October 18, 2021

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN SENATE

COMMITTEE ON EDUCATIONAL POLICY (Final; Information)

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
- Thu, 15 Oct 2020 21:29:11 GMT Bo Li (libo): Approved for 1583 Head
- 3. Thu, 15 Oct 2020 23:29:59 GMT Kelly Ritter (ritterk): Approved for KV Dean
- Fri, 16 Oct 2020 00:12:54 GMT John Wilkin (jpwilkin): Approved for University Librarian
- Wed, 04 Nov 2020 18:37:56 GMT Allison McKinney (agrindly): Approved for Grad_College
- Wed, 04 Nov 2020 22:27:49 GMT 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
- 9. Fri, 29 Jan 2021 23:37:38 GMT 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
Outline Product Officer Family
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?

Nο

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

Code	Title	Hours
STAT 510	Mathematical Statistics	4
Select one of the following:		
STAT 425	Statistical Modeling I	4
or STAT 527	Advanced Regression Analysis	
Select one of the following:		4
STAT 424	Analysis of Variance	
STAT 426	Statistical Modeling II	
STAT 429	Time Series Analysis	
STAT 431	Applied Bayesian Analysis	
STAT 433	Stochastic Processes	
STAT 528	Advanced Regression Analysis II	
STAT 533	Advanced Stochastic Processes	
STAT 556	Advanced Time Series Analysis	
Five elective courses from Departme	ental List (See Course List Tab)	20
STAT 427	Statistical Consulting (or experience in applied statistics)	0-4
or STAT 593	STAT Internship	
or STAT 443	Professional Statistics	
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency - may be waived with approval)	0-4
Total hours		32-36

Other Requirements

Requirement	Description
Other Requirements may overlap	
A concentration is not required.	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

Corres	pondina	Degree
COLLES	DUHUHHU	Deulee

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

.1:. Math

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?
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?

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

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.

This proposal requires HLC inquiry

No

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

Code	Title		Hours
STAT 510	Mathematical Statistics		4
Select one of the follow	ing:		
STAT 425 or <u>STAT 527</u>	Statistical Modeling I Advanced Regression Analysis		4
Select one of the follow	ing:		4
STAT 424	Analysis of Variance		
STAT 426	Statistical Modeling II		
STAT 429	Time Series Analysis		
STAT 431	Applied Bayesian Analysis		
STAT 433	Stochastic Processes		
STAT 528	Advanced Regression Analysis II		
STAT 533	Advanced Stochastic Processes		
STAT 556	Advanced Time Series Analysis		
Five elective courses from	om Departmental List (See Course List Tab)		20
<u>STAT 427</u> or <u>STAT 593</u> or <u>STAT 443</u>	Statistical Consulting (or experience in applied STAT Internship Professional Statistics	statistics)	0-4
STAT 410/MATH 464	Statistics and Probability II (or equivalent profmay be waived with approval)	iciency-	0-4
Total hours			32-36
Course List			
Other Requirements			
Requirement		Description	
Other Requirements ma	ay overlap		
A concentration is not r	equired.		
Minimum 500-level Hou	ırs 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

Appendix A:

Comparative Table of Proposed Changes Statistics, MS

Current Requirements	Hours	Proposed Requirements	Hours
STAT 510 Mathematical Statistics	4	STAT 510 Mathematical Statistics	4
STAT 425 Applied Regression and Design	4	Select one of the following: STAT 425 Applied Regression and Design or STAT 527 Advanced Regression Analysis	4
STAT 427 or STAT 593 Statistical Consulting (or experience in applied statistics) STAT Internship	0-4		
Select one of the following:	4	Select one of the following:	4
STAT 424 Analysis of Variance		STAT 424 Analysis of Variance	
STAT 426 Sampling and Categorical Data		STAT 426 Sampling and Categorical Data	
STAT 429 Time Series Analysis		STAT 429 Time Series Analysis	
STAT 430 Topics in Applied Statistics		STAT 431 Applied Bayesian Analysis	
STAT 578 Topics in Statistics		STAT 433 Stochastic Processes	
		Five elective courses from departmental list	20
		STAT 427 Statistical Consulting (or experience in applied statistics) or STAT 593 STAT Internship or STAT 443 Professional Statistics	0-4

STAT 410/MATH 464 Statistics and Probability II (or equivalent proficiency [may be waived with approval])	4	STAT 410/MATH 464 Statistics and Probability II (or equivalent proficiency [may be waived with approval])	4
Choose one option:	20		
Concentration specific requirements			
Five elective courses found on the Departmental Course List tab			
Total hours	32-36	Total hours	32-36
Other Requirements		Other Requirements	
Other Requirements may overlap		Grad Other Degree Requirements	
A concentration is not required.		Requirement	
Minimum 500-level Hours Required Overall:	12	Other Requirements may overlap	
		A concentration is not required.	
Minimum GPA:	2.75	Minimum 500-level Hours Required Overall:	12
		Minimum GPA:	2.75



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

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 an 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

Code	Title	Hours
STAT 510	Mathematical Statistics	4
Select one of the follow	ring:	
STAT 425 or STAT 527	Statistical Modeling I Advanced Regression Analysis	4
Select one of the follow	ring:	4
STAT 424	Analysis of Variance	
STAT 426	Statistical Modeling II	
STAT 429	Time Series Analysis	
STAT 431	Applied Bayesian Analysis	
STAT 433	Stochastic Processes	
STAT 528	Advanced Regression Analysis II	
STAT 533	Advanced Stochastic Processes	
STAT 556	Advanced Time Series Analysis	
Five elective courses fr	om Departmental List (See Course List Tab)	20
STAT 427 or <u>STAT 593</u> or <u>STAT 443</u>	Statistical Consulting (or experience in applied statistics) STAT Internship Professional Statistics	0-4
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency- may be waived with approval)	0-4
Total hours		32-36
Course List		
Other Requirements		
Requirement	Description	
Other Requirements ma	av overlan	

Other Requirements may overlap

Requirement	Description
A concentration is not required.	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

Description

Grad Other Degree Requirements

Requirement

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

Code	Title	Hours
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency- may be waived with approval)	0-4
STAT 440	Statistical Data Management	4
STAT 448	Advanced Data Analysis	4
STAT 510	Mathematical Statistics	4
STAT 542	Statistical Learning	4
Select one of the follow	ving:	4
<u>STAT 425</u> or <u>STAT 527</u>	Statistical Modeling I Advanced Regression Analysis	
Select one of the follow	ving:	4
STAT 424	Analysis of Variance	
STAT 426	Statistical Modeling II	
STAT 429	Time Series Analysis	
STAT 431	Applied Bayesian Analysis	
STAT 433	Stochastic Processes	
STAT 528	Advanced Regression Analysis II	
STAT 533	Advanced Stochastic Processes	
STAT 556	Advanced Time Series Analysis	
Select one of the follow	ving:	4
STAT 428	Statistical Computing	

Code	Title		Hours
STAT 432	Basics of Statistical Learning		
STAT 447	Data Science Programming Methods		
<u>STAT 480</u>	Data Science Foundations		
CS 412	Introduction to Data Mining		
Select one of the follo	wing:		4
STAT 427	Statistical Consulting		
STAT 593	STAT Internship		
STAT 443	Professional Statistics		
Select one of the follo	wing:		4
STAT 525	Computational Statistics		
STAT 546	Machine Learning in Data Science		
STAT 571	Multivariate Analysis		
<u>CS 512</u>	Data Mining Principles		
Total hours			36-40
Course List			
Other Requirements	5		
Requirement		Description	
Other requirements m	nay overlap		
Minimum 500-level Ho	ours Required Overall:	12	
Minimum GPA:		2.75	
Grad Other Degree Re	equirements		



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 follo	owing:	4		
STAT 425	Applied Regression and Design			
or <u>STAT 527</u>	Advanced Regression Analysis			
Select one of the follo	owing:	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 <u>STAT 593</u>	STAT Internship			
or <u>STAT 443</u>	Professional Statistics			
STAT 410/	Statistics and Probability II (or equivalent proficiency	4		
MATH 464	[may be waived with approval])	22.26		
Total hours		32-36		
Other Requirements ¹				
	Grad Other Degree Requirements			
Requirement		Description		
Other Requirements may overlap A concentration is not required.				
Minimum 500-level Hours Required Overall:				
Minimum GPA:		12 2.75		

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.

From: Glosemeyer, Darren <glosemey@illinois.edu> Sent: Thursday, November 12, 2020 2:36 PM

To: Pahre, Jennifer N < <u>ipahre@illinois.edu</u>>; Douglas, Jeffrey A < <u>ieffdoug@illinois.edu</u>> **Cc:** Martensen, Kathy < <u>kmartens@illinois.edu</u>>; Lehman, Barbara J < <u>bjlehman@illinois.edu</u>>

Subject: RE: Ed Pol Proposals from 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 "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

From: Pahre, Jennifer N < jpahre@illinois.edu > Sent: Thursday, November 12, 2020 1:52 PM

To: Douglas, Jeffrey A < <u>jeffdoug@illinois.edu</u>>; Glosemeyer, Darren < <u>glosemey@illinois.edu</u>> **Cc:** Martensen, Kathy < <u>kmartens@illinois.edu</u>>; Lehman, Barbara J < <u>bjlehman@illinois.edu</u>>

Subject: Ed Pol Proposals from Statistics

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

University Senates Conference 378 Henry Administration Building, MC 348 506 South Wright Street Urbana, IL 61801

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 multielement 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

Kathy Martensen January 29, 2021 Page 2

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
- Fri, 16 Oct 2020 00:13:07 GMT John Wilkin (jpwilkin): Approved for University Librarian
- Thu, 05 Nov 2020 18:05:43 GMT Allison McKinney (agrindly): Approved for Grad_College
- 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
- 9. Fri, 29 Jan 2021 23:38:31 GMT 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 Elli (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

No

Official Program Name
Statistics: Analytics, MS
Sponsor College
Liberal Arts & Sciences
Sponsor Department
Statistics
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?

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?

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 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

Code	Title	Hours
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency- may be waived with approval)	0-4
STAT 440	Statistical Data Management	4
STAT 448	Advanced Data Analysis	4
STAT 510	Mathematical Statistics	4
STAT 542	Statistical Learning	4
Select one of the following:		4
STAT 425	Statistical Modeling I	
or STAT 527	Advanced Regression Analysis	
Select one of the following:		4
STAT 424	Analysis of Variance	
STAT 426	Statistical Modeling II	
STAT 429	Time Series Analysis	
STAT 431	Applied Bayesian Analysis	
STAT 433	Stochastic Processes	
STAT 528	Advanced Regression Analysis II	
STAT 533	Advanced Stochastic Processes	
STAT 556	Advanced Time Series Analysis	
Select one of the following:		4
STAT 428	Statistical Computing	
STAT 432	Basics of Statistical Learning	
STAT 447	Data Science Programming Methods	
STAT 480	Data Science Foundations	
CS 412	Introduction to Data Mining	
Select one of the following:		4
STAT 427	Statistical Consulting	

STAT 593	STAT Internship	
STAT 443	Professional Statistics	
Select one of the following	ŗ.	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

Requirement	Description
Other requirements may overlap	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

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

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: Analytes-UIUC

Program Code:

10KS5165MS

Conc Code

5165

Degree Code

MS

Major Code

0329

Program Reviewer Comments

Allison McKinney (agrindly) (Wed, 15 Sep 2021 19:59:48 GMT):Rollback: Rollback per request.

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

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

Code	Title	
STAT 525	Computational Statistics	
STAT 546	Machine Learning in Data Science	
STAT 571	Multivariate Analysis	
CS 512	Data Mining Principles	
Total hours		36-40
Course List		

Course List

Other Requirements

Requirement	Description
Other requirements may overlap	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

Grad Other Degree Requirements

Appendix A:

Comparative Table of Proposed Changes Statistics: Analytics Concentration, MS

	1			
Current Requirements	Hours	Proposed	Hours	
		Requirements 4		
STAT 440 Statistical	4	STAT 440 Statistical	4	
Data Management		Data Management		
STAT 448 Advanced	4	STAT 448 Advanced	4	
Data Analysis		Data Analysis		
STAT 510	4	STAT 510	4	
Mathematical Statistics		Mathematical Statistics		
1		1		
STAT 425 Applied	4	STAT 542 Statistical	4	
Regression and Design		learning		
STAT 542 Statistical	4			
learning				
Select one of the	4	Select one of the	4	
following:		following:		
STAT 424 Analysis of		STAT 425 Applied		
Variance		Regression and Design		
		or STAT 527 Advanced		
		Regression Analysis		
STAT 426 Sampling and				
Categorical Data				
STAT 429 Time Series				
Analysis				
STAT 430 Topics in				
Applied Statistics				
STAT 578 Topics in				
Statistics				
		Select one of the	4	
		following:		
		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		
		Select one of the	4	
		following:		
STAT 428 or CS 412	4	STAT 428 Statistical		
Statistical Consulting		Computing		

Introduction to Data				
Mining				
IVIIIIII		STAT 432 Basics of		
		Statistical Learning		
		STAT 480 Data Science		
		Foundations		
		CS 412 Introduction to		
		Data Mining		
Select one of the	4	Select one of the	4	
following:		following:		
STAT 525		STAT 427 Statistical		
Computational		Consulting		
Statistics				
STAT 571 Multivariate		STAT 593 STAT		
Analysis		Internship		
CS 512 Data Mining		STAT 443 Professional		
Principles		Statistics		
STAT 410/MATH 464	4	STAT 410/MATH 464	4	
Statistics and		Statistics and		
Probability II (or		Probability II (or		
equivalent proficiency		equivalent proficiency		
[may be waived with		[may be waived with		
approval])		approval])		
		Select one of the		
		following:		
		STAT 525		
		Computational		
		Statistics		
		STAT 546 Machine		
		Learning in Data		
		<u>Science</u>		
		STAT 571 Multivariate		
		Analysis		
		CS 512 Data Mining		
		Principles		
Total hours	36-40	Total hours	36-40	
Other Requirements		Other Requirements		
Other requirements		Grad Other Degree		
may overlap		Requirements		
A concentration is not		Other requirements		
required		may overlap		
Minimum 500-level	12	A concentration is not		
Hours Required required				
Overall:				

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

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

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 an 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

Code	Title		
STAT 510	Mathematical Statistics		
Select one of the follow	ring:		
STAT 425 or STAT 527	Statistical Modeling I Advanced Regression Analysis		
Select one of the follow	ring:	4	
STAT 424	Analysis of Variance		
STAT 426	Statistical Modeling II		
STAT 429	Time Series Analysis		
STAT 431	Applied Bayesian Analysis		
STAT 433	Stochastic Processes		
STAT 528	Advanced Regression Analysis II		
STAT 533	Advanced Stochastic Processes		
STAT 556	Advanced Time Series Analysis		
Five elective courses fr	om Departmental List (See Course List Tab)	20	
STAT 427 or <u>STAT 593</u> or <u>STAT 443</u>	Statistical Consulting (or experience in applied statistics) STAT Internship Professional Statistics	0-4	
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency- may be waived with approval)	0-4	
Total hours		32-36	
Course List			
Other Requirements			
Requirement	Description		
Other Requirements ma	av overlan		

Other Requirements may overlap

Requirement	Description
A concentration is not required.	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

Description

Grad Other Degree Requirements

Requirement

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

Code	Title	Hours
STAT 410/MATH 464	Statistics and Probability II (or equivalent proficiency- may be waived with approval)	0-4
STAT 440	Statistical Data Management	4
STAT 448	Advanced Data Analysis	4
STAT 510	Mathematical Statistics	4
STAT 542	Statistical Learning	4
Select one of the follow	ving:	4
<u>STAT 425</u> or <u>STAT 527</u>	Statistical Modeling I Advanced Regression Analysis	
Select one of the follow	ving:	4
STAT 424	Analysis of Variance	
STAT 426	Statistical Modeling II	
STAT 429	Time Series Analysis	
STAT 431	Applied Bayesian Analysis	
STAT 433	Stochastic Processes	
STAT 528	Advanced Regression Analysis II	
STAT 533	Advanced Stochastic Processes	
STAT 556	Advanced Time Series Analysis	
Select one of the follow	ving:	4
STAT 428	Statistical Computing	

Code	Title		Hours	
STAT 432	Basics of Statistical Learning			
STAT 447	Data Science Programming Methods			
STAT 480	Data Science Foundations			
CS 412	Introduction to Data Mining			
Select one of the follo	wing:		4	
STAT 427	Statistical Consulting			
STAT 593	STAT Internship			
STAT 443 Professional Statistics				
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	
Course List				
Other Requirements	5			
Requirement		Description		
Other requirements m	nay overlap			
Minimum 500-level Ho	ours Required Overall:	12		
Minimum GPA:		2.75		
Grad Other Degree Requirements				



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, Analysi	tics concentration MS		
STAT 440	Statistical Data Management	4	
STAT 448	Advanced Data Analysis	4	
STAT 510	-		
<u>STAT 542</u>	Statistical Learning	4	
Select one of the following	ng:	4	
STAT 425	Applied Regression and Design		
or STAT 527	Advanced Regression Analysis		
Select one of the following	ng:	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		
Select one of the following	ng:	4	
STAT 428	Statistical Computing		
STAT 432	Basics of Statistical Learning		
STAT 480	Data Science Foundations		
<u>CS 412</u>	Introduction to Data Mining		
Select one of the following	ng:	4	
STAT 427	Statistical Consulting		
STAT 593	STAT Internship		
STAT 443	Professional Statistics		
STAT 410/ MATH 464	Statistics and Probability II (or equivalent proficiency [may be waived with approval])	4	
Select one of the following:			

STAT 525	Computational Statistics
STAT 546	Machine Learning in Data Science
STAT 571	Multivariate Analysis
<u>CS 512</u>	Data Mining Principles
Total hours	

Other Requirements¹

Grad Other Degree Requirements

Requirement	Description
Other requirements may overlap	
A concentation is not required.	
Minimum 500-level Hours Required Overall:	12
Minimum GPA:	2.75

From: Glosemeyer, Darren <glosemey@illinois.edu> Sent: Thursday, November 12, 2020 2:36 PM

To: Pahre, Jennifer N < <u>ipahre@illinois.edu</u>>; Douglas, Jeffrey A < <u>ieffdoug@illinois.edu</u>> **Cc:** Martensen, Kathy < <u>kmartens@illinois.edu</u>>; Lehman, Barbara J < <u>bjlehman@illinois.edu</u>>

Subject: RE: Ed Pol Proposals from 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 "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

From: Pahre, Jennifer N < jpahre@illinois.edu > Sent: Thursday, November 12, 2020 1:52 PM

To: Douglas, Jeffrey A < <u>jeffdoug@illinois.edu</u>>; Glosemeyer, Darren < <u>glosemey@illinois.edu</u>> **Cc:** Martensen, Kathy < <u>kmartens@illinois.edu</u>>; Lehman, Barbara J < <u>bjlehman@illinois.edu</u>>

Subject: Ed Pol Proposals from Statistics

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

University Senates Conference 378 Henry Administration Building, MC 348 506 South Wright Street Urbana, IL 61801

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 multielement 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

Kathy Martensen January 29, 2021 Page 2

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

Code	Title	Hours
Statistics Departmental Course List		
STAT 424	Analysis of Variance	
STAT 426	Statistical Modeling II	
STAT 427	Statistical Consulting	
STAT 428	Statistical Computing	
STAT 429	Time Series Analysis	
STAT 430	Topics in Applied Statistics	
STAT 431	Applied Bayesian Analysis	
STAT 432	Basics of Statistical Learning	
STAT 433	Stochastic Processes	
STAT 434	Survival Analysis	
STAT 440	Statistical Data Management	
STAT 443	Professional Statistics	
STAT 447	Data Science Programming Methods	
STAT 448	Advanced Data Analysis	
STAT 458	Math Modeling in Life Sciences	
STAT 480	Data Science Foundations	

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

Program Reviewer Comments

DMI Documentation

Program Code:GR-Statistics

Deb Forgacs (dforgacs) (Mon, 27 Sep 2021 16:28:41 GMT):Re-entered the proposal type due to system bug 09/27/2021

Kathy Martensen (kmartens) (Thu, 30 Sep 2021 21:53:20 GMT): 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
- 3. Sat, 25 Sep 2021 14:46:23 GMT
 - Cheryl Cole (clcole): Approved for 1436 Head
- 4. Mon, 27 Sep 2021 13:58:12 GMT
 - 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
Describio program have inter departmental administration?
Does this program have inter-departmental administration?
No No
Dramacal Title
Proposal Title
Effective Catalog Term
Fall 2020
F 411 2020
Provide a brief, concise description (not justification) of your proposal.
Administrative approval: Updated course list
Program Justification
g
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.

MACS/GWS 345

Digital & Gender Cultures

Statement for Programs of Study Catalog

Code	Title	Hours
Core Curriculum		16
MACS 203	Contemporary Movies	3
MACS 264	Creative and Information Economies	4
MACS 317	Media History	3
MACS 320	Popular Culture	3
MACS 351	ACS 351 Social Aspects of Media	
MACS 499 Senior Project ¹		0
Students will take MACS 499	concurrent with a 400-level course to complete a senior project.	
Code	Title	Hours
Thematic Areas		15
5 additional courses in at least 2	of the following thematic areas.	.0
	a specialization by taking 4 courses in 1 thematic area or by completing the requirements	
Cinema Studies		
MACS 100	Intro to Popular TV & Movies	
MACS 205	Introduction to Documentary	
MACS 261	Survey of World Cinema I	
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	
	oved 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 appro	oved 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 356	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 appro	oved classes or contact the department for approval of other classes.	
Science, Technology, and Visualizat		
MACS 166	Contemporary Media Literacy	
MACS 224	Sportsmedia Technology & Culture	
MACS 326	New Media, Culture & Society	
	•	

AGCM 430	Comm in Env Social Movements		
See advisor for list of other	er approved classes or contact the department for approval of other classes.		
Global Media and Cinema			
MACS 261	Survey of World Cinema I		

MACS 261	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

<u> </u>	
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.

Code Title Hours
College of Media Electives 36

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

Code Title Hours

9

Required Area of Study or Minor Outside the College of Media

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.

Code Title Hours

Advanced Hours Requirement 20

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.

Code Title Hours

Total hours required for graduation 124

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.
030102 Wass communication, wedia 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
Enronnent
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?
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?
Technology
Will the program need additional technology beyond what is currently available for the unit?
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

Program Reviewer Comments

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