## Program Revision Proposal: Creating New Program(s) from Existing Program(s)

This form should be used to seek SUNY's approval to create one or more new programs from existing, registered programs. A campus is not required to submit a Program Announcement (PA) or a Letter of Intent (LI) for these types of new programs. The Chief Executive or Chief Academic Officer should submit a signed cover letter and this completed form to the SUNY Provost at program.review@suny.edu.

## Section 1. General Information

| a) <br> Institutional <br> Information | 1. Institution Name: Binghamton University <br> 2. Institution's <br> 6-digit SED Institution Code: 211000 <br> 3. Institution's Address: PO Box 6000, Binghamton NY 13902-6000 <br> 4. Additional Information: Specify each campus and its $\underline{6-d i g i t ~ S E D ~ I n s t i t u t i o n ~ C o d e ~ w h e r e ~ t h e ~ p r o g r a m ~ i s ~}$ <br> registered and where the proposed changes would apply: |
| :--- | :--- |
| b) <br> Contact <br> Person for <br> This <br> Proposal | Name and title: Susan Strehle, Vice Provost and Dean of the Graduate School |
| celephone: 607-777-2070 $\quad$ E-mail: sstrehle @ binghamton.edu <br> CEO (or <br> designee) <br> Approval | Signature affirms that the proposal has met all applicable campus administrative and shared <br> governance procedures for consultation, and the institution's commitment to support the program as <br> revised. <br> Name and title: Donald G. Nieman, Executive Vice President and Provost <br> Signature and date: |
|  | If the revised program will be registered jointly ${ }^{1}$ with one more other institutions, provide the <br> following information for each partner institution. The signature confirms support of the changes. |
| Partner institution's name: <br> Name and title of partner institution's CEO: <br> Signature of partner institution's CEO: |  |

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## Section 2. Multi-Award and Multi-Institution Programs

## Check one.

[ ] This proposal is for a multi-award program that leads to two separate awards (e.g., A.S./B.A., B.S./M.S.). Complete Part 2A, below. NOTE: Such programs generally involve special admissions for students who have the capacity to complete all awards, curricular integration between the component programs, and shortened time to degree compared to taking the programs separately.
[ ] This proposal is for a multi-institution program (also called a "jointly registered program") to be offered jointly by two or more institutions. Complete Part B, below. NOTE: Such programs involve a formal agreement between two or more institutions to offer courses leading to an award.
[ ] This proposal is for a multi-institution, multi-award program to be offered jointly by more two or more institutions and lead to two separate awards. Provide a single, consolidated response that reflects all the items in Parts 2A and 2B, below.

## PART 2A - Multi-Award Program

a) Program Title:
b) Program Awards ((e.g., B.A./M.S.) from existing programs):
c) Proposed HEGIS Code:
d) Required Number of Credits: Minimum [ ] If tracks or options, largest minimum [ ]
e) Format: [ ] Day [ ] Evening [ ] Weekend [ ] Evening/Weekend [ ] Not Full-Time
f) Mode: [ ] Standard [ ] Independent Study [ ] External [ ] Accelerated
[ ] Distance Education (If $\mathbf{5 0 \%}$ of more of the program can be completed via distance education, append a Distance Education Format Proposal at the end of this form.)
g) Other: [ ] Bilingual [ ] Language Other Than English [ ] Upper Division Program [ ] Cooperative 4.5 year [ ] 5 year
h) List registered programs at the institution identified in Section 1 whose courses will contribute to this program. Add rows as needed.

|  | Program Title | Award | SED Program Code |
| :--- | :---: | :---: | :---: |
| Program 1 |  |  |  |
| Program 2 |  |  |  |

i) List all the courses required for each existing program, and indicate which ones will be counted toward both awards.
j) What is the length of time students will have to complete the proposed program?
k) What are the admissions requirements for the new program, and how are they related to student success?

1) Complete a SUNY Sample Program Schedule to show how students will be able to schedule all required courses to complete the multi-award program.

## PART 2B - Multi-Institution Program

a) Program Title:
b) Are all partner institutions listed in Section 1, with CEO information and a signature for each partner?
[ ] Yes [ ] No
c) Proposed HEGIS Code:
g) Required Number of Credits: Minimum [ ] If tracks or options, largest minimum [ ]
d) Format: [ ] Day [ ] Evening [ ] Weekend [ ] Evening/Weekend [ ] Not Full-Time
e) Mode: [ ] Standard [ ] Independent Study [ ] External [ ] Accelerated
[ ] Distance Education (If $\mathbf{5 0 \%}$ of more of the program can be completed via distance education, append a Distance Education Format Proposal at the end of this form.)
f) Other: [ ] Bilingual [ ] Language Other Than English [ ] Upper Division Program [ ] Cooperative 4.5 year [ ] 5 year
g) List all courses in the program and indicate which courses will be completed at each institution.
h) Describe the administrative provisions for coordinating admissions, advisement and financial aid for the program between the two institutions.
i) Describe the program's policies governing residency requirements and tuition charges.
j) Explain any other special arrangements or requirements arising from the multi-institution nature of the program.
k) Complete a SUNY Sample Program Schedule to show how students will be able to schedule all required courses to finish the program.

## Section 3. New Programs from Options, Concentrations or Tracks in an Existing Program

This section should be used to propose the creation of new programs from options, concentrations or tracks in existing, registered programs, which is sometimes called "disaggregation." This section enables (but does not require) a campus to make the following types of revisions to an existing track at the same time the track becomes a separate program:

- new or significantly revised courses; and
- changes to the track's admissions standards and program evaluation elements.

NOTE: A new program proposal must be submitted - instead of this section - when:

- the new program(s) will be offered at a different location than the campuses identified in Section 1; or
- a Master Plan Amendment is required for the new program(s).


## PART 3A - REVISION OF EXISTING PROGRAM

a) Title: Master of Arts in Mathematics
b) Award: Master of Arts in Mathematics
c) HEGIS Code: 1701.00
d) SED Program Code: 11330
e) List the registered Options, Concentrations or Tracks and indicate which, if any, will be removed. The Applied Statistics Track will be removed.
f) If the existing program will have any changes to the program's admissions standards or program evaluation elements, please describe them and explain why they are needed. Otherwise, affirm that the admissions standards and evaluation methods are unchanged from the current registered program.
The admissions standards and evaluation methods are unchanged from the current registered program.

## PART 3B - PROPOSED NEW PROGRAM(S)

Provide the information requested below for each proposed new program to be registered separately.
a) Title: Master of Arts in Statistics
b) Award: Master of Arts in Statistics
c) HEGIS Code: 1702.00
d) Required Credits: Minimum [ 42 ] If tracks or options, largest minimum [ ]
e) Describe the new program and the rationale for converting the existing coursework to a separately registered program. The new program will award a degree in Statistics in lieu of one in Mathematics. Although Statistics was often viewed as a branch of Mathematics, the subject has many unique features which distinguish it from the more general field of Mathematics. The new degree name (in Statistics) more accurately represents what students learn from the Track in Applied Statistics in the existing program of Master of Arts in Mathematics. Graduates from the new degree program will be more competitive in the job market.
f) If the new program will have any new or significantly revised courses, list them here and attach a syllabus for each one.
There will be no new or significantly revised courses.
g) If the new program will have any changes to the program's admissions standards or program evaluation elements, please describe them and explain why they are needed. Otherwise, affirm that the admissions standards and evaluation methods are unchanged from the current registered program.
The admissions standards and evaluation methods are unchanged from the current registered program.
h) Explain the expected impact of the new program on existing programs.

The Applied Statistics Track of the existing program of Master of Arts in Mathematics will be terminated. The new program will have no impact on the remaining part of the existing program of Master of Arts in Mathematics.
i) Describe adjustments the institution will make to its current resource allocations to support the new program. Since only the name of the program will be changed, the institution will make no adjustments to its current resource allocations.
j) Complete the appropriate Sample Program Schedule to show how students can complete all required courses in the new program.

SUNY Graduate Sample Program Schedule OPTION: You can insert an Excel version of this schedule AFTER this line, and delete the rest of this page.) Program/Track Title and Award: Master of Arts in Statistics
a) Indicate academic calendar type: [x]Semester [ ] Quarter [ ] Trimester [ ] Other (describe):
b) Label each term in sequence, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)
c) Use the table to show how a typical student may progress through the program; copy/expand the table as needed.
d) Complete the last row to show program totals and comprehensive, culminating elements. Complete all columns that apply to a course.

| Term 1: Fall 1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Course Number \& Title | Credits | New | Co/Prerequisites |
| Math 501 Probability | 4 |  | Math 323 |
| Math 530 <br> Linear Algebra for Statisticians | 4 |  | Math 304 or equivalent |
| Math 531 Regression (I) | 4 |  | (none) |
|  |  |  |  |
| Term credit total: | 12 |  |  |


| Term 3: Fall 2 |  |  |  |
| :--- | :---: | :---: | :--- |
| Course Number \& Title | Credits | New | Co/Prerequisites |
| Math 534 Data Analysis | 4 |  | Math 502 |
| Math 556 Design of Experiments | 4 |  | Math 531 or 555 |
| Math 540 Capstone Seminar I | 1 |  | (none) |
|  |  |  |  |
| Term credit total: | 9 |  |  |

## Term 2: Spring 1

| Course Number \& Title | Credits | New | Co/Prerequisites |
| :--- | :---: | :---: | :--- |
| Math 502 Statistics | 4 |  | Math 501 |
| Math 532 Regression (II) | 4 |  | Math 531 or 555 |
| Math 570 Applied Multivariate <br> Analysis | 4 |  | Math 404, Math 507 or 530, and <br> Math 531 or 555 |
|  |  |  |  |
| Term credit total: |  | 12 |  |


| Term 4: Spring 2 |
| :--- |
| Course Number \& Titl | Math 535 Statistical Learning and Data Mining Math 557 Survival Analysis

Math 541 Capstone Seminar II Identify the required comprehensive, culminating element(s), such as a thesis or examination, including course number(s), if applicable: Math 540 and Math 541.

New: X if new course
Prerequisite(s): list prerequisite(s) for the noted courses
The sample program schedule above shows how a typical student may progress through the program. The first two courses in the third and fourth terms (the Fall 2 and Spring 2 semesters) are elective courses, which may be offered in any order. Any one of these courses may be replaced with any other graduate course in Statistics or Probability offered in the Department of Mathematical Sciences, including the courses listed in the following table.

| Course Number \& Title | Credits | New | Co/Prerequisites |
| :--- | :--- | :--- | :--- |
| Math 536 Nonparametric Smoothing and Semiparametric Regression | 4 |  | Math 531 or Math 555 |
| Math 537 Reliability | 4 |  | Math 502 |
| Math 538 Sequential Analysis | 4 |  | Math 502 |
| Math 553 Nonparametric Inference | 4 |  | Math 502 |
| Math 554 Sampling Theory | 4 |  | Math 501 |
| Math 559 Time Series Analysis | 4 |  | Math 531 or Math 555 |
| Math 573 Applied Probability and Stochastic Processes | 4 |  | Math 501 |
| Math 590S Topics: Mathematical Sciences | 4 |  | Varies |

## Section 4. SUNY Faculty Table

a) If applicable, provide information on faculty members who will be teaching new or significantly revised courses in the program. Expand the table as needed.
b) Append at the end of this document position descriptions or announcements for each to-be-hired faculty member.

| (a) | (b) | (c) | (d) | (e) | (f) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.) | \% of Time <br> Dedicated to This <br> Program | Program Courses Which May Be Taught (Number and Title) | Highest and Other Applicable Earned Degrees (include College or University) | Discipline(s) of Highest and Other Applicable Earned Degrees | Additional <br> Qualifications: List related certifications and licenses and professional experience in field. |
| PART 1. Full-Time Faculty |  |  |  |  |  |
| Vladislav Kargin, Assistant Professor | 20\%-50\% | Math 501 Probability <br> Math 530 Linear Algebra for Statisticians <br> Math 573 Applied Probability and Stochastic Processes | Ph.D., New York University | Mathematics | Ph.D. in Economics, Boston University |
| Aleksey Polunchenko, Assistant Professor | 20\%-50\% | Math 501 Probability <br> Math 502 Statistics <br> Math 530 Linear Algebra for Statisticians <br> Math 531 Regression (I) <br> Math 532 Regression (II) <br> Math 534 Data Analysis <br> Math 537 Reliability <br> Math 538 Sequential Analysis <br> Math 559 Time Series Analysis <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II | Ph.D., University of Southern California | Applied Mathematics | M.Sc. in <br> Mathematical <br> Finance <br> SAS Certified Base <br> Programmer <br> (Certificate) <br> Microsoft Certified <br> Professional |
| Xingye Qiao, Assistant Professor | 20\%-50\% | Math 501 Probability <br> Math 502 Statistics <br> Math 531 Regression (I) <br> Math 532 Regression (II) <br> Math 534 Data Analysis <br> Math 535 Statistical Learning and Data Mining <br> Math 536 Nonparametric Smoothing and <br> Semiparametric Regression <br> Math 556 Design of Experiments <br> Math 570 Applied Multivariate Analysis <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II | Ph.D., University of North Carolina at Chapel Hill | Statistics |  |
| Anton Schick, Professor | 20\%-50\% | Math 501 Probability Math 502 Statistics | Ph.D., Michigan State University | Statistics |  |


| (a) | (b) | (c) | (d) | (e) | (f) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.) | \% of Time <br> Dedicated to This Program | Program Courses Which May Be Taught (Number and Title) | Highest and Other Applicable Earned Degrees (include College or University) | Discipline(s) of Highest and Other Applicable Earned Degrees | Additional Qualifications: List related certifications and licenses and professional experience in field. |
|  |  | Math 530 Linear Algebra for Statisticians <br> Math 536 Nonparametric Smoothing and <br> Semiparametric Regression <br> Math 538 Sequential Analysis <br> Math 553 Nonparametric Inference <br> Math 554 Sampling Theory <br> Math 559 Time Series Analysis <br> Math 573 Applied Probability and Stochastic Processes <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II |  |  |  |
| Zuofeng Shang, Assistant Professor | 20\%-50\% | Math 501 Probability <br> Math 502 Statistics <br> Math 530 Linear Algebra for Statisticians <br> Math 531 Regression (I) <br> Math 532 Regression (II) <br> Math 534 Data Analysis <br> Math 535 Statistical Learning and Data Mining <br> Math 536 Nonparametric Smoothing and <br> Semiparametric Regression <br> Math 537 Reliability <br> Math 553 Nonparametric Inference <br> Math 554 Sampling Theory <br> Math 557 Survival Analysis <br> Math 570 Applied Multivariate Analysis <br> Math 573 Applied Probability and Stochastic Processes <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II | Ph.D., University of Wisconsin-Madison | Statistics |  |
| $\begin{aligned} & \text { Ganggang Xu, } \\ & \text { Assistant Professor } \end{aligned}$ | 20\%-50\% | Math 501 Probability <br> Math 502 Statistics <br> Math 530 Linear Algebra for Statisticians <br> Math 531 Regression (I) <br> Math 532 Regression (II) <br> Math 534 Data Analysis <br> Math 535 Statistical Learning and Data Mining <br> Math 536 Nonparametric Smoothing and <br> Semiparametric Regression <br> Math 556 Design of Experiments <br> Math 559 Time Series Analysis | Ph.D., Texas A\&M University | Statistics |  |


| (a) | (b) | (c) | (d) | (e) | (f) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.) | \% of Time <br> Dedicated to This <br> Program | Program Courses Which May Be Taught (Number and Title) | Highest and Other <br> Applicable Earned <br> Degrees (include <br> College or University) | Discipline(s) of Highest and Other Applicable Earned Degrees | Additional Qualifications: List related certifications and licenses and professional experience in field. |
|  |  | Math 570 Applied Multivariate Analysis <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II |  |  |  |
| Qiqing Yu, <br> Professor and Program <br> Director | 20\%-50\% | Math 501 Probability <br> Math 502 Statistics <br> Math 530 Linear Algebra for Statisticians <br> Math 531 Regression (I) <br> Math 532 Regression (II) <br> Math 534 Data Analysis <br> Math 537 Reliability <br> Math 556 Design of Experiments <br> Math 557 Survival Analysis <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II | Ph.D., University of California at Los Angeles | Statistics |  |
| Part 2. Part-Time Faculty |  |  |  |  |  |
| Part 3. To-Be-Hired Faculty (List as TBH1, TBH2, etc., and provide expected hiring date instead of name.) |  |  |  |  |  |
| TBH1 (Sanjeena Dang), 09/01/2016, as Assistant Professor | 20\%-50\% | Math 501 Probability <br> Math 502 Statistics <br> Math 531 Regression (I) <br> Math 532 Regression (II) <br> Math 535 Statistical Learning and Data Mining <br> Math 570 Applied Multivariate Analysis <br> Math 540 Capstone Seminar I <br> Math 541 Capstone Seminar II | Ph.D., University of Guelph | Statistics |  |


[^0]:    ${ }^{1}$ If the partner institution is non-degree-granting, see SED CEO Memo 94-04.

