry out experiments, use appropriate experimental apparatus effectively, and demonstrate proper laboratory safety skills. migration

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

Program
Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?

## 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/PublicAdminRules2017.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.

Revised programs Comparative Table_Env Chemistry ${ }_{\text {L }}$ BS_SKS01.xIsx



| Code | Title | Hours |
| :---: | :---: | :---: |
| ATMS 420 | Atmospheric Chemistry |  |
| ATMS 449 | Biogeochemical Cycles |  |
| CEE 443 | Env Eng Principles, Chemical |  |
| CHEM 397 | Individual Study Junior |  |
| CHEM 460 | Green Chemistry |  |
| CHEM 497 | Individual Study Senior |  |
| CHEM 499 | Senior Thesis |  |
| GEOL 380 | Environmental Geology |  |
| GEOL 460 | Geochemistry |  |
| NRES 351 | Introduction to Environmental Chem |  |
| NRES 487 | Soil Chemistry |  |
| NRES 490 | Surface Water System Chemistry |  |
| Other 400 level courses dealing with economic, engineering, or biological aspects of environmental |  |  |
| chemistry, upon consultation with the SCS advisor and approval of the chemistry department. |  |  |
| Course List |  |  |
| Code | Fitle | Hours |
| Required Technical Elective Courses for the Environmental Chemistry Concentration |  |  |
| Basic Courses |  |  |
| CHEM 360 | Chemistry of the Environment | 3 |
| or CEE 330 | Environmental Engineering |  |
| 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 | Course IB 485 Not Found |  |
| 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. |  |  |

## Program Relationships

## Corresponding

Program(s):
Corresponding Program(s)
Chemistry, BS

## Program Features

Academic Level Undergraduate
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

Additional concentration notes (e.g., estimated enrollment, advising plans, etc.)

## Delivery Method

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.
Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

No impact on enrollment and degrees awarded is expected.

## Budget

```
Are there
                            No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
    No
Additional Budget
Information
Attach File(s)
```


## Financial Resources

How does the unit intend to financially support this proposal?
No impact on financial resources is expected. migration
Will the unit need to seek campus or other external resources?
No
Attach letters of support

## Faculty Resources

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

This will not affect 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.

We shared and discussed this revision with Mary Schlembach, Chemistry Librarian. The library collections, resources and services are sufficient to support this proposal.

## EP Documentation

EP Control<br>EP.24.051

Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook BS: Chemistry: Env Chem -UIUC
Name
Program Code: 10KV5023BS

| Minor | Conc | 5023 | Degree | BS |
| :--- | :--- | :--- | :--- | :--- |
| Code | Code |  | Code | Major |
| Code |  |  |  |  |

0335
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:

Justification for this request

Program Reviewer Comments

Brooke Newell (bsnewell) (10/09/23 12:32 pm): Rollback: Email sent to Scott Brooke Newell (bsnewell) (11/30/23 2:54 pm): Rollback: Email sent to Scott, Andrea and Stephen
Brooke Newell (bsnewell) (12/12/23 1:56 pm): Rollback: Per conversation with Scott

Scott K. Silverman<br>Professor of Chemistry and Associate Head of Budget and Operations<br>Department of Chemistry, University of Illinois

19 September 2023

Dear Dr. Silverman,

The Department of Natural Resources and Environmental Sciences supports the addition of three of our courses to the technical elective courses for the requirements of the Environmental Chemistry concentration within the Chemistry degree. Those courses to be added are NRES 351-Introduction to Environmental Chemistry, NRES 487-Soil Chemistry, and NRES 490-Surface Water Chemistry.

Thank you for reaching out about adding NRES courses to your list of electives. The expected additional students should not have any negative impacts on the courses. Please let me know if I can of any further help.

Best regards,


Robert L. Schooley
Professor and Head
unuessity of

Sept 14, 2023

Prof Scott Silverman
Associate Head, Dept of Chemistry

Dear Scott,

We are happy for you to include GEOL 460 (Geochemistry) within the Environmental Chemistry specialized curriculum within the chemistry major. We anticipate the instructional impact on ESEC will be minimal, and we welcome your majors into this class as well as these students into GEOL 380 (already listed for this major).

Sincerely,


Craig Lundstrom
Head, Department of Earth Science \& Environmental Change

# COLLEGE OF LIBERAL ARTS AND SCIENCES 

Department of Atmospheric Sciences
3074 Natural History Building, MC-104 1301 West Green Street Urbana, IL 61801

September 14, 2023

To whom it may concern-

This letter is in regard to the proposed modification of the Environmental Chemistry, BS degree list of approved elective courses by the Department of Chemistry.

The proposal seeks to add two of the Department of Atmospheric Science's regularly-offered elective courses, ATMS 420 Atmospheric Chemistry, and ATMS 449 Biogeochemical Cycles to the aforementioned list of courses.

This modification will have minimal instructional impact on our Department's offering of these two courses, and thus the Department of Atmospheric Sciences fully supports this proposal.

With best regards,


Stephen W. Nesbitt
Professor and Head


Department of Mathematics, 273 Altgeld Hall
1409 W. Green St. (MC-382), Urbana, IL 60801

October 9, 2023

To whom it may concern:

The Department of Mathematics supports the Department of Chemistry proposal to revise the Chemistry, BS degree and its Environmental Chemistry concentration with regard to the Technical Electives for Required Mathematics.

The two current options in this regard are MATH 225 (Introductory Matrix Theory) and MATH 415 (Applied Linear Algebra). The proposal is to add MATH 227 (Linear Algebra for Data Science) and MATH 257 (Linear Algebra with Computational Applications) as two additional options. Because the number of Chemistry, BS majors who take MATH 415 is currently <10 students per semester, and likely not all of those students will move to take MATH 227 or 257 instead, the anticipated instructional impact on Math is low. Therefore, we are pleased to support this proposal, in the context that increasing numbers of Chemistry majors are interested in mathematics that includes a component relevant to computational applications, as is covered by MATH 227 and 257.

Sincerely,


Vera Hur
Professor and Chair, Mathematics

Sample Sequence for Chemistry: Environmental Chemistry, BS
http://catalog.illinois.edu/undergraduate/las/chemistry-bs/environmentalchemistry/\#degreerequirementstext

| First Year |  |  |  |
| :--- | :---: | :--- | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| LAS 101 | 1 | CHEM 204 (Gen Ed: NST) | 3 |
| CHEM 150 | 1 | CHEM 205 | 2 |
| CHEM 202 (Gen Ed: NST) | 3 | MATH 231 (Gen Ed: QR I) | 3 |
| CHEM 203 | 2 | PHYS 211 (Gen Ed: NST \& QR II) | 4 |
| $\begin{array}{l}\text { MATH 220 or MATH 221 (Gen Ed: } \\ \text { QR I) }\end{array}$ | $4-5$ (use 4) | $\begin{array}{l}\text { Composition I course - or, LOTE } \\ \text { (3rd level) }\end{array}$ | 3 |
| $\begin{array}{l}\text { LOTE (3rd level) - or, Composition I } \\ \text { Course }\end{array}$ | 4 |  | semester sum |$] 15$


| Third Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| CHEM 442 | 4 | CHEM 444 | 4 |
| CHEM 420 | 2 | CHEM 445 | 2 |
| CHEM 315 | 2 | CHEM 312 | 3 |
| General Education courses | 6 | CHEM 360 or CEE 330 (Environmental technical elective) | 3 |
|  |  | General Education course | 3 |
| semester sum | 14 | semester sum | 15 |
| Fourth Year |  |  |  |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| Advanced Chemistry course | 3 | Advanced Chemistry course (Lab) | 2-4 (use 2) |
| Advanced Chemistry course (Lab) | 2-4 (use 3) | Environmental technical electives | 6 |
| Environmental technical elective | 3 | General Education course | 3 |
| General Education courses | 6 | Free elective course | 1 |
|  |  |  |  |
|  |  |  |  |
| semester sum | 15 | semester sum | 12 |
| Total Hours: 120$\qquad$ (Add up individual semester sums. Must equal degree total minimum hours requirement listed on the degree's requirements page in the catalog.) |  |  |  |

Chemistry: Environmental Chemistry, BS


| CHEM 483 |  |
| :---: | :---: |
| Additional chemistry/biochemistry courses to complete the 11-hour requirement in advanced chemistry |  |
| Mathematics: | 11-12 |
| MATH 220 or MATH 221 |  |
| MATH 231 |  |
| MATH 241 |  |
|  |  |
| Physics: | 10 |
| PHYS 211 |  |
| PHYS 212 |  |
| PHYS 214 |  |
| Technical Electives, including the following: | 14 |
| Required Mathematics: |  |
| MATH 225 or MATH 415 |  |
| MATH 285 or equivalent |  |
| Strongly recommended: |  |
| CHEM 499 |  |
| 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 phsyical and biological sciences and engineering including CHEM 199 |  |
| Nontechnical Requirements | Variable |
| General Education: |  |
| Foreign-language-three semesters of college study (or three years of high school study) in a foreign language |  |
| Composition I |  |
| Advanced Composition |  |
| Humanities/Arts to satisfy the campus general education requirements |  |
| Social/Behavioral sciences to satisfy the campus general education requirements |  |
| Cultural Studies to satisy the campus general education requirement |  |
| Free electives | 30 |
| Required Technical Elective Courses for the Environmental Chemistry Concentration |  |



|  |  |
| :--- | :---: |
|  |  |
| Basic Courses | 3 |
| CHEM 360 or CEE 330 |  |
|  | 9 |
| Advanced Courses: Select three courses <br> from the following: |  |
|  |  |
| CHEM 460 |  |
|  |  |
| CEE 443 |  |
|  |  |
|  |  |
|  |  |
| GEOL 380 |  |
|  |  |
|  |  |
|  |  |
|  |  |
| IB 485 |  |
| CHEM 397 |  |
| CHEM 497 |  |
| CHEM 499 |  |
| Oconomic, engineering, biological aspects <br> of environmnetal chemistry upon <br> consultation with the faculty advisor. |  |
|  |  |


| These courses can contribute, in whole or <br> in part, to the required 7-9 hours of <br> technical electives for the Specialized <br> Curriculum in Chemistry. |  |
| :--- | :---: |
| Basic Courses |  |
| CHEM 360 or CEE 330 | 3 |
|  | 9 |
| Advanced Courses |  |
| Select three courses from the following: |  |
|  |  |
| ATMS 420 |  |
| ATMS 449 |  |
| CEE 443 |  |
| CHEM 397 |  |
| CHEM 460 |  |
| CHEM 497 |  |
| CHEM 499 |  |
| GEOL 380 |  |
| GEOL 460 |  |
| NRES 351 |  |
| NRES 487 |  |
| NRES 490 |  |
|  |  |
|  |  |
| Other 400-level courses dealing with <br> economic, engineering, or biological <br> aspects of environmental chemistry, upon <br> consultation with the SCS advisor and <br> approval of the chemistry department. |  |

Date Submitted: 12/15/23 12:22 pm

## Viewing: 10KV0335BSLA : Chemistry, <br> BSLAS

Last approved: 02/11/21 7:37 am
Last edit: 01/12/24 9:33 am
Changes proposed by: Scott Silverman
Catalog Pages Chemistry, BSLAS
Using this $\quad$ Chemistry: Chemistry Teaching, BSLAS
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1413 Head
3. SOCS Head
4. KV Dean
5. University

Librarian
6. COTE Programs
7. Provost
8. Senate EPC
9. Senate
10. U Senate Conf
11. Board of Trustees
12. IBHE
13. HLC
14. DMI

## Approval Path

1. $12 / 18 / 235: 27 \mathrm{pm}$ Donna Butler (dbutler):
Approved for $U$
Program Review
2. $12 / 18 / 235: 53 \mathrm{pm}$

Scott Silverman
(sks): Approved
for 1413 Head
3. $12 / 18 / 237: 53 \mathrm{pm}$

Paul Kenis (kenis):
Approved for
SOCS Head
4. 01/04/24 4:12 pm

Stephen Downie (sdownie):
Approved for KV
Dean
5. 01/04/24 4:39 pm

Claire Stewart
(clairest):
Approved for
University
Librarian
6. 01/04/24 8:32 pm

Suzanne Lee (suzannel): Approved for COTE Programs
7. 01/11/24 9:30 am Brooke Newell (bsnewell): 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)
4. Feb 11, 2021 by Amy Elli (amyelli)

> Major (ex. Special Education)

This proposal is
for a:
Revision

## Administration Details

| Official Program <br> Name | Chemistry, BSLAS |  |
| :--- | :--- | :--- |
| Diploma Title |  |  |
| Sponsor College | Liberal Arts \& Sciences |  |
| Sponsor | Chemistry |  |
| Department | Scott K. Silverman |  |
| Sponsor Name sks@illinois.edu |  |  |
| Sponsor Email  <br> College Contact Stephen R. Downie Kelly Ritter |  |  |

sdownie@illinois.edu ritterk@illinois.edu
College Budget Michael Wellens

## Officer

College Budget
wellens@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Scott K. Silverman, sks@illinois.edu
Does this program have inter-departmental administration?
No

## Proposal Title

Effective Catalog Fall 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Bachelor of Science in Liberal Arts and Sciences in Chemistry in the College of Liberal Arts and Sciences

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

This Chemistry, BSLAS proposal (key 271) is related to the Chemistry, BS proposal (key 272) and the Chemistry: Environmental Chemistry, BS (key 623).

## Program Justification

Provide a brief We are proposing five changes. (1) Removing CHEM 496, which has been deactivated.
description of what changes are being made to the program. This was a footnote as a substitution option for transfer students only. (2) Moving all footnotes up into the Program of Study degree requirements table. (3) Adding the college orientation course, e.g., LAS 101. Total credit hours will not change. (4) Simplifying the POS header text. The requirement itself will not change. (5) Revising the displayed number of "Chemistry and biochemistry" hours. The requirement itself will not change.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Why are these changes necessary?

1. Removal of CHEM 496 because the course has been deactivated. This was a footnote as a substitution option for transfer students only.
2. Due to new guidance from campus for student transparency and clarity, footnotes are integrated into the POS.
3. The required college orientation course is added into the POS.
4. We have simplified the POS header text to remove unnecessary information.
5. We have revised the displayed number of "Chemistry and biochemistry" hours, from 22-26 hours to 30 hours. The requirement itself does not change. Formerly, "Chemistry and biochemistry" hours were listed as 22-26, with additional "Two other 300- or 400level courses, at least one of which must be outside physical chemistry" at 4-8 hours, for a sum of 30 hours. Our revision more clearly brings all of these 30 hours under the single header of "Chemistry and biochemistry courses". A note in the POS covers the now-deleted "Two other 300- or 400-level..." text, as follows: "At least 12 of the 30 hours must be at the 300 or 400 level, including at least one course outside physical chemistry. These 12 hours must include CHEM 440 or CHEM 442 and may include MCB 354 or MCB 450." MCB 354 and 450 are included because they are biochemistry courses.

Chemistry, BSLAS 40 hours upper division sample plan:

Required courses:
CHEM 440-4 hours
CHEM 300 or 400 level electives - 8+ hours (typical BSLAS chemistry major: 15-16 advanced CHEM hours)

The above add up to $12+$ hours, so at least 28 more qualifying hours are needed.

10 hours of 200 level courses with 2 prerequisites
CHEM 232-4 hours (prerequisites: CHEM 104 or 204 or 222/223, all of which require CHEM 102)
CHEM 233-2 hours (prerequisites: credit or concurrent registration in CHEM 232, which requires CHEM 104 or 204 or 222/223, all of which require CHEM 102) MATH 241-4 hours (prerequisites: MATH 220/221 and 231)

At least 18 more qualifying hours are needed. Of the free electives in the sample sequence, 18 of those hours must be additional advanced courses at 300 or 400 level in various disciplines, on top of the 12 hours of CHEM listed above that are currently required by campus/LAS.

Total equals 40 hours

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

Yes
Courses outside
of the sponsoring
department/interdisciplinary
departments
MCB 354 - Biochem \& Phys Basis of Life
MCB 450- Introductory Biochemistry
Please attach any supportingletter MCB.pdf
letters of support/acknowledgement
for any
Instructional
Resources
consider faculty,
students, and/or
other impacted
units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

Unchanged from the Learning Outcomes listed at http://catalog.illinois.edu /undergraduate/las/chemistry-bslas/\#learningoutcomestext

Students graduating with the BSLAS in Chemistry (Sciences \& Letters) will have:
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 studentlearning.1. The CURE survey (https://www.grinnell.edu/academics/resources/ctla/assessment/cure-survey) is a nationally recognized survey used by manyinstitutions. A thorough knowledge The survey utilizes questions from pretest at the beginning of the basic principles of chemistry, including atomic semester and molecular structure, chemical dynamics and the chemical and physical properties of substances. posttest at the end of the semester to assess student learning.

The survey is "open source" - any higher education organization or program that has elassroom or laboratory components of undergraduate research education can access and freely distribute the survey tostudents. 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'sresults. Yi Lu has used this survey to assess CHEM 199Lpreviously.See Denofrio LA, Russell B, Lopatto D \& Lu Y (2007)Mentoring:Linking student interests to sciencecurricula.Science318:1872-1873.2. Interviews:An exposure to the subfields we will conduct interviews of chemistry, such as analytical, organic, physical, materials, inorganic, as well as chemical biology. the students from each course at the end of the semester to assess student's achievement of the stated learning objectives.
3. The ability to read, evaluate, interpret, and present (via oral and written communication) numerical, chemical and general scientific data, information and literature.
4. The ability to carry out experiments, use appropriate experimental apparatus effectively, and demonstrate proper laboratory safety skills. We will use the results from ICES, CURE, and interviews to improve each syllabus and course content and thus student learning.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

Program
Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?

## 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/PublicAdminRules2017.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.

Revised programs Comparative Table_Chemistry, BSLAS _SKS01.xIsx
SS Chemistry BSLAS_SKS04.docx
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab
Description of program for the catalog page. This is not official content, it is used to help build the new catalog page for the program. Can be edited in the catalog by the college or department.

Departmental distinction: Students qualify for graduation with distinction by exhibiting superior performance in both course work and in senior thesis research. To be eligible, a student must have a UIUC coursework major grade point average of 3.25 , must take CHEM 499 (normally for two semesters) and submit a senior thesis for evaluation, and must have their undergraduate research advisor submit to the department Head a letter of support attesting to the effort invested by the student. The minimum major GPAs for Distinction, High Distinction, and Highest Distinction are 3.25, 3.5, and 3.75 respectively. Final decisions on awarding Distinction honors will be made by the Head or designee.

Statement for
Programs of
Study Catalog
General education: Students must complete the Campus General Education 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 Biochemistrycourses. Twelve hours of 300-and-400-level in in Chemistry and/or Biochemistry must be taken-on thiseampus.Transfer eredit in chemistry must be approved by an adviser in ehemistry in order to be ineluded in the 30hours-Minimum hours required for graduation: 120 hours, to include a minimum of 40 hours of upper-division coursework generally at the 300 and 400 level. These hours can be drawn from all elements of the degree.

Course List
Code
Title

| Code | Title | Hours |  |
| :---: | :---: | :---: | :---: |
| Orientation and Professional Development |  |  |  |
| LAS 101 | Design Your First Year Experience | $\underline{\underline{1}}$ |  |
| OR |  |  |  |
| LAS 100 Success in LAS for International Students3 |  |  |  |
| \& LAS 101 and Design Your First Year Experience |  |  |  |
| OR |  |  |  |
| LAS 102 | Transfer Advantage | $\underline{1}$ |  |
| Total Hours $\quad \underline{\underline{1} \text { or } 3}$ |  |  |  |
| Course List |  |  |  |
| Code | Title |  | Hours |
| Chemistry an | nd biochemistry courses including: |  | z2-26 |
| Major Core Requirements |  |  |  |
| Chemistry and | and biochemistry courses |  | $\underline{\underline{30}}$ |
| Chemistry and biochemistry courses are any courses in CHEM or BIOC. |  |  |  |
| No more than 10 hours of the following courses may count toward the 30 hours: CHEM 197, |  |  |  |
| CHEM 297, CHEM 397, CHEM 497, and CHEM 499. The following courses do not count towards the |  |  |  |
| 30 hours: CHEM 101, CHEM 108, and CHEM 199. |  |  |  |
| At least 12 of the 30 hours must be at the 300 or 400 level, including at least one course outside |  |  |  |
| physical chemistry. These 12 hours must include CHEM 440 or CHEM 442 and may include |  |  |  |
| MCB 354 or MCB 450. |  |  |  |
| CHEM 150 First Semester Success in Chemistry (Tran additional 1 hour of 200 level or higher Ch CHEM 397, CHEM 497, or CHEM 499.) |  |  |  |
| General chemistry courses |  |  |  |
| Select one of the following: |  |  |  |
| 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 202 Accelerated Chemistry I |  |  |  |
| \& CHEM 203 and Accelerated Chemistry Lab I |  |  |  |
| \& CHEM 204 and Accelerated Chemistry II |  |  |  |
| \& CHEM 205 and Accelerated Chemistry Lab II |  |  |  |
| Organic chemistry courses |  |  |  |
| Select one of the following: |  |  |  |
| CHEM 232 Elementary Organic Chemistry I |  |  |  |
| \& CHEM 233 and Elementary Organic Chem Lab I |  |  |  |
| CHEM 236 Fundamental Organic Chem I |  |  |  |
| \& CHEM 237 and Structure and Synthesis |  |  |  |
| Physical chemistry course |  |  |  |
| CHEM 440 Physical Chemistry Principles |  |  |  |
| or CHEM 442 Physical Chemistry I |  |  |  |
| Fwo other 300-or 400-level courses, at least one of which must be outside physical chemistry. |  |  | 4-8 |
| Mathematics courses |  |  |  |
| MATH 220 | Calculus |  | 4-5 |
| or MATH 221 | 1 Calculus I |  |  |
| MATH 231 | Calculus II |  | 3 |



| Corresponding | BSLAS Bachelor of Science in Liberal Arts |
| :--- | :--- |
| Degree | and Sciences |

## Program Features

Academic Level Undergraduate
Does this major No
have transcripted
concentrations?
What is the typical time to completion of this program?
4 years

What are the minimum Total Credit Hours required for this program?
120
CIP Code 400501 - Chemistry, General.
Is This a Teacher Certification Program?
Yes
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is available:

On Campus - Students are required to be on campus, they may take some online courses.

## Admission Requirements

Desired Effective Fall 2024
Admissions Term
Is this revision a change to the admission status of the program?

No
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.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

No impact on enrollment and degrees awarded is expected.

## Estimated Annual Number of Degrees Awarded <br> Year One Estimate <br> 5th Year Estimate (or when fully implemented)

What is the Fall
matriculation
term for this
program?

## Budget

Are there
No
budgetary
implications for
this revision?
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.

## Financial Resources

How does the unit intend to financially support this proposal?
No impact on financial resources is expected. 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
Attach letters of
support
What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

## Chemistry Differential

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

## No

## Faculty Resources

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

This will not affect 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.

We shared and discussed our proposal with Mary Schlembach, Chemistry Librarian. The library collections, resources and servicesare sufficient to support this proposal.

## EP Documentation

EP Control
EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

## Attach Final

Approval Notices
Banner/Codebook BSLAS:Chemistry -UIUC
Name
Program Code: 10KV0335BSLA
Minor Conc
Code 0335

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for this request

Program Reviewer Brooke Newell (bsnewell) (10/09/23 12:38 pm): Rollback: Email sent to Scott, Comments

Brooke Newell (bsnewell) (11/30/23 9:18 am): Rollback: Email sent to Scott, Andrea, and Stephen
Brooke Newell (bsnewell) (12/12/23 12:15 pm): Rollback: Email sent to Scott, Andrea, and Stephen
Degree BSLAS Major

Code

Major
Code

December 15, 2023

Scott Silverman, PhD
Professor of Chemistry and Assoc. Head of Budget \& Operations
Department of Chemistry

Dear Professor Silverman,

The School of Molecular and Cellular Biology (SMCB) is supportive of the inclusion of MCB 354: xxx and MCB 450: xxx in the revised BSLAS chemistry degree requirement, as options for "Chemistry and biochemistry courses." We anticipate no instructional impact on SMCB, because this inclusion represents a clarification of the existing BSLAS chemistry degree requirements and not an actual change in those requirements.

We wish you luck with your program revision.

Sincerely,

## Melissa Michael

Melissa Michael
Associate Director for Curriculum \& Instruction
mmichae@illinois.edu
cc: Milan Bagchi, Director
School of Molecular and Cellular Biology

Sample Sequence for Chemistry, BSLAS
http://catalog.illinois.edu/undergraduate/las/chemistrybslas/\#degreerequirementstext

| First Year |  |  |  |
| :--- | :---: | :--- | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| LAS 101 | 1 | CHEM 104 | 3 |
| CHEM 150 | 1 | CHEM 105 | 1 |
| CHEM 102 | 3 | MATH 231 (Gen Ed: QR I) | 3 |
| CHEM 103 | 1 | Composition I course - or LOTE <br> (3rd level) | 3 |
| MATH 220 (or MATH 221) <br> (Gen Ed: QR I) | $4-5$ (use 4) | General Education course | 3 |
| LOTE (3rd level) - or, Composition I <br> course | 4 | Free elective course | 3 |
| semester sum | 14 |  | 16 |
| First Semester Courses | Hours | Second Semester Courses | Hours |
| MATH 241 (Gen Ed: QR II) | 4 | CHEM/BIOC course | 3 |
| CHEM 232 | 4 | General Education courses | 6 |
| CHEM 233 | 2 | Free elective courses | 6 |
| LOTE (4th level) | 4 |  | 15 |
|  | semester sum | 14 |  |


| Third Year |  |  |  |  |
| :--- | :---: | :--- | :---: | :---: |
| First Semester Courses | Hours | Second Semester Courses | Hours |  |
| CHEM 300- or 400- level course | 4 | CHEM 300- or 400- level course | 4 |  |
| $\begin{array}{l}\text { PHYS 101 or PHYS 211 } \\ \text { (Gen Ed: NST \& QR II) }\end{array}$ | 4 -5 (use 5) | $\begin{array}{l}\text { PHYS 102 or PHYS 212 } \\ \text { (Gen Ed: NST \& QR II) }\end{array}$ | 4 -5 (use 5) |  |
| General Education courses | 6 | General Education course | 3 |  |
|  |  | Free elective course | 4 |  |
| semester sum | 15 |  | semester sum |  |$] 16$

Chemistry, BSLAS


|  |  |
| :---: | :---: |
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|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| CHEM 440 or CHEM 442 | 4 |
|  |  |
| Two other 300- or 400-level courses, at least one of which must be outside physical chemistry. | 4-8 |
|  |  |
|  |  |
| MATH 220 or MATH 221 | 4-5 |
| MATH 231 | 3 |
| MATH 241 | 4 |
|  |  |
|  |  |
| Select one of the following: | 8-10 |
| PHYS 101 \& PHYS 102 |  |
| PHYS 211 \& PHYS 212 |  |
|  |  |
| ${ }^{1}$ Excluding CHEM 101, CHEM 108, and CHEM 199. |  |
| ${ }^{2}$ No more than 10 hours of the following courses may count toeard 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. |  |


| \& CHEM 205 |  |
| :--- | :---: |
| Organic chemistry courses |  |
| Select one of the following: |  |
| CHEM 232 |  |
| \& CHEM 233 |  |
| CHEM 236 |  |
| \& CHEM 237 |  |
|  |  |
| Physical chemistry course |  |
| CHEM 440 or CHEM 442 |  |
|  | $4-8$ |
| Two other 300- or 400-level courses, at |  |
| least one of which must be outside physical |  |
| chemistry. |  |
|  | $4-5$ |
| Mathematics courses | 3 |
| MATH 220 or MATH 221 | 4 |
| MATH 231 |  |
| MATH 241 |  |
|  | $8-10$ |
| Physics courses |  |
| Select one of the following: |  |
| PHYS 101 \& PHYS 102 |  |
| PHYS 211 \& PHYS 212 |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## Date Submitted: 10/02/23 11:37 am

## Viewing: 6091 : Data Science and Engineering - Floating

Last approved: 09/29/22 8:13 am
Last edit: 12/15/23 8:40 pm
Changes proposed by: Keri Pipkins

| Catalog Pages $\quad$ Data Science \& Engineering Concentration |
| :--- |
| Using this |
| Program |

Proposal Type:

## In Workflow

1. U Program

Review
2. 1246 Head
3. KP Committee Chair
4. KP Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DOE
16. DMI

## Approval Path

1. $10 / 02 / 233: 21 \mathrm{pm}$

Donna Butler (dbutler):
Approved for U
Program Review
2. 10/04/23 3:43 pm Luke Olson
(lukeO): Approved
for 1246 Head
3. 10/20/23 8:56 am

Keri Pipkins (kcp):
Approved for KP
Committee Chair
4. 10/20/23 9:34 am

Cindy Pruitt
(cpruitt):
Approved for KP
Dean
5. 10/22/23 2:50 pm

Claire Stewart
(clairest):

Approved for University Librarian
6. 11/08/23 4:08 pm

Allison McKinney
(agrindly):
Approved for
Grad_College
7. $11 / 08 / 23$ 4:30 pm

Suzanne Lee (suzannel):
Approved for COTE Programs
8. 11/09/23 8:22 am Brooke Newell (bsnewell):
Rollback to KP
Committee Chair for Provost
9. 11/09/23 8:29 am Keri Pipkins (kcp): Approved for KP Committee Chair
10. 11/09/23 8:40 am Michael Stoller (stoller4):
Approved for KP Dean
11. $11 / 26 / 23$ 12:05
pm
Claire Stewart (clairest):
Approved for
University
Librarian
12. 11/30/23 9:55 am

Allison McKinney
(agrindly):
Approved for Grad_College
13. 11/30/23 10:04
am
Suzanne Lee
(suzannel):
Approved for COTE Programs
14. 12/07/23 9:33 am

Brooke Newell

## History

1. Mar 29, 2022 by Luke Olson (lukeO)
2. Sep 29, 2022 by Bryan Wang (bpcwang)

## Concentration (ex. Dietetics)

This proposal is
for a:
Revision

## Administration Details

Official Program Data Science and Engineering - Floating

Name
Diploma Title
Sponsor College
Sponsor
Department
Sponsor Name Luke Olson
Sponsor Email lukeo@illinois.edu
College Contact Keri Pipkins College Contact
Email
kcp@illinois.edu
College Budget Tessa Hile
Officer
College Budget tmhile@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Please rollback to KP Committee.
Does this program have inter-departmental administration?

## Proposal Title

Effective Catalog
Spring 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Concentration in Data Science and Engineering in the Grainger College of Engineering and the Graduate College

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

## Program Justification

| Provide a brief <br> description of <br> what changes are <br> being made to the | PHD: Add 4 participating programs- PHD:Theor\&Appl Mechanics (10KS0242PHD), <br> program. |
| :--- | :--- |
|  | 2. Changed the elective statement from "Complete two additional courses from the <br> approved list." to "Complete two additional courses in consultation with the CSE <br> Education Coordinator or CSE Director." |

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Why are these changes necessary?

1. In the dynamic field of data science education, it's crucial to evolve our curriculum to meet industry demands. We propose expanding the Data Science \& Engineering (DSE) concentration to include PhD students in Astronomy, tapping into the rich data challenges astronomy offers. Furthermore, we are including 3 programs that were intended to be listed in the initial proposal (Theoretical and Applied Mechanics, Environmental Engineering, and System \& Entrepreneurial Engineering) to further enhance our offerings.
2. New data science courses are being developed, revised, and updated frequently by our partnering departments. We want to allow students to be able to take newly developed courses that may be under "Special Topics" course rubrics. All elective courses are reviewed by the CSE Steering Committee, which includes faculty from all of the partner departments, and students choose their electives in consultation with the CSE Education Coordinator.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

Yes
Courses outside
of the sponsoring
department/interdisciplinary
departments
Please attach any DSE concentration_MechSE.pdf
letters of DSE concentration_ISE.pdf
support/acknowledge bentioncentration_CEE.pdf
for any DSE concentration Astr.pdf
Instructional
Resources
consider faculty,
students, and/or
other impacted
units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

The learning objectives of the concentration include satisfactory completion of the core coursework along with completion of the electives component. These are selected in consultation with the unit and based on the Strategic Plan Task Force report on Data Science Education at the University of Illinois at Urbana-Champaign, which highlights key areas of data science in the curriculum, namely mathematical foundations, computational thinking, statistical thinking, data management, data description and curation, and data modeling.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Program

Description and
Requirements

## Attach Documents

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/PublicAdminRules2017.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.

Revised programs DSE Side-by-side Oct 2023 .pdf
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab

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

The Data Science \& Engineering (DSE) Transcriptable Graduate Concentration is designed primarily for graduate students at the Ph.D. levels with an interest in data intensive computing. Data science plays a major role in many areas of computational science and engineering
(CSE) - the DSE Concentration is open to domain scientists working in this area. This concentration requires students to complete 16 graduate credit hours spanning data science, from topics in mathematical foundations (MF), computational thinking (CT), statistical thinking (ST), as well as data management, description, and modeling (DX). Courses taken toward this concentration will count towards the student's graduate degree if permitted by the curriculum of their major, and the concentration will be listed on their transcript upon graduation.

Note: A graduate concentration is only available for students enrolled in participating graduate degree programs.

To fulfill the requirements of the graduate concentration, students will take courses selected from an established list of core courses, along with a courses from a selection of elective courses that span a range of domain areas. Students may select any course in the list of electives, regardless of their enrolled degree program.

Additionally, understanding the ethical and societal implications of the application of data science is paramount, and CSE will integrate the latest topics to help educate future data scientists on appropriately developing and applying data science algorithms that impact society. To ensure that students in the Data Science \& Engineering Graduate Concentration are exposed to current topics in this area and to highlight the how data science decisions can have real-world significance, CSE will (1) require that all DSE-seeking students attend at least one seminar on data science and social justice and (2) complete the self-paced Practical Data Ethics course developed by the UCSF Center for Applied Data Ethics. Students must affirm that they completed the course and will be required to report on their experience in order to receive the DSE Concentration. CSE will annually evaluate this requirement as additional onand off-campus resources become available.

Statement for
Programs of
Study Catalog

Course List

## Title

Select at least one course from two of the three groups below.
Mathematical Foundations (MF) \&Statistical Thinking (ST)
STAT $425 \quad$ Statistical Modeling I
STAT 432 Basics of Statistical Learning
CSE 448 Advanced Data Analysis
CS 441 Applied Machine Learning
CS $446 \quad$ Machine Learning
Mathematical Foundations (MF) \& Computational Thinking (CT)


## Other Requirements

## Grad Other Degree Requirements Single Column

Requirement
At least 4 hours of coursework for the DSE concentration should be advanced (500-level courses) For students enrolled in both the DSE concentration and the CSE concentration, at least 12 hours of coursework earned for the DSE concentration must be distinct from credit earned for the CSE concentration.

## Program Relationships

Corresponding
Program(s):

| Corresponding Program(s) |
| :--- |
| Aerospace Engineering, PhD |
| Agricultural \& Biological Engineering, PhD |
| Astronomy, PhD |
| Bioengineering, PhD |
| Civil Engineering, PhD |
| Computer Science, PhD |
| Electrical and Computer Engineering, PhD |
| Environmental Engineering in Civil Engineering, PhD |
| Industrial Engineering, PhD |
| Materials Science and Engineering, PhD |
| Mechanical Engineering, PhD |
| Nuclear, Plasma, and Radiological Engineering, PhD |
| Physics, PhD |
| Statistics, PhD |
| Systems \& Entrepreneurial Engineering, PhD |
| Theoretical \& Applied Mechanics, PhD |

## Program Features

Academic Level Graduate

Will specialized accreditation be sought for this program?

No
Additional concentration notes (e.g., estimated enrollment, advising plans, etc.)

This estimated enrollment is expected at around 25 students for the first year, and growing as course capacities are assessed. This is based on an estimated five students per participating department, which is initially five. Based on the Computational Science and Engineering (CSE) concentration, we anticipate strong interest and that this concentration could grow well into the hundreds.

The Education Coordinator in CSE currently oversees curriculum change and guidance for the unit. This coordinator will also take on the role of advising and curriculum changes for DSE\@. There is natural overlap with the two programs and for the first years we anticipate absorbing this additional advising capacity without issue. As the program scales, some advising will naturally fall with the home unit (e.g.\ during graduate student recruitment), however as with the CSE concentration we do not foresee these demands to be significant.

## Delivery Method

This program is
available:
On Campus - Students are required to be on campus, they may take some online courses.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

We expect enrollment increase from new participating programs

## Budget

Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No

## Additional Budget

## Information

Advising will be handled by existing staff.
Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
The education coordinator for Computational Science and Engineering will take on the majority of the advising, curriculum changes and coordination, and promotional materials for the concentration. Recurring state funds that support the unit will be used to continue to support the staffing of this position.

Will the unit need to seek campus or other external resources?
No
Attach letters of support

Is this program requesting self-supporting status?
No

## Faculty Resources

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

Faculty resources are sufficient to support the addition of 4 participating programs and 2 elective courses.

## 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.

Library collections, resources, and services are sufficient to support the addition of 4 participating programs.

## EP Documentation

EP Control
Number
Attach
Rollback/Approval
Notices
This proposal
No requires HLC inquiry

## DMI Documentation

Attach Final

Approval Notices

Name
Program Code: 6091
Minor
Code

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval NA
Date
Effective Date:
Attached
Document
Justification for this request

Mary Lowry (lowry) (04/14/23 2:12 pm): Rollback: Please see email
Comments

Instructional Resources, Justification, Program of Study, and Library Resources Statement. Detailed email sent to Bryan, Luke, and Keri
Brooke Newell (bsnewell) (08/30/23 8:57 am): Rollback: Requested revisions to justification, instructional resources, Program of Study sections. Email sent to Bryan and Keri Carter Pipkins.
Brooke Newell (bsnewell) (09/22/23 12:42 pm): Rollback: Email sent to Bryan and Keri
Brooke Newell (bsnewell) (11/09/23 8:22 am): Rollback: Per discussion with Keri to revise Justification statement accordingly

## ILLINOIS

ASTRONOMY<br>College of Liberal Arts \& Sciences<br>103 Astronomy Building<br>1002 W. Green Street<br>Urbana, IL 61801 USA

Professor Leslie W. Looney, Chair 123 Astronomy Building

June 23, 2023

Dear Colleagues:

The Department of Astronomy strongly supports being added to the list of Departments whose graduate students are eligible to be included in the Data Science \& Engineering (DSE) Transcriptable Graduate Concentration. Illinois Astronomy is leveraging our students to take advantage of new large observing surveys, which require expertise in data-intensive computing. Having a data-science concentration would be an excellent opportunity for our graduate students.

The Department of Astronomy strongly supports the addition of ASTR 596FDS Fundamentals of Data Science and ASTR 596AI Artificial Intelligence and Big Data in Astronomy to the DSE concentration

Sincerely,


Leslie W. Looney,
Professor and Chair of Astronomy

## THE GRAINGER COLLEGE OF ENGINEERING

Department of Civil \& Environmental Engineering Newmark Civil Engineering Laboratory, MC-250

205 N. Mathews Ave.
Urbana, IL 61801

## MEMORANDUM

TO: Luke Olson, Professor and Director of Computational Science and Engineering Program, Department of Computer Science

FROM:
Ana P. Barros


Donald Beggar Willett Chair and Head, Department of Civil and Environmental Engineering

DATE: January 10, 2023
SUBJECT: Department Support for Ph.D. Concentration in Data Science and Engineering (DSE)

The Department of Civil and Environmental Engineering enthusiastically supports the Data Science and Engineering (DSE) Graduate Concentration for our two Ph.D. degree programs in Civil Engineering and Environmental Engineering. The program codes are PHD:Civil Engineering 10KS0106PHD and PHD:Env Engr Civil Engr code 10KS0231PHD. Our faculty and graduate students are at the forefront of research that uses the latest developments in data science and new data streams enabled by novel monitoring and sensing systems. The Transcriptable Graduate Concentration in DSE will not only be a valuable credential for our graduates, but it will also enable us to more effectively recruit top applicants to our Ph.D. program.

## THE GRAINGER COLLEGE OF ENGINEERING

Department of Industrial \& Enterprise Systems Engineering 117 Transportation Building, MC-238 104 S. Mathews Ave. Urbana. IL 61801-2925

TO: Luke Olson, Department of Computer Science

FROM: Jeff Shamma, Department Head, ISE
DATE: January 14, 2023

SUBJECT: ISE participation Data Science and Engineering concentration

The Department of Industrial and Enterprise Systems Engineering (ISE) is glad to support the participation of both IE (code 10KS0127PHD) and SEE (code 10KS3846PHD) PhD students in the Data Science and Engineering Concentration.

# THE GRAINGER COLLEGE OF ENGINEERING 

Department of Mechanical Science \& Engineering
Office of the Department Head 144 Sidney Lu Mechanical Engineering Building, MC-244

1206 W. Green St. Urbana, IL 61801

January 25, 2023

To Whom it May Concern:
Mechanical Science and Engineering strongly supports the proposal for a Data Science \& Engineering Concentration (DSE). We support this request to allow the DSE concentration for both our Mechanical Engineering and our Theoretical and Applied Mechanics Programs. We anticipate this concentration will be of interest to doctoral students in MechSE and look forward to it being available to them.


Anthony Jacobi
Richard W. Kritzer Distinguished Professor
Department Head
Mechanical Science and Engineering

GREEN HIGHLIGHT = Course addition, requirement replacement or updated hours
RED HIGHLIGHT = Course to be removed from listed requirements.
Yellow Highlight - Revision to requirement

| Current Program of Study |  |  |
| :--- | :--- | ---: |
|  |  |  |
| Core Coursework | 8 |  |
| Select at least one course from two of the three groups below. |  |  |
| Mathematical Foundations (MF) \&Statistical Thinking (ST) | 3 or 4 |  |
| STAT 425 | Statistical Modeling I | 3 or 4 |
| STAT 432 | Basics of Statistical Learning | 4 |
| CSE 448 | Advanced Data Analysis | 3 or 4 |
| CS 441 | Applied Machine Learning | 3 or 4 |
| CS 446 | Machine Learning | 3 or 4 |
| Mathematical Foundations (MF) \& Computational Thinking (CT) | 3 or 4 |  |
| CS 450 | Numerical Analysis | 3 or 4 |
| CS 484 | Parallel Programming | 3 or 4 |
| CSE 428 | Statistical Computing | 3 or 4 |
| Data Description and Curation (DX) \& Data Modeling (DX) |  |  |
| STAT 480 | Data Science Foundations |  |
| CS 412 | Introduction to Data Mining | 88 |
|  |  |  |
| Elective Coursework |  |  |
| Complete two additional courses from the approved list. |  |  |


| New Program of Study |  |  |
| :---: | :---: | :---: |
| Core Coursework |  | 8 |
| Select at least one course from two of the three groups below. |  |  |
| Mathematical Foundations (MF) \&Statistical Thinking (ST) |  |  |
| STAT 425 | Statistical Modeling I | 3 or 4 |
| STAT 432 | Basics of Statistical Learning | 3 or 4 |
| CSE 448 | Advanced Data Analysis | 4 |
| CS 441 | Applied Machine Learning | 3 or 4 |
| CS 446 | Machine Learning | 3 or 4 |
| Mathematical Foundations (MF) \& Computational Thinking (CT) |  |  |
| CS 450 | Numerical Analysis | 3 or 4 |
| CS 484 | Parallel Programming | 3 or 4 |
| CSE 428 | Statistical Computing | 3 or 4 |
| Data Description and Curation (DX) \& Data Modeling (DX) |  |  |
| STAT 480 | Data Science Foundations | 3 or 4 |
| CS 412 | Introduction to Data Mining | 3 or 4 |
|  |  |  |
| Elective Coursework |  | 8 |
| Complete two additional courses in consultation with the CSE Education Coordinator or CSE Director. |  |  |
| Total Hours (Core + Elective): |  | 16 |

## Date Submitted: 10/30/23 3:25 pm

## Viewing: 1PKS6141CERU: CPA Pathways, CERT (online)

Last approved: 09/26/22 12:53 pm
Last edit: 12/12/23 1:08 pm
Changes proposed by: Amanda Brantner

CPA Pathways, CERT

Catalog Pages
Using this
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1346 Head
3. KM Committee Chair
4. KM Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DOE
16. DMI

## Approval Path

1. $11 / 02 / 2311: 46$
am
Donna Butler
(dbutler):
Approved for U
Program Review
2. 11/02/23 1:55 pm

Michael Donohoe
(mdonohoe):
Approved for 1346
Head
3. $11 / 10 / 233: 02 \mathrm{pm}$ Mitch Fisher
(mfisher6):
Approved for KM
Committee Chair
4. $11 / 13 / 2312: 34$
pm
Brooke Elliott
(wbe): Approved
for KM Dean

Claire Stewart (clairest):
Approved for University Librarian
6. 12/04/23 2:50 pm

Allison McKinney
(agrindly):
Approved for
Grad_College
7. 12/04/23 6:22 pm

Suzanne Lee (suzannel): Approved for COTE Programs
8. 12/07/23 9:32 am Brooke Newell (bsnewell): Approved for Provost

## History

1. Sep 26, 2022 by Dustin Yocum (dyocum)

Major (ex. Special Education)
This proposal is
for a:
Revision

## Administration Details

Official Program CPA Pathways, CERT (online)
Name

| Diploma Title | Certificate in CPA Pathways |
| :--- | :--- |
| Sponsor College | Gies College of Business |
| Sponsor |  |
| Department | Accountancy |
| Sponsor Name | Brooke Elliott, Associate Den, EY Distinguished Professor in <br> Accounting; Michael Donohoe, Professor of Accountancy; Nerissa <br> Brown, Associate Professor of Accountancy; Oktay Urcan, <br> Associate Professor of Accountancy |

Sponsor Email Wbe@illinois.edu; mdonohoe@illinois.edu; nerissab@illinois.edu;

List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

## Amanda Brantner

Does this program have inter-departmental administration?

## Proposal Title

Effective Catalog
Spring 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Campus Graduate Certificate in CPA Pathways in the Gies College of
Business and the Graduate College
Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

## Program Justification

Provide a brief description of what changes are being made to the program.

1. Program requirements have been revised from requiring at least one course from the first list of elective options and selection of 4 hours from the second list of elective options to select at least 2 credit hours from the first list of electives and select the balance of 12 credit hours from the first and second lists of electives.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Why are these changes necessary?

1. The proposed revision has been made to allow learners to choose elective courses from the two groups of elective of options with more flexibility.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

No

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping. List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

The learning objectives primarily include the ability to understand and evaluate:

1. The courses in the CPA Pathways Campus Graduate Certificate can be used to meet the educational requirements for the Uniform CPA Exam.
2. Accounting for mergers and acquisitions: investment accounting, preparation of consolidated financial statements, business combination achieved in stages, divestitures and deconsolidations, segment reporting, goodwill / allocation impairment, and variable interest entities.
3. The U.S. federal income tax treatment of corporations and pass-through entities, including Subchapter S corporations, partnerships, and limited liability companies; 4. A variety of tools to break apart financial reports into meaningful units for analysis, forecast financial statements, and value a firm and the models necessary to analyze, interpret, understand, and use financial information in a valuation setting.
4. Methods to (i) apply data analytics in a variety of accounting and business contexts, (ii) critically solve business problems using data-intensive business and accounting information, and (iii) synthesize and effectively communicate data-intensive information, findings, and conclusions to other environment-constituents, including supervisors, peers and subordinates, clients, and regulatory agencies

All of the courses are currently included in the larger iDegree portfolio and will be taught by existing faculty.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:
The student learning outcomes will primarily be assessed via course-embedded assessments such as individual projects, assignments, and in some cases specific exam questions. Whenever possible, we will complement the course-embedded measures with indirect measures such as student surveys. Assessment data will be collected annually at the end of the academic year. Faculty teaching courses where learning outcomes are assessed are responsible for submitting learning outcomes assessment data to the Chair of the iDegree Curriculum committee.

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

The goal is for $90 \%$ of students enrolled in the certificate program to meet or exceed expectations on each of the program's learning outcomes.

The performance thresholds for each learning outcome are as follows:
-0\%-79.99\%: Below Expectations

- 80\%-89.99\%: Meets Expectations
- 90\%-100\%: Exceeds Expectations

It is at the discretion of faculty teaching courses where learning outcomes are assessed to adjust these thresholds and expectations. Any deviations will be noted in the assessment reports submitted to internal and external accrediting bodies.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

> The Director of Faculty Development and Accreditation, Martin Maurer
> (maurer1@illinois.edu), coordinates the learning outcomes assessment efforts for the Gies College of Business. The online programs Academic Directors ensures the program assessments are completed by faculty teaching the courses where the learning outcomes are assessed. Faculty will be asked to provide initial insights and $\underline{\underline{\text { observations about the learning outcomes data at the course-level. }}}$

After assessment information is collected, it is evaluated by the iDegree Curriculum Committee. The Committee Chair then shares and discusses the learning outcomes assessment information with all instructors teaching certificate courses. This enables each instructor to understand their course's assessment of learning so that they can build on strengths and correct any deficiencies, and it enables that iDegree Curriculum Committee to address any curriculum-wide deficiencies. Any agreed upon changes to address student performance on the learning outcomes assessed will be documented by the committee and implemented in a subsequent term. The impact of the changes will be reassessed at least on an annual basis.

## Program

Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?

## 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/PublicAdminRules2017.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.

Revised programs CPA Pathways side by side Oct 2023.xIsx
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab
Description of program for the catalog page. This is not official content, it is used to help build the new catalog page for the program. Can be edited in the catalog by the college or department.

The CPA Pathways Campus Graduate Certificate combines advanced technical knowledge in financial accounting, taxation, and data analytics with professional competencies in critical thinking, communication, leadership, and strategic decisionmaking. Students will study advanced principles, concepts, and methods used to record and report the transactions and taxation of a business entity, as well as the data analytics tools and processes to analyze accounting information. Students will also apply their knowledge in practical, real-world settings via experiential learning opportunities. Career opportunities for students who complete the CPA Pathways Campus Graduate Certificate include positions in audit and assurance services, corporate accounting, taxation, consulting and advisory services, and in governmental and not-for-profit entities.

Course substitutions may be approved by the Department of Accountancy.

Students who have successfully completed this certificate may use the certificate to satisfy the following degree requirements, provided they apply and are admitted to the degree program:
12 hours of elective coursework requirements of the iMBA degree program
12 hours of elective coursework requirements of the iMSM degree program
12 hours of elective coursework requirements of the iMSA degree program
Statement for
Programs of
Study Catalog

## Graduation Requirements

Minimum Cumulative GPA: 2.75

## Minimum hours required for certificate completion: $\mathbf{1 2}$ hours

Students who have successfully completed the CPA Pathways certificate may use the certificate to satisfy the following degree requirements, provided they apply and are admitted to the degree program:
12 hours of elective coursework requirements of the iMBA degree program
12 hours of elective coursework requirements of the iMSM degree program
12 hours of elective coursework requirements of the iMSA degree program
Course List
Code Title ..... Hours
Required:
ACCY 569 Data Driven Decisions in Accounting ..... 2
ACCY 576 Data Preparation for Accounting ..... 2
Select at least 2 credit hours from the following list:
ACCY 504 Auditing ..... 2 or 4
ACCY 506 Advanced Topics in Accounting ..... 4
ACCY 507 Taxation of Business Entities ..... 2 or 4
ACCY 516 Professional Responsibility and Ethics for Accountants ..... 3 or 4
ACCY 517 Financial Statement Analysis and Valuation ..... 2 or 4
Select the balance of 12 credit hours from the list above or the list below:ACCY 577 Machine Learning for Accounting2
ACCY 578 Accounting Analytics Applications ..... 1
BADM 403 Corporate \& Commercial Law ..... 4
MBA 563 Data Toolkit: Business Data Modeling \& Predictive Analytics ..... 4
MBA 564 Data Analytics Applications in Business ..... 2
MBA 565 Infonomics ..... 4
Total Hours ..... 12
Corresponding

## Program Features

Academic Level Graduate
Does this major
No
have transcripted
concentrations?
What is the typical time to completion of this program?
32 weeks

What are the minimum Total Credit Hours required for this program?
12
What is the
2.75
required GPA?
CIP Code 520301-Accounting.
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is
available:
Online Only - The entire program is delivered online, students are not required to come to campus.

Describe the use of this delivery method:
Courses are delivered fully online through Canvas and Coursera. Each course has two structural components. One component is the self-directed, asynchronous part of the course, which is designed to help students develop foundational knowledge. This material is delivered via pre-recorded videos, complementary readings, and quizzes.

The second component is the high engagement part of the course. It is an expansion of the foundational materials and involves weekly live sessions in a virtual classroom led by Gies Business faculty. Other high-engagement content will come in the form of readings, in-depth exercises and assignments, and case studies.

## Admission Requirements

Desired Effective<br>Admissions Term<br>Is this revision a change to the admission status of the program?

No
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.

The Campus Graduate Certificate in CPA Pathways is only available for non-degree student enrollment. Prospective applicants must apply for admission to the Campus Graduate Certificate specifically through the Graduate College admissions process. Admission requires a Bachelor's degree in Accountancy.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program. None expected.

Estimated Annual Number of Degrees Awarded
Year One Estimate
40
5th Year Estimate (or when
fully implemented)
80

What is the Spring/Summer/Other matriculation
term for this
program?
Please give an explanation of why fall matriculation is not applicable:
Completion of the CPA Pathways Campus Graduate Certificate will be possible across multiple terms.

## Budget

```
Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information
Attach File(s)
```


## Financial Resources

How does the unit intend to financially support this proposal?
Current academic and administrative staff in the Department of Accountancy and Gies College of Business Online Programs office have the capacity to serve as advisors, maintain records, and process student registration in the Campus Graduate Certificate and related coursework.

Current instructional staff in the Department of Accountancy will offer and instruct the courses. Should demand for this Campus Graduate Certificate exceed expectations, new faculty may be recruited to teach some of the courses. Funding for these additional faculty will come from Department and College resources currently available for existing faculty lines.

Will the unit need to seek campus or other external resources?
No

## Attach letters of support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

Business Specialized Masters/iMSA rate Masters
Are you seeking a change in the tuition rate or differential for this program?

## No

Is this program requesting self-supporting status?
Yes

## Faculty Resources

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

The revision will not have an 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.

Those admitted to this Campus Graduate Certificate will be non-degree students who may have limited demand for library resources. Given the profile of these students and the limited duration of their status as enrolled students, the resource demand is expected to be minimal.

## EP Documentation

EP Control
EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook CERT:CPA Pathway ONL - UIUC
Name
Program Code: 1PKS6141CERU

| Minor | Conc | Degree | CERT |
| :--- | :--- | :--- | :--- |
| Code | Code | Code | Major |
| Code |  |  |  |

6141
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date

HLC Approval
Date
DOE Approval 8/29/2022
Date
Effective Date:

## Attached

Document
Justification for this request

Program Reviewer Mary Lowry (lowry) (10/27/23 8:54 am): Rollback: Please see emails from Comments 10-27-23
Claire Stewart (clairest) (11/26/23 11:42 am): Assessment of online student use of Library resources is actively underway; data may not bear out the proposers' assertion that these non-degree students use of library resources is minimal. The Library may wish to revisit this understanding as the assessment continues.
Allison McKinney (agrindly) (12/04/23 2:50 pm): Administratively approved.

## CURRENT

## CPA Pathways, CERT (online)

Graduation Requirements
Minimum Cumulative GPA: 2.75
Minimum hours required for certificate completion: 12 hours
Students who have successfully completed the CPA Pathways certificate may use the certifi 12 hours of elective coursework requirements of the iMBA degree program 12 hours of elective coursework requirements of the iMSM degree program

12 hours of elective coursework requirements of the iMSA degree program

| Course List |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required: |  |  |
| ACCY 569 | Data Driven Decisions in Accounting | 2 |
| ACCY 576 | Data Preparation for Accounting | 2 |
| At least one of the following: |  |  |
| ACCY 504 | Auditing | 2 or 4 |
| ACCY 506 | Advanced Topics in Accounting | 4 |
| ACCY 507 | Taxation of Business Entities | 2 or 4 |
| ACCY 516 | Professional Responsibility and Ethics for Accountants | 3 or 4 |
| ACCY 517 | Financial Statement Analysis and Valuation | 2 or 4 |
| Select 4 hours from the list below: |  |  |
| ACCY 577 | Machine Learning for Accounting | 2 |
| ACCY 578 | Accounting Analytics Applications | 1 |
| BADM 40 | Corporate \& Commercial Law | 4 |
| 3 |  |  |
| MBA 563 | Data Toolkit: Business Data Modeling \& Predictive Analytics | 4 |
| MBA 564 | Data Analytics Applications in Business | 2 |
| MBA 565 | Infonomics | 4 |
| Total Hours |  | 12 |

## REVISED

## CPA Pathways, CERT (online)

Graduation Requirements
Minimum Cumulative GPA: 2.75
Minimum hours required for certificate completion: 12 hours
Students who have successfully completed the CPA Pathways certificate may use the certific 12 hours of elective coursework requirements of the iMBA degree program
12 hours of elective coursework requirements of the iMSM degree program
12 hours of elective coursework requirements of the iMSA degree program

| Course List |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| Required: |  |  |
| ACCY 569 | Data Driven Decisions in Accounting | 2 |
| ACCY 576 | Data Preparation for Accounting | 2 |
| Select at least 2 credit hours from the following list: $\square$ |  |  |
| ACCY 504 | Auditing | 2 or 4 |
| ACCY 506 | Advanced Topics in Accounting | 4 |
| ACCY 507 | Taxation of Business Entities | 2 or 4 |
| ACCY 516 | Professional Responsibility and Ethics for Accountants | 3 or 4 |
| ACCY 517 | Financial Statement Analysis and Valuation | 2 or 4 |
| Select the balance of 12 credit hours from the list above or the list below: |  |  |
| ACCY 577 | Machine Learning for Accounting | 2 |
| ACCY 578 | Accounting Analytics Applications | 1 |
| BADM 40 | Corporate \& Commercial Law | 4 |
| 3 |  |  |
| MBA 563 | Data Toolkit: Business Data Modeling \& Predictive Analytics | 4 |
| MBA 564 | Data Analytics Applications in Business | 2 |
| MBA 565 | Infonomics | 4 |
| Total Hours |  | 12 |

## Viewing: 10KS0155MUP \& 10KU0385JD : JP: Urban Planning, MUP \& Law, JD

Last approved: 12/13/22 4:07 pm
Last edit: 01/09/24 8:08 am
Changes proposed by: Nicole Turner
Urban Planning, MUP \& Law, JD
Catalog Pages
Using this
Program

## In Workflow

1. U Program Review
2. 1733 Committee Chair
3. 1733 Head
4. KR Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. KU Dean
9. KR Dean
10. Grad_College
11. Provost
12. Senate EPC
13. Senate
14. U Senate Conf
15. Board of Trustees
16. IBHE
17. HLC
18. DOE
19. DMI

## Approval Path

1. $08 / 15 / 235: 34 \mathrm{pm}$ Donna Butler (dbutler):
Approved for U
Program Review
2. 08/21/23 11:55
am
Mary Margaret
Edwards
(mmedward):
Approved for 1733
Committee Chair
3. 08/21/23 11:58
am
Mark Doussard (mdouss1):
Approved for 1733
Head
4. 09/22/23 11:32
am
Nicole Turner (nicturn):
Approved for KR Dean
5. 10/12/23 6:03 am Claire Stewart (clairest):
Approved for University Librarian
6. 11/02/23 12:58
pm
Allison McKinney
(agrindly):
Approved for
Grad_College
7. 11/02/23 1:27 pm

Suzanne Lee (suzannel):
Approved for COTE Programs
8. $11 / 05 / 237: 42 \mathrm{pm}$

Verity Winship
(vwinship):
Approved for KU
Dean
9. 12/01/23 8:52 am Nicole Turner
(nicturn):
Approved for KR Dean
10. 12/13/23 10:20
am
Allison McKinney
(agrindly):
Approved for
Grad_College
11. 12/14/23 3:27 pm

Brooke Newell
(bsnewell):
Approved for Provost

## History

1. Dec 13, 2022 by

This proposal is
for a:
Revision

## Administration Details

| Official Program | JP: Urban Planning, MUP \& Law, JD |  |
| :--- | :--- | :--- |
| Name |  |  |
| Diploma Title |  |  |
| Sponsor College | Fine \& Applied Arts |  |
| Sponsor | Urban \& Regional Planning |  |
| Department | $\underline{\text { Marc Doussard }}$ |  |
| Sponsor Name $\underline{\text { Nicole Turner }}$ <br> Sponsor Email  |  |  |
| College Contact  |  |  |
|  |  | College Contact |
|  |  |  |

nicturn@illinois.edu
College Budget Greg Anderson
Officer
College Budget gnanders@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

KR Dean
Does this program have inter-departmental administration?
Yes
Interdisciplinary Colleges and Departments (list other colleges/departments which are involved other than the sponsor chose above)
Please describe the oversight/governance for this program, e.g., traditional departmental/college governance. Inclusion of/roles of elected faculty committees? Inclusion of/roles of any advisory committees.

| College | Law |
| :--- | :--- |
| Department | Law |

Is there an additional department involved in governance?

## Proposal Title

Effective Catalog Fall 2023
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Joint Program in the Master of Urban Planning in Urban Planning and the Juris Doctorate in Law in the College of Fine and Applied Arts and the College of Law and the Graduate College

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

This JP: MUP and JD proposal (key 1091) is related to JP proposals for: MUP and MARCH (key 1084), MUP and MLA (key 1087), MUP and MPH (key 1056), MUP and related majors (key 1092), and MUP (key 454).

## Program Justification

Provide a brief description of what changes are being made to the program.

Copying degree requirements and learning outcomes from MUP and JD distinct program pages and bringing them into the Joint Program program page. Embedding newly revised MUP requirements into this joint program. Created joint program degree table and minimum hours tables to align with all MUP joint programs.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

No
Why are these changes necessary?

1. To align with Graduate College and Office of the Provost expectations for transparency for joint programs.
2. To keep joint program consistent with the regular program.
3. New content in joint program degree table include: Enrollment in each program at least 2 semesters and MUP minimum 500-level hours, consistent with other MUP joint programs. New content in minimum hours table includes how the MUP is reduced from 64 to 32 hours.

## 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?

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

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

No

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

MASTER OF URBAN PLANNING
To be consistent with our accreditation requirements, we are using the Knowledge, Skills, and Values identified by the Planning Accreditation Board (PAB) as desired outcomes for planning education.
A.1. General planning knowledge:

Purpose and Meaning of Planning:
Planning Theory:
Planning Law:
Human Settlements and History of Planning:
The Future:
Global Dimensions of Planning:
A.2. Planning skills:

Research Written, Oral and Graphic Communication:
Quantitative and Qualitative Methods:
Plan Creation and Implementation: is able to use Planning Process Methods:
Leadership:
A.3. Values and ethics

Professional Ethics and Responsibility:
Governance and Participation:
Sustainability and Environmental Quality:
Growth and Development: Social Justice:
------
JURIS DOCTORATE IN LAW
Demonstrate basic knowledge of American substantive and procedural law. This
requires:
The foundational rules governing liability for civil and criminal wrongdoing.
The foundational rules that regulate the transaction of business among individuals and the ownership of property.
The constitutional rules that shape the American legal system.
The procedural rules that govern court adjudication.
Several advanced areas of substantive or procedural law or both.
Use legal reasoning and legal analysis in advising and representing clients. This
requires:
The ability to identify, formulate, and apply legal rules.
The ability to read and analyze judicial opinions.
The ability to parse and interpret statutes, regulations, contracts, and other similar legal texts.
The ability to construct legal arguments and evaluate critically one's own and others' legal arguments.
The ability to identify and evaluate the practical consequences of various legal rules and to formulate policy arguments for and against those rules.
Bring practical legal skills to bear in resolving clients' legal problems. This requires:
The ability to write clearly and effectively in a wide range of legal contexts and for

```
various audiences, including courts, clients, and opposing counsel.
The ability to articulate one's thoughts verbally in a clear and effective manner.
Knowledge of and ability to use tools of legal research.
The ability to identify and gather factual information relevant to the application of legal
rules.
The ability to work collaboratively with others, including others with opposing interests.
Knowledge and understanding of practical aspects of the legal profession and market
for legal services.
Conduct himself or herself professionally and in keeping with the highest standards of
civic virtue. This requires:
Knowledge and appreciation of the ethical rules governing legal practice.
The ability to learn and grow professionally through self-reflection and continuing
education.
An understanding of the lawyer's distinctive role in society and of the lawyer's
concomitant responsibility to contribute to society through public service and pro bono
representation.
The self-awareness and empathy necessary to understand and be understood across
various social, economic, cultural, political, national, racial, gender, and ethnic
backgrounds.
```

Describe how, when, and where these learning outcomes will be assessed.

## Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Program

Description and
Requirements
Attach Documents
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/PublicAdminRules2017.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.

## Revised programs Attach a revised Sample Sequence (for undergraduate program)

 or college-level forms.
## Catalog Page Text - Overview Tab

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

For additional details and requirements refer to the department's Programs of Study and the Graduate College Handbook.

Statement for
Programs of Study Catalog

## Master of Urban Planning in Urban Planning Course List

Code Title Hours
UP 501Planning History and Theory $\quad 4$
UP 503Physical Planning $\quad \underline{4}$
UP 504Urban History and Theory $\quad 4$
UP 505Urban and Regional Analysis $\quad \underline{\underline{2}}$
UP 510Plan Making 4
UP 511Law and Planning $\quad \underline{4}$
UP 590Professional Internship (reduces the hours needed to graduate by 4) $\quad \underline{\underline{0}}$
Recommended concentration/electives 32
Non-Thesis Option
UP 591Capstone Seminar (enrollment required for 0 hours one term \& 4 hours one 4 term)
UP 598Master's Project (min/max applied toward degree) $\quad \underline{4}$
Thesis Option
UP 591Capstone Seminar (enrollment required for two semesters) $\underline{\underline{0}}$
UP 599Thesis Research (min/max applied toward degree) $\quad \underline{8}$
Total Hours $\underline{\underline{64}}$
Juris Doctorate in Law

| Course List |  |  |
| :---: | :---: | :---: |
| Code | Title | Hours |
| LAW 601 | Contracts | $\underline{4}$ |
| LAW 602 | Property | 4 |
| LAW 603 | Torts | $\underline{4}$ |
| LAW 604 | Criminal Law | $\underline{4}$ |
| LAW 606 | Constitutional Law I | $\underline{4}$ |
| LAW 607 | Civil Procedure | $\underline{4}$ |
| LAW 609 | Legal Writing \& Analysis | $\underline{\underline{2}}$ |
| LAW 610 | Introduction to Advocacy | $\underline{\underline{3}}$ |
| LAW 627 | Legal Research | $\underline{\underline{1}}$ |
| LAW 792 | Current Legal Problems (Fundamentals of Legal Practice) | $\underline{\underline{1}}$ |
| $\underline{\text { Professional Responsibility Requirement courses: }}$ - |  |  |
| LAW 680 Professional Responsibility |  |  |
| Please consult the Registration Guide each semester for other courses approved by the College of |  |  |
| Law. |  |  |
| Experiential Credit Requirement $\underline{\underline{6}}$ |  |  |
| Courses fulfilling the Experiential Credit requirement vary with section offerings. Please consult |  |  |
| Course Counseling Handbook or Registration Guide for more information. |  |  |
| Upper-Level Writing Requirement |  |  |

This requirement may only be satisfied after the student successfully completes the first-year legal writing curriculum (Legal Research, Legal Writing \& Analysis, and Introduction to Advocacy). Please consult the Academic Policy Handbook for more information.

## Juris Doctorate in Law Credit Hour Limits

 Grad Other Degree RequirementsRequirement
Experiential and Upper Level Writing courses may not double count in requirements
Regularly Scheduled Credit Hours. Please consult the Course Counseling Handbook for more $\underline{\underline{64}}$
information.
Maximum Externship Credit Hours $\quad \underline{\underline{9}}$
Maximum Credit Hours allowed in a semester $\underline{\underline{18}}$
Maximum hours offered by the College of Law not on the UIUC campus $\underline{\underline{16}}$
Maximum Study Abroad/International Credit $\quad \underline{\underline{30}}$
Other Juris Doctorate in Law Graduation Requirements
Grad Other Degree Requirements
Requirement Description
No pending I or DFR grades
Minimum months to graduation 24
Maximum months to graduation84
Minimum CGPA $\underline{\underline{2.33}}$
Other Requirements for Joint Juris Doctorate in Law and MUP degrees Grad Other Degree Requirements
Requirement Description

Enrollment in each program at least 2 semesters
Minimum 500-level hours required overall for MUP16 (12 in UP)
Minimum MUP GPA
3.0

Course List
Code Title Hours
Total Minimum Hours 122
Juris Doctorate in Law $\quad \underline{\underline{90}}$
Master of Urban Planning $\underline{\underline{32}}$
Recommended concentration/electives ( 32 hours of the 64 required for MUP) may be met with law courses
Candidates admitted to the joint Master of Urban Planning and Juris Doctor must complete a minimum of 32 hours in urban planning, including core courses and capstone, plus the requirements of the lawdegree.

## Program Relationships

Identify the
existing programs
to be joined:

| Corresponding Program(s) |
| :--- |
| Urban Planning, MUP |
| Law, JD |

## Program Features

Academic Level Graduate
Professional
What is the typical time to completion of this program?
4 years

What are the minimum Total Credit Hours required for this program?
122
What is the
3.0
required GPA?
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.

## Admission Requirements

Desired Effective
Admissions Term
Is this revision a change to the admission status of the program?

## No

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.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

No impact

Estimated Annual Number of Degrees Awarded
Year One Estimate
5th Year Estimate (or when
fully implemented)
What is the Fall matriculation
term for this
program?

## Budget

```
Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information
Attach File(s)
```


## Financial Resources

How does the unit intend to financially support this proposal?

Will the unit need to seek campus or other external resources?
No
Attach letters of
support
What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

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

No
Is this program requesting self-supporting status?
No

## Faculty Resources

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

No impact
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.

Library collections, resources and services are sufficient to support this JD and MUP joint program revision.

## EP Documentation

| EP Control | EP. 24.051 |
| :--- | ---: |
| Number |  |
| Attach |  |
| Rollback/Approval |  |
| Notices |  |
| This proposal <br> requires HLC <br> inquiry | No |

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook NONE:Urbn PIng(MUP)/JD-UIUC (10KS8103NONE)
Name
Program Code: 10KS0155MUP \& 10KU0385JD

| Minor | Conc | Degree | Major |
| :--- | :--- | :--- | :--- |
| Code | Code | Code | Code |

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached

Document
Justification for this request

Program Reviewer Mary Lowry (lowry) (07/31/23 4:49 pm): Rollback: Please see email dated Comments 7-31-23
Allison McKinney (agrindly) (11/02/23 12:58 pm): Administratively approved by the Grad College.
Emily Stuby (eastuby) (11/02/23 3:11 pm): Updated workflow to include KU dean.

## Viewing: 1PKS0133MENG $\underline{\underline{\&}}$ 1PKS0133MENU : Mechanical Engineering, MEng (on campus \& online)

Last approved: 03/11/22 3:02 pm
Last edit: 01/09/24 8:09 am
Changes proposed by: Keri Pipkins
Mechanical Engineering,_MENG
Catalog Pages
Using this
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1917 Head
3. KP Committee Chair
4. KP Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DOE
16. DMI

## Approval Path

1. $10 / 20 / 233: 37 \mathrm{pm}$

Emily Stuby (eastuby):
Approved for U
Program Review
2. $10 / 31 / 231: 28 \mathrm{pm}$ Anthony Jacobi (ajacobi): Approved for 1917 Head
3. 11/10/23 9:39 am Keri Pipkins (kcp): Approved for KP Committee Chair
4. $11 / 10 / 239: 40 \mathrm{am}$ Michael Stoller (stoller4):
Approved for KP
Dean
5. $11 / 26 / 2311: 38$
am
Claire Stewart
(clairest):
Approved for University
Librarian
6. $12 / 13 / 234: 24 \mathrm{pm}$

Allison McKinney (agrindly): Approved for Grad_College
7. 12/13/23 6:45 pm

Suzanne Lee
(suzannel):
Approved for COTE Programs
8. 12/14/23 3:27 pm

Brooke Newell
(bsnewell):
Approved for
Provost

## History

1. May 9, 2019 by Deb Forgacs (dforgacs)
2. Mar 11, 2022 by Mary Lowry (lowry)

Major (ex. Special Education)
This proposal is
for a:
Revision

## Administration Details

| Official Program <br> Name | Mechanical Engineering, MEng (on campus \& online) |
| :--- | :--- | :--- |
| Diploma Title |  |
| Sponsor College | Grainger College of Engineering |
| Sponsor | Mechanical Sci \& Engineering |
| Department | $\underline{\underline{\text { Tony Jacobi Mary Lowry }}}$a-jacobi@illinois.edu towry@illinois.edu |
| Sponsor Name Keri Pipkins Mary Lowry |  |

## College Budget Tessa Hile

Officer
College Budget tmhile@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

## Susan Roughton, roughton@illinois.edu; Keri Pipkins

Does this program have inter-departmental administration?
No

## Proposal Title

## Effective Catalog

Fall 2024

## Term

Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Master of Engineering in Mechanical Engineering in the Grainger College of Engineering and the Graduate College

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

No

## Program Justification

Provide a brief description of what changes are being made to the program.

The MEng.ME degree has been offered since 2014, and has never been revised. The following revisions are proposed in order to provide clarity and transparency as well as align the degree requirements with the needs of industry partners.
1.) Created a sub-heading "Technical Core" to encompass the ME or TAM course work.
2.) Removed the Applied Math/Computational Science requirement, and increased the minimum credit hours of ME and TAM coursework from 12 to 16 and maximum from 20 to 24 .
3.) Moved the Professional Development Requirement up in the Program of Study to above the Elective requirement section. Added the word "Coursework" to the heading.
4.) Explicitly listed the courses approved to count toward the professional development requirement in the Degree Requirements Table, replacing a broad statement that provided only one example. A letter from TEC is provided, supporting the inclusion of the TE courses that are listed as options.
5.) Edited the statement requiring a minimum of 4 credit hours to be taken outside of the major department to "outside the ME rubric". Also, moved this statement from "Other Requirements and Conditions" to under the Elective Coursework section.
6.) Deleted statements from Other Conditions and Requirements (1) "Elective course category may include a maximum of 4 hours of special topics credit" and (2)
"Professional development category may include a maximum of 4 hours of special topics credit."
7.) Added Requirement: "No credit given towards degree for $S / U$ or CR/NC graded classes."
8.) Deleted statement "Requirements and conditions may overlap." and added (may overlap) next to the the other requirements and conditions heading.
9.) Delivery Method responses and program code information added to correct an administrative mistake.
10.) The typical time to completion was changed from 2 years to 5 years. When this program was migrated to CIM-P that question was left blank. It was edited administratively to 2 years by Mary Lowry in 2022.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Why are these changes necessary?
1.) Subheadings were created to provide better organization \& clarity of requirements. The ME and TAM coursework make up the Technical Core of the degree requirements.
2.) This requirement includes limited course options that were found not to add value to the degree program or improve student outcomes. By removing this requirement students will be able to take another course that aligns with their focus area. Applied math and computational science concepts are included in courses throughout the departmental and college courses offerings. Since 4 credit hours of Applied Math/Computational Science coursework is being removed 4 credit hours were added to the Core Coursework (formerly ME and TAM courses) requirement.
3.) To align with the the organization and phrasing of other M.Eng. programs of study.
4.) To update the list of courses that meet this requirement. When the program was proposed, only one course was listed along with a general description of the type of courses that may be approved. Since then, ENG 572 and 573 were revised to be available to students in multiple M.Eng. programs, and new TE courses have been developed.
5.) The Program Director wants to allow TAM courses to count towards this requirement, and TAM courses are not outside the department. This increases the course options available to students. The statement was moved so that it more appropriately was listed in the Elective requirement section.
6.) The program sponsors were unsure why these conditions were in place, and did not want to limit students' access to courses in new \& emerging topics.
7.) This has been an unofficial departmental policy for years. This revision allows the policy to be enforceable.
8.) To be more consistent with how other Programs of Study in GCOE are organized.
9.) This program was approved to be offered online in 2016, but the Delivery Method and program code information was never updated. So that will be done in this revision.
10.) We changed the time to completion to five years to accommodate students in the online program, the majority of whom are part-time students. Students in the oncampus program typically complete the program in 3 semesters.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

## No

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

Yes
Courses outside
of the sponsoring
department/interdisciplinary
departments
TE 401 - Develop Breakthrough Projects
TE 450 - Startups:Inc,Fund,Contracts,IP
TE 460 - Lect in Engrg Entrepreneurship
TE 461- Technology Entrepreneurship
TE 466- High-Tech Venture Marketing
TE 498- Special Topics III
TE 510 - Advanced Creativity
TE 565-Technol Innovation \& Strategy
TE 566 - Finance for Engineering Mgmt
TE 567 - Venture Funded Startups
TE 598- Special Topics IV
Please attach any FW_TEC letter of support.pdf
letters of
support/acknowledgement
for any
Instructional
Resources
consider faculty, students, and/or other impacted units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

- The ability of students to function as independent scientists and engineers.
- A deep understanding of the underlying principles of the appropriate theories in their subject area.
- A deep understanding of the underlying principles of the synthesis and preparation of their subject materials.
- A deep understanding of the underlying principles of characterization of their subject materials.
- A deep understanding of the underlying principles of processing of their subject materials.
- A deep understanding of interrelationships of structure, processing and properties of their subject materials.
- A broad knowledge of the preparation, characterization and processing of all types of materials.

Describe how, when, and where these learning outcomes will be assessed.
Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

Program
Description and
Requirements
Attach Documents
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/PublicAdminRules2017.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.

Revised programs MEngME Side by Side_Final.pdf
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab

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

Statement for
Programs of Study Catalog

## Degree Requirements Other-Requirements-

Course List
Code Title Hours
ME or TAM course work 12-20

Applied math/computational science requirement (choose from approved list) 3-4
Elective courses chosen in consultation with advisor 4-8
Professional development 4-8
Technical Core $\quad \underline{\underline{16-24}}$
ME and TAM coursework selected in consultation with advisor.
Professional Development Coursework
$\underline{4-8}$
Select from the following:

| $\underline{\text { ENG 572 }}$ | $\underline{\text { Professional Practicum }}$ |
| :--- | :--- |
| $\underline{\text { ENG } 573}$ |  |
| $\underline{\text { ME } 597}$ | $\underline{\text { Capstone Project }}$ |
| TE 401, TE 450, TE 460, TE 461, TE 466, TE 498, TE 510, TE 565, TE 566, |  |
| $\underline{\text { TE 567, TE 598 }}$ |  |
| ective Coursework | 4-12 |

A minimum of 4 elective hours must be completed outside the ME rubric.
Total required hours

## Other Requirements and Conditions (may overlap)

## Grad Other Degree Requirements

Requirement
A minimum of 4 elective hours must be completed outside of the major department.
A minimum of 12500 -level credit hours applied toward the degree, 8 of which must be in ME or TAM.
A maximum of 4 hours of independent study may be applied toward degree requirements.
Elective course category may include a maximum of 4 hours of special topics credit.
Professional development category may include a maximum of 4 hours of special topics credit.
No credit given towards degree for S/U or CR/NC graded classes.
The minimum program GPA is 3.0.
Requirements and conditions may overlap.

Corresponding MENG Master of Engineering
Degree

## Program Features

Academic Level Graduate
Does this major Yes No
have transcripted
concentrations?

Will you admit to
the concentration
directly?
Is a concentration No
required for
graduation?
What is the typical time to completion of this program?
드Z years

What are the minimum Total Credit Hours required for this program?
32
What is the
3.0
required GPA?
CIP Code 141901-Mechanical Engineering.
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

## Delivery Method

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.
On Campus and Online - 2 program types. Students can receive the entire program either on campus or online. Students can choose to take courses in either modality.

Describe the use of this delivery method:
Students may complete the M.Eng.ME degree entirely online or entirely on-campus.

## Admission Requirements

Desired Effective
Fall 2024
Admissions Term
Is this revision a change to the admission status of the program?
No
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.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

The anticipated impact is an increased retention rate and improvement in overall performance, due to limited course options to complete this the math/computational requirement and the difficulty of those limited options.

## Estimated Annual Number of Degrees Awarded

Year One Estimate
5th Year Estimate (or when
fully implemented)
What is the Fall
matriculation
term for this
program?

## Budget

Are there
No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?

Will the unit need to seek campus or other external resources?
No
Attach letters of
support
What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

## Engineering Differential

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

If yes, briefly explain what tuition change you will make for this program, e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

Because the program is a Grainger Engineering Graduate Degree. All graduate programs in Grainger Engineering charge the the Grad Engineering On Campus Programs or Grad Engineering Online Programs rates (with the exception of a few programs that charge a BOT approved program specific rate).

Is this program requesting self-supporting status?
Yes No

## Faculty Resources

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

This program revision does not impact the the numbers of faculty, class size, teaching loads, or student-faculty ratios.

## 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.

Library collections, resources and services are sufficient to support this program.

## EP Documentation

EP Control
EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook MENG:Mechanical Enginerng-UIUC \& MENG:Mech Engineering Onl-UIUC Name

Program Code: 1PKS0133MENG \& 1PKS0133MENU

| Minor | Conc | Degree | MENGR |
| :--- | :--- | :--- | :--- |

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for this request

Program Reviewer Mary Lowry (lowry) (09/25/23 4:34 pm): Rollback: Please see email dated Comments

9-25-23
Brooke Newell (bsnewell) (09/29/23 2:03 pm): Rollback: Letter of support missing from TE. Please include and once workflow is started, we can review the program revisions.
Brooke Newell (bsnewell) (10/06/23 7:37 pm): Rollback: per request Mary Lowry (lowry) (10/16/23 11:56 am): Rollback: Please see email dated 10-16-23

| From: | Roughton, Susan Joy |
| :--- | :--- |
| To: | Carter Pipkins, Keri; Lowry, Mary K |
| Cc: | Miller, Laura; Taylor, Jed L |
| Subject: | FW: TEC letter of support |
| Date: | Thursday, September 28, 2023 9:38:37 AM |
| Attachments: | image001.png |

Dear Keri and Mary,

Please see below email from Jed Taylor, of TEC. Will this email be sufficient for our application for curriculum changes to the MEngME program?

Thank you,

Susan

Susan Roughton, MA
MEngME Program Coordinator
Department of Mechanical Science and Engineering (MechSE)
University of Illinois at Urbana-Champaign
E-mail: roughton@illinois.edu
Phone: 217-300-3319
Lu MEB, Room 2024, 1206 W. Green Street, Urbana, IL 61801

## TILLINOIS

Grainger College of Engineering

From: Taylor, Jed L [jedt@illinois.edu](mailto:jedt@illinois.edu)
Sent: Monday, September 25, 2023 2:10 PM
To: Roughton, Susan Joy [roughton@illinois.edu](mailto:roughton@illinois.edu)
Cc: Miller, Laura [arriola@illinois.edu](mailto:arriola@illinois.edu)
Subject: TEC letter of support

Dear Susan,

The Technology Entrepreneur Center is supportive of the proposal to add the following courses to the Mechanical Engineering, MEng. We can provide access to your estimated 30-40 students per term, subject to capacity and course availability.

- TE 401 Developing Breakthrough Projects
- TE 450 Startups: Incorporation, Funding, Contracts, \& Intellectual Property
- TE 460 Lectures in Engineering Entrepreneurship
- TE 461 Technology Entrepreneurship
- TE 466 High-Tech Venture Marketing
- TE 498 Special Topics
- TE 510 Advanced Creativity
- TE 565 Technology, Innovation, \& Strategy
- TE 566 Finance for Engineering Management
- TE 567 Venture Funded Startups
- TE 598 Special Topics

Thank you,
Jed Taylor

JED TAYLOR
Assistant Dean, Innovation and Entrepreneurship

The Grainger College of Engineering | Technology Entrepreneur Center
352 Coordinated Science Lab | 1308 W. Main St. | MC 228
Urbana, IL 61801 | 217.244.4035 | edt@illinois.edu

Instructions: Highlight the cells that include revisions to illustrate, specifically the revisions proposed. Highlight cells. Use red text on the left side (Current Program of Study) for content that will be deleted or edited. Use green text on the right for proposed revisions to text and any new requirements.

| Mechanical Engineering, M.Eng. |  |
| :--- | :---: |
| for the degree of Master of Engineering in Mechanical Engineering (on campus \& online) |  |
| For additional details and requirements, please refer to the department's Graduate Degree Requirements Handbook and the Graduate <br> College Handbook. <br> ME or TAM course work <br> Applied math/computational science requirement (choose from approved list)\begin{tabular}{c\|c|}
\hline
\end{tabular} | $3-4$ |

Applied math/computational science requirement (choose from approved list)

| Elective courses chosen in consultation with advisor | $4-8$ |
| :--- | :---: |
| Professional Development | $4-8$ |
| Choice or combination of (a) graduate-level capstone project (e.g., ME 597 Independent Study), or (b) course in leadership, |  |

Choice or combination of (a) graduate-level capstone project (e.g., ME 597 Independent Study), or (b) course in leadership,
entrepreneurship, or other business-related course.

| Total Required Hours | $\mathbf{3 2}$ |
| :--- | :---: |
|  |  |
| Other Requirements and Conditions |  |
| A minimum of 4 elective hours must be completed outside of the major department. |  |
| A minimum of 12 500-level credit hours applied toward the degree, 8 of which must be in ME or TAM. |  |
| Elective course category may include a maximum of 4 hours of special topics credit. |  |
| A maximum of 4 hours of independent study may be applied toward degree requirements. |  |
| Professional development category may include a maximum of 4 hours of special topics credit. |  |
| The minimum program GPA is 3.0. |  |
| Requirements and conditions may overlap. |  |

Red Text: Deleted

Proposed Revisions
Mechanical Engineering, M, Eng.
for the degree of Master of Engineering in Mechanical Engineering (on campus \& online)
For additional details and requirements, please refer to the department's Graduate Degree Requirements Handbook and the Graduate College Handbook.

| Technical Core | $16-24$ |
| :--- | :--- |

ME and TAM coursework selected from one or more tracks of study: Design \& Mechanics, Controls \& Robotics, Energy
Manufacturing, Fluid \& Thermal Sciences, and Biomechanics.

| Professional Development Coursework <br> Select from the following: <br> ENG 572 Professional Practicum |  |
| :--- | :---: |
| ENG 573 | Capstone Project |
| ME 597 | Independent Study |
| TE 401, TE 450, TE 460, TE 461, TE 466, TE 498, TE 510, TE 565, TE 566, TE 567, TE 598 |  |
| Elective Coursework |  |
| A minimum of 4 elective hours must be completed outside the ME rubric. | $4-12$ |
| Total Required Hours | 32 |

## Other Requirements and Conditions (may overlap

A minimum of 12500 -level credit hours applied toward the degree, 8 of which must be in ME or TAM.
A maximum of 4 hours of independent study may be applied toward degree requirements.
No credit given towards degree for S/U or CR/NC graded classes
The minimum program GPA is 3.0

## Date Submitted: 02/13/23 2:32 pm

## Viewing: 1PKS5982MENG: Engineering: Autonomy and Robotics, MEng

Last approved: 05/05/22 11:57 am
Last edit: 01/09/24 8:09 am
Changes proposed by: Amy McCullough
Catalog Pages Engineering: Autonomy and Robotics, MEng
Using this
Program

## Proposal Type:

## In Workflow

1. U Program

Review
2. 1227 Head
3. 1434 Head
4. 1933 Head
5. KP Committee

Chair
6. KP Dean
7. University

Librarian
8. Grad_College
9. COTE Programs
10. Provost
11. Senate EPC
12. Senate
13. U Senate Conf
14. Board of Trustees
15. IBHE
16. HLC
17. DOE
18. DMI

## Approval Path

1. 02/15/23 9:07 am Deb Forgacs (dforgacs):
Approved for U
Program Review
2. 09/20/23 2:22 pm

Keri Pipkins (kcp):
Approved for 1227
Head
3. 09/20/23 3:42 pm

Mahesh
Viswanathan
(vmahesh):
Rollback to 1227
Head for 1434
Head
4. $10 / 05 / 234: 10 \mathrm{pm}$

Keri Pipkins (kcp):
Approved for 1227

Head
5. $10 / 11 / 237: 21 \mathrm{pm}$

Elsa Gunter
(egunter):
Approved for 1434
Head
6. 10/11/23 8:32 pm

Erhan Kudeki
(erhan): Approved
for 1933 Head
7. 10/27/23 8:59 am

Keri Pipkins (kcp):
Approved for KP
Committee Chair
8. 10/27/23 9:05 am

Michael Stoller
(stoller4):
Approved for KP
Dean
9. $11 / 06 / 236: 19 \mathrm{pm}$

Claire Stewart
(clairest):
Approved for University
Librarian
10. 12/13/23 4:24 pm Allison McKinney (agrindly):
Approved for Grad_College
11. $12 / 13 / 23$ 6:45 pm

Suzanne Lee
(suzannel):
Approved for
COTE Programs
12. 12/14/23 3:27 pm

Brooke Newell
(bsnewell):
Approved for
Provost

## History

1. Apr 20, 2021 by Keri Pipkins (kcp)
2. May 5, 2022 by Keri Pipkins (kcp)

This proposal is
for a:
Revision

## Administration Details

| Official Program | Engineering: Autonomy and Robotics, MEng |  |
| :--- | :--- | :--- |
| Name |  |  |
| Diploma Title |  |  |
| Sponsor College | Grainger College of Engineering |  |
| Sponsor  <br> Department Engineering Administration |  |  |
| Sponsor Name Geir Dullerud |  |  |
| Sponsor Email dullerud@illinois.edu <br> College Contact Keri Pipkins | College Contact |  |
| kcp@illinois.edu |  | Email |
| College Budget |  |  |
| Officer |  |  |
| College Budget |  |  |
| Officer Email |  |  |

List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Does this program have inter-departmental administration?
Yes
Interdisciplinary Colleges and Departments (list other colleges/departments which are involved other than the sponsor chose above)

Please describe the oversight/governance for this program, e.g., traditional departmental/college governance. Inclusion of/roles of elected faculty committees? Inclusion of/roles of any advisory committees.

The proposed Concentration in Autonomy and Robotics is a formal collaboration between five academic units (Aerospace Engineering, Computer Science, Electrical \& Computer Engineering, Industrial \& Enterprise Systems Engineering, and Mechanical Science and Engineering) and the Center for Autonomy (founded using Investment-for-Growth funds), all in The Grainger College of Engineering. Governance and oversight will be implemented through an Admissions Committee and a Curriculum Oversight Committee with representation from each of the five departments on both committees. Committee members will be asked to serve overlapping three year commitments.

## Curriculum Oversight Committee

The Curriculum Oversight Committee will consist of no fewer than four faculty members, including the chair, from the participating departments (Aero, CS, ECE, ISE, MechSE). Each member should be from a distinct department unless the size of committee exceeds five members, or there are other mitigating factors. The director of the Center for Autonomy will select the chair of the committee in consultation with the associate directors. The committee chair, director and associate directors will select the remaining committee members. Appointments to the committee will occur in alternating years, with a two-year term of service. Representation on the committee will be solicited from all participating departments each year. The Curriculum Oversight Committee will meet once a semester to review course offerings for the upcoming semester to ensure that core courses, as well as an appropriate selection of elective courses, are offered each semester for students to successfully complete this program in three semesters. The committee will review and update the program curriculum requirements on an annual basis to ensure students are receiving the advanced knowledge and skills needed for industry positions in this field. Additionally, the committee will address any petitions or other course-related matters that arise during the running of the program on an ad hoc basis. Faculty that serve on this committee will be responsible for updating their home department on curriculum needs and future course plans for this concentration.

## Admissions Committee

The Admissions Committee will consist of no fewer than four faculty members, including the chair, from the participating departments (Aero, CS, ECE, ISE, MechSE). Each member should be from a distinct department unless the size of committee exceeds five members, or there are other mitigating factors. The director of the Center for Autonomy will select the chair of the committee in consultation with the associate directors. The committee chair, director and associate directors will select the remaining committee members. Appointments to the committee will occur annually with a one-year term of service. Representation on the committee will be solicited from all participating departments each year. The Admissions Committee will be responsible for all admissions decisions for the program, and related adjudication. This committee will determine in advance the capacity for incoming students for each entering term with feedback from each of the participating departments. The committee will meet on a regular basis throughout the admission season for the Fall and Spring terms to review and admit applicants.

The program will leverage the shared services for MEng programs in The Grainger College of

Engineering's Center for Professional and Executive Training and Education to provide administrative support for the program, including in support of student recruitment, career advising, and professional development. The Grainger College of Engineering Office of Graduate, Professional, and Online Programs will process all required paperwork for applicants and current students.

During the first three years the program cohorts will consist of 20-25 students. Therefore, advising will primarily be provided by the full-time Program Director. This will involve assisting students with choosing their courses, and dealing with other logistical academic matters that arise. The Director will also organize events to help acclimatize students to their new environment, and indeed continue leading such events throughout the program year; faculty involved with the program may also attend these events. For specific technical advice, students will be able to consult directly with faculty members who are involved with the program. The Director will also help direct students to appropriate University resources. For situations in which students require special support (for instance to deal with personal crises or challenges), the program will utilize the specially trained professional staff in the Office of the Associate Dean for Graduate, Professional and Online Programs.

| College | Grainger College of Engineering |
| :--- | :--- |
| Department | Computer Science |

Is there an additional department involved in governance?
Yes
College Grainger College of Engineering
Department Electrical and Computer Engineering
Is there an additional department involved in governance?
No

## Proposal Title

Effective Catalog Spring 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Concentration in Autonomy and Robotics in the Master of Engineering in Engineering in the Grainger College of Engineering and Graduate College

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

## Program Justification

Provide a brief 1. Within the curriculum section "Other Requirements and Conditions" section of the description of what changes are being made to the program. curriculum, requesting to revise the requirement "A minimum of 12500 -level credit hours" to "A minimum of 12 500-level credit hours. ENG 572 and ENG 573 may not be used to satisfy this requirement."
2. Updated the list of electives. This list was included in the original proposals, but was never added to the catalog as intended. CIM-P was very new at the time \& there was some confusion around how to list an elective table with a large number of courses). This revision puts the approved elective course list into the Program of Study section, removes 3 courses (one deactivated, 2 not currently taught), and lists cross-listed courses once.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

No
Why are these changes necessary?

1. ENG 572: Professional Practicum and ENG 573: Capstone Project are professional development courses. The professional development portion of the curriculum is not intended to be included in the 12 credit hours at the 500-level requirement.
2. This is not a change, it's correctly adding a table that was submitted previously as an attachment when proposal was originally approved, but not added to the catalog. CIM-P was new at the time \& there was some confusion regarding how to add elective lists to the catalog (a separate CIM Form was created for electives at the time). All 5 participating departments were provided the elective list via pdf form and all submitted letters of support at the time. (See EP. 21.041, attached)

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

> Yes

Courses outside
of the sponsoring
department/interdisciplinary
departments
ECE 484 - Principles of Safe Autonomy

Please attach any
letters of
support/acknowledgement
for any
Instructional
Resources
consider faculty, students, and/or
other impacted
units as
appropriate.

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

The learning objectives of the proposed Concentration in Autonomy and Robotics include professionally-oriented competence in the application of software systems, electronics, tools for algorithm design and machine learning, and physics-based dynamics, control and sensor systems to the integration of autonomy in robotic systems. The learning objectives will be assessed in the core coursework and through the performance of students in the capstone project professional-development course. Such assessment will be analyzed annually by the Curriculum Oversight Committee to ensure students are receiving the advanced knowledge and skills needed for industry positions in this field. Additional metrics include placement of graduates in relevant careers measured in exit surveys.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Attach Documents

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/PublicAdminRules2017.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.

Revised programs EP-21-04.pdf
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab

Description of program for the catalog page. This is not official content, it is used to help build the new catalog page for the program. Can be edited in the catalog by the college or department.
associate dean for graduate, professional and online programs : Daniel Bodony Harry Dankowicz
overview of admissions \& requirements: https://grainger.illinois.edu/academics /graduate
overview of grad college admissions \& requirements: https://grad.illinois.edu /admissions/apply
college website: https://grainger.illinois.edu/
address: 402 Engineering Hall, 1308 W Green St, Urbana, Illinois 61801
phone: (217) 244-2745
email: engr-gpp@illinois.edu
The Grainger College of Engineering offers a Master of Engineering (MEng) degree program for students whose primary intent is a professional career in industry or government. This degree differs from the Master of Science (MS) degree in that it is a professionally-oriented master's degree that is not a pathway to a doctoral program. The Major in Engineering for the M.Eng. degree requires the selection of an interdisciplinary concentration, which must be identified at the time of application. Available concentrations are:

Aerospace Systems Engineering
Autonomy and Robotics
Energy Systems
Plasma Engineering
Railway Engineering

## Admission

Students with bachelor's or master's degrees in engineering or related sciences will be considered for admission if they have a grade point average of at least 3.00 ( $\mathrm{A}=4.00$ ) for the last two years of undergraduate study. Admission is possible for the both the fall and spring semesters. Full details of admission requirements are on the Web page of the department offering the concentration.

All applicants whose native language is not English are required to submit TOEFL or International English Language Testing System (IELTS) scores as evidence of English proficiency. Minimum admission requirements are set by the Graduate College. Higher requirements may be imposed by specific concentrations.
Financial Aid

Students in concentrations under the MEng in Engineering major are not eligible for Board of Trustees (BOT) tuition-waiver generating assistantships at the University of Illinois.

Statement for Programs of Study Catalog

Concentration Requirements
Course List
Title Hours
Core Coursework 12
ME 445 Introduction to Robotics
ECE $484 \quad$ Principles of Safe Autonomy
CS 588 Autonomous Vehicle System Engineering
Select one of the following:
Control and Dynamics
ECE 486 Control Systems
SE 422 Robot Dynamics and Control
Optimization
AE 504 Optimal Aerospace Systems
ECE 490 Introduction to Optimization
Hardware Systems
ME 451 Computer-Aided Mfg Systems
Artificial Intelligence and Perception
CS $440 \quad$ Artificial Intelligence
CS 543 Computer Vision
ECE 544 Topics in Signal Processing
Design and Applications
CS 465 User Interface Design
Professional Development Course
ENG 573 Capstone Project
ENG 572 Professional Practicum
Other advisor-approved courses.
Additional Coursework
Electives may be selected from the course list, with advisor approval. This list
includes courses in Control and Dynamics, Optimization, Hardware Systems,
Artificial Intelligence and Perception, Design and Applications.
Total Hours

Other Requirements and Conditions (may overlap)

Requirement
Grad Other Degree Requirements

A minimum of 20 credit hours must be taken from the University of Illinois Urbana-Champaign campus.
A minimum of 12500 -level credit hours.
A minimum of 12500 -level credit hours. ENG 572 and ENG 573 may not be used to satisfy this requirement.
No courses used to fulfill any degree requirement may be taken using the "Credit/No Credit" option.
Minimum GPA: 3.0

## Elective Course List

Enrollment in these courses depends on course availability.
Course List
Code
Title
Hours
ARTIFICIAL INTELLIGENCE \& PERCEPTION

| Code | Title | Hours |
| :---: | :---: | :---: |
| CS 440/ECE 448 | Artificial Intelligence | 3 or 4 |
| CS 446/ECE 449 | Machine Learning | 3 or 4 |
| CS 447 | Natural Language Processing | 3 or 4 |
| CS 543 | Computer Vision | $\underline{4}$ |
| CS 546 | Advanced Topics in Natural Language Processing | 4 |
| ECE 534 | Random Processes | $\underline{4}$ |
| ECE 543 | Statistical Learning Theory | $\underline{4}$ |
| ECE 561 | Statistical Inference for Engineers and Data Scientists4 |  |
| ECE 566 | Computational Inference and Learning | $\underline{4}$ |
| IE 534/CS 547 | Deep Learning | $\underline{4}$ |
| SE 524 | Data-Based Systems Modeling | $\underline{\underline{4}}$ |
| CONTROL \& DYNAMICS |  |  |
| AE 454 | Systems Dynamics \& Control | $\underline{4}$ |
| AE 554/TAM 516 | Dynamical Systems Theory | $\underline{4}$ |
| AE 555/SE 521 | Multivariable Control Design | 4 |
| AE 556 | Robust Control | $\underline{4}$ |
| ECE 486 | Control Systems | $\underline{4}$ |
| ECE 515/ME 540 | Control System Theory \& Design | $\underline{4}$ |
| ECE 517 | Nonlinear \& Adaptive Control | $\underline{4}$ |
| ECE 528/ME 546/SE 520 | Analysis of Nonlinear Systems | $\underline{4}$ |
| ECE 553 | Optimum Control Systems | 4 |
| ECE 555 | Control of Stochastic Systems | $\underline{4}$ |
| ECE 557 | Geometric Control Theory | $\underline{4}$ |
| ECE 568 | Model \& Cntrl Electromech Syst | 4 |
| ECE 573 | Power System Control | 4 |
| ME 460 | Industrial Control Systems | $\underline{4}$ |
| ME 561 | Convex Methods in Control | $\underline{4}$ |
| ME 562 | Robust Adaptive Control | 4 |
| SE 422/ECE 489/ME 446 | Robot Dynamics and Control | 4 |
| SE 424 | State Space Design for Control | $\underline{\underline{3}}$ |
| SE 525 | Control of Complex Systems | $\underline{4}$ |
| TAM 412 | Intermediate Dynamics | $\underline{4}$ |
| DESIGN \& APPLICATIONS |  |  |
| CS 465 | User Interface Design | 4 |
| CS 565 | Human-Computer Interaction | 4 |
| SE 400 | Engineering Law | 3 or 4 |
| HARDWARE SYSTEMS |  |  |
| CS 431 | Embedded Systems | 3 or 4 |
| ECE 437 | Sensors and Instrumentation | $\underline{\underline{3}}$ |
| ME 451 | Computer-Aided Mfg Systems | 3 or 4 |
| ME 452 | Num Control of Mfg Processes | 3 or 4 |
| ME 455 | Micromanufacturing Process \& Automation | 4 |
| ME 461 | Computer Cntrl of Mech Systems | 3 or 4 |
| SE 420 | Digital Control Systems | 4 |
| SE 423 | Mechatronics | $\underline{\underline{3}}$ |
| OPTIMIZATION |  |  |
| AE 504 | Optimal Aerospace Systems | 4 |


| Code | Title | Hours |
| :---: | :---: | :---: |
| CS 544 | Optimiz in Computer Vision | 4 |
| ECE 490 | Introduction to Optimization | $\underline{4}$ |
| ECE 580 | Optimiz by Vector Space Methds | 4 |
| IE 411 | Optimization of Large Systems | 3 or 4 |
| IE 519/CS 586 | Combinatorial Optimization | $\underline{4}$ |
| IE 521 | Convex Optimization | 4 |
| SOFTWARE SYSTEMS |  |  |
| CS 424 | Real-Time Systems | 3 or 4 |
| CS 425/ECE 428 | Distributed Systems | 3 or 4 |
| CS 427/CSE 426 | Software Engineering I | 3 or 4 |
| CS 428/CSE 429 | Software Engineering II | 3 or 4 |
| CS/ECE 438 | Communication Networks | 3 or 4 |
| CS 461/ECE 422 | Computer Security I | 4 |
| CS 476 | Program Verification | 3 or 4 |
| CS 477/ECE 478/CSE 408Formal Software Development Methods |  | 3 or 4 |
| CS 484 | Parallel Programming | 3 or 4 |
| ECE 408 | Applied Parallel Programming | 4 |

## Program Relationships

## Corresponding

Program(s):

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Corresponding Program(s)
Engineering, MEng
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## Program Features

Academic Level Graduate
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

During the first three years the program cohorts will consist of 20-25 students. Therefore, advising will primarily be provided by the full-time Program Director. This will involve assisting students with choosing their courses, and dealing with other logistical academic matters that arise. The Director will also organize events to help acclimatize students to their new environment, and indeed continue leading such events throughout the program year; faculty involved with the program may also attend these events. For specific technical advice, students will be able to consult directly with faculty members who are involved with the program. The Director will also help direct students to appropriate University resources. For situations in which students require special support (for instance to deal with personal crises or challenges), the program will utilize the specially trained professional staff in the Office of the Associate Dean for Graduate, Professional and Online Programs.

## Delivery Method

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

This revision will not impact enrollment and degrees awarded.

## Budget

Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
Yes
Please
explain/describe:
A full-time Program Director will be hired to manage day-to-day operations and logistics for the MEng program. The Center for Autonomy will fund this position for the first two years. After that the program tuition revenue should be sufficient to cover this salary and other expenses associated with this position.

Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
The unit is requesting self-supporting program status for this degree. Students enrolled in this degree will pay tuition. The Grainger College of Engineering will use some of the graduate tuition dollars returned to the college from the Office of the Vice Provost for Budget and Resource Planning to provide the participating departments with resources needed to support the proposed curriculum. Graduate tuition funds returned to the college from campus are considered state, recurring funds that may be used to fund faculty and lecturer salaries, support instruction, or at the discretion of the participating Department Heads in a manner consistent with campus policy on use of such funds. Additional financial support will be provided in the first three years by the Center for Autonomy in The Grainger College of Engineering.

Will the unit need to seek campus or other external resources? No

Attach letters of support

Is this program requesting self-supporting status?
Yes

## Faculty Resources

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

There will be no impact to faculty resources or enrollment.

## 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.

Library collections, resources and services are sufficient to support this program.

## EP Documentation

EP Control
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

EP.24.051

DMI Documentation

## Attach Final

Approval Notices
Banner/Codebook MENG:Engr:AutonomyRobotic-UIUC
Name
Program Code: 1PKS5982MENG
Minor Conc 5982
Code
1211
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for
this request

Program Reviewer Comments

Mahesh Viswanathan (vmahesh) (09/20/23 3:42 pm): Rollback: per Keri's request on 2:25pm on 9/20

| Degree | MENGR |
| :--- | :--- | | Major |
| :--- |
| Code |

## : ENGINEERING: AUTONOMY AND ROBOTICS, MENG

## In Workflow

1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1227 Head (kcp@illinois.edu; bsnewell@illinois.edu; danko@illinois.edu; jmakela@illinois.edu)
3. 1434 Head (namato@illinois.edu; vmahesh@illinois.edu; egunter@illinois.edu)
4. 1933 Head (b-hajek@illinois.edu; oelze@illinois.edu; erhan@illinois.edu)
5. KP Committee Chair (mch@illinois.edu; bsnewell@illinois.edu; danko@illinois.edu; kcp@illinois.edu)
6. KP Dean (candyd@illinois.edu)
7. University Librarian (jpwilkin@illinois.edu)
8. Grad_College (agrindly@illinois.edu; jch@illinois.edu; lowry@illinois.edu)
9. Provost (kmartens@illinois.edu)
10. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@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. Thu, 22 Oct $202021: 17: 48$ GMT Deb Forgacs (dforgacs): Approved for U Program Review
2. Fri, 23 Oct 2020 19:16:40 GMT

Keri Pipkins (kcp): Approved for 1227 Head
3. Fri, 23 Oct 2020 23:15:08 GMT

Elsa Gunter (egunter): Approved for 1434 Head
4. Mon, 26 Oct 2020 13:40:27 GMT

E Kudeki (erhan): Approved for 1933 Head
5. Mon, 16 Nov 2020 18:10:55 GMT Keri Pipkins (kcp): Approved for KP Committee Chair
6. Thu, 19 Nov 2020 22:04:08 GMT Candy Deaville (candyd): Approved for KP Dean
7. Thu, 19 Nov 2020 23:25:56 GMT John Wilkin (jpwilkin): Approved for University Librarian
8. Fri, 11 Dec 2020 20:48:51 GMT Allison McKinney (agrindly): Approved for Grad_College
9. Sun, 13 Dec 2020 23:26:26 GMT Kathy Martensen (kmartens): Approved for Provost

## New Proposal

Date Submitted:Wed, 21 Oct 2020 22:23:54 GMT

## Viewing:: Engineering: Autonomy and Robotics, MEng

Changes proposed by: Keri Pipkins

## Proposal Type

## Proposal Type:

Concentration (ex. Dietetics)

# 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 revisionsEstablish a Graduate Concentration in Autonomy and Robotics within the Master of Engineering in Engineering Degree

## EP Control Number

EP.21.041

## Official Program Name

Engineering: Autonomy and Robotics, MEng

## Effective Catalog Term

Fall 2021

## Sponsor College

Grainger College of Engineering

## Sponsor Department

Engineering Administration

## Sponsor Name

Geir Dullerud

## Sponsor Email

dullerud@illinois.edu

## College Contact

Harry Dankowicz
College Contact Email
danko@illinois.edu

## Program Description and Justification

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

Brief description:
The proposed Concentration in Autonomy and Robotics is a fast-paced, one-year, professionally-oriented curriculum that aims to provide students with solid foundational and operational knowledge in the integration of principles of autonomy and robotics across a wide range of enterprises-including,
for instance, the aerospace, automotive, medical, construction, and entertainment industries. Students will learn to work with components of software systems, electronics, tools for algorithm design and machine learning, and physics-based dynamics, control and sensor systems. The 16 credit hours of core coursework includes interdisciplinary project experiences that present key topics in the context of practical applications. An additional 12 credit hours of elective coursework allows students to further customize their degree by choosing from a rich set of courses from several relevant disciplinary domains. The 4 credit hours of professional development coursework provide a capstone focus on skills relevant for industry careers.

Engineering analysis and design of current and future autonomous systems requires a broad range of skills and knowledge that do not entirely fit into any one of the traditional engineering departments or computer science. In contrast, all students in this program of study will learn about the complexities of the software systems needed to run autonomous systems; the mathematics, control, and information theory behind algorithm design; the physics needed to model robots and mobile vehicles; and the technologies for making and modifying physical prototypes. Students will have the opportunity to further specialize and concentrate their knowledge in one or more of these areas to which all will be introduced and exposed. This combination of breath and depth will produce engineers able to contribute immediately to a specific area once employed, but will also put them in a unique position to pivot and learn other areas as required.

Justification:
A major technological revolution is underway in the areas of system automation and robotics, under the umbrella of autonomy. Applications include self-driving cars, delivery drones, remote and robotic surgical tools, micro-power grids, Internet-connected appliances, digital manufacturing equipment, and atmospheric control systems. This rapid transition requires engineers and computer scientists with cross-cutting training who can transform advances in digital hardware, communication networks, additive manufacturing, computational mechanics, and artificial intelligence into physical and information-system technologies. Although the US Bureau of Labor Statistics does not track robotics as a job category, the field draws employees from software engineering ( $21 \%$ projected growth from 2018-2028) and mechanical engineering ( $4 \%$ projected growth). At the start of 2020, Fior Markets projected that the global robotics market is expected to grow from USD 37.81 Billion in 2017 to USD 158.21 Billion by 2025 at a compound annual growth rate of $19.11 \%$.

The proposed Concentration in Autonomy and Robotics aims to meet this critical need. It will position the University as a unique destination for prospective students interested in a professionally-oriented autonomy and robotics curriculum and will ensure our national leadership in education and research in every aspect of this rapidly growing field. It will also attract attention of employers from across the public, private, and non-government sectors who will be engaged as part of a deliberate effort to develop internship and career opportunities for program students and graduates. The proposed concentration is consistent with campus priorities that emphasize cooperation among multiple disciplines and that emphasize growth in the particular interdisciplinary area of autonomy and robotics, as evidenced by the creation of the Center for Autonomy in The Grainger College of Engineering. As an element of a revenue-generation strategy, the proposed concentration will provide resources for enhancing scholarship and educational opportunity.

Unique elements of the proposed curriculum relative to other disciplinary master's programs are opportunities for students to (i) work on complex autonomy testbeds that are not readily available in other master's programs; and (ii) to do so in multi-disciplinary project teams that integrate broad exposure to software, dynamics, control, electronics, and perception. These value-added features provide program graduates with a competitive advantage relative to those graduating from existing master's programs in robotics (e.g., at University of Michigan, University of Pennsylvania, and Carnegie Mellon University) when seeking employment in the rapidly expanding area of autonomy and robotics.

## Is this program interdisciplinary?

Yes

## Interdisciplinary Colleges and Departments (list other colleges/departments which are involved other than the sponsor chose above)

The proposed Concentration in Autonomy and Robotics is a formal collaboration between five academic units (Aerospace Engineering, Computer Science, Electrical \& Computer Engineering, Industrial \& Enterprise Systems Engineering, and Mechanical Science and Engineering) and the Center for Autonomy (founded using Investment-for-Growth funds), all in The Grainger College of Engineering. Governance and oversight will be implemented through an Admissions Committee and a Curriculum Oversight Committee with representation from each of the five departments on both committees. Committee members will be asked to serve overlapping three year commitments.

## Curriculum Oversight Committee

The Curriculum Oversight Committee will consist of no fewer than four faculty members, including the chair, from the participating departments (Aero, CS, ECE, ISE, MechSE). Each member should be from a distinct department unless the size of committee exceeds five members, or there are other mitigating factors. The director of the Center for Autonomy will select the chair of the committee in consultation with the associate directors. The committee chair, director and associate directors will select the remaining committee members. Appointments to the committee will occur in alternating years, with a two-year term of service. Representation on the committee will be solicited from all participating departments each year. The Curriculum Oversight Committee will meet once a semester to review course offerings for the upcoming semester to ensure that core courses, as well as an appropriate selection of elective courses, are offered each semester for students to successfully complete this program in three semesters. The committee will review and update the program curriculum requirements on an annual basis to ensure students are receiving the advanced knowledge
and skills needed for industry positions in this field. Additionally, the committee will address any petitions or other course-related matters that arise during the running of the program on an ad hoc basis. Faculty that serve on this committee will be responsible for updating their home department on curriculum needs and future course plans for this concentration.

## Admissions Committee

The Admissions Committee will consist of no fewer than four faculty members, including the chair, from the participating departments (Aero, CS, ECE, ISE, MechSE). Each member should be from a distinct department unless the size of committee exceeds five members, or there are other mitigating factors. The director of the Center for Autonomy will select the chair of the committee in consultation with the associate directors. The committee chair, director and associate directors will select the remaining committee members. Appointments to the committee will occur annually with a oneyear term of service. Representation on the committee will be solicited from all participating departments each year. The Admissions Committee will be responsible for all admissions decisions for the program, and related adjudication. This committee will determine in advance the capacity for incoming students for each entering term with feedback from each of the participating departments. The committee will meet on a regular basis throughout the admission season for the Fall and Spring terms to review and admit applicants.

The program will leverage the shared services for MEng programs in The Grainger College of Engineering's Center for Professional and Executive Training and Education to provide administrative support for the program, including in support of student recruitment, career advising, and professional development. The Grainger College of Engineering Office of Graduate, Professional, and Online Programs will process all required paperwork for applicants and current students.

During the first three years the program cohorts will consist of $20-25$ students. Therefore, advising will primarily be provided by the full-time Program Director. This will involve assisting students with choosing their courses, and dealing with other logistical academic matters that arise. The Director will also organize events to help acclimatize students to their new environment, and indeed continue leading such events throughout the program year; faculty involved with the program may also attend these events. For specific technical advice, students will be able to consult directly with faculty members who are involved with the program. The Director will also help direct students to appropriate University resources. For situations in which students require special support (for instance to deal with personal crises or challenges), the program will utilize the specially trained professional staff in the Office of the Associate Dean for Graduate, Professional and Online Programs.

## College

Grainger College of Engineering

## Department

Computer Science

## Do you need to add an additional interdisciplinary relationship?

Yes

## College

Grainger College of Engineering

## Department

Electrical and Computer Engineering

## Do you need to add an additional interdisciplinary relationship?

## Corresponding Program(s):

## Corresponding Program(s)

Engineering, MEng

## Academic Level

## Graduate

## Additional concentration notes (e.g., estimated enrollment, advising plans, etc.)

During the first three years the program cohorts will consist of 20-25 students. Therefore, advising will primarily be provided by the full-time Program Director. This will involve assisting students with choosing their courses, and dealing with other logistical academic matters that arise. The Director will also organize events to help acclimatize students to their new environment, and indeed continue leading such events throughout the program year; faculty involved with the program may also attend these events. For specific technical advice, students will be able to consult directly with faculty members who are involved with the program. The Director will also help direct students to appropriate University resources. For situations in which students require special support (for instance to deal with personal crises or challenges), the program will utilize the specially trained professional staff in the Office of the Associate Dean for Graduate, Professional and Online Programs.

Is This a Teacher Certification Program?
No

## Will specialized accreditation be sought for this program?

No

## Enrollment

## Number of Students in Program (estimate)

## Year One Estimate

## 20

## 5th Year Estimate (or when fully implemented)

50

## What is the typical time to completion of this program?

1 year

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

## Delivery Method

This program is available:
On Campus

## Budget

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

## Please explain/describe:

A full-time Program Director will be hired to manage day-to-day operations and logistics for the MEng program. The Center for Autonomy will fund this position for the first two years. After that the program tuition revenue should be sufficient to cover this salary and other expenses associated with this position.

## 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.

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

The proposed core curriculum is built from courses currently taught (including as special topics classes) in the participating departments, along with electives chosen from courses offered by participating departments or other departments in The Grainger College of Engineering. There is no anticipated impact on faculty resources. The concentration is also strategically aligned with the expansion of The Grainger College of Engineering's footprint in research and education in autonomy and robotics as evidenced by the creation of the Center for Autonomy and by college-wide tenuretrack hiring in this area.

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 will be minimal to no impact on the University Library's resources, collections, and services.

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?

Yes

## Required courses

ECE 484 - Principles of Safe Autonomy
ME 445 - Introduction to Robotics
CS 588 - Autonomous Vehicle System Eng

Explain how the inclusion or removal of the courses/subjects listed above impacts the offering departments.
The three departments offering required courses are among the five academic units (Aerospace Engineering, Computer Science, Electrical \& Computer Engineering, Industrial \& Enterprise Systems Engineering, and Mechanical Science and Engineering) formally collaborating with the the Center for Autonomy in offering this concentration. Letters of support are attached. These departments will be compensated via agreed upon MOU's between the Center for Autonomy and each department.

## Attach letters of support from other departments.

CS-Letter-of-Support-MEng-Autonomy-Robotics_2020-05-31.pdf
Nagi_ISE Endorsement of MEng in Autonomy RN.pdf
Jacobi-MechSE endorsement-10172019.pdf
ISE_MEng.pdf
Hajek-ECE.pdf
Freund-Aero.pdf

## Financial Resources

## How does the unit intend to financially support this proposal?

The unit is requesting self-supporting program status for this degree. Students enrolled in this degree will pay tuition. The Grainger College of Engineering will use some of the graduate tuition dollars returned to the college from the Office of the Vice Provost for Budget and Resource Planning to provide the participating departments with resources needed to support the proposed curriculum. Graduate tuition funds returned to the college from campus are considered state, recurring funds that may be used to fund faculty and lecturer salaries, support instruction, or at the discretion of the participating Department Heads in a manner consistent with campus policy on use of such funds. Additional financial support will be provided in the first three years by the Center for Autonomy in The Grainger College of Engineering.

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

No

## Attach letters of support

MENG Autonomy and Robotics.pdf

Is this program requesting self-supporting status?
Yes

## 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 of the proposed Concentration in Autonomy and Robotics include professionally-oriented competence in the application of software systems, electronics, tools for algorithm design and machine learning, and physics-based dynamics, control and sensor systems to the integration of autonomy in robotic systems. The learning objectives will be assessed in the core coursework and through the performance of students in the capstone project professional-development course. Such assessment will be analyzed annually by the Curriculum Oversight Committee to ensure students are receiving the advanced knowledge and skills needed for industry positions in this field. Additional metrics include placement of graduates in relevant careers measured in exit surveys.

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

No

## Program of Study

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

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

For new programs, attach Program of Study
AcademicCatalog_MEng_AutonomyandRoboticsv4.pdf

Catalog Page Text

Catalog Page Text: Description of program for the catalog page. This is not official content, it is used to help build the catalog pages for the program. Can be edited in the catalog by the college or department.
associate dean for graduate, professional and online programs : Harry Dankowicz
overview of admissions \& requirements: https://grainger.illinois.edu/academics/graduate overview of grad college admissions \& requirements: https://grad.illinois.edu/admissions/apply
college website: https://grainger.illinois.edu/
address: 402 Engineering Hall, 1308 W Green St, Urbana, Illinois 61801
phone: (217) 244-2745
email: engr-gpp@illinois.edu
The Grainger College of Engineering offers a Master of Engineering (MEng) degree program for students whose primary intent is a professional career in industry or government. This degree differs from the Master of Science (MS) degree in that it is a professionally-oriented master's degree that is not a pathway to a doctoral program. The Major in Engineering for the M. Eng. degree requires the selection of an interdisciplinary concentration, which must be identified at the time of application. Available concentrations are:

Aerospace Systems Engineering
Autonomy and Robotics
Energy Systems
Plasma Engineering
Railway Engineering
Admission
Students with bachelor's or master's degrees in engineering or related sciences will be considered for admission if they have a grade point average of at least $3.00(A=4.00)$ for the last two years of undergraduate study. Admission is possible for the both the fall and spring semesters. Full details of admission requirements are on the Web page of the department offering the concentration.

All applicants whose native language is not English are required to submit TOEFL or International English Language Testing System (IELTS) scores as evidence of English proficiency. Minimum admission requirements are set by the Graduate College. Higher requirements may be imposed by specific concentrations.
Financial Aid
Students in concentrations under the MEng in Engineering major are not eligible for Board of Trustees (BOT) tuition-waiver generating assistantships at the University of Illinois.

## Statement for Programs of Study Catalog

## Concentration Requirements

| Code <br> Core Coursework | Title | Hours |
| :--- | :--- | ---: |
| ME 445 |  | 12 |
| ECE 484 | Introduction to Robotics |  |
| CS 588 | Principles of Safe Autonomy |  |
| Select one of the following: |  | 4 |


| Control and Dynamics |  |
| :--- | :--- |
| ECE 486 | Control Systems |
| SE 422 | Robot Dynamics and Control |
| Optimization |  |
| AE 504 | Optimal Aerospace Systems |
| ECE 490 | Introduction to Optimization |
| Hardware Systems | Computer-Aided Mfg Systems |
| ME 451 | Computer Vision |
| Artificial Intelligence and Perception |  |
| CS 440 | Topics in Signal Processing |
| CS 543 |  |
| ECE 544 | User Interface Design |
| Design and Applications |  |
| CS 465 | Capstone Project |
| Professional Development Course |  |
| ENG 573 |  |
| Additional Coursework |  |
| Electives may be selected from the course list, with advisor approval. This list includes courses in Control and Dynamics, |  |
| Optimization, Hardware Systems, Artificial Intelligence and Perception, Design and Applications. |  |

Total Hours

## Other Requirements and Conditions (may overlap)

## Requirement <br> Description

A minimum of 20 credit hours must be taken from the University of Illinois Urbana-Champaign campus.
A minimum of 12500 -level credit hours.
No courses used to fulfill any degree requirement may be taken using the
"Credit/No Credit" option.
Minimum GPA: 3.0

## EP Documentation

## Attach Rollback/Approval Notices

Correspondence with sponsor EP 21041 -- Engineering_ Automony and Robotics Concentration.pdf CfA-MoU_DEPTS_final.pdf

## DMI Documentation

## Program Reviewer Comments

Mahesh Viswanathan (vmahesh) (Tue, 25 Feb 2020 23:24:28 GMT):Rollback: By request of Harry Dankowicz Emily Stuby (eastuby) (Fri, 14 Aug 2020 20:05:32 GMT):Rollback: Department Request

# MEng in Engineering: Concentration in Autonomy and Robotics <br> for the degree of Master of Engineering in Engineering, Autonomy and Robotics Concentration 

## Overview

associate dean for graduate, professional and online programs: Harry Dankowicz
overview of admissions \& requirements: https://grainger.illinois.edu/academics/graduate overview of grad college admissions \& requirements: https://grad.illinois.edu/admissions/apply
college website: https://grainger.illinois.edu/
address: 402 Engineering Hall, 1308 W Green St, Urbana, Illinois 61801
phone: (217) 244-2745
email: engr-gpp@illinois.edu
The Grainger College of Engineering offers a Master of Engineering (MEng) degree program for students whose primary intent is a professional career in industry or government. This degree differs from the Master of Science (MS) degree in that it is a professionally-oriented master's degree that is not a pathway to a doctoral program. The Major in Engineering for the M.Eng. degree requires the selection of an interdisciplinary concentration, which must be identified at the time of application. Available concentrations are:

- Aerospace Systems Engineering
- Autonomy and Robotics
- Energy Systems
- Plasma Engineering
- Railway Engineering


## Admission

Students with bachelor's or master's degrees in engineering or related sciences will be considered for admission if they have a grade point average of at least 3.00 ( $\mathrm{A}=4.00$ ) for the last two years of undergraduate study. Admission is possible for the both the fall and spring semesters. Full details of admission requirements are on the Web page of the department offering the concentration.

All applicants whose native language is not English are required to submit TOEFL or International English Language Testing System (IELTS) scores as evidence of English proficiency. Minimum admission requirements are set by the Graduate College. Higher requirements may be imposed by specific concentrations.

## Financial Aid

Students in concentrations under the MEng in Engineering major are not eligible for Board of Trustees (BOT) tuition- waiver generating assistantships at the University of Illinois.

## Degree Requirements

## Concentration Requirements

| Core Coursework |  | 16 |
| :---: | :---: | :---: |
| ME 445 | Introduction to Robotics | 4 |
| ECE 484 | Principles of Safe Autonomy | 4 |
| CS 588 | Autonomous Vehicle System Engineering | 4 |
| Select one of the following: |  | 4 |
| Control and Dynamics |  |  |
| ECE 486 Control Systems |  |  |
| SE 422 Robot Dynamics and Control |  |  |
| Optimization |  |  |
| AE 504 Optimal Aerospace Systems |  |  |
| ECE 490 Introduction to Optimization |  |  |
| Hardware Systems |  |  |
| ME 451 Computer-Aided Mfg Systems |  |  |
| Artificial Intelligence \& Perception |  |  |
| CS 440 Artificial Intelligence |  |  |
| CS 543 Computer Vision |  |  |
| ECE 544 Topics in Signal Processing |  |  |
| Design \& Applications |  |  |
| CS 465 User Interface Design |  |  |
| Professional Development Course |  |  |
| ENG 573 Capstone Project |  |  |
| Additional Coursework 12 |  |  |
| Electives may be selected from the course list, with advisor approval. This list includes courses in Control and Dynamics, Optimization, Hardware Systems, Artificial Intelligence \& Perception, and Design \& Applications. |  |  |
| Total Hours |  | 32 |
| Other Requirements and Conditions (may overlap) |  |  |
| A minimum of 20 credit hours must be taken from the University of Illinois Urbana-Champaign campus. |  |  |
| A minimum of 12500 -level credit hours. |  |  |
| No courses used to fulfill any degree requirement may be taken using the "Credit/No Credit" option. |  |  |

## Course List

Robotics \& Automation MEng elective course list (12 credits = pick 3) \# indicates that the course was not offered in 2020

* indicates that the course is also on the list of specialized core courses

Control \& Dynamics

| AE 454 | Systems Dynamics \& Control | 3 or 4 |
| :---: | :---: | :---: |
| AE 554 | Dynamical Systems Theory | 4 |
| AE 555 | Multivariable Control Design | 4 |
| AE 556 | Robust Control | 4 |
| ECE 515 | Control System Theory \& Design | 4 |
| ECE 486 | Control Systems | 4 |
| ECE 489 | Robot Dynamics and Control | 4 |
| ECE 517 | Nonlinear \& Adaptive Control | 4 |
| ECE 528 | Analysis of Nonlinear Systems | 4 |
| ECE 553 | Optimum Control Systems | 4 |
| ECE 555 | Control of Stochastic Systems | 4 |
| ECE 557 | Geometric Control Theory | 4 |
| ECE 568 | Model \& Cntrl Electromech Syst | 4 |
| ECE 573 | Power System Control | 4 |
| ME 440 | Kinem \& Dynamics of Mech Syst | 3 or 4 |
| ME 446 | Robot Dynamics and Control | 4 |
| ME 460 | Industrial Control Systems | 4 |
| ME 540 | Control System Theory \& Design | 4 |
| ME 561 | Convex Methods in Control | 4 |
| ME 562 | Robust Adaptive Control | 4 |
| SE 424 | State Space Design for Control | 3 |
| SE 521 | Multivariable Control Design | 4 |
| SE 525 | Control of Complex Systems | 4 |
| TAM 412 | Intermediate Dynamics | 4 |
| TAM 516 | Dynamical Systems Theory | 4 |
| Optimization |  |  |
| AE 504 | Optimal Aerospace Systems | 4 |
| CS 544 | Optimiz in Computer Vision | 4 |
| ECE 490 | Introduction to Optimization | 3 or 4 |
| ECE 580 | Optimiz by Vector Space Methds | 4 |
| IE 411 | Optimization of Large Systems | 3 or 4 |
| IE 519 | Combinatorial Optimization | 4 |
| IE 521 | Convex Optimization | 4 |

Hardware Systems

| CS 431 | Embedded Systems | 3 or 4 |
| :--- | :--- | :--- |
| ECE 437 | Sensors and Instrumentation | 3 |


| $\underline{\text { ME 451 }}$ | Computer-Aided Mfg Systems | 3 or 4 |
| :--- | :--- | :--- |
| $\underline{\text { ME 452 }}$ | Num Control of Mfg Processes | 3 or 4 |
| $\underline{\text { ME 455 }}$ |  <br> Automation | 3 or 4 |
| $\underline{\text { ME 461 }}$ | Computer Cntrl of Mech Systems | 3 or 4 |
| $\underline{\text { ME 541 420 }}$ | Control of Machine Systems | 4 |
| $\underline{\text { SE 423 }}$ | Digital Control Systems | 4 |

## Software Systems

| $\underline{\text { CS 424 }}$ | Real-Time Systems | 3 or 4 |
| :--- | :--- | :--- |
| $\underline{\text { CS 425 }}$ | Distributed Systems | 3 or 4 |
| $\underline{\text { CS 427 }}$ | Software Engineering I | 3 or 4 |
| $\underline{\text { CS 428 }}$ | Software Engineering II <br> $\underline{\text { CS 438 }}$ <br> $\underline{\text { CS 476 }}$ <br> $\underline{\text { CS 477 }}$ | Communication Networks |
| $\underline{\text { CS 483 }}$ | Computer Security I | 3 or 4 |
| $\underline{\text { CS 484 }}$ | Program Verification | 4 |

Artificial Intelligence \& Perception

| $\underline{\text { AE 583 }}$ | Advanced Robotic Planning | 4 |
| :--- | :--- | :--- |
| $\underline{\text { CS 440 }}$ | Artificial Intelligence | 3 or 4 |
| $\underline{\text { CS 446 }}$ | Machine Learning | 3 or 4 |
| $\underline{\text { CS 447 }}$ | Natural Language Processing | 3 or 4 |
| $\underline{\text { CS 543 }}$ | Computer Vision | 4 |
| $\underline{\text { CS 546 }}$ | Machine Learning in NLP | 4 |
| $\underline{\underline{\text { ECE 534 543 }}}$ | Random Processes | 4 |
| $\underline{\underline{\text { ECE 561 }}}$ | Statistical Learning Theory | 4 |
| $\underline{\underline{\text { IE 534 566 }}}$ | Detection \& Estimation Theory | 4 |
| $\underline{\text { SE 524 }}$ | Computational Inference and Learning | 4 |

Design \& Applications

| AE 456 | Global Nav Satellite Systems | 4 |
| :--- | :--- | :--- |
| $\underline{\text { AE 484 }}$ | UAV Performance, Design, and <br> Fabrication | 3 |
| $\underline{\text { CS 465 }}$ | User Interface Design | 3 or 4 |
| $\underline{\text { SE 400 }}$ | Human-Computer Interaction | 4 |

## Memorandum of Understanding: Financial Model M.Eng. in Autonomy \& Robotics Participating Departments: Aero, CS, ECE, MechSE, ISE

This document constitutes a memorandum of understanding (MOU), between the Center for Autonomy (CfA) and the 5 participating departments (listed above and hereafter referred to as the "Departments"), relating to the financial arrangements for the proposed M.Eng. in Autonomy and Robotics (hereafter referred to as the "Program").

This agreement will be active for the first 3 years of the Program, starting the first semester the Program has admitted students. During this period the Program will be limited to a maximum of 20 students in each of years Y1 and Y2, and 25 students in Y3.

## The Basic Formula

The CfA will receive some portion of the student tuition back from the CoE each year. Let T represent this tuition quantity and set
P = T - E,
where E represents the Program related expenses that the CfA pays to either the College or the Campus.

It is emphasized that E can only include expenses paid directly to these two sources, which could for instance include payments for space, utilities, cleaning, and may also include some clerical costs. Further to this, E will include both (i) expenses that are explicitly associated only with the Program; and (ii) expenses that may be co-mingled with other CfA expenses. In the case of (ii), for each such co-mingled expense the proportion that is reasonably attributable to the Program will be added to E; however, each of these expenses must be approved by all Departments.

This net amount $P$ will be split each year between the CfA and the Departments, with $50 \%$ going to the CfA and the remaining $50 \%$ being split between the Departments, with each department receiving a customized amount dependent on its contribution to the teaching resources used by the Program. The specific amount AD received by department $D$ will be computed as
$A D=P / 2^{*} W D$,
where WD denotes department D's weight given by
WD=(total number of credits delivered by department $\boldsymbol{D}$ to Program students) divided by (total number of credits taken by students in the Program).

A course will be deemed to be delivered by department $D$ if the instructor has their primary appointment in that department, irrespective of the course rubric. The CfA will maintain careful records of the specific instructors of all courses taken by students in the Program. These records, together with the quantities $T, E, W D$ and $A D$, will be reported annually to all Departments for the 3 years covered by this MOU.

## Service in Excess for Faculty

It is acknowledged that there may be unusual circumstances when it would be appropriate for the CfA to compensate faculty (e.g., service in excess, or ICR for research) for exceptional contributions to administering or delivering the Program. Such situations will be rare, will represent service in excess, and will be approved in advance by the Heads of all the Departments in an anonymous vote.

Any amendments to this MOU must be agreed to by all parties.

Nancy M. Amato, Head, Computer Science
Jonathan Freund, Head, Aerospace Engineering
Bruce Hajek, Head, Electrical and Computer Engineering
Anthony M. Jacobi, Head, Mechanical Science and Engineering
Deborah Thurston, Interim Head, Industrial and Enterprise Systems Engineering
Geir E. Dullerud, Director, Center for Autonomy

## そ ILLINOIS

## GRADUATE COLLEGE

110 Coble Hall, MC-322
801 S. Wright St.
Champaign, IL 61820

## PROGRAM TUITION WAIVER POLICY PROPOSAL

Proposals to establish or revise tuition waiver policy for a graduate program will follow a shared governance approval process (Department, School, College, Graduate College).

## Definitions of Tuition Waiver Policy Designations:

Traditional Programs. Programs either designated as generating full or base-rate tuition waivers. Base rate waivers waives only the Resident Graduate Base tuition amount. Non-Residents or students in a program with an additional tuition differential will be responsible for the remaining portion of tuition.

Reimbursable Programs. Programs identified as programs that would be reimbursed from an appointing unit outside their academic college.

Cost-recovery and self-supporting programs. Students in approved cost-recovery and self-supporting programs are not eligible to receive tuition and fee waivers except statutory waivers. Students in these programs are not eligible to hold a waiver generating graduate appointment (Assistantship or Fellowship). Full time employees may be admitted to these programs, but their employee waiver is not eligible for use towards a program with this designation.

Additional information related to these tuition waiver designations can be found here:
http://www.grad.illinois,edu/gradhandbook/2/chapter7/tuition-waivers\#otherprovisions.

## PROGRAM INFORMATION

COLLEGE OR SCHOOL:

## Grainger College of Engineering

## PROGRAM(s) (Include Program Codes if applicable):

Autonomy and Robotics, MEng

## REQUESTED DESIGNATION (Select desired designation type):

## Self-Supporting

Comments:

## JUSTIFICATION: On a separate sheet, please address the following.

1. Describe the reasons for this request and explain: (a) the pros and cons of the classification requested, and (b) how the requested classification will benefit and not adversely affect the academic quality of the program.
2. What type of financial assistance will be offered to students in the program?
3. Has this program had past practice of offering graduate assistantships? If so, please describe.
4. What provisions will be made to communicate the new classification to prospective and newly admitted students?

## APPROVALS: (May use Adobe Signature or print and sign/the document)

## Department Executive Officer Signature and Date:



## Disciplinary College Signature and Date:

Graduate College Signature and Date:



1. Describe the reasons for this request and explain: (a) the pros and cons of the classification requested, and (b) how the requested classification will benefit and not adversely affect the academic quality of the program.
(a) The proposed concentration is not a research-oriented program. It is designed so that it can be completed in two or three semesters in order to address an academic training gap at a professional level. The requested classification enhances the educational experience of students and employability of graduates who, after attaining a BS degree in engineering or equivalent field, will benefit from the differentiated value provided by this advanced professional degree. The requested classification is not expected to adversely impact recruitment of students interested in a research oriented track with a traditional tuition model, nor significantly limit the potential pool of prospective students to the professionally-oriented track.
(b) The Grainger College of Engineering will use some of the graduate tuition dollars returned to the college from the Office of the Vice Provost for Budget and Resource Planning to provide the participating academic units with resources needed to support the proposed curriculum. Graduate tuition funds returned to the college from campus may be used to fund faculty and lecturer salaries, support instruction, or at the discretion of the participating Department Heads in a manner consistent with campus policy on use of such funds.

## 2. What type of financial assistance will be offered to students in the program?

The program may elect to offer scholarships to students in this program in an effort make the program more attractive and affordable for highly-qualified students and/or students from backgrounds underrepresented in STEM fields.
3. Has this program had past practice of offering graduate assistantships? If so, please describe.

This program will not offer graduate assistantships.
4. What provisions will be made to communicate the new classification to prospective and newly admitted students?

The self-supporting classification will be clearly explained on the program's website and in any and all communications to prospective students.

## TILLINOIS

## COLLEGE OF ENGINEERING

Department of Aerospace Engineering 306 Talbot Laboratory, MC-236 104 S. Wright St. Urbana, IL 61801

February 25, 2020
Dear Prof. Dullerud,
As head of the Department of Aerospace Engineering, based on discussion with departmental leadership I am writing to express the department's support for the proposed M. Eng. In Engineering with a Concentration in Autonomy and Robotics.

Aerospace Engineering is pleased to jointly sponsor this degree program, which will prepare professionally oriented students to enter the multi-disciplinary and rapidly expanding field of autonomy and robotics. I will encourage our faculty to serve on the Admissions Committee and on the Course Oversight Committee on a reasonable, asneeded basis. The graduate courses that our faculty teach in the area of autonomy and robotics will accept enrollment from qualified students in the proposed degree program.

Thank you for leading this important effort.
Sincerely,


# THE GRAINGER COLLEGE OF ENGINEERING 

Department of Electrical \& Computer Engineering 2120 Electrical \& Computer Engineering Building, MC-702

306 N. Wright St.
Urbana, IL 61801-2991
February 24, 2020

## Dear Geir,

In October 2019, I shared your preliminary proposal with the ECE Advisory Committee and the Associate Department Heads, including the Associate Head for Graduate Affairs, Michael Oelze. Based on the brief discussion, I can report that ECE is pleased to endorse the proposed program, Engineering: Autonomy and Robotics, MEng. The organization, including a standing committee for admission and a standing committee for course oversight, is appropriate. You may want to consider the possibility of allowing each student to affiliate with an academic department. While details of the funding model are yet to be worked out, it will likely involve some portion of funds allocated to academic departments based on the instructional units provided by faculty members from those departments. ECE looks forward to cooperation and collaboration to make this an exciting, successful, model program.

Sincerely,


Bruce Hajek<br>Head, Department of Electrical and Computer Engineering<br>Center for Advanced Study Professor of Electrical and Computer Engineering<br>Hoeft Endowed Chair in Engineering<br>Professor, Coordinated Science Laboratory

THE GRAINGER COLLEGE OF ENGINEERING<br>Department of Industrial \& Enterprise Systems Engineering<br>117 Transportation Building, MC-238<br>104 S. Mathews Ave.<br>Urbana, IL 61801-2925

March 31, 2020
Prof. Geir E. Dullerud
W. Grafton and Lillian B. Wilkins Professor in Mechanical Engineering

Director of Decision and Control Laboratory
University of Illinois at Urbana-Champaign
Dear Geir:
The Department of Industrial \& Enterprise Systems Engineering (ISE) at the University of Illinois at Urbana-Champaign's Grainger College of Engineering enthusiastically endorses the proposal for a new M. Eng. In Engineering with a Concentration in Autonomy and Robotics, organized through the Center for Autonomy under the able leadership of Prof. Tim Bretl and you. The ISE Courses and Curriculum Committee (CCC) discussed the proposal at its meeting on March 11, 2020. The CCC voted unanimously in favor of the proposal.

The university enjoys \#1 rank in Automation and Control according to the 2019 Shanghai Rankings of World Universities. This program puts together 5 strong departments to offer this unique professionally oriented program at a very timely manner as autonomy is becoming pervasive to our lives. The curriculum is strong and there is a strong demand for such a specialization.

The ISE courses listed from IE and SE rubrics are strong courses for this degree program and have space to accommodate the MEng students at this time. I understand admissions will be done by a joint committee with representatives from each of the 5 CoE departments: ECE, MechSE, Aero, CS, and ISE.

Please don't hesitate to contact me if I can be of further assistance in this matter.
Sincerely,


Deborah L. Thurston, P.E., Ph.D., ASME Fellow
Gutsgell Professor and Interim Head, Industrial and Enterprise Systems Engineering
Co-Director, The Hoeft Technology and Management Program
Director, Decision Systems Laboratory

# THE GRAINGER COLLEGE OF ENGINEERING 

Department of Mechanical Science \& Engineering
Office of the Department Head 144 Sidney Lu Mechanical Engineering Building, MC-244

1206 W. Green St.
Urbana, IL 61801

October 17, 2019
Dear Professor Dullerud,
As head of the Department of Mechanical Science and Engineering, I offer our department's full support for the proposed M.Eng. in Engineering with a Concentration in Autonomy and Robotics.

The MechSE Department is pleased to jointly sponsor this degree program with the departments of Aerospace Engineering, Computer Science, Electrical and Computer Engineering, and Industrial \& Enterprise Systems Engineering. The program will prepare students seeking a professional engineering degree to enter the multidisciplinary field of autonomy and robotics. I commit to providing faculty to serve on the Admissions Committee and the Course Oversight Committee on a reasonable, as-needed basis. The graduate courses that our faculty teach in the area of autonomy and robotics will accept enrollment from qualified students in the proposed degree program.

I am proud that the Department of Mechanical Science and Engineering will play a key role in educating students in this rapidly developing field. Thank you for your endeavors.


Anthony M. Jacobi
Richard W. Kritzer Distinguished Professor
Department Head, Mechanical Science \& Engineering

THE GRAINGER COLLEGE OF ENGINEERING<br>Department of Industrial \& Enterprise Systems Engineering<br>117 Transportation Building, MC-238<br>104 S. Mathews Ave.<br>Urbana, IL 61801-2925

October 14, 2019
Prof. Geir E. Dullerud
W. Grafton and Lillian B. Wilkins Professor in Mechanical Engineering

Director of Decision and Control Laboratory
University of Illinois at Urbana-Champaign
Dear Geir:
The Department of Industrial \& Enterprise Systems Engineering (ISE) at the University of Illinois at UrbanaChampaign's Grainger College of Engineering enthusiastically endorses the proposal for a new M. Eng. in Engineering with a Concentration in Autonomy and Robotics, organized through the Center for Autonomy under the able leadership of Prof. Tim Bretl and you.

The university enjoys \#1 rank in Automation and Control according to the 2019 Shanghai Rankings of World Universities. This program puts together 5 strong departments to offer this unique professionally oriented program at a very timely manner as autonomy is becoming pervasive to our lives. The curriculum is strong and there is a strong demand for such a specialization.

The ISE courses listed from IE and SE rubrics are strong courses for this degree program and have space to accommodate the MEng students at this time. I understand admissions will be done by a joint committee with representatives from each of the 5 CoE departments: ECE, MechSE, Aero, CS, and ISE.

Please don't hesitate to contact me if I can be of further assistance in this matter.

Sincerely,


Rakesh Nagi, PhD
Donald Biggar Willett Professor of Engineering and Department Head nagi@illinois.edu

## DEPARTMENT OF COMPUTER SCIENCE

NANCY M. AMATO

Thomas M. Siebel Center for Computer Science
Abel Bliss Professor and Head 2248 Siebel Center
Urbana, IL 61801-2302 USA
namato@illinois.edu

May 31, 2020

Professor Geir Dullerud
W. Grafton and Lillian B. Wilkins Professor in Mechanical Engineering

Director of the Center for Autonomy
The Department of Computer Science enthusiastically endorses the proposed M.Eng. in Engineering with a Concentration in Autonomy and Robotics.

In order to evaluate this new degree program, the proposal was reviewed by the AI Area (responsible for coordinating and overseeing AI teaching and research activities in the Department), the Departmental Graduate Study Committee, the Director of Graduate Studies, Professor Brian Bailey, the Associate Head for Academics, Professor Mahesh Viswanathan, and myself, the Department Head. Additionally, I discussed the matter with the Director of the Center for Autonomy, Professor Geir Dullerud.

The Computer Science Department is excited to jointly sponsor this degree program with the departments of Aerospace Engineering, Electrical and Computer Engineering, Industrial \& Enterprise Systems Engineering, and Mechanical Science \& Engineering. The Computer Science Leadership is supportive of our faculty participating in the administration of this program, e.g., by serving on the Admissions Committee and the Course Oversight Committee on a reasonable, as-needed basis. The graduate courses that our faculty teach in the area of autonomy and robotics will accept enrollment from qualified students in the proposed degree program.

This is a timely program that will prepare professionally oriented students to enter the multidisciplinary and rapidly expanding field of autonomy and robotics. The program will take advantage of Illinois' long stranding strength in autonomy and control and will provide more visibility to our strong and growing activity in robotics.

Sincerely,


Nancy M. Amato
Abel Bliss Professor and Head Department of Computer Science

| From: | Pahre, Jennifer N |
| :--- | :--- |
| To: | Dullerud, Geir E |
| Cc: | Martensen, Kathy; Lehman, Barbara J |
| Subject: | Re: Senate Educational Policy Proposal Number 21.041 -- Engineering: Automony and Robotics Concentration |
| Date: | Thursday, January 21, 2021 3:44:01 PM |
| Attachments: | Outlook-v1q3agay.png |

Dear Geir,
Thank you for your very timely and helpful response. You thoroughly have answered all pending questions. If anything else arises, I will reach out.

All best,
Jennie

## ! ILLINOIS

## College of Law

Jennifer N. Pahre
Director of Undergraduate Studies
Assistant Teaching Professor
University of Illinois College of Law
504 East Pennsylvania Avenue
Champaign, Illinois 61820
Pronouns: She/her/hers

Under the Illinois Freedom of Information Act (FOIA), any written communication to or from University employees regarding University business is a public record and may be subject to public disclosure.

From: Dullerud, Geir E [dullerud@illinois.edu](mailto:dullerud@illinois.edu)
Sent: Thursday, January 21, 2021 3:29 PM
To: Pahre, Jennifer N [jpahre@illinois.edu](mailto:jpahre@illinois.edu)
Cc: Martensen, Kathy [kmartens@illinois.edu](mailto:kmartens@illinois.edu); Lehman, Barbara J [bjlehman@illinois.edu](mailto:bjlehman@illinois.edu)
Subject: Re: Senate Educational Policy Proposal Number 21.041 -- Engineering: Automony and Robotics Concentration

Dear Jennie,
Thank you for your email—great to hear that your subcommittee is now considering our M.Eng. proposal. Concerning the questions raised:

The first question concerns the number of members in the oversight committees.

It seems that the two oversight committees (Admissions and Curriculum) are to have just four members each. Given the interdisciplinary nature of the program among five academic units in Grainger, why not have at least one member from each unit on the committees? (I understand the impetus to follow other protocols -- perhaps the choice of four members is consistent with other similar committees in Grainger?)

Each of these committees will have a minimum of 4 members each but may have more; we specifically chose this number to provide additional flexibility for staffing the committees, as it might not be possible to always have members from all 5 departments on each committee. Members from all 5 participating departments will be solicited each year for each committee, and certainly we expect that between the 2 committees we will have representation from all 5 departments. We would prefer to keep this flexibility as proposed if possible, provided your subcommittee is supportive. Let me confirm that the proposal has been approved by all 5 departments and also subsequently by the Grainger Executive Committee with full support, and so it can reasonably be inferred that the plan for these committees is in compliance with accepted norms within the College.

The second question concerns the sharing of revenue and costs across the departments. Is there any formalized way that costs and revenues are going to be allocated? (Again, I wonder if sharing would be managed by other, existing management practices?)

Yes, there is a formalized agreement to which all 5 departments have agreed, as has Grainger; I am attaching it here.

If I can provide additional input or clarification please do not hesitate to reach out.
Again, I very much appreciate the work of the Subcommittee and am glad to hear that the proposal may be considered at the upcoming meeting on the 25th.

```
Best regards,
Geir
//
// Geir E. Dullerud
// W. Grafton and Lillian B. Wilkins Professor in Mechanical Engineering
// Director of Decision and Control Laboratory
// Affiliate Professor of Electrical and Computer Engineering
// Affiliate Professor of Computer Science
// Research Professor of Coordinated Science Laboratory
// University of Illinois at Urbana-Champaign
//
// mail: Department of Mechanical Science and Engineering
```

University of Illinois, MC-244
// 1206 West Green Street, Urbana, IL 61801
//
// vox: 217-265-5078
// fax: 217-244-6534
// skype: dullerudge
// e-mail: dullerud@illinois.edu
// www: http://www.mechse.illinois.edu/directory/faculty/dullerud //

I look forward to hearing from you.

With thanks for your assistance,
Jennie
<Outlook-04vr015x.png>
Jennifer N. Pahre
Director of Undergraduate Studies
Assistant Teaching Professor
University of Illinois College of Law
504 East Pennsylvania Avenue
Champaign, Illinois 61820

Pronouns: She/her/hers
Under the Illinois Freedom of Information Act (FOIA), any written communication to or from University employees regarding University business is a public record and may be subject to public disclosure.

## Viewing: 10KS0365MSW \&

## 10KS0365MSWX : Social Work, MSW (on campus \& online)

Last approved: 09/18/19 1:14 pm
Last edit: 01/12/24 9:33 am
Changes proposed by: Cheryl Street
Proposal Type:

## In Workflow

1. U Program

Review
2. 1783 Head
3. LL Committee Chair
4. LL Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DOE
16. DMI

## Approval Path

1. $11 / 10 / 235: 43 \mathrm{pm}$

Donna Butler (dbutler):
Approved for U
Program Review
2. $11 / 10 / 235: 44 \mathrm{pm}$ Cheryl Street
(street): Approved for 1783 Head
3. $11 / 10 / 235: 55 \mathrm{pm}$ Cheryl Street
(street): Approved
for LL Committee Chair
4. $11 / 11 / 238: 54 \mathrm{am}$ Janet Liechty (jliechty):
Approved for LL
Dean
5. $11 / 21 / 2312: 12$

Claire Stewart (clairest):
Approved for University Librarian
6. 12/14/23 3:24 pm

Allison McKinney
(agrindly):
Approved for
Grad_College
7. 01/04/24 8:33 pm

Suzanne Lee
(suzannel):
Approved for COTE Programs
8. $01 / 11 / 249: 30 \mathrm{am}$ Brooke Newell (bsnewell): Approved for Provost

## History

1. Apr 6, 2019 by Deb Forgacs (dforgacs)
2. Sep 18, 2019 by Deb Forgacs (dforgacs)

Major (ex. Special Education)
This proposal is
for a:
Revision

## Administration Details

| Official Program | Social Work, MSW (on campus \& online) |
| :--- | :--- |
| Name |  |
| Diploma Title |  |
| Sponsor College | Social Work, School of |
| Sponsor | Social Work |
| Department |  |
| Sponsor Name | $\underline{\underline{\text { Janet Liechty }}}$ |
| Sponsor Email | jliechty@illinois.edu |

## street@illinois.edu

College Budget
Officer
College Budget
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Does this program have inter-departmental administration?

## Proposal Title

Effective Catalog
Fall 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Master of Social Work in Social Work in the School of Social Work and the Graduate College

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

This MSW proposal (key 488) is related to the concentrations in Advanced Clinical (key 803) and the Leadership and Social Change (key 804);

## Program Justification

Provide a brief description of what changes are being made to the program.

1. We are requesting to revise delivery model from distance learning off site in Chicago (10KS0365MSWX), to online learning (10KS0365MSWU).
2. We revised the program of study table to align with campus requirements for concentration transparency by including core curriculum categories that exist for both concentrations. Since the coursework underneath the categories differs, specificity isn't outlined other than the categories. We also re-arranged/revised the headings.
3. Changed time to degree from 30 to 18 months

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

## No

Why are these changes necessary?

1. At the start, in the 1970s the MSW was offered extramurally throughout the state. In 2006 the program was offered primarily in Chicago, and so continued to have an extramural "X code." Due to being required to deliver all iMSW courses online during the covid pandemic we re-evaluated how our iMSW curriculum was being delivered and it was determined that it could be delivered in a fully online model without losing any educational components. This allows our program to meet the needs of students in rural communities.
2. The revision to the program of study table was due to the request from campus related to the concentration project. We moved the Field Education header to the bottom because this is completed last. We removed "Focus Area" from the elective heading because we don't have focus areas anymore.
3. Completion time to a more accurate average time to degree.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?
No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

No

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

> Demonstrate Ethical and Professional Behavior
> Engage Diversity and Difference in Practice
> Advance Human Rights and Social, Economic, and Environmental Justice Engage in Practice-informed Research and Research-Informed Practice Engage in Policy Practice Engage with Individuals, Families, Groups, Organizations, and Communities Assess Individuals, Families, Groups, Organizations, and Communities Intervene with Individuals, Families, Groups, Organizations and Communities Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities

Describe how, when, and where these learning outcomes will be assessed.
Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

Program
Description and
Requirements
Attach Documents
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/PublicAdminRules2017.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.

Revised programs Attach a revised Sample Sequence (for undergraduate program) or college-level forms.

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

Statement for
Programs of
Study Catalog
This program is available on campus or online. eampus, online \& blended (online/face-
to-face).
The requirements below for Students pursuing the Master of Social Work will be met by choosing one of these must apply to and complete a graduate concentrations: concentration:
Advanced Clinical Practice, Elinical Practice, or
Leadership \& Social Change (LSC)

## Requirements for students entering with a BSW (Advanced Standing)

Course List
Code Title Hours
Methods
Policy
Research
HBSE
Electives
Field Education
Total Hours 44-56
Requirements for students entering without a BSW
Course List
Code Title Hours
Methods
Policy
Research
HBSE
Electives
Field Education
Total Hours 64-72
Other Requirements
Grad Other Degree Requirements
Requirement
Description
A concentration is required.
Minimum 500-level Hours Required Overall:36 or 48
Minimum GPA: $\quad \underline{\underline{3.0}}$

Corresponding MSW Master of Social Work
Degree

## Program Features

Academic Level Graduate
Does this major Yes
have transcripted
concentrations?
Will you admit to
Yes
the concentration
directly?
Is a concentration Yes
required for
graduation?

What is the typical time to completion of this program?

## 18 Months

What are the minimum Total Credit Hours required for this program?
$\underline{\underline{44}}$
What is the $\quad 3.0$
required GPA?
CIP Code 440701 - Social Work.
Is This a Teacher Certification Program?
Yes
Will specialized accreditation be sought for this program?

Yes No
Describe the plans for seeking specialized accreditation:

It is accredited by the Council of Social Work Education.

## Delivery Method

This program is
available:
On Campus and Online - 2 program types. Students can receive the entire program either on campus or online. Students can choose to take courses in either modality.

Describe the use of this delivery method:
This program is available on campus and online. eampus, online \& blended (online/face-to-face).

## Admission Requirements

Desired Effective
Admissions Term
Is this revision a change to the admission status of the program?

No
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.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

We do not anticipate that this change will result in reduced enrollment
What is the Fall
matriculation
term for this
program?

## Budget

Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
The tuition for the online program will remain the same as the per credit hour tuition that was assessed for the outreach program.

Will the unit need to seek campus or other external resources?
No
Attach letters of support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

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

No
Is this program requesting self-supporting status?
No

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

No additional impact to 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.

The current Library resources are sufficient with this revision.

## EP Documentation

EP Control
EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal No requires HLC inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook MSW:Social Work -UIUC \& MSW:Soc Work-Off Campus-UIUC Name

Program Code: 10KS0365MSW \& 10KS0365MSWX

| Minor | Conc | Degree | MSW |
| :--- | :--- | :--- | :--- |
| Code | Code | Code | Major |
| Code |  |  |  |

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date

DOE Approval
Date
Effective Date:
Attached
Document
Justification for this request

Program Reviewer Mary Lowry (lowry) (03/23/23 1:51 pm): Rollback: Rollback for modality question
Comments

Brooke Newell (bsnewell) (09/08/23 11:05 am): Rollback: email sent to Cheryl
Brooke Newell (bsnewell) (09/29/23 2:00 pm): Rollback: Per request by Cheryl Brooke Newell (bsnewell) (10/03/23 9:06 am): Rollback: Email sent to Cheryl Mary Lowry (lowry) (10/25/23 4:45 pm): Rollback: Cheryl, please see email from 10-24-23
Mary Lowry (lowry) (11/07/23 10:50 am): Rollback: See email dated 11-7-23

## Viewing: 5510: Social Work: Advanced Clinical Practice, MSW

Last approved: 02/23/23 4:11 pm
Last edit: 01/12/24 9:33 am
Changes proposed by: Cheryl Street
Social Work: Advanced Clinical Practice, MSW
Catalog Pages
Using this
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1783 Head
3. LL Committee Chair
4. LL Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DOE
16. DMI

## Approval Path

1. 09/08/23 2:28 pm Donna Butler (dbutler):
Approved for U
Program Review
2. 10/04/23 6:05 pm Janet Liechty
(jliechty):
Approved for 1783
Head
3. $10 / 04 / 236: 10 \mathrm{pm}$ Cheryl Street
(street): Approved for LL Committee Chair
4. $10 / 12 / 238: 14 \mathrm{pm}$ Janet Liechty
(jliechty):
Approved for LL Dean
5. $10 / 15 / 231: 19 \mathrm{pm}$

# Claire Stewart 

 (clairest):Approved for University Librarian
6. $12 / 14 / 23$ 3:24 pm

Allison McKinney
(agrindly):
Approved for
Grad_College
7. 01/04/24 8:34 pm

Suzanne Lee (suzannel):
Approved for COTE Programs
8. 01/11/24 9:30 am Brooke Newell (bsnewell): Approved for Provost

## History

1. Jul 2, 2019 by Mary Lowry (lowry)
2. Aug 19, 2019 by Mary Lowry (lowry)
3. Feb 23, 2023 by Brooke Newell (bsnewell)

## Concentration (ex. Dietetics)

This proposal is for a:
Revision

## Administration Details

Official Program Social Work: Advanced Clinical Practice, MSW
Name
Diploma Title

Sponsor College
Sponsor
Social Work, School of
Social Work
Department

| Sponsor Name | $\underline{\text { Janet Liechty }}$ |  |
| :--- | :--- | :--- |
| Sponsor Email | $\underline{\text { jliechty }}$ |  |
| College Contact | $\underline{\text { Cheryl Street }}$ | College Contact <br> Email |

street@illinois.edu
College Budget
Officer
College Budget
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Does this program have inter-departmental administration?
No

## Proposal Title

Effective Catalog Spring 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Concentration in Advanced Clinical Practice in the Master of Social Work in
Social Work in the School of Social Work and the Graduate College
Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567) is related to the Concentration A proposal (key 145)."

This concentration (key 803) is related to the MSW proposal (key 488) and the Leadership and Social Change (key 804).

## Program Justification

Provide a brief Changes in this proposal include:
description of what changes are being made to the program.

Changes in this proposal include:

1) Revise delivery model from distance learning (10KS0365MSWX) to online learning (10KS0365MSWU).
2) We made revisions to the Program of Study. POS revisions were made to reflect current practice in the requirements for students entering without a BSW, because
some of these students may have taken these courses during their undergrad program. For them we will waive up to 8 hours of the foundation coursework from Policy or Research or HBSE. Also, we moved the elective rows up for transparency because the Field Placement is the last requirement completed.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

## No

Why are these changes necessary?

1) Due to being required to deliver all iMSW courses online during the covid pandemic we re-evaluated how our iMSW curriculum was being delivered and it was determined that it could be delivered in a fully online model without losing any educational components. This allows our program to meet the needs of students in rural communities.
2) POS revisions were made to reflect current practice in the requirements for students entering without a BSW, because some of these students may have taken these courses during their undergrad program. For them we will waive up to 8 hours of the foundation coursework from Policy or Research or HBSE. Also, we moved the elective rows up for transparency because the Field Placement is the last requirement completed.

The minimum required hours for the program are not changing.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

No

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

Advanced Student Learning Competencies

1. Demonstrate ethical and professional behavior. Students will demonstrate the ability to:
1.1 Develop a self-awareness of ethical standards of practice, and identify situations in which personal values, legal standards, and professional expectations may conflict.
1.2 Understand the principles identified in the NASW Code of Ethics such as: limiting practice to personal areas of competence, boundaries of sharing or withholding confidential information, and resolving ethical dilemmas arising from value conflicts. 2. Engage diversity and difference in practice. Students will demonstrate the ability to:
2.1 Understand the importance of diversity and diverse perspectives on the development and impact of social policies and programs.
2.2 Communicate the importance of diversity and diverse perspectives when conducting social change interventions, whether through advocacy, policy development, or leadership in social service agencies.
2.3 Engage diverse populations in advocacy, organizational management, policy development, and coalition building.
2. Advance human rights and social, economic, and environmental justice. Students will demonstrate the ability to:
3.1 Understand key rights and responsibilities embodied in the United Nations Universal Declaration of Human Rights, the United Nations Sustainable Development Goals, and the U.S. Constitution, and related documents that advocate for social, economic, and environmental justice.
3.2 Apply social, economic, and environmental justice principles to the analysis and development of policies and programs.
3. Engage in practice-informed research and research-informed practice. Students will demonstrate the ability to:
4.1. Assess and utilize research evidence and effective practice approaches related to social policy, administration, and advocacy.
4.4. Apply needs assessments and other data in the conduct of policy analysis, community development, and program development.
4.3 Be able to conduct social program evaluation studies and interpret findings to enhance both service delivery processes and service outcomes.
4. Engage in policy practice. Students will demonstrate the ability to:
5.1. Understand leading societal trends that shape the agendas of governmental officials and others involved in policy development.
5.2. Be able to critically assess legislative, regulatory, and judicial communications related to social policies.
5.3. Develop skills in writing brief communications and longer reports on behalf of policy positions.
5. Engage with individuals, families, groups, organizations, and communities. Students will demonstrate the ability to:
6.1 Develop skills required to organize campaigns, build linkages, and develop coalitions with other stakeholders on behalf of social change efforts.
6.2 Use empathy, reflection and interpersonal communication skills to effectively engage diverse constituencies in advocacy, policy development, and leadership. 7. Assess individuals, families, groups, organizations, and communities. Students will

## demonstrate the ability to:

7.1. Conduct needs assessments to inform policy advocacy and/or program development that address social needs of a group or community.
7.2 Identify assessment strategies for improving supervisory and/or organizational effectiveness.
7.3 Be able to assess the interests of various stakeholders needed to influence, policy, programs, and social change.
8. Intervene with individuals, families, groups, organizations, and communities. Students will demonstrate the ability to:
8.1 Understand leadership strategies for effecting social change, whether through advocacy, policy development, or leadership strategies to affect social change.
8.2 Develop entrepreneurial approaches to addressing social service needs of oppressed and marginalized groups.
8.3 Demonstrate grant writing skills for accessing resources that support social change and program improvement.
9. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities
9.1 Critically evaluate the effectiveness and impact of organizational management, human service programs, community development, social welfare policy, and/or social change interventions.
9.2. Disseminate results of evaluation or research (such as written reports or presentations) in order to improve programs and influence policy.

Describe how, when, and where these learning outcomes will be assessed.
Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Program

Description and
Requirements
Attach Documents
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/PublicAdminRules2017.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.

Attach a revised Sample Sequence (for undergraduate program) or college-level forms.

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

Statement for

Programs of
Study Catalog

For additional details and requirements refer to the department's Graduate Handbook and the Graduate College Handbook.

Requirements for the Master of Social Work with a concentration in Advanced Clinical Practice
Advanced Standing (Entering With a BSW) Other RequirementsEntering-Without a BSWOther Requirements

Course List

| Code | Title | Hours |
| :--- | :--- | :--- |
| Methods |  | 12 |

SOCW 509 Adv Clin Assess \& Interviewing
Choose two courses from:
8
SOCW 500 SW Practice with Indiv and Fam
SOCW 501 SW Practice with Groups
SOCW 502 Brief Motivational Interventions for Substance Use
SOCW 503 Trauma Informed Social Work with Children and Adolescents
SOCW 505 Behav and Cogn Methods for SW
SOCW 506 SW Practice with Child/Adol
SOCW 507 School Social Work Practice
SOCW 508 Family Therapy Seminar
SOCW 516 Child, Youth and Family Svcs
SOCW 553 Integrated Behavorial Health \& Health Care
Policy
SOCW 589 Social Work and the Law
Choose one course from:
8

4
SOCW 514 Mental Health Pol and Svcs
SOCW 515 Integrated Health Care Policy and Services
SOCW 519 Public School Policy/Services
SOCW 580 Advanced Child Welfare
Research
SOCW 541 Clinical Research Seminar
or SOCW 542Program Evaluation
HBSE
4
SOCW 552 HBSE II: Mental Disorders
|Electives
Field Education
4

SOCW 531 Field Practicum and Integrative Seminar I
SOCW 532 Field Practicum and Integrative Seminar II
Total Hours:

## Other Requirements

Requirement
Description
A concentration is required.
Minimum 500-level Hours Required Overall:36
Minimum GPA:

## Entering Without a BSW

## Course List

| Code | Title | Hours |
| :--- | :--- | :--- |
| Methods |  | 16 |
| SOCW 400 Generalist SW Practice Methods |  |  |
| SOCW 509 | Adv Clin Assess \& Interviewing | 8 |

SOCW 500 SW Practice with Indiv and Fam
SOCW 501 SW Practice with Groups
SOCW 502 Brief Motivational Interventions for Substance Use
SOCW 503 Trauma Informed Social Work with Children and Adolescents
SOCW 505 Behav and Cogn Methods for SW
SOCW 506 SW Practice with Child/Adol
SOCW 507 School Social Work Practice
SOCW 508 Family Therapy Seminar
SOCW 516 Child, Youth and Family Svcs
SOCW 553 Integrated Behavorial Health \& Health Care
| Policy
SOCW 410 Social Welfare Pol and Svcs
SOCW 589 Social Work and the Law
Choose one course from:
SOCW 514 Mental Health Pol and Svcs
SOCW 515 Integrated Health Care Policy and Services
SOCW 519 Public School Policy/Services
SOCW 580 Advanced Child Welfare
|Research
SOCW 427 Social Work Research Methods
SOCW 541 Clinical Research Seminar
or SOCW 542Program Evaluation
|HBSE
SOCW 451 HBSE I: Human Development
SOCW 552 HBSE II: Mental Disorders
|Electives
Field Education24

SOCW 531 Field Practicum and Integrative Seminar I
SOCW 532 Field Practicum and Integrative Seminar II
Total Hours

## Other Requirements

 undergraduate.
## Program Relationships

## Corresponding

Program(s):
Corresponding Program(s)
Social Work, MSW (on campus \& online)

## Program Features

Academic Level Graduate
Is This a Teacher Certification Program?
Yes
Will specialized accreditation be sought for this program?

No
Additional concentration notes (e.g., estimated enrollment, advising plans, etc.)

## Delivery Method

This program is available:
On Campus and Online - 2 program types. Students can receive the entire program either on campus or online. Students can choose to take courses in either modality.

Describe the use of this delivery method:
on-campus and online blended

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

Students that are currently enrolled in the 10KS0365MSWX program code will be migrated to the 10KS0365MSWU code for online

## Budget

Are there
No
budgetary
implications for
this revision?

Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?

Will the unit need to seek campus or other external resources?
No
Attach letters of
support
Is this program requesting self-supporting status?
No

## Faculty Resources

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

No additional impact to 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.

The current Library resources are sufficient with this revision.

## EP Documentation

EP Control
EP.24.051

Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry
DMI Documentation

Attach Final
Approval Notices
Banner/Codebook Advanced Clinical Practice
Name
Program Code: 5510
Minor
Code
0365
Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for
this request

Program Reviewer Allison McKinney (agrindly) (09/06/23 3:09 pm): Rollback: Per Cheryl Comments

| Degree MSW | Major |
| :--- | :--- |
| Code | Code | Code

Conc 5510
Code

Date Submitted: 11/09/23 9:13 am

## viewing: 5559 : Social Work: Leadership \& Social Change, MSW

Last approved: 10/06/22 2:14 pm
Last edit: 01/12/24 9:34 am
Changes proposed by: Cheryl Street
Social Work: Leadership \& Social Change, MSW
Catalog Pages
Using this
Program

Proposal Type:

## In Workflow

1. U Program

Review
2. 1783 Head
3. LL Committee Chair
4. LL Dean
5. University

Librarian
6. Grad_College
7. COTE Programs
8. Provost
9. Senate EPC
10. Senate
11. U Senate Conf
12. Board of Trustees
13. IBHE
14. HLC
15. DOE
16. DMI

## Approval Path

1. $11 / 10 / 235: 42 \mathrm{pm}$

Donna Butler (dbutler):
Approved for U
Program Review
2. $11 / 10 / 235: 44 \mathrm{pm}$ Cheryl Street
(street): Approved for 1783 Head
3. $11 / 10 / 235: 55 \mathrm{pm}$ Cheryl Street
(street): Approved for LL Committee Chair
4. $11 / 11 / 238: 54 \mathrm{am}$ Janet Liechty (jliechty):
Approved for LL Dean
5. $11 / 26 / 2311: 46$ am

# Claire Stewart 

 (clairest):Approved for University Librarian
6. $12 / 14 / 233: 25 \mathrm{pm}$

Allison McKinney
(agrindly):
Approved for
Grad_College
7. 01/04/24 8:35 pm

Suzanne Lee (suzannel):
Approved for COTE Programs
8. 01/11/24 9:30 am Brooke Newell (bsnewell): Approved for Provost

## History

1. Jul 2, 2019 by Mary Lowry (lowry)
2. Aug 19, 2019 by Mary Lowry (lowry)
3. Oct 6, 2022 by Mary Lowry (lowry)

## Concentration (ex. Dietetics)

This proposal is
for a:
Revision

## Administration Details

Official Program Social Work: Leadership \& Social Change, MSW
Name
Diploma Title

Sponsor College
Sponsor
Social Work, School of
Social Work
Department

| Sponsor Name | $\underline{\text { Benjamin Lough }}$ |  |
| :--- | :--- | :--- |
| Sponsor Email | $\underline{\underline{\text { bjlough@illinois.edu }}}$ |  |
| College Contact | $\underline{\underline{\text { Cheryl Street }}}$ | College Contact <br> Email |

## street@illinois.edu

College Budget
Officer

## College Budget

Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

Does this program have inter-departmental administration?
No

## Proposal Title

Effective Catalog Spring 2024
Term
Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Concentration in Leadership \& Social Change in the Master of Social Work in
Social Work in the School of Social Work and the Graduate College
Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567 ) is related to the Concentration A proposal (key 145)."

This proposal (key 804) is related to a revisions to the MSW degree (key 488) and the Advanced Clinical Practice concentration (key 803).

## Program Justification

Provide a brief 1. We are removing SOCW 521, SOCW 589 and SOCW 554 and adding SOCW 522, description of what changes are being made to the program.

- SOCW 584, and SOCW 510.

2. We are requesting to revise delivery model from distance learning off site in Chicago (10KS0365MSWX), to online learning (10KS0365MSWU).
3. POS revisions were made because some of our incoming students may have taken
some required courses during their undergrad program, and in those cases, we do waive some courses. The hours ranges in the POS were adjusted to show this, and the maximum limit was added to the Other Requirements.
4. We revised the Program of Study for the campus concentration project. We moved the Field Education requirement to be last because it's the final set of the degree. We removed "Focus Area" from the elective heading because we don't have focus areas anymore.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

Yes No
Why are these changes necessary?

1. Courses in the LSC concentration have been revised and updated to keep relevant to the changing macro social work practices and skills development.
2. At the start, in the 1970s the MSW was offered extramurally throughout the state. In 2006 the program was offered primarily in Chicago, and so continued to have an extramural "X code." Due to being required to deliver all iMSW courses online during the covid pandemic we re-evaluated how our iMSW curriculum was being delivered and it was determined that it could be delivered in a fully online model without losing any educational components. This allows our program to meet the needs of students in rural communities.
3. This reflects our current practice of the requirements for students entering without a BSW. For them we will waive up to 8 hours of the foundation coursework from Policy or Research or HBSE. So the ranges for those 3 areas were updated to be ranges of 4-8 hours, for transparency. But because students may only waive 8 hours, 8 elective hours of are required. (Which is the same as for the Advanced Standing students.)
4. The need to complete this request is a part of the campus concentration transparency project. Also, we moved the elective rows up for transparency because the Field Placement is the last requirement completed. We removed "Focus Area" from the elective heading because we don't have focus areas anymore.

Total minimum hours for the program have not changed.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

No
Does the program include other courses/subjects outside of the sponsoring department impacted by the creation/revision of this program?

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

Leadership \& Social Change (LSC)
Advanced Student Learning Competencies
$\underline{\underline{1 .}}$ Demonstrate ethical and professional behavior. Students will demonstrate the ability
to:
1.1 Develop a self-awareness of ethical standards of practice, and identify situations in which personal values, legal standards, and professional expectations may conflict.
1.2 Understand the principles identified in the NASW Code of Ethics such as: limiting practice to personal areas of competence, boundaries of sharing or withholding confidential information, and resolving ethical dilemmas arising from value conflicts. $\underline{\underline{2}}$. Engage diversity and difference in practice. Students will demonstrate the ability to:
2.1 Understand the importance of diversity and diverse perspectives on the development and impact of social policies and programs.
2.2 Communicate the importance of diversity and diverse perspectives when conducting social change interventions, whether through advocacy, policy development, or leadership in social service agencies.
2.3 Engage diverse populations in advocacy, organizational management, policy development, and coalition building.
$\underline{\underline{3}}$ Advance human rights and social, economic, and environmental justice. Students will demonstrate the ability to:
3.1 Understand key rights and responsibilities embodied in the United Nations Universal Declaration of Human Rights, the United Nations Sustainable Development Goals, and the U.S. Constitution, and related documents that advocate for social, economic, and environmental justice.
3.2 Apply social, economic, and environmental justice principles to the analysis and development of policies and programs.
4. Engage in practice-informed research and research-informed practice. Students will demonstrate the ability to:
4.1. Assess and utilize research evidence and effective practice approaches related to social policy, administration, and advocacy.
4.4. Apply needs assessments and other data in the conduct of policy analysis, community development, and program development.
4.3 Be able to conduct social program evaluation studies and interpret findings to enhance both service delivery processes and service outcomes.
5. Engage in policy practice. Students will demonstrate the ability to:
5.1. Understand leading societal trends that shape the agendas of governmental officials and others involved in policy development.
5.2. Be able to critically assess legislative, regulatory, and judicial communications related to social policies.
5.3. Develop skills in writing brief communications and longer reports on behalf of policy positions.
6. Engage with individuals, families, groups, organizations, and communities. Students will demonstrate the ability to:
6.1 Develop skills required to organize campaigns, build linkages, and develop coalitions with other stakeholders on behalf of social change efforts.
6.2 Use empathy, reflection and interpersonal communication skills to effectively engage diverse constituencies in advocacy, policy development, and leadership.
7. Assess individuals, families, groups, organizations, and communities. Students will demonstrate the ability to:
7.1. Conduct needs assessments to inform policy advocacy and/or program development that address social needs of a group or community.
7.2 Identify assessment strategies for improving supervisory and/or organizational effectiveness.
7.3 Be able to assess the interests of various stakeholders needed to influence, policy, programs, and social change.
8. Intervene with individuals, families, groups, organizations, and communities. Students will demonstrate the ability to:
8.1 Understand leadership strategies for effecting social change, whether through advocacy, policy development, or leadership strategies to affect social change. 8.2 Develop entrepreneurial approaches to addressing social service needs of oppressed and marginalized groups.
8.3 Demonstrate grant writing skills for accessing resources that support social change and program improvement.
9. Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities
9.1 Critically evaluate the effectiveness and impact of organizational management, human service programs, community development, social welfare policy, and/or social change interventions.
9.2. Disseminate results of evaluation or research (such as written reports or presentations) in order to improve programs and influence policy.

Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Program

Description and
Requirements
Attach Documents
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/PublicAdminRules2017.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.

Revised programs LSCRevisionWML.xIsx
Attach a revised Sample Sequence (for undergraduate program)
or college-level forms.
Catalog Page Text - Overview Tab
Description of program for the catalog page. This is not official content, it is used to help build the new catalog page for the program. Can be edited in the catalog by the college or department.

The Leadership and Social Change (LSC) concentration prepares social work students to further their careers by developing advanced skills in macro practice. Since the social work profession has a long tradition of working towards improving conditions of disadvantaged populations through advocacy efforts with political officials and others, this concentration will prepare students for macro-level advanced practice. These skills can lead to positions, such as, policy advocate, program director, executive director, political strategist, supervisor, administrator, public service leader, strategic planner, or consultant.

Statement for
Programs of
Study Catalog

## Requirements for the Master of Social Work with the Leadership and Social Change Concentration

## Advanced Standing (Entering With a BSW)

Course List
Code Title Hours

Methods
SOCW 521Leadership and Social Change
SOCW 520Social Welfare Planning
SOCW 522SW Practice with Communities
SOCW 526Managing Human Service Orgs
Policy
S0CW 589Social Work and the Law
SOCW 584Policy Practice and Advocacy
Research
4
SOCW 542Program Evaluation
HBSE
4
SOCW 554Inequalities In A Diverse Society
SOCW 510Theories of Diversity, Inequality, and Social Change
Electives 8

Field Education12-24

SOCW 531Field Practicum and Integrative Seminar I
SOCW 532Field Practicum and Integrative Seminar II
Total Hours:
44-56
Other Requirements Entering-Without a BSWOther-Requirements
Grad Other Degree Requirements
Requirement Description
A concentration is required.
Minimum 500-level Hours Required Overall:36
Minimum GPA:


## Program Relationships

## Corresponding

Program(s):
Corresponding Program(s)
Social Work, MSW (on campus \& online)

## Program Features

Academic Level Graduate
Is This a Teacher Certification Program?

Will specialized accreditation be sought for this program?

No
Additional concentration notes (e.g., estimated enrollment, advising plans, etc.)

## Delivery Method

This program is available:
On Campus and Online - 2 program types. Students can receive the entire program either on campus or online. Students can choose to take courses in either modality.

Describe the use of this delivery method:
on campus and online. blended

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

Students that were currently under the old program of study will complete their requirements for the concentration. This program of study will be for those entering Fall 2023 and on.

## Budget

Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information

Attach File(s)

## Financial Resources

How does the unit intend to financially support this proposal?
None
Will the unit need to seek campus or other external resources?
No
Attach letters of
support

Is this program requesting self-supporting status?
No

## Faculty Resources

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

No additional impact to 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.

The current Library resources are sufficient with this revision.

## EP Documentation

EP Control EP.24.051
Number

Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

Attach Final
Approval Notices
Banner/Codebook Leadership and Social Change
Name
Program Code: 5559

| Minor | Conc | 5559 | Degree | MSW |
| :--- | :--- | :--- | :--- | :--- |
| Code | Code |  | Code | Major |
| Code |  |  |  |  | 0365

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date

IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for
this request

| Program Reviewer | Mary Lowry (lowry) (04/28/23 4:13 pm): Rollback: See the email I sent. |
| :--- | :--- |
| Comments | Mary Lowry (lowry) (05/02/23 2:35 pm): Rollback: Please see email |
|  | Mary Lowry (lowry) (05/03/23 2:27 pm): Rollback: :) |
|  | Mary Lowry (lowry) (05/03/23 2:29 pm): Rollback: . |
|  | Mary Lowry (lowry) (05/03/23 2:36 pm): Rollback: . |
|  | Mary Lowry (lowry) (05/03/23 4:59 pm): Rollback: Please see 5-3-23 email |
|  | @5pm |

Allison McKinney (agrindly) (09/06/23 11:47 am): Rollback: This revision needs to be submitted along with the revision to major degree to request the online delivery method.
Allison McKinney (agrindly) (09/06/23 2:25 pm): Rollback: Please resubmit with the major degree revisions for modality changes.
Brooke Newell (bsnewell) (10/03/23 9:12 am): Rollback: Email sent to Cheryl Mary Lowry (lowry) (10/25/23 4:45 pm): Rollback: Cheryl, please see email from 10-24-23
Mary Lowry (lowry) (11/07/23 10:50 am): Rollback: see email dated 11-7-23 Claire Stewart (clairest) (11/26/23 11:46 am): At present, students enrolled in online programs are not assessed a Library/IT fee as traditional students are. Although current library collections, services and expertise may be sufficient to support such a change, the Library's ability to bear these costs may be impacted by missing or lost fee revenue.


Viewing: 10KS0156MLA \&

## 10KS0155MUP : JP: Landscape Architecture, MLA \& Urban Planning, MUP

Last approved: 12/13/22 4:18 pm
Last edit: 01/26/24 7:58 am
Changes proposed by: Nicole Turner
Landscape Architecture, MLA \& Urban Planning, MUP
Catalog Pages
Using this
Program

Proposal Type:

In Workflow

1. U Program

Review
2. 1569 Committee Chair
3. 1733 Committee Chair
4. 1569 Head
5. 1733 Head
6. 1569 Committee Chair
7. 1569 Committee Chair
8. 1569 Head
9. 1569 Head
10. KR Dean
11. KR Dean
12. University

Librarian
13. Grad_College
14. COTE Programs
15. Provost
16. Senate EPC
17. Senate
18. U Senate Conf
19. Board of Trustees
20. IBHE
21. HLC
22. DOE
23. DMI

## Approval Path

1. $08 / 15 / 235: 35 \mathrm{pm}$ Donna Butler
(dbutler):
Approved for $U$
Program Review
2. 10/15/23 9:01 pm Lori Davis (drlori):
Approved for 1569 Committee Chair
3. $10 / 15 / 239: 14 \mathrm{pm}$

Andrew Greenlee
(agreen4):
Approved for 1733
Committee Chair
4. 10/26/23 1:05 pm

David Hays
(dlhays):
Approved for 1569
Head
5. 10/30/23 11:43
am
Mark Doussard
(mdouss1):
Approved for 1733
Head
6. $10 / 31 / 2312: 49$
pm
Lori Davis (drlori):
Approved for 1569
Committee Chair
7. $10 / 31 / 2312: 51$
pm
Lori Davis (drlori):
Approved for 1569
Committee Chair
8. $11 / 15 / 23$ 6:28 pm David Hays
(dlhays):
Approved for 1569 Head
9. $11 / 15 / 236: 28 \mathrm{pm}$ David Hays (dlhays):
Approved for 1569 Head
10. 12/01/23 8:52 am Nicole Turner (nicturn): Approved for KR Dean
11. 12/01/23 8:52 am Nicole Turner (nicturn):
Approved for KR Dean
12. $12 / 01 / 23$ 5:11 pm

Claire Stewart (clairest):
Approved for

University
Librarian
13. 12/18/23 3:02 pm Mary Lowry (lowry): Rollback to KR Dean for Grad_College
14. 12/18/23 3:45 pm Nicole Turner (nicturn):
Approved for KR Dean
15. 12/18/23 4:24 pm

Claire Stewart (clairest):
Approved for
University
Librarian
16. 01/16/24 9:51 am

Allison McKinney
(agrindly):
Approved for Grad_College
17. 01/22/24 10:31
am
Suzanne Lee
(suzannel):
Approved for COTE Programs
18. 01/25/24 9:23 am

Brooke Newell
(bsnewell):
Approved for
Provost

## History

1. Dec 13, 2022 by Mary Lowry (lowry)

Joint Program (ex. Master of Public Health \& PhD. in Community Health)
This proposal is for a:
Revision

## Administration Details

| Official Program | JP: Landscape Architecture, MLA \& Urban Planning, <br> Name |
| :--- | :--- |
| MUP |  |
| Spons Title |  |
| Spor College | Fine \& Applied Arts |
| Sponsor <br> Department | $\underline{\text { Urban \& Regional Planning Landscape }}$ |
| Sponsor Name | $\underline{\text { Marc Doussard }}$ |
| Sponsor Email | $\underline{\text { mdouss1@illinois.edu }}$ |
| College Contact | $\underline{\underline{\text { Nicole Turner }}}$ |

nicturn@illinois.edu
College Budget Greg Anderson
Officer
College Budget gnanders@illinois.edu
Officer Email
List the role for rollbacks (which role will edit the proposal on questions from EPC, e.g., Dept Head or Initiator) and/or any additional stakeholders. Purpose: List here who will do the editing work if proposal needs rolled back. And any other stakeholders.

KR Dean
Does this program have inter-departmental administration?
Yes
Interdisciplinary Colleges and Departments (list other colleges/departments which are involved other than the sponsor chose above)
Please describe the oversight/governance for this program, e.g., traditional departmental/college governance. Inclusion of/roles of elected faculty committees? Inclusion of/roles of any advisory committees.

| College | Fine \& Applied Arts |
| :--- | :--- |
| Department | Landscape Architecture Urban \& Regional |
|  | Planning |

Is there an additional department involved in governance?
No

## Proposal Title

Effective Catalog Fall 2023
Term

Proposal Title (either Establish/Revise/Eliminate the Degree Name in Program Name in the College of XXXX, i.e., Establish the Bachelor of Science in Entomology in the College of Liberals Art and Sciences, include the Graduate College for Grad Programs)

Revise the Joint Program in the Master of Landscape Architecture in Landscape Architecture and the Master of Urban Planning in Urban Planning in the College of Fine and Applied Arts and the Graduate College

Does this proposal have any related proposals that will also be revised during the next 6 weeks? Consider Majors, Minors, Concentrations \& Joint Programs in your department. Please know that this information is used administratively to move related proposals through workflow efficiently. Example: If you are revising the BS proposal and one related concentration within the next 6 weeks, "This BS proposal (key 567 ) is related to the Concentration A proposal (key 145)."

This JP: MUP and MLA proposal (key 1087) is related to JP proposals for: MUP and MARCH (key 1084), MUP and JD (key 1091), MUP and MPH (key 1056), MUP and related majors (key 1092). It is also related to a MUP revision (key 454) and MLA revision (key 346).

## Program Justification

Provide a brief Copying learning outcomes from MUP and MLA distinct program pages and embedded description of what changes are new revisions to the MUP (key 454) and MLA (346) to bring them into the Joint being made to the Program program page. program.

Did the program content change $25 \%$ or more in relation to the total credit hours, since the 2020-2021 catalog. (http://catalog.illinois.edu/archivedacademiccatalogs/2020-2021/)

No
Why are these changes necessary?

1. To align with Graduate College and Office of the Provost expectations for transparency for joint programs.
2. In the "other requirements" table, the 500-level hours required for UP was added to align with the regular MUP program.
3. Including recently approved or currently in workflow revisions for both the MLA and the MUP
4. Clarifying that all MLA students would receive 8 hours counted from UP, so that the total degree hours is 80 for the joint program.

## Instructional Resources

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

No
Does this new program/proposed change result in the replacement of another program?

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

No

## Program Regulation and Assessment

## Plan to Assess and Improve Student Learning

Illinois Administrative Code: 1050.30(b)(1)(D) Provision is made for guidance and counseling of students, evaluations of student performance, continuous monitoring of progress of students toward their degree objectives and appropriate academic record keeping.

List the program's student learning outcomes. Each outcome should identify what students are expected to know and/or be able to do upon completing this program.

MASTER OF URBAN PLANNING
To be consistent with our accreditation requirements, we are using the Knowledge, Skills, and Values identified by the Planning Accreditation Board (PAB) as desired outcomes for planning education.
A.1. General planning knowledge:

Purpose and Meaning of Planning:
Planning Theory:
Planning Law:
Human Settlements and History of Planning:
The Future:
Global Dimensions of Planning:
A.2. Planning skills:

Research Written, Oral and Graphic Communication:
Quantitative and Qualitative Methods:
Plan Creation and Implementation: is able to use Planning Process Methods:
Leadership:
A.3. Values and ethics

Professional Ethics and Responsibility:
Governance and Participation:
Sustainability and Environmental Quality:
Growth and Development: Social Justice:
------
MASTER OF LANDSCAPE ARCHITECTURE
Master of Landscape Architecture students will:
This can be substituted with the learning outcomes of the LAAB Accreditation:

- Knowledge and skills in process, principles, and theories of design in landscape architecture
- Knowledge of histories and theories of the art and science of landscape architecture
- Knowledge of plants, ecosystems, and climate science
- Knowledge of resilience and landscape performance
- Knowledge of the legal context of the landscape architecture profession
- Knowledge of professional practice
- Skills in the application of assessment and analysis of site context and suitability of program, data, and other criteria in site design and planning
- Skills in developing design concepts, material detailing, and construction, including accessibility
- Skills in design communication with diverse audiences, including verbal, visual, and written forms
- Knowledge of construction materials and methods, including the use of specifications, construction techniques, material selections, and preparation of relevant documents
- Knowledge and skills of landform, engineering, and green infrastructure to facilitate ecological design, safety, and accessibility
- Knowledge of landscape performance, including the quantifiable assessment of
benefits of landscape design
- Skills in collaboration, including interdisciplinary teams, and application of knowledge from different disciplines into design
- Knowledge and skills in research theories and methods, research ethics, and the
understanding of research as it affects the current and future practice of the profession
Describe how, when, and where these learning outcomes will be assessed.

Describe here:

Identify faculty expectations for students' achievement of each of the stated student learning outcomes. What score, rating, or level of expertise will signify that students have met each outcome? Provide rating rubrics as necessary.

Explain the process that will be implemented to ensure that assessment results are used to improve student learning.

## Program

Description and
Requirements
Attach Documents
Is the career/profession for graduates of this program regulated by the State of Illinois?

## 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/PublicAdminRules2017.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.

Revised programs Attach a revised Sample Sequence (for undergraduate program) or college-level forms.

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

## For additional details and requirements refer to the department's Programs of Study and the Graduate College Handbook.

Statement for
Programs of
Study Catalog

| Master of Urban Planning in Urban Planning |  |
| :--- | :--- |
|  | Course List |
| Code Title |  |
| UP 501Planning History and Theory | Hours |
| $\underline{\text { UP 503Physical Planning }}$ | $\underline{4}$ |
| $\underline{\text { UP 504Urban History and Theory }}$ | $\underline{4}$ |

Code TitleUP 505Urban and Regional Analysis$\underline{\underline{2}}$
UP 510Plan Making ..... 4
UP 511Law and Planning ..... 4
UP 590Professional Internship (reduces the hours needed to graduate by 4) ..... $\underline{\underline{0}}$
Recommended concentration/electives ..... $\underline{\underline{32}}$
Non-Thesis Option
UP 591Capstone Seminar (enrollment required for 0 hours one term \& 4 hours one 4term)
UP 598Master's Project ( $\mathrm{min} / \mathrm{max}$ applied toward degree) ..... $\underline{\underline{4}}$
Thesis Option
UP 591Capstone Seminar (enrollment required for two semesters) ..... $\underline{\underline{0}}$
UP 599Thesis Research (min/max applied toward degree) ..... $\underline{\underline{8}}$
Total Hours ..... $\underline{64}$
Master of Landscape Architecture in Landscape Architecture: Post-

## Professional

For students who have completed a BLA in an LAAB Accredited Program. Typically completed in 2 years. Thesis Option

## Course List

Code Title
Hours
Studio
LA 533 Planning \& Design Studio I5
LA 534 Design Workshop G-I ..... $\underline{\underline{5}}$
Thesis
LA 599 Thesis Research ..... $\underline{\underline{10}}$
Additional Seminars and Coursework
LA 482 Advanced Communication in Landscape Architecture ..... 4
LA 501 Landscape Arch Theory \& Prac ..... 4
LA 513 History of World Landscapes ..... 4
LA 597 Research Design \& Methods ..... 
Additional Required Electives chosen in consultation with MLA Advisor
Social/Cultural Aspects of Design
Ecology
Method
Total Minimum Hours ..... $\underline{48}$
Advanced Studio Option
Course List
Code Title ..... Hours
Studio
LA 533 Planning \& Design Studio I ..... 5
LA 534 Design Workshop G-I ..... $\underline{\underline{5}}$
LA 537 Planning \& Design Studio II ..... 5
LA 539 Design Workshop G-II ..... $\underline{\underline{5}}$
Additional Seminars and Coursework


| Code Title | Hours |  |  |
| :---: | :---: | :---: | :---: |
| Total Minimum Hours | $\underline{48}$ |  |  |
| Advanced Studio Option |  |  |  |
| Course List |  |  |  |
| Code Title | Hours |  |  |
| Studio |  |  |  |
| LA 433 Graduate Foundation Studio | $\underline{\underline{5}}$ |  |  |
| LA 434 Graduate Site Design Studio | $\underline{5}$ |  |  |
| LA 533 Planning \& Design Studio I | 5 |  |  |
| LA 534 Design Workshop G-I | $\underline{5}$ |  |  |
| LA 537 Planning \& Design Studio II | $\underline{\underline{5}}$ |  |  |
| LA 539 Design Workshop G-II | $\underline{\underline{5}}$ |  |  |
| Additional Seminars/Coursework |  |  |  |
| LA 452 Planting Design | $\underline{\underline{3}}$ |  |  |
| LA 482 Advanced Communication in Landscape Architecture | $\underline{4}$ |  |  |
| LA 501 Landscape Arch Theory \& Prac | $\underline{4}$ |  |  |
| LA 513 History of World Landscapes | $\underline{4}$ |  |  |
| LA 597 Research Design \& Methods | $\underline{3}$ |  |  |
| Additional Required Electives chosen in consultation with MLA Advisor |  |  |  |
| Social/Cultural Factors in Design |  |  |  |
| Ecology |  |  |  |
| Method |  |  |  |
| Total Minimum Hours | $\underline{\underline{48}}$ |  |  |
| Other Requirements for Joint MLA and MUP degrees |  |  |  |
| Grad Other Degree Requirements |  |  |  |
| Requirement <br> Other requirements may overlap |  |  |  |
|  |  |  |  |
| Minimum Hours Required Within the Unit: 24 |  |  |  |
| Minimum 500-level Hours Required Overall: 18 |  |  |  |
| Enrollment in each program at least 2 semesters |  |  |  |
| Up to 8 hours of UP coursework may be applied to the LA degree at the department's discretion. |  |  |  |
| If pursuing the thesis option, the thesis committee chair must be full-time in Landseape |  |  |  |
| Architecture and one committee member must be from Urban Planning. |  |  |  |
| Minimum GPA: 3.0 |  |  |  |
| $\underline{\text { Minimum 400-500 level hours within LA }} \underline{\underline{24}}$ |  |  |  |
| Minimum 500-level hours required overall for MLA |  |  |  |
| Minimum hours within UP $4 \underline{\underline{00}}$ |  |  |  |
| Minimum 500-level hours required overall for MUP $\quad \underline{\underline{16(12 ~ i n ~}}$ |  |  |  |
|  |  | UP) |  |
| Up to 8 hours of UP coursework will be applied to the LA degree. |  |  |  |
| The MUP capstone requirement may be waived for a thesis completed in Landscape |  |  |  |
| Architecture provided faculty from both programs participate on the thesis committee. |  |  |  |
| If pursuing the MLA thesis option, the thesis committee chair must be full-time in Landscape |  |  |  |
| Architecture and one committee member must be from Urban Planning. |  |  |  |
| Minimum GPA 3 3.0 |  |  |  |
| Course List |  |  |  |
| Code Title |  |  | Hours |

Landscape Architecture will count up to 8 hours of Urban Planning courses as electives in meeting its 48 credit hours of degree requirements as long as the student is required to take no fewer than 40 additional hours in Landscape Architecture. The two programs must total a minimum of the sum of 40 Urban Planning hours plus 40 hours for the Master of Landscape Architecture.

## Course List

| Code | Fitle | Hours |
| :--- | :--- | :--- |
| Urban Planning core capstone and area requirements | 40 |  |
| LA 470 | Course LA 470 Not Found |  |
| LA 501 | Landscape Arch Theory \& Prac |  |
| Specialization area coursework | 4 |  |
| Internship |  | $27-35$ |
| Additional undergraduate coursework will be required of students without a BLA. These prerequisites |  |  |
| do not count toward the graduate degree- |  |  |
| LA 599 | Thesis Research (min/max applied toward degree) | 8 |
| Fotal Hours | 80 |  |
| Other Requirements | 8 |  |

## Program Relationships

Identify the
existing programs
to be joined:
Corresponding Program(s)
Landscape Architecture, MLA
Urban Planning, MUP

## Program Features

Academic Level Graduate
What is the typical time to completion of this program?
4 years
What are the minimum Total Credit Hours required for this program?
80
What is the 3.0
required GPA?
Is This a Teacher Certification Program?
No
Will specialized accreditation be sought for this program?

No

This program is available:
On Campus - Students are required to be on campus, they may take some online courses.

## Admission Requirements

Desired Effective
Admissions Term
Is this revision a change to the admission status of the program?

No
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.

Describe how this revision or phase down/elimination will impact enrollment and degrees awarded. If this is an elimination/phase down proposal include the plans for the students left in the program.

No impact.
Estimated Annual Number of Degrees Awarded
Year One Estimate
5th Year Estimate (or when
fully implemented)

## Budget

```
Are there No
budgetary
implications for
this revision?
Will the program or revision require staffing (faculty, advisors, etc.)
beyond what is currently available?
No
Additional Budget
Information
Attach File(s)
```


## Financial Resources

How does the unit intend to financially support this proposal?

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

Attach letters of support

What tuition rate do you expect to charge for this program? e.g, Undergraduate Base Tuition, or Engineering Differential, or Social Work Online (no dollar amounts necessary)

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

No
Is this program requesting self-supporting status?
No

## Faculty Resources

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

No impact.

## 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.

Library collections, resources and services are sufficient to support this MLA and MUP joint program revision.

## EP Documentation

EP Control EP.24.051
Number
Attach
Rollback/Approval
Notices
This proposal
No
requires HLC
inquiry

## DMI Documentation

## Attach Final

Approval Notices
Banner/Codebook MLA:Lndscpe Architecture -UIUC \& MUP:Urban Planning -UIUC
Name
Program Code: 10KS0156MLA \& 10KS0155MUP

Senate Approval
Date
Senate
Conference
Approval Date
BOT Approval
Date
IBHE Approval
Date
HLC Approval
Date
DOE Approval
Date
Effective Date:
Attached
Document
Justification for
this request

Program Reviewer Mary Lowry (lowry) (07/31/23 4:53 pm): Rollback: please see email dated Comments

7-31-23
Mary Lowry (lowry) (08/10/23 11:33 am): Rollback: Please see email dated 8-10-23
Mary Lowry (lowry) (12/18/23 3:02 pm): Rollback: per email conversation 12-18-23

