EP.22.020 Report of Administrative Approvals through October 4, 2021

Senate committees are authorized to act for and in the name of the Senate on minor matters. Below is a listing of the administrative approvals the Senate Committee on Educational Policy approved at its meeting on October 4, 2021. Additional information for each approval is attached.

A. **Graduate Programs**

1) **MS in Statistics** – in the list of courses from which students are to select one, add STAT 528, Advanced Regression Analysis (4 hours); STAT 533, Advanced Stochastic Processes (4 hours); and STAT 556, Advanced Time Series Analysis (4 hours). There is no change to the total number of hours required for the degree.

2) **Analytics Concentration in the MS in Statistics** – revise the required courses list to note that STAT 410, MATH 464, Statistics and Probability II, or equivalent proficiency, may be waived with approval. In the first list of courses from which students are to select one, add STAT 528, Advanced Regression Analysis (4 hours); STAT 533, Advanced Stochastic Processes (4 hours); and STAT 556, Advanced Time Series Analysis (4 hours). In the second list of courses from which students are to select one, add STAT 447, Data Science Programming Methods (4 hours). There is no change to the total number of hours required for the degree.

3) **Statistics Departmental Course List for Graduate Programs in Statistics** – add STAT 447, Data Science Programming Methods (4 hours); STAT 528, Advanced Regression Analysis (4 hours); STAT 533, Advanced Stochastic Processes (4 hours); STAT 556, Advanced Time Series Analysis (4 hours); STAT 576 - Empirical Process Theory and Weak Convergence (4 hours). The revisions to this course list do not alter the total number of hours required for any major, minor, or concentration.

B. **Undergraduate Programs**

1) **BS in Media and Cinema Studies** – the rubric for 21st Century Documentaries has been revised from MDIA 380 to MACS 380 (3 hours). The list of Thematic Area courses from which students select 5 additional courses from at least 2 areas needs to be updated to reflect this change in the Media Industries & Cultures Area and the Media Making, Design and Research area. There is no impact on the number of hours required in any area or for the degree.
10KS0329MS: STATISTICS, MS

Completed Workflow
1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1583 Head (libo@illinois.edu)
3. KV Dean (las-catalog@illinois.edu)
4. University Librarian (jpwilkin@illinois.edu)
5. Grad_College (agrindly@illinois.edu; lowry@illinois.edu)
6. Provost (kmartens@illinois.edu)
7. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
8. Senate (jtempel@illinois.edu)
9. U Senate Conf (none)
10. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path
1. Thu, 15 Oct 2020 20:56:59 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Thu, 15 Oct 2020 21:29:11 GMT
   Bo Li (libo): Approved for 1583 Head
   Kelly Ritter (ritterk): Approved for KV Dean
4. Fri, 16 Oct 2020 00:12:54 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
5. Wed, 04 Nov 2020 18:37:56 GMT
   Allison McKinney (agrindly): Approved for Grad_College
   Kathy Martensen (kmartens): Approved for Provost
7. Tue, 17 Nov 2020 16:26:41 GMT
   Barbara Lehman (bjlehman): Approved for Senate EPC
8. Tue, 08 Dec 2020 15:57:28 GMT
   Jennifer Roether (jtempel): Approved for Senate
   Kathy Martensen (kmartens): Approved for U Senate Conf
10. Tue, 09 Feb 2021 15:19:42 GMT
    Emily Stuby (eastuby): Approved for DMI

History
1. Oct 11, 2019 by Mary Lowry (lowry)
2. Oct 7, 2020 by Amy Elli (amyelli)
3. Feb 9, 2021 by Beth McKown (bmckown1)

Date Submitted: Wed, 22 Sep 2021 20:54:03 GMT

Viewing: 10KS0329MS : Statistics, MS
Changes proposed by: Beth McKown

Proposal Type:
Major (ex. Special Education)

This proposal is for a:
Revision
Administration Details

Official Program Name
Statistics, MS

Sponsor College
Liberal Arts & Sciences

Sponsor Department
Statistics

Sponsor Name
Jeff Douglas, Associate Chair and Darren Glosemeyer, Senior Instructor and Director MS Program

Sponsor Email
jeffdoug@illinois.edu and glosemey@illinois.edu

College Contact
Stephen R. Downie

College Contact Email
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.

Darren Glosemeyer, Senior Instructor and Director MS Program, glosemey@illinois.edu

Does this program have inter-departmental administration?
No
Proposal Title

Effective Catalog Term

Fall 2022

Provide a brief, concise description (not justification) of your proposal.

Administrative approval: Revision of recently approved STAT courses as options in the MS in Statistics and MS in Statistics with Analytics Concentration

Program Justification

Why are these changes necessary?

The following courses were recently approved and have not yet been added as electives/alternatives in the Statistics MS degree requirements:

- STAT 447 - Data Science Programming Methods
- STAT 528 - Advanced Regression Analysis II
- STAT 533 - Advanced Stochastic Processes
- STAT 556 - Advanced Time Series Analysis
- STAT 576 - Empirical Process Theory and Weak Convergence

STAT 447 is a computing course that has been running as a 430 Topics course for a few years, and the others are more advanced versions or extensions of courses already listed in the curriculum.

The proposed revision would include these courses as alternatives and electives in the Statistics MS programs’ requirements where appropriate.

Specific additions are in the Academic Catalog Entry Appendix.

Instructional Resources

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

No

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

No

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).

No changes to the current assessment process are proposed.

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

No
Program of Study

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

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

Revised programs

StatisticsMSCurriculaAdditions2021Rev.doc
Statistics MS Comparative Table.docx

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

Catalog Page Text - Overview Tab

Text for Overview tab on 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.

See Word document attached for update to Overview tab

Statement for Programs of Study Catalog

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 425</td>
<td>Statistical Modeling I</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>Five elective courses from Departmental List (See Course List Tab)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting (or experience in applied statistics)</td>
<td>0-4</td>
</tr>
<tr>
<td>or STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>or STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency - may be waived with approval)</td>
<td>0-4</td>
</tr>
<tr>
<td>Total hours</td>
<td></td>
<td>32-36</td>
</tr>
</tbody>
</table>
Other Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>A concentration is not required.</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Corresponding Degree

- MS Master of Science

Program Features

Academic Level

- Graduate

Does this major have transcripted concentrations?

- No

What is the typical time to completion of this program?

- 2 years

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

- 32

What is the required GPA?

- 2.75

CIP Code

- 270501 - Statistics, General.

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.

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

No enrollment impacts are expected.

Estimated Annual Number of Degrees Awarded

What is the matriculation term for this program?

Fall

Budget

Are there budgetary implications for this revision?

No

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

No

Financial Resources

How does the unit intend to financially support this proposal?

There are no financial implications as the courses are already being taught.

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

No

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

No

Is this program requesting self-supporting status?

No
Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?
No

Technology

Will the program need additional technology beyond what is currently available for the unit?
No

Non-Technical Resources

Will the program require additional supplies, services or equipment (non-technical)?
No

Resources

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

Faculty Resources

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

There are no resource impacts. The courses are already being taught and the proposal would formally add them as options for the MS degrees.

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.

Current collections and services are adequate for the proposed program.

EP Documentation

EP Control Number
EP:22.020
This proposal requires HLC inquiry
No

DMI Documentation

Banner/Codebook Name
MS:Statistics -UIUC

Program Code:
10KS0329MS

Degree Code
MS

Major Code
0329

Program Reviewer Comments
Deb Forgacs (dforgacs) (Mon, 27 Sep 2021 16:20:17 GMT): Re-entered the proposal type, the corresponding program and the CIP code due to system bug 09/27/2021
Allison McKinney (agrindly) (Wed, 29 Sep 2021 19:59:30 GMT): Administratively approved by the Graduate College
Kathy Martensen (kmartens) (Thu, 30 Sep 2021 21:44:28 GMT): Administrative approval: No change to total hours required, does not restrict students’ options.

Key: 58
The locations of the proposed additions are highlighted in the following tables. Unhighlighted portions are the current catalog course listings.

**Master of Science in Statistics**  
*Statistics, MS < University of Illinois*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425</td>
<td>Statistical Modeling I</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five elective courses from Departmental List (See Course List Tab)</td>
<td>20</td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting (or experience in applied statistics)</td>
<td>0-4</td>
</tr>
<tr>
<td>or STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>or STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency-may be waived with approval)</td>
<td>0-4</td>
</tr>
</tbody>
</table>

Total hours: 32-36

**Course List**

**Other Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>A concentration is not required.</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Grad Other Degree Requirements

Courses to be added to the elective **Course List Tab**:  
**STAT 447 - Data Science Programming Methods**
STAT 528 - Advanced Regression Analysis II
STAT 533 - Advanced Stochastic Processes
STAT 556 - Advanced Time Series Analysis
STAT 576 - Empirical Process Theory and Weak Convergence
<table>
<thead>
<tr>
<th>Current Requirements</th>
<th>Hours</th>
<th>Proposed Requirements</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 510 Mathematical Statistics I</td>
<td>4</td>
<td>STAT 510 Mathematical Statistics I</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425 Applied Regression and Design</td>
<td>4</td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 427 or STAT 593 Statistical Consulting (or experience in applied statistics)</td>
<td>0-4</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>4</td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 424 Analysis of Variance</td>
<td></td>
<td>STAT 424 Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>STAT 426 Sampling and Categorical Data</td>
<td></td>
<td>STAT 426 Sampling and Categorical Data</td>
<td></td>
</tr>
<tr>
<td>STAT 429 Time Series Analysis</td>
<td></td>
<td>STAT 429 Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 430 Topics in Applied Statistics</td>
<td></td>
<td>STAT 431 Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 578 Topics in Statistics</td>
<td></td>
<td>STAT 433 Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>Five elective courses from departmental list</td>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>STAT 427 Statistical Consulting (or experience in applied statistics)</td>
<td></td>
<td>STAT 443 Professional Statistics</td>
<td>0-4</td>
</tr>
<tr>
<td>STAT 410/MATH 464 Statistics and Probability II (or equivalent proficiency [may be waived with approval])</td>
<td>4</td>
<td>STAT 410/MATH 464 Statistics and Probability II (or equivalent proficiency [may be waived with approval])</td>
<td>4</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Choose one option:</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration specific requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five elective courses found on the Departmental Course List tab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total hours</td>
<td>32-36</td>
<td>Total hours</td>
<td>32-36</td>
</tr>
<tr>
<td>Other Requirements</td>
<td>Other Requirements</td>
<td>Other Requirements</td>
<td>Other Requirements</td>
</tr>
<tr>
<td>Other Requirements may overlap</td>
<td>Grad Other Degree Requirements</td>
<td>A concentration is not required.</td>
<td>Requirement</td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
<td>Other Requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>
Proposal for revised curricula (degree, major, concentration, minor)

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

Proposal Title: Inclusion of recently approved STAT courses as options in the MS in Statistics and MS in Statistics with Analytics Concentration

Proposed effective date: Fall 2022

Sponsor(s): Darren Glosemeyer, Director of the Master’s Program and Senior Instructor of Statistics, glosemey@illinois.edu

College contact: Stephen R. Downie, Interim Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, sdownie@illinois.edu

PROGRAM DESCRIPTION and JUSTIFICATION

1) Provide a brief description but concise description of your proposal. The following courses were recently approved and have not yet been added as electives/alternatives in the Statistics MS degree requirements:

   STAT 447 - Data Science Programming Methods
   STAT 528 - Advanced Regression Analysis II
   STAT 533 - Advanced Stochastic Processes
   STAT 556 - Advanced Time Series Analysis
   STAT 576 - Empirical Process Theory and Weak Convergence

STAT 447 is a computing course that has been running as a 430 Topics course for a few years, and the others are more advanced versions or extensions of courses already listed in the curriculum.

The proposed revision would include these courses as alternatives and electives in the Statistics MS programs’ requirements where appropriate. Specific additions are in the Academic Catalog Entry Appendix.

Is this program interdisciplinary? No

If a proposal for a concentration- NA
Will specialized accreditation be sought for this program? No

ADMISSION REQUIREMENTS

1) Desired admissions term: For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year
   Fall, ________________
   Is this revision a change to the admission status of the program? No

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

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

ENROLLMENT

1) Describe how this revision will impact enrollment and degrees awarded.
   No enrollment impacts are expected.

2) Estimated Annual Number of Degrees Awarded (degrees, majors, concentrations ONLY)
   Year 1:
   Year 5 (or when fully implemented):

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

4) What is the typical time to completion of this program?
   Note: grad certificates require at least 10 weeks. Other examples: BALAS= 4years, MA=2.5 years

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

6) Delivery Method, what is the program’s primary delivery method?
   On Campus; Online & On campus; Online Only; Other- specify
   If NOT on campus, please describe the use of this delivery method:

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

BUDGET

1) Please describe any budgetary implications for this revision- addressing applicable personnel, facilities, technology and supply costs.
None

2) Will the revision require staffing (faculty, advisors, etc.) beyond what is currently available? No

3) Please provide any additional budget information needed to effectively evaluate the proposal. None

RESOURCE IMPLICATIONS

1) Facilities- Will the program require new or additional facilities or significant improvements to already existing facilities? No

2) Technology- Will the program need additional technology beyond what is currently available for the unit? No

3) 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.

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

There are no resource impacts. The courses are already being taught and the proposal would formally add them as options for the MS degrees.

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

Current collections and services are adequate for the proposed program.

3) Instructional Resources: Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change? No

4) Does the program include other courses impacted by the revision of this program? If yes, please list the courses. Explain how the inclusion or removal of the courses impacts the offering departments and provide letters of support from the departments. No impact
FINANCIAL RESOURCES

1) How does the unit intend to financially support this proposal? There are no financial implications as the courses are already being taught.

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

3) Are you seeking a change in the tuition rate or differential for this program? No

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

PROGRAM REGULATION & ASSESSMENT

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

No changes to the current assessment process are proposed.

2) Is the career/profession for graduates of this program regulated by the State of Illinois? No
1) All proposals must submit the major requirements (courses, hours) for the proposed curricula. Please see the University of Illinois Academic Catalog- [http://catalog.illinois.edu/](http://catalog.illinois.edu/) for your unit for an example of the entry.

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

The locations of the proposed additions are highlighted in the following tables. Unhighlighted portions are the current catalog course listings.

**Master of Science in Statistics**  
**Statistics, MS < University of Illinois**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425</td>
<td>Statistical Modeling I</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting</td>
<td>0-4</td>
</tr>
<tr>
<td>or STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>or STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency- may be waived with approval)</td>
<td>0-4</td>
</tr>
</tbody>
</table>

Five elective courses from Departmental List (See Course List Tab) 20

Total hours 32-36

**Course List**

**Other Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Requirements</td>
<td>may overlap</td>
</tr>
</tbody>
</table>
A concentration is not required.

Minimum 500-level Hours Required Overall: 12
Minimum GPA: 2.75

Courses to be added to the elective Course List Tab:
- STAT 447 - Data Science Programming Methods
- STAT 528 - Advanced Regression Analysis II
- STAT 533 - Advanced Stochastic Processes
- STAT 556 - Advanced Time Series Analysis
- STAT 576 - Empirical Process Theory and Weak Convergence

Master of Science in Statistics, Analytics Concentration
Statistics: Analytics Concentration, MS < University of Illinois

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency- may be waived with approval)</td>
<td>0-4</td>
</tr>
<tr>
<td>STAT 440</td>
<td>Statistical Data Management</td>
<td>4</td>
</tr>
<tr>
<td>STAT 448</td>
<td>Advanced Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 542</td>
<td>Statistical Learning</td>
<td>4</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 425</td>
<td>Statistical Modeling I</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 428</td>
<td>Statistical Computing</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Hours</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>STAT 432</td>
<td>Basics of Statistical Learning</td>
<td></td>
</tr>
<tr>
<td>STAT 447</td>
<td>Data Science Programming Methods</td>
<td></td>
</tr>
<tr>
<td>STAT 480</td>
<td>Data Science Foundations</td>
<td></td>
</tr>
<tr>
<td>CS 412</td>
<td>Introduction to Data Mining</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting</td>
<td></td>
</tr>
<tr>
<td>STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 525</td>
<td>Computational Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 546</td>
<td>Machine Learning in Data Science</td>
<td></td>
</tr>
<tr>
<td>STAT 571</td>
<td>Multivariate Analysis</td>
<td></td>
</tr>
<tr>
<td>CS 512</td>
<td>Data Mining Principles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total hours</td>
<td>36-40</td>
</tr>
</tbody>
</table>

**Course List**

**Other Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
<tr>
<td>Grad Other Degree Requirements</td>
<td></td>
</tr>
</tbody>
</table>
Proposal to the Senate Educational Policy Committee

PROPOSAL TITLE: Revising the MS in Statistics (10KS0329MS) in the Department of Statistics and College of Liberal Arts & Sciences

SPONSOR: Darren Glosemeyer, Senior Instructor and MS Program Director, Department of Statistics, 300-0282, glosemey@illinois.edu

COLLEGE CONTACT: Kelly Ritter, Associate Dean for Curricula and Academic Policy, 333-1350, ritterk@illinois.edu

BRIEF DESCRIPTION: The Department of Statistics in the College of Liberal Arts & Sciences has developed and is now offering numerous courses in response to expansion of the field in recent years. The program requirements have not fully been updated for these additions. This proposal would incorporate the expanded coursework options into the curriculum. With the exception of making Stat 430 Topics in Applied Statistics a purely elective course, this proposal only expands students’ coursework options within the degree requirements.

JUSTIFICATION: The field of statistics and the course offerings from the department have greatly increased in recent years, and the curriculum is in need of update for these increased offerings. Additions to the curriculum are all in the form of increased choice in electives or choice in areas where there is choice of a small number of courses.

The only courses in the current degree requirements which are proposed to move to strictly elective courses are Stat 430 Topics in Applied Statistics and Stat 578 Topics in Statistics. These courses are special topic courses, and are currently allowed as selections from a group of courses. The topic for these two courses can and does change semester to semester. When the curriculum requirements were last updated, the topics were less varied and tended to be more foundational in nature. Now with new foundational courses with their own numbers added to the catalog and a wide variety of topics covered in different sections of Stat 430 and Stat 578, the courses generally cover valuable elective material rather than foundations of the field.

BUDGETARY AND STAFF IMPLICATIONS: There are no budgetary or staff implications for the changes. The courses are already being taught and allowed as substitutions within the current curriculum. Faculty, staff, space, and technology resources will not be impacted.

DESIRED EFFECTIVE DATE: upon implementation

STATEMENT FOR ACADEMIC CATALOG:
Edits to the Statistics Graduate Program listing

Statistics

http://www.stat.illinois.edu

Chair of the Department: Bo Li
Director of Ph.D. Program: Xiaofeng Shao
Director of M.S. Program: Darren Glosemeyer
M.S. Advisors: Karle Flanagan, Christopher Kinson
Contact: Aaron Thompson
101 Illini Hall
725 South Wright Street
Champaign, IL 61820
(217) 333-2167
stat-office@illinois.edu

Major: Statistics
Degrees Offered: M.S., Ph.D.
Graduate Minor: Statistics
Graduate Concentrations: Analytics (M.S. only), Applied Statistics (M.S. only)

Graduate Degree Programs

The Department of Statistics offers graduate study leading to the Master of Science in
Statistics, the Master of Science in Statistics with specialization in various areas of
application, and the Doctor of Philosophy in Statistics.

Admission

Graduate College admission requirements apply. Students are expected to have a strong
undergraduate mathematics background, but need not have an undergraduate statistics or
mathematics degree. Students may be admitted with deficiencies, which are to be
removed during the first year of graduate work. A minimum Test of English as a Foreign
Language (TOEFL) score of 590 for the paper-based test or 243 for the computer-based
test is required for students whose native language is not English. The Graduate Record
Examination (GRE) is required. The department offers Ph.D. admissions for the fall only.

Graduate Teaching Experience

Although teaching is not a general Graduate College requirement, experience in teaching
is considered an important part of the graduate experience in the Ph.D. program.

Financial Aid
Financial aid is available primarily in the form of teaching assistantships, research assistantships, and fellowships. For further information write to the Graduate Admissions Committee, Department of Statistics.

**Statistics MS**

**STAT 510**  
Mathematical Statistics I  
4

Select one of the following:  
4
**STAT 425**  
Applied Regression and Design  
**or STAT 527**  
Advanced Regression Analysis

Select one of the following:  
4
**STAT 424**  
Analysis of Variance  
**STAT 426**  
Sampling and Categorical Data  
**STAT 429**  
Time Series Analysis  
**STAT 431**  
Applied Bayesian Analysis  
**STAT 433**  
Stochastic Processes

Five elective courses from departmental list  
20

**STAT 427**  
Statistical Consulting (or experience in applied statistics)  
0-4  
**or STAT 427**  
STAT Internship  
**or STAT 427**  
Professional Statistics

**STAT 410/  
MATH 464**  
Statistics and Probability II (or equivalent proficiency [may be waived with approval])  
4

Total hours  
32-36

**Other Requirements**

Grad Other Degree Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>A concentration is not required.</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>
Academic Catalog

Statistics

http://www.stat.illinois.edu

Chair of the Department: Bo Li
Director of Ph.D. Program: Xiaofeng Shao
Director of M.S. Program: Darren Glosemeyer
M.S. Advisors: Karle Flanagan, Christopher Kinson
Contact: Aaron Thompson
101 Illini Hall
725 South Wright Street
Champaign, IL 61820
(217) 333-2167
stat-office@illinois.edu

Major: Statistics
Degrees Offered: M.S., Ph.D.
Graduate Minor: Statistics
Graduate Concentrations: Analytics (M.S. only), Applied Statistics (M.S. only)

Graduate Degree Programs

The Department of Statistics offers graduate study leading to the Master of Science in Statistics, the Master of Science in Statistics with specialization in various areas of application, and the Doctor of Philosophy in Statistics.

Admission

Graduate College admission requirements apply. Students are expected to have a strong undergraduate mathematics background, but need not have an undergraduate statistics or mathematics degree. Students may be admitted with deficiencies, which are to be removed during the first year of graduate work. A minimum Test of English as a Foreign Language (TOEFL) score of 590 for the paper-based test or 243 for the computer-based test is required for students whose native language is not English. The Graduate Record Examination (GRE) is required. The department offers Ph.D. admissions for the fall only.

Graduate Teaching Experience

Although teaching is not a general Graduate College requirement, experience in teaching is considered an important part of the graduate experience in the Ph.D. program.
Financial Aid

Financial aid is available primarily in the form of teaching assistantships, research assistantships, and fellowships. For further information write to the Graduate Admissions Committee, Department of Statistics.
Thanks for reaching out, Jennie. I apologize for any lack of clarity in our submission.

For EP 21.030 (Statistics MS), you are correct.

The intent is to make Stat 430 (Topics in Applied Statistics) and Stat 578 (Topics in Statistics) electives.

Students would be required to take STAT 510; 
AND either STAT 425 or Stat 527; 
AND one of the following: STAT 424, 426, 429, 431, or 433.

In addition, the students would take a minimum of five electives from the departmental list. Some of the course have been added in recent years and as such are newly added options in the MS requirements. The total credits would remain a minimum of 32.

For EP21.031 (Statistics Analytics Concentration in MS), you are correct that we meant no additional concentration within the concentration is required, and I agree that was a bit confusing. Thank you, too, for catching the "Analytics" typo-- happens occasionally with all of the "statistics" and "analytics" I type.

I think you're probably right on the other conjectures as well, but we may be looking at different files. Attached is the latest I have on the Analytics revision (I see the advisors should also be updated to Victoria Ellison and Hyeoun Lee now). I think in the meantime a new proposal form was created and there might also have been something lost in translation in entry in a University system. I'd also be happy to have a look at the file(s) you're seeing if there are differences and having a look could help resolve the remaining issues.

Thanks,
Darren

Darren Glosemeyer
Department of Statistics
University of Illinois at Urbana-Champaign
publish.illinois.edu/glosemey

Dear Professors Douglas and Glosemeyer,
I hope that your week is going well, and that you and your families remain healthy.

As you may recall from our prior exchanges, I'm the chair of subcommittee A of the Senate Educational Policy Committee. Two new proposals that you sponsor have come to my subcommittee for review. They are 1) EP 21.030 (revising the Statistics MS) and 2) EP 21.031 (revising the MS in Statistics, in the Concentration in Analytics). The subcommittee is very supportive; updating the programs to incorporate expanded coursework and respond to new demands is commendable and appropriate.

A couple members of my subcommittee had a few late-breaking questions, and thus I am reaching out. Our next Ed Pol meeting is November 16th. I am not sure if it will be possible to clear up these questions before then, but I’d like to try so that I can present your proposals with all pending questions answered to facilitate swift approval.

Here are the questions (and my thought follow in italics):

With respect to EP 21.030 (Statistics MS):

1. The department will add new classes to choose from, and make some currently-required classes optional. With reference to the Programs of Study Table, how does the choose option work? *(This looks like a formatting issue in the proposal’s text. It seems to me that the intent is to make Stat 430 (Topics in Applied Statistics) and Stat 578 (Topics in Statistics) electives. When I read Appendix A, it becomes clearer. As I read it, students would be required to take STAT 510; AND either STAT 425 or Stat 527; AND one of the following: STAT 424, 426, 429, 431, or 433. In addition, the students would take a minimum of five electives from the departmental list. Some of these are new classes for the MS. The total credits would be a minimum of 32.)*

With respect to EP21.031 (Statistics- Analytics Concentration in MS):

1. Some of the program of study entry seems to correlate with the overall MS rather than the concentration. The department includes the academic catalog entry as an attachment, but it appears to be the entry for the overall degree. Additionally, in the table of requirements in the main
proposal, it states that “A concentration is not required,” which seems odd to list within a concentration itself rather than within the general degree description. (The difficulty I see is confusion between the attachment showing the Program of Study and the table under the Program of Study section in the proposal’s text. Again, I think that this is a formatting issue; the proposed catalogue attachment indicates which courses are new and to be added to the Analytics concentration. I see that only STAT 430 and STAT 478 are to be removed. I agree that saying “a concentration is not required” is a bit confusing; perhaps the department means that within the Analytics Concentration, no further concentration is required. But I would like your thoughts. Finally -- there is a typo in the heading “Statistics, Analystics” on page 3 on the proposed course catalogue entry.)

I appreciate your time.

With thanks,

Jennie

Jennifer N. Pahre
Director of Undergraduate Studies
Assistant Teaching Professor
University of Illinois College of Law
January 29, 2021

Kathy Martensen
Assistant Provost for Educational Programs
206 Swanlund, MC-304

Dear Kathy:

At its meeting on January 26, the University Senates Conference approved the proposed classification of minutes of the Urbana-Champaign Senate meetings of December 7. The Class I items are listed below.

EP.21.025 Agricultural Education, MS (on campus & online) -- Proposal to phase-out the AGED MS degree program in Agricultural Education. This is part of a multi-element change with the proposal to create a new MS degree program in Agricultural Leadership, Education, and Communications.

EP.21.026 Agricultural & Biological Engineering, PhD -- Revision of Curriculum Requirements for the Ph.D. in Agricultural & Biological Engineering to add a 96-Credit Hour Option, Department of Agricultural & Biological Engineering (ABE), The Grainger College of Engineering

EP.21.027 Agricultural Leadership, Education, and Communications, MS (on campus & online) -- Proposal to create a new MS degree program in Agricultural Leadership, Education, and Communications, also requesting a non-degree code for this program. This is part of a multi-element change with the proposal to phase-out the AGED MS degree program in Agricultural Education.

EP.21.029 Creative Writing, BALAS -- Revision to the BALAS in Creative Writing

EP.21.030 Statistics, MS -- Revising the MS in Statistics

EP.21.031 Statistics: Analytics, MS -- Revising the MS in Statistics Concentration in Analytics

EP.21.033 Animal Sciences, MANSC (on campus & online) -- Revision of the Animal Sciences, MANSC to change the program requirements and the delivery method to include online delivery. The revisions also impact the 4+1 BS/MANSC and the 4+1BS(CS+ANSC)/MANSC degrees
EP.21.035 Animal Sciences BS & MANSC -- Revisions to the 4+1 BS/MANSC due to the program requirements changes and addition of online delivery to the Animal Sciences, MANSC. The revisions also impact Animal Sciences, MANSC and 4+1BS(CS+ANSC)/MANSC degrees

EP.21.036 Computer Science & Animal Sciences, BS & Animal Science, MANSC -- Revisions to the 4+1BS(CS+ANSC)/MANSC due to the program requirements changes and addition of online delivery to the Animal Sciences, MANSC. The revisions also impact Animal Sciences, MANSC and 4+1 BS/MANSC degrees

Sincerely,

Connie Sailor
Administrative Aide

c: Brenda Ankenbrand
Ellen Foran
Kathy Johnson
Renee Nagy
Julian Parrott
Jenny Roether
Nathan Wilds
10KS5165MS: STATISTICS: ANALYTICS, MS

Completed Workflow
1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1583 Head (libo@illinois.edu)
3. KV Dean (las-catalog@illinois.edu)
4. University Librarian (jpwilkin@illinois.edu)
5. Grad_College (agrindly@illinois.edu; lowry@illinois.edu)
6. Provost (kmartens@illinois.edu)
7. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
8. Senate (jtempel@illinois.edu)
9. U Senate Conf (none)
10. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path
1. Thu, 15 Oct 2020 20:57:04 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Thu, 15 Oct 2020 21:29:29 GMT
   Bo Li (libo): Approved for 1583 Head
3. Thu, 15 Oct 2020 23:30:20 GMT
   Kelly Ritter (ritterk): Approved for KV Dean
4. Fri, 16 Oct 2020 00:13:07 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
5. Thu, 05 Nov 2020 18:05:43 GMT
   Allison McKinney (agrindly): Approved for Grad_College
6. Thu, 05 Nov 2020 21:23:30 GMT
   Kathy Martensen (kmartens): Approved for Provost
7. Tue, 17 Nov 2020 16:29:53 GMT
   Barbara Lehman (bjlehman): Approved for Senate EPC
8. Tue, 08 Dec 2020 15:57:38 GMT
   Jennifer Roether (jtempel): Approved for Senate
   Kathy Martensen (kmartens): Approved for U Senate Conf
10. Tue, 09 Feb 2021 15:20:52 GMT
   Emily Stuby (eastuby): Approved for DMI

History
1. Sep 18, 2019 by Deb Forgacs (dforgacs)
2. Oct 22, 2019 by Deb Forgacs (dforgacs)
3. Oct 7, 2020 by Amy Eli (amyelli)
4. Feb 9, 2021 by Beth McKown (bmckown1)

Date Submitted: Mon, 13 Sep 2021 15:11:32 GMT

Viewing: 10KS5165MS: Statistics: Analytics, MS
Changes proposed by: Beth McKown

Proposal Type:
Concentration (ex. Dietetics)

This proposal is for a:
Revision
Administration Details

Official Program Name
Statistics: Analytics, MS

Sponsor College
Liberal Arts & Sciences

Sponsor Department
Statistics

Sponsor Name
Jeff Douglas, Associate Chair and Darren Glosemeyer, Director MS Program

Sponsor Email
jeffdoug@illinois.edu and glosemey@illinois.edu

College Contact
Stephen R. Downie

College Contact Email
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.

Darren Glosemeyer, Director MS Program, glosemey@illinois.edu

Does this program have inter-departmental administration?
No
Proposal Title

Effective Catalog Term

Fall 2022

Provide a brief, concise description (not justification) of your proposal.

Administrative approval: Correcting table error: STAT 410 is not part of the STAT 427/593/443 requirement group.
Inclusion of recently approved STAT courses as options in the MS in Statistics, and MS in Statistics with Analytics Concentration.

Program Justification

Why are these changes necessary?

Correcting table error: STAT 410 is not part of the STAT 427/593/443 requirement group.
The following courses were recently approved and have not yet been added as electives/alternatives in the Statistics MS degree requirements:
STAT 447 - Data Science Programming Methods
STAT 528 - Advanced Regression Analysis II
STAT 533 - Advanced Stochastic Processes
STAT 556 - Advanced Time Series Analysis
STAT 576 - Empirical Process Theory and Weak Convergence
STAT 447 is a computing course that has been running as a 430 Topics course for a few years, and the others are more advanced versions or extensions of courses already listed in the curriculum.
The proposed revision would include these courses as alternatives and electives in the Statistics MS programs’ requirements where appropriate.
Specific additions are in the Academic Catalog Entry Appendix.

Instructional Resources

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

No

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

No

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).

No changes to the current assessment process are proposed.

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

No
"Baccalaureate degree requires at least 120 semester credit hours or 180 quarter credit hours and at least 40 semester credit hours (60 quarter credit hours) in upper division courses" (source: https://www.ibhe.org/assets/files/PrivateAdminRules2017.pdf). For proposals for new bachelor’s degrees, if this minimum is not explicitly met by specifically-required 300- and/or 400-level courses, please provide information on how the upper-division hours requirement will be satisfied.

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

Revised programs

StatisticsMSCurriculaAdditions2021Rev.doc
Statistics MS Analytics Concentration Comparative Table.docx

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

Catalog Page Text - Overview Tab

Statement for Programs of Study Catalog

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency- may be waived with approval)</td>
<td>0-4</td>
</tr>
<tr>
<td>STAT 440</td>
<td>Statistical Data Management</td>
<td>4</td>
</tr>
<tr>
<td>STAT 448</td>
<td>Advanced Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 542</td>
<td>Statistical Learning</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Statistical Modeling I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
<tr>
<td>or STAT 527</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Statistical Computing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basics of Statistical Learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data Science Programming Methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data Science Foundations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Data Mining</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Statistical Consulting</td>
<td></td>
</tr>
</tbody>
</table>
Select one of the following:

- STAT 443 Professional Statistics
- STAT 525 Computational Statistics
- STAT 546 Machine Learning in Data Science
- STAT 571 Multivariate Analysis
- CS 512 Data Mining Principles

Total hours: 36-40

Other Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Program Relationships

Corresponding Program(s):

- Statistics, MS

Program Features

Academic Level

Graduate

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.

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

No enrollment impacts are expected.
Budget

Are there budgetary implications for this revision?
No

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

Financial Resources

How does the unit intend to financially support this proposal?
There are no financial implications as the courses are already being taught.

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

Is this program requesting self-supporting status?
No

Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?
No

Technology

Will the program need additional technology beyond what is currently available for the unit?
No

Non-Technical Resources

Will the program require additional supplies, services or equipment (non-technical)?
No
**Resources**

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

**Faculty Resources**

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

There are no resource impacts. The courses are already being taught and the proposal would formally add them as options for the MS degrees.

**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.

Current collections and services are adequate for the proposed program.

**EP Documentation**

**EP Control Number**

EP:22.020

This proposal requires HLC inquiry

No

**DMI Documentation**

**Banner/Codebook Name**

MS: Statistics: Analytcs-UIUC

**Program Code:**

10KS5165MS

**Conc Code**

5165

**Degree Code**

MS
Major Code
0329

Program Reviewer Comments
Deb Forgacs (dforgacs) (Mon, 27 Sep 2021 16:12:44 GMT): Re-entered the proposal type due to system bug 09/27/2021
Allison McKinney (agrindly) (Wed, 29 Sep 2021 19:59:48 GMT): Administratively approved by the Graduate College
Kathy Martensen (kmartens) (Thu, 30 Sep 2021 21:46:04 GMT): Administrative approval. No change to total hours; doesn't restrict students' options.

Key: 781
The locations of the proposed additions are highlighted in the following tables. Unhighlighted portions are the current catalog course listings.

**Master of Science in Statistics, Analytics Concentration**

Statistics: Analytics Concentration, MS < University of Illinois

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency may be waived with approval)</td>
<td>0-4</td>
</tr>
<tr>
<td>STAT 440</td>
<td>Statistical Data Management</td>
<td>4</td>
</tr>
<tr>
<td>STAT 448</td>
<td>Advanced Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 542</td>
<td>Statistical Learning</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425</td>
<td>Statistical Modeling I</td>
<td></td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 428</td>
<td>Statistical Computing</td>
<td></td>
</tr>
<tr>
<td>STAT 432</td>
<td>Basics of Statistical Learning</td>
<td></td>
</tr>
<tr>
<td>STAT 447</td>
<td>Data Science Programming Methods</td>
<td></td>
</tr>
<tr>
<td>STAT 480</td>
<td>Data Science Foundations</td>
<td></td>
</tr>
<tr>
<td>CS 412</td>
<td>Introduction to Data Mining</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting</td>
<td></td>
</tr>
<tr>
<td>STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Hours</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>STAT 525</td>
<td>Computational Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 546</td>
<td>Machine Learning in Data Science</td>
<td></td>
</tr>
<tr>
<td>STAT 571</td>
<td>Multivariate Analysis</td>
<td></td>
</tr>
<tr>
<td>CS 512</td>
<td>Data Mining Principles</td>
<td></td>
</tr>
</tbody>
</table>

Total hours: 36-40

**Other Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
<tr>
<td>Grad Other Degree Requirements</td>
<td></td>
</tr>
<tr>
<td>Current Requirements</td>
<td>Hours</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>STAT 440 Statistical Data Management</td>
<td>4</td>
</tr>
<tr>
<td>STAT 448 Advanced Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510 Mathematical Statistics I</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425 Applied Regression and Design</td>
<td>4</td>
</tr>
<tr>
<td>STAT 542 Statistical learning</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td>STAT 424 Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 426 Sampling and Categorical Data</td>
<td></td>
</tr>
<tr>
<td>STAT 429 Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 430 Topics in Applied Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 578 Topics in Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT 428 or CS 412 Statistical Consulting</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Data Mining</td>
<td>STAT 432 Basics of Statistical Learning</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td></td>
<td>STAT 480 Data Science Foundations</td>
</tr>
<tr>
<td></td>
<td>CS 412 Introduction to Data Mining</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>Select one of the following:</td>
</tr>
<tr>
<td>STAT 525 Computational Statistics</td>
<td>STAT 427 Statistical Consulting</td>
</tr>
<tr>
<td>STAT 571 Multivariate Analysis</td>
<td>STAT 593 STAT Internship</td>
</tr>
<tr>
<td>CS 512 Data Mining Principles</td>
<td>STAT 443 Professional Statistics</td>
</tr>
<tr>
<td>STAT 410/MATH 464 Statistics and Probability II (or equivalent proficiency [may be waived with approval])</td>
<td>STAT 410/MATH 464 Statistics and Probability II (or equivalent proficiency [may be waived with approval])</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>STAT 525 Computational Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 546 Machine Learning in Data Science</td>
<td></td>
</tr>
<tr>
<td>STAT 571 Multivariate Analysis</td>
<td></td>
</tr>
<tr>
<td>CS 512 Data Mining Principles</td>
<td></td>
</tr>
<tr>
<td>Total hours</td>
<td>36-40</td>
</tr>
<tr>
<td>Other Requirements</td>
<td>Other Requirements</td>
</tr>
<tr>
<td>Other requirements may overlap</td>
<td>Grad Other Degree Requirements</td>
</tr>
<tr>
<td>A concentration is not required</td>
<td>Other requirements may overlap</td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>
STATEMENT FOR ACADEMIC CATALOG:

**Statistics**

http://www.stat.illinois.edu

Chair of the Department: Bo Li  
Director of Ph.D. Program: Xiaofeng Shao  
Director of M.S. Program: Darren Glosemeyer  
M.S. Advisors: Karle Flanagan, Christopher Kinson  
Contact: Aaron Thompson  
101 Illini Hall  
725 South Wright Street  
Champaign, IL 61820  
(217) 333-2167  
stat-office@illinois.edu

Major: Statistics  
Degrees Offered: M.S., Ph.D.  
Graduate Minor: Statistics  
Graduate Concentrations: Analytics (M.S. only), Applied Statistics (M.S. only)

**Graduate Degree Programs**

The Department of Statistics offers graduate study leading to the Master of Science in Statistics, the Master of Science in Statistics with specialization in various areas of application, and the Doctor of Philosophy in Statistics.

**Admission**

Graduate College admission requirements apply. Students are expected to have a strong undergraduate mathematics background, but need not have an undergraduate statistics or mathematics degree. Students may be admitted with deficiencies, which are to be removed during the first year of graduate work. A minimum Test of English as a Foreign Language (TOEFL) score of 590 for the paper-based test or 243 for the computer-based test is required for students whose native language is not English. The Graduate Record Examination (GRE) is required. The department offers Ph.D. admissions for the fall only.

**Graduate Teaching Experience**

Although teaching is not a general Graduate College requirement, experience in teaching is considered an important part of the graduate experience in the Ph.D. program.

**Financial Aid**
Financial aid is available primarily in the form of teaching assistantships, research assistantships, and fellowships. For further information write to the Graduate Admissions Committee, Department of Statistics.
Proposal for revised curricula (degree, major, concentration, minor)

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

Proposal Title: Inclusion of recently approved STAT courses as options in the MS in Statistics and MS in Statistics with Analytics Concentration

Proposed effective date: Fall 2022

Sponsor(s): Darren Glosemeyer, Director of the Master’s Program and Senior Instructor of Statistics, glosemey@illinois.edu

College contact: Stephen R. Downie, Interim Associate Dean for Curricula and Academic Policy, College of Liberal Arts and Sciences, sdownie@illinois.edu

PROGRAM DESCRIPTION and JUSTIFICATION

1) Provide a brief description but concise description of your proposal. The following courses were recently approved and have not yet been added as electives/alternatives in the Statistics MS degree requirements:

   STAT 447 - Data Science Programming Methods
   STAT 528 - Advanced Regression Analysis II
   STAT 533 - Advanced Stochastic Processes
   STAT 556 - Advanced Time Series Analysis
   STAT 576 - Empirical Process Theory and Weak Convergence

   STAT 447 is a computing course that has been running as a 430 Topics course for a few years, and the others are more advanced versions or extensions of courses already listed in the curriculum.

   The proposed revision would include these courses as alternatives and electives in the Statistics MS programs’ requirements where appropriate. Specific additions are in the Academic Catalog Entry Appendix.

Is this program interdisciplinary? No

If a proposal for a concentration- NA
Will specialized accreditation be sought for this program?  No

ADMISSION REQUIREMENTS

1) Desired admissions term: For LAS units, a fall semester effective term for all curricula will be requested, please indicate the proposed year
   Fall, ________________
   Is this revision a change to the admission status of the program?  No

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

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

ENROLLMENT

1) Describe how this revision will impact enrollment and degrees awarded.
   No enrollment impacts are expected.

2) Estimated Annual Number of Degrees Awarded (degrees, majors, concentrations ONLY)
   Year 1: ________________
   Year 5 (or when fully implemented): ________________

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

4) What is the typical time to completion of this program?
   Note: grad certificates require at least 10 weeks.  Other examples: BALAS= 4years, MA=2.5 years

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

6) Delivery Method, what is the program’s primary delivery method?
   On Campus; Online & On campus; Online Only; Other- specify
   If NOT on campus, please describe the use of this delivery method:

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

BUDGET

1) Please describe any budgetary implications for this revision- addressing applicable personnel, facilities, technology and supply costs.
None

2) Will the revision require staffing (faculty, advisors, etc.) beyond what is currently available? No

3) Please provide any additional budget information needed to effectively evaluate the proposal. None

RESOURCE IMPLICATIONS

1) Facilities- Will the program require new or additional facilities or significant improvements to already existing facilities? No

2) Technology- Will the program need additional technology beyond what is currently available for the unit? No

3) 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.

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

There are no resource impacts. The courses are already being taught and the proposal would formally add them as options for the MS degrees.

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

Current collections and services are adequate for the proposed program.

3) Instructional Resources: Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change? No

4) Does the program include other courses impacted by the revision of this program? If yes, please list the courses. Explain how the inclusion or removal of the courses impacts the offering departments and provide letters of support from the departments. No impact
FINANCIAL RESOURCES

1) How does the unit intend to financially support this proposal? There are no financial implications as the courses are already being taught.

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

3) Are you seeking a change in the tuition rate or differential for this program? No

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

PROGRAM REGULATION & ASSESSMENT

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

No changes to the current assessment process are proposed.

2) Is the career/profession for graduates of this program regulated by the State of Illinois? No
ACADEMIC CATALOG ENTRY

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

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

The locations of the proposed additions are highlighted in the following tables. Unhighlighted portions are the current catalog course listings.

Master of Science in Statistics
Statistics, MS < University of Illinois

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>STAT 425</td>
<td>Statistical Modeling I</td>
<td>4</td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five elective courses from Departmental List (See Course List Tab)</td>
<td>20</td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting (or experience in applied statistics)</td>
<td>0-4</td>
</tr>
<tr>
<td>or STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>or STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency- may be waived with approval)</td>
<td>0-4</td>
</tr>
</tbody>
</table>

Total hours 32-36

Course List

Other Requirements

Other Requirements may overlap
A concentration is not required.

Minimum 500-level Hours Required Overall: 12
Minimum GPA: 2.75

Grad Other Degree Requirements

**Courses to be added to the elective Course List Tab:**
STAT 447 - Data Science Programming Methods
STAT 528 - Advanced Regression Analysis II
STAT 533 - Advanced Stochastic Processes
STAT 556 - Advanced Time Series Analysis
STAT 576 - Empirical Process Theory and Weak Convergence

**Master of Science in Statistics, Analytics Concentration**

**Statistics: Analytics Concentration, MS < University of Illinois**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 410/MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency- may be waived with approval)</td>
<td>0-4</td>
</tr>
<tr>
<td>STAT 440</td>
<td>Statistical Data Management</td>
<td>4</td>
</tr>
<tr>
<td>STAT 448</td>
<td>Advanced Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics</td>
<td>4</td>
</tr>
<tr>
<td>STAT 542</td>
<td>Statistical Learning</td>
<td>4</td>
</tr>
<tr>
<td>STAT 425 or STAT 527</td>
<td>Statistical Modeling I Advanced Regression Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 528</td>
<td>Advanced Regression Analysis II</td>
<td></td>
</tr>
<tr>
<td>STAT 533</td>
<td>Advanced Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 556</td>
<td>Advanced Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>STAT 428</td>
<td>Statistical Computing</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Hours</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>STAT 432</td>
<td>Basics of Statistical Learning</td>
<td></td>
</tr>
<tr>
<td>STAT 447</td>
<td>Data Science Programming Methods</td>
<td></td>
</tr>
<tr>
<td>STAT 480</td>
<td>Data Science Foundations</td>
<td></td>
</tr>
<tr>
<td>CS 412</td>
<td>Introduction to Data Mining</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting</td>
<td></td>
</tr>
<tr>
<td>STAT 593</td>
<td>STAT Internship</td>
<td></td>
</tr>
<tr>
<td>STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 525</td>
<td>Computational Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 546</td>
<td>Machine Learning in Data Science</td>
<td></td>
</tr>
<tr>
<td>STAT 571</td>
<td>Multivariate Analysis</td>
<td></td>
</tr>
<tr>
<td>CS 512</td>
<td>Data Mining Principles</td>
<td></td>
</tr>
</tbody>
</table>

Total hours: 36-40

**Course List**

**Other Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
<tr>
<td>Grad Other Degree Requirements</td>
<td></td>
</tr>
</tbody>
</table>
Proposal to the Senate Educational Policy Committee

PROPOSAL TITLE: Revising the MS in Statistics Concentration in Analytics (10KS5165MS) in the Department of Statistics and College of Liberal Arts & Sciences

SPONSOR: Darren Glosemeyer, Senior Instructor and MS Program Director, Department of Statistics, 300-0282, glosemey@illinois.edu

COLLEGE CONTACT: Kelly Ritter, Associate Dean for Curricula and Academic Policy, 333-1350, ritterk@illinois.edu

BRIEF DESCRIPTION: The Department of Statistics in the College of Liberal Arts & Sciences has developed and is now offering numerous courses in response to expansion of the field in recent years. The program requirements have not fully been updated for these additions. This proposal would incorporate the expanded coursework options into the curriculum. With the exception of making Stat 430 Topics in Applied Statistics a purely elective course, this proposal only expands students’ coursework options within the degree requirements.

JUSTIFICATION: The field of statistics and the course offerings from the department have greatly increased in recent years, and the curriculum is in need of update for these increased offerings. Additions to the curriculum are all in the form of increased choice in electives or choice in areas where there is choice of a small number of courses.

The only courses in the current degree requirements which are proposed to be removed from the listed courses are Stat 430 Topics in Applied Statistics and Stat 578 Topics in Statistics. These courses are special topic courses. The topic can and does change semester to semester. When the curriculum requirements were last updated, the topics were less varied and tended to be more foundational in nature. Now with new foundational courses with their own numbers added to the catalog and a wide variety of topics covered in different sections of Stat 430 and Stat 578, the courses generally cover valuable elective material rather than foundations of the field.

BUDGETARY AND STAFF IMPLICATIONS: There are no budgetary or staff implications for the changes. The courses are already being taught and allowed as substitutions within the current curriculum. Faculty, staff, space, and technology resources will not be impacted.

DESIRED EFFECTIVE DATE: upon implementation

STATEMENT FOR ACADEMIC CATALOG:
Statistics
http://www.stat.illinois.edu

Chair of the Department: Bo Li
Director of Ph.D. Program: Xiaofeng Shao
Director of M.S. Program: Darren Glosemeyer
M.S. Advisors: Karle Flanagan, Christopher Kinson
Contact: Aaron Thompson
101 Illini Hall
725 South Wright Street
Champaign, IL 61820
(217) 333-2167
stat-office@illinois.edu

Major: Statistics
Degrees Offered: M.S., Ph.D.
Graduate Minor: Statistics
Graduate Concentrations: Analytics (M.S. only), Applied Statistics (M.S. only)

Graduate Degree Programs

The Department of Statistics offers graduate study leading to the Master of Science in Statistics, the Master of Science in Statistics with specialization in various areas of application, and the Doctor of Philosophy in Statistics.

Admission

Graduate College admission requirements apply. Students are expected to have a strong undergraduate mathematics background, but need not have an undergraduate statistics or mathematics degree. Students may be admitted with deficiencies, which are to be removed during the first year of graduate work. A minimum Test of English as a Foreign Language (TOEFL) score of 590 for the paper-based test or 243 for the computer-based test is required for students whose native language is not English. The Graduate Record Examination (GRE) is required. The department offers Ph.D. admissions for the fall only.

Graduate Teaching Experience

Although teaching is not a general Graduate College requirement, experience in teaching is considered an important part of the graduate experience in the Ph.D. program.

Financial Aid
Financial aid is available primarily in the form of teaching assistantships, research assistantships, and fellowships. For further information write to the Graduate Admissions Committee, Department of Statistics.

Statistics, Analytics concentration MS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 440</td>
<td>Statistical Data Management</td>
<td>4</td>
</tr>
<tr>
<td>STAT 448</td>
<td>Advanced Data Analysis</td>
<td>4</td>
</tr>
<tr>
<td>STAT 510</td>
<td>Mathematical Statistics I</td>
<td>4</td>
</tr>
<tr>
<td>STAT 542</td>
<td>Statistical Learning</td>
<td>4</td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 425</td>
<td>Applied Regression and Design</td>
</tr>
<tr>
<td>or STAT 527</td>
<td>Advanced Regression Analysis</td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>STAT 426</td>
<td>Sampling and Categorical Data</td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 428</td>
<td>Statistical Computing</td>
</tr>
<tr>
<td>STAT 432</td>
<td>Basics of Statistical Learning</td>
</tr>
<tr>
<td>STAT 480</td>
<td>Data Science Foundations</td>
</tr>
<tr>
<td>CS 412</td>
<td>Introduction to Data Mining</td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting</td>
</tr>
<tr>
<td>STAT 593</td>
<td>STAT Internship</td>
</tr>
<tr>
<td>STAT 443</td>
<td>Professional Statistics</td>
</tr>
</tbody>
</table>

Select one of the following: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 410/ MATH 464</td>
<td>Statistics and Probability II (or equivalent proficiency [may be waived with approval])</td>
</tr>
</tbody>
</table>

Select one of the following: 4
STAT 525        Computational Statistics
STAT 546        Machine Learning in Data Science
STAT 571        Multivariate Analysis
CS 512          Data Mining Principles

Total hours    36-40

Other Requirements

Grad Other Degree Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>A concentration is not required.</td>
<td></td>
</tr>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>2.75</td>
</tr>
</tbody>
</table>
Thanks for reaching out, Jennie. I apologize for any lack of clarity in our submission.

For EP 21.030 (Statistics MS), you are correct.

The intent is to make Stat 430 (Topics in Applied Statistics) and Stat 578 (Topics in Statistics) electives.

Students would be required to take STAT 510;
AND either STAT 425 or Stat 527;
AND one of the following: STAT 424, 426, 429, 431, or 433.

In addition, the students would take a minimum of five electives from the departmental list. Some of the course have been added in recent years and as such are newly added options in the MS requirements. The total credits would remain a minimum of 32.

For EP21.031 (Statistics - Analytics Concentration in MS), you are correct that we meant no additional concentration within the concentration is required, and I agree that was a bit confusing. Thank you, too, for catching the "Analystics" typo--happens occasionally with all of the "statistics" and "analytics" I type.

I think you're probably right on the other conjectures as well, but we may be looking at different files. Attached is the latest I have on the Analytics revision (I see the advisors should also be updated to Victoria Ellison and Hyoeun Lee now). I think in the meantime a new proposal form was created and there might also have been something lost in translation in entry in a University system. I'd also be happy to have a look at the file(s) you're seeing if there are differences and having a look could help resolve the remaining issues.

Thanks,
Darren

Darren Glosemeyer
Department of Statistics
University of Illinois at Urbana-Champaign
publish.illinois.edu/glosemey
I hope that your week is going well, and that you and your families remain healthy.

As you may recall from our prior exchanges, I'm the chair of subcommittee A of the Senate Educational Policy Committee. Two new proposals that you sponsor have come to my subcommittee for review. They are 1) EP 21.030 (revising the Statistics MS) and 2) EP 21.031 (revising the MS in Statistics, in the Concentration in Analytics). The subcommittee is very supportive; updating the programs to incorporate expanded coursework and respond to new demands is commendable and appropriate.

A couple members of my subcommittee had a few late-breaking questions, and thus I am reaching out. Our next Ed Pol meeting is November 16th. I am not sure if it will be possible to clear up these questions before then, but I’d like to try so that I can present your proposals with all pending questions answered to facilitate swift approval.

Here are the questions (and my thought follow in italics):

**With respect to EP 21.030 (Statistics MS):**

1. The department will add new classes to choose from, and make some currently-required classes optional. With reference to the Programs of Study Table, how does the choose option work? *(This looks like a formatting issue in the proposal’s text. It seems to me that the intent is to make Stat 430 (Topics in Applied Statistics) and Stat 578 (Topics in Statistics) electives. When I read Appendix A, it becomes clearer. As I read it, students would be required to take STAT 510; AND either STAT 425 or Stat 527; AND one of the following: STAT 424, 426, 429, 431, or 433. In addition, the students would take a minimum of five electives from the departmental list. Some of these are new classes for the MS. The total credits would be a minimum of 32.)*

**With respect to EP21.031 (Statistics- Analytics Concentration in MS):**

1. Some of the program of study entry seems to correlate with the overall MS rather than the concentration. The department includes the academic catalog entry as an attachment, but it appears to be the entry for the overall degree. Additionally, in the table of requirements in the main
proposal, it states that “A concentration is not required,” which seems odd to list within a concentration itself rather than within the general degree description. (The difficulty I see is confusion between the attachment showing the Program of Study and the table under the Program of Study section in the proposal’s text. Again, I think that this is a formatting issue; the proposed catalogue attachment indicates which courses are new and to be added to the Analytics concentration. I see that only STAT 430 and STAT 478 are to be removed. I agree that saying “a concentration is not required” is a bit confusing; perhaps the department means that within the Analytics Concentration, no further concentration is required. But I would like your thoughts. Finally -- there is a typo in the heading “Statistics, Analystics” on page 3 on the proposed course catalogue entry.)

I appreciate your time.

With thanks,

Jennie

Jennifer N. Pahre
Director of Undergraduate Studies
Assistant Teaching Professor
University of Illinois College of Law
January 29, 2021

Kathy Martensen
Assistant Provost for Educational Programs
206 Swanlund, MC-304

Dear Kathy:

At its meeting on January 26, the University Senates Conference approved the proposed classification of minutes of the Urbana-Champaign Senate meetings of December 7. The Class I items are listed below.

EP.21.025  Agricultural Education, MS (on campus & online) -- Proposal to phase-out the AGED MS degree program in Agricultural Education. This is part of a multi-element change with the proposal to create a new MS degree program in Agricultural Leadership, Education, and Communications.

EP.21.026  Agricultural & Biological Engineering, PhD -- Revision of Curriculum Requirements for the Ph.D. in Agricultural & Biological Engineering to add a 96-Credit Hour Option, Department of Agricultural & Biological Engineering (ABE), The Grainger College of Engineering

EP.21.027  Agricultural Leadership, Education, and Communications, MS (on campus & online) -- Proposal to create a new MS degree program in Agricultural Leadership, Education, and Communications, also requesting a non-degree code for this program. This is part of a multi-element change with the proposal to phase-out the AGED MS degree program in Agricultural Education.

EP.21.029  Creative Writing, BALAS -- Revision to the BALAS in Creative Writing

EP.21.030  Statistics, MS -- Revising the MS in Statistics

EP.21.031  Statistics: Analytics, MS -- Revising the MS in Statistics Concentration in Analytics

EP.21.033  Animal Sciences, MANSC (on campus & online) -- Revision of the Animal Sciences, MANSC to change the program requirements and the delivery method to include online delivery. The revisions also impact the 4+1 BS/MANSC and the 4+1BS-CS+ANSC/MANSC degrees
EP.21.035 Animal Sciences BS & MANSC -- Revisions to the 4+1 BS/MANSC due to the program requirements changes and addition of online delivery to the Animal Sciences, MANSC. The revisions also impact Animal Sciences, MANSC and 4+1BS(CS+ANSC)/MANSC degrees

EP.21.036 Computer Science & Animal Sciences, BS & Animal Science, MANSC -- Revisions to the 4+1BS(CS+ANSC)/MANSC due to the program requirements changes and addition of online delivery to the Animal Sciences, MANSC. The revisions also impact Animal Sciences, MANSC and 4+1 BS/MANSC degrees

Sincerely,

Connie Sailor
Administrative Aide

c: Brenda Ankenbrand
    Ellen Foran
    Kathy Johnson
    Renee Nagy
    Julian Parrott
    Jenny Roether
    Nathan Wilds
GR-STATISTICS: GR-STATISTICS : STATS DEPT COURSE LIST

Completed Workflow
1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)

Approval Path
1. Fri, 11 Oct 2019 16:04:25 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review

History
1. Oct 11, 2019 by Mary Lowry (lowry)

Date Submitted: Wed, 22 Sep 2021 20:54:44 GMT

Viewing: GR-Statistics : GR-Statistics : Stats Dept Course List
Changes proposed by: Mary Lowry

Proposal Type:
Concentration (ex. Dietetics)

This proposal is for a:
Revision

Administration Details

Official Program Name
GR-Statistics : Stats Dept Course List

Sponsor College
Liberal Arts & Sciences

Sponsor Department
Statistics

Sponsor Name
Darren Glosemeyer

Sponsor Email
glosemey@illinois.edu

College Contact
Stephen R. Downie
College Contact Email
sdownie@illinois.edu

Does this program have inter-departmental administration?
No

Proposal Title

Effective Catalog Term
Fall 2022

Provide a brief, concise description (not justification) of your proposal.
Administrative approval: Courses to be added to the elective Course list Tab:
STAT 447 - Data Science Programming Methods
STAT 528 - Advanced Regression Analysis II
STAT 533 - Advanced Stochastic Processes
STAT 556 - Advanced Time Series Analysis
STAT 576 - Empirical Process Theory and Weak Convergence

Program Justification

Why are these changes necessary?
The following courses were recently approved and have not yet been added as electives/alternatives in the Statistics MS degree requirements:

STAT 447 - Data Science Programming Methods
STAT 528 - Advanced Regression Analysis II
STAT 533 - Advanced Stochastic Processes
STAT 556 - Advanced Time Series Analysis
STAT 576 - Empirical Process Theory and Weak Convergence

STAT 447 is a computing course that has been running as a 430 Topics course for a few years, and the others are more advanced versions or extensions of courses already listed in the curriculum.

The proposed revision would include these courses as alternatives and electives in the Statistics MS programs’ requirements where appropriate.

Instructional Resources

Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change?
No

Does the program include other courses/subjects impacted by the creation/revision of this program?
No
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).

No changes to the current assessment process are proposed.

Is the career/profession for graduates of this program regulated by the State of Illinois?
No

Program of Study

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

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

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

Catalog Page Text - Overview Tab

Statement for Programs of Study Catalog

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 424</td>
<td>Analysis of Variance</td>
<td></td>
</tr>
<tr>
<td>STAT 426</td>
<td>Statistical Modeling II</td>
<td></td>
</tr>
<tr>
<td>STAT 427</td>
<td>Statistical Consulting</td>
<td></td>
</tr>
<tr>
<td>STAT 428</td>
<td>Statistical Computing</td>
<td></td>
</tr>
<tr>
<td>STAT 429</td>
<td>Time Series Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 430</td>
<td>Topics in Applied Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 431</td>
<td>Applied Bayesian Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 432</td>
<td>Basics of Statistical Learning</td>
<td></td>
</tr>
<tr>
<td>STAT 433</td>
<td>Stochastic Processes</td>
<td></td>
</tr>
<tr>
<td>STAT 434</td>
<td>Survival Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 440</td>
<td>Statistical Data Management</td>
<td></td>
</tr>
<tr>
<td>STAT 443</td>
<td>Professional Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 447</td>
<td>Data Science Programming Methods</td>
<td></td>
</tr>
<tr>
<td>STAT 448</td>
<td>Advanced Data Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 458</td>
<td>Math Modeling in Life Sciences</td>
<td></td>
</tr>
<tr>
<td>STAT 480</td>
<td>Data Science Foundations</td>
<td></td>
</tr>
</tbody>
</table>
STAT 511  Advanced Mathematical Statistics
STAT 525  Computational Statistics
STAT 528  Advanced Regression Analysis II
STAT 530  Bioinformatics
STAT 533  Advanced Stochastic Processes
STAT 534  Advanced Survival Analysis
STAT 538  Clinical Trials Methodology
STAT 542  Statistical Learning
STAT 545  Spatial Statistics
STAT 546  Machine Learning in Data Science
STAT 551  Theory of Probability I
STAT 552  Theory of Probability II
STAT 553  Probability and Measure I
STAT 554  Probability and Measure II
STAT 555  Applied Stochastic Processes
STAT 556  Advanced Time Series Analysis
STAT 571  Multivariate Analysis
STAT 575  Large Sample Theory
STAT 576  Empirical Process Theory and Weak Convergence
STAT 578  Topics in Statistics
STAT 587  Hierarchical Linear Models
STAT 588  Covar Struct and Factor Models
STAT 590  Individual Study and Research
STAT 593  STAT Internship

Program Relationships

Corresponding Program(s):

Corresponding Program(s)
Statistics, MS

Program Features

Academic Level
Graduate

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.

Enrollment

Describe how this revision will impact enrollment and degrees awarded.
No enrollment impacts are expected.

Budget

Are there budgetary implications for this revision?
No

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

Financial Resources

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

Is this program requesting self-supporting status?
No

Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?
No

Technology

Will the program need additional technology beyond what is currently available for the unit?
No
Non-Technical Resources

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

No

Resources

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

Faculty Resources

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

There are no resource impacts. The courses are already being taught and the proposal would formally add them as options for the MS degrees.

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.

Current collections and services are adequate for the proposed program.

EP Documentation

EP Control Number

EP:22.020

This proposal requires HLC inquiry

No

DMI Documentation

Program Code:

GR-Statistics

Program Reviewer Comments

Deb Furgacs (dfurgacs) (Mon, 27 Sep 2021 16:28:41 GMT): Re-entered the proposal type due to system bug 09/27/2021
Administrative approval: Doesn't impact total hours for any academic program; doesn't restrict students' options.

Key: 910
10KT5201BS: MEDIA AND CINEMA STUDIES, BS

In Workflow
1. U Program Review (dforgacs@illinois.edu; eastuby@illinois.edu; aledward@illinois.edu)
2. 1436 Committee Chair (aciafone@illinois.edu)
3. 1436 Head (clcole@illinois.edu)
4. KT Committee Chair (pvargas@illinois.edu; keclark@illinois.edu)
5. KT Dean (keclark@illinois.edu; tsulkin@illinois.edu)
6. University Librarian (jpwilkin@illinois.edu)
7. Provost (kmartens@illinois.edu)
8. Senate EPC (bjlehman@illinois.edu; moorhouz@illinois.edu; kmartens@illinois.edu)
9. Senate (jtempel@illinois.edu)
10. U Senate Conf (none)
11. Board of Trustees (none)
12. IBHE (none)
13. HLC (kmartens@illinois.edu)
14. DMI (eastuby@illinois.edu; aledward@illinois.edu; dforgacs@illinois.edu)

Approval Path
1. Fri, 24 Sep 2021 17:24:51 GMT
   Deb Forgacs (dforgacs): Approved for U Program Review
2. Fri, 24 Sep 2021 17:59:36 GMT
   Amanda Ciafone (aciafone): Approved for 1436 Committee Chair
   Cheryl Cole (clcole): Approved for 1436 Head
   Katie Clark (keclark): Approved for KT Committee Chair
5. Mon, 27 Sep 2021 13:58:35 GMT
   Katie Clark (keclark): Approved for KT Dean
6. Mon, 27 Sep 2021 14:35:52 GMT
   John Wilkin (jpwilkin): Approved for University Librarian
7. Tue, 28 Sep 2021 15:01:10 GMT
   Kathy Martensen (kmartens): Approved for Provost

Date Submitted: Thu, 23 Sep 2021 18:42:47 GMT

Viewing: 10KT5201BS: Media and Cinema Studies, BS
Changes proposed by: Katie Clark

Proposal Type:
Major (ex. Special Education)

This proposal is for a:
Revision

Administration Details

Official Program Name
Media and Cinema Studies, BS
Sponsor College
Media, College of

Sponsor Department
Media & Cinema Studies

Sponsor Name
Katie Clark

Sponsor Email
keclark@illinois.edu

College Contact
Katie Clark

College Contact Email
keclark@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.

KT Dean

Does this program have inter-departmental administration?

No

Proposal Title

Effective Catalog Term

Fall 2020

Provide a brief, concise description (not justification) of your proposal.

Administrative approval: Updated course list

Program Justification

Why are these changes necessary?

MDIA 380 changed to MACS 380, therefore MDIA 380 was removed from the Media Making thematic area and replaced with MACS 380. MDIA 380 was overlooked in the Media Industries and Cultures thematic area when the initial change to MACS 380 was approved.
Instructional Resources

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

No

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

No

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).

Students in Media and Cinema Studies will be able to:

Demonstrate a thorough knowledge of media and cinema studies’ subject matter areas.

Demonstrate a comprehension of foundational media and cinema studies’ theories and concepts.

Demonstrate critical thinking skills.

Demonstrate the ability to critically evaluate media representations in relation to social justice issues.

Demonstrate the ability to work collaboratively to successfully communicate ideas and outcomes of creative research across a range of modalities.

Students in Media and Cinema studies are required to complete a portfolio (MACS 499) as their capstone project. The instructor of the course will assess whether students are meeting the learning outcomes stated above. The department will review the portfolios and make adjustments to courses and curriculum as necessary.

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

No

Program of Study

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

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

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Curriculum</strong></td>
<td></td>
</tr>
<tr>
<td>MACS 203</td>
<td>Contemporary Movies</td>
<td>3</td>
</tr>
<tr>
<td>MACS 264</td>
<td>Creative and Information Economies</td>
<td>4</td>
</tr>
<tr>
<td>MACS 317</td>
<td>Media History</td>
<td>3</td>
</tr>
<tr>
<td>MACS 320</td>
<td>Popular Culture</td>
<td>3</td>
</tr>
<tr>
<td>MACS 351</td>
<td>Social Aspects of Media</td>
<td>3</td>
</tr>
<tr>
<td>MACS 499</td>
<td>Senior Project</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><em>Students will take MACS 499 concurrent with a 400-level course to complete a senior project.</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Thematic Areas</strong></td>
<td>15</td>
</tr>
</tbody>
</table>
|         | 5 additional courses in at least 2 of the following thematic areas.  
|         | In addition, students can declare a specialization by taking 4 courses in 1 thematic area or by completing the requirements of a related certificate program. |
| Cinema Studies |                                      |       |
| MACS 100| Intro to Popular TV & Movies               |       |
| MACS 205| Introduction to Documentary                |       |
| MACS 261| Survey of World Cinema I                  |       |
| MACS 262| Survey of World Cinema II                 |       |
| MACS 321| Film Culture                               |       |
| MACS 361| Film Theory and Criticism                 |       |
| MACS 464| Film Festivals                             |       |
|         | See advisor for list of other approved classes or contact the department for approval of other classes. |
| Media Industries & Cultures |                                      |       |
| MACS 100| Intro to Popular TV & Movies               |       |
| MACS 224| Sportsmedia Technology & Culture           |       |
| MACS 321| Film Culture                               |       |
| MACS 326| New Media, Culture & Society               |       |
| MDIA 380| Course MDIA 380 Not Found                  |       |
| MACS 380| 21st Century Documentaries                 |       |
| MACS 408| TV Studies                                 |       |
|         | See advisor for list of other approved classes or contact the department for approval of other classes. |
| Difference & Power |                                      |       |
| MACS 100| Intro to Popular TV & Movies               |       |
| MACS 326| New Media, Culture & Society               |       |
| LLS 435 | Commodifying Difference                    |       |
| MACS/GWS 366| Sex & Gender in Popular Media           |       |
| MACS/AAS 375| Latina/o Media in the US                  |       |
| MACS/AFRO 381| Black Women and Film                    |       |
| MACS 389 | International Communications               |       |
|         | See advisor for list of other approved classes or contact the department for approval of other classes. |
| Science, Technology, and Visualization |                                      |       |
| MACS 166| Contemporary Media Literacy                |       |
| MACS 224| Sportsmedia Technology & Culture           |       |
| MACS 326| New Media, Culture & Society               |       |
| MACS/GWS 345| Digital & Gender Cultures                |       |
## AGCM 430
Comm in Env Social Movements
See advisor for list of other approved classes or contact the department for approval of other classes.

### Global Media and Cinema
- MACS 251: Survey of World Cinema I
- MACS 262: Survey of World Cinema II
- MACS 389: International Communications
- MACS/SLAV 419: Russian & East European Film
- MACS/SCAN 492: Scandinavian Cinema
- MACS/GER 493: German Cinema I
See advisor for list of other approved classes or contact the department for approval of other classes.

### Sports Media
- RST 130: Foundations of Sport Mgt
- MACS 224: Sportsmedia Technology & Culture
- MACS/KIN 346: Case Study: Endless Summer
- MACS 408: TV Studies
- JOUR 361: Classics of Sports Journalism
See advisor for list of other approved classes or contact the department for approval of other classes.

### Media Making, Design and Research
- MACS 100: Intro to Popular TV & Movies
- MACS 166: Contemporary Media Literacy
- MACS 323: Studies Film/Media Production
- MACS 326: New Media, Culture & Society
- MDIA 380: Course MDIA 380 Not Found
- MACS 380: 21st Century Documentaries
- MACS 464: Film Festivals
See list of other approved classes or contact the department for approval of other classes.

### College of Media Electives
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College of Media Electives</td>
<td>36</td>
</tr>
</tbody>
</table>

Students must earn at least 36 hours in the College of Media. Remaining hours are completed with ADV, JOUR, MACS, or MDIA electives.

### Required Area of Study or Minor Outside the College of Media
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Area of Study or Minor Outside the College of Media</td>
<td>9</td>
</tr>
</tbody>
</table>

In addition to the courses in the major plan described above, students must complete 9 hours in an approved area outside the College of Media. Approved areas include: African American Studies; American Indian Studies; Anthropology; Art History; Asian American Studies; Business Administration; Communication; Computer Science; Creative Writing; Economics; Food Science and Human Nutrition; Gender and Women's Studies; History; Kinesiology and Community Health; Latina/o Studies; Linguistics; Literature; Natural Resources and Environmental Sciences; Non-English Languages; Philosophy; Political Science; Psychology; Recreation, Sport and Tourism; Regional Area Studies; or Sociology. A university-approved minor may substitute for this requirement. Courses may, if they qualify, also count toward the requirement for advanced hours outside of the College.

### Advanced Hours Requirement
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advanced Hours Requirement</td>
<td>20</td>
</tr>
</tbody>
</table>

At least 20 hours in courses numbered 200 or above. These courses must be outside and not cross-listed with the College of Media. At least 9 of the 20 hours must be in courses numbered 300 and above.

### Total hours required for graduation
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total hours required for graduation</td>
<td>124</td>
</tr>
</tbody>
</table>

### Corresponding Degree
BS Bachelor of Science
Program Features

Academic Level
Undergraduate

Does this major have transcripted concentrations?
No

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
090102 - Mass Communication/Media Studies.

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.

Enrollment

Describe how this revision will impact enrollment and degrees awarded.
No impact

Estimated Annual Number of Degrees Awarded

What is the matriculation term for this program?
Fall
Budget

Are there budgetary implications for this revision?
No

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

Financial Resources

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

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

Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?
No

Technology

Will the program need additional technology beyond what is currently available for the unit?
No

Non-Technical Resources

Will the program require additional supplies, services or equipment (non-technical)?
No
Resources

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

Faculty Resources

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

No impact. The course is already being taught under a different rubric. The only change was MDIA 380 to MACS 380.

Library Resources

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

No impact.

EP Documentation

EP Control Number

EP:22.020

This proposal requires HLC inquiry

No

DMI Documentation

Banner/Codebook Name

BS: Media and Cinema St -UIUC

Program Code:

10KT5201BS

Degree Code

BS

Major Code

5201
Kathy Martensen (kmartens) (Tue, 28 Sep 2021 14:56:01 GMT): Administrative approval: No change to total hours required, does not restrict student choice.

Key: 290