

# Program Revision Proposal: Creating New Program(s) from Existing Program(s) Form 3B

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. Ge	neral Information						
a) Institutional Information	<ol> <li>Institution Name: Binghamton University</li> <li>Institution's <u>6-digit SED Institution Code</u>: 211000</li> <li>Institution's Address: PO Box 6000, Binghamton NY 13902-6000</li> <li><u>Additional Information</u>: Specify each campus and its <u>6-digit SED Institution Code</u> where the program is registered and where the proposed changes would apply:</li> </ol>						
b) Contact Person for This Proposal	Name and title: Susan Strehle, Vice Provost and Dean of the Graduate SchoolTelephone: 607-777-2070E-mail: sstrehle@binghamton.edu						
c) CEO (or designee) Approval	Signature affirms that the proposal has met all applicable campus administrative and shared governance procedures for consultation, and the institution's commitment to support the program as revised. Name and title: Donald G. Nieman, Executive Vice President and Provost Signature and date:						
•	If the revised program will be registered jointly <sup>1</sup> with one more other institutions, provide the following information for each partner institution. The signature confirms support of the changes.						
	Partner institution's name: Name and title of partner institution's CEO: Signature of partner institution's CEO:						

Version 2013-10-17

<sup>&</sup>lt;sup>1</sup> If the partner institution is non-degree-granting, see SED  $\underline{\text{CEO Memo } 94-04}$ .

#### 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 <u>HEGIS Code</u>:
- 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 50% of more of the program can be completed via distance education, append a *Distance Education Format Proposal* at the end of this form.)

- g) <u>Other</u>: [] 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 <u>HEGIS Code</u>:
- 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 50% 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 <u>Master Plan Amendment</u> 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) <u>HEGIS Code</u>: *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) <u>HEGIS Code</u>: *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 <u>one.</u>

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 <u>Excel version</u> 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				Term 2: Spring 1			
Course Number & Title	Credits	New	Co/Prerequisites	Course Number & Title	Credits	New	Co/Prerequisites
Math 501 Probability	4		Math 323	Math 502 Statistics	4		Math 501
Math 530	4		Math 304 or equivalent	Math 532 Regression (II)	4		Math 531 or 555
Linear Algebra for Statisticians	4		Wath 504 of equivalent				
Math 531 Regression (I)	4		(none)	Math 570 Applied Multivariate	4		Math 404, Math 507 or 530, and
	-		(none)	Analysis			Math 531 or 555
Term credit total: 12			Term credit total:	12			
Term 3: Fall 2			Term 4: Spring 2				
Course Number & Title	Credits	New	Co/Prerequisites	Course Number & Title	Credits	New	Co/Prerequisites
Math 534 Data Analysis	4		Math 502	Math 535	4		Math 531 or 555
				Statistical Learning and Data Mining			
Math 556 Design of Experiments	4		Math 531 or 555	Math 557 Survival Analysis	4		Math 502
Math 540 Capstone Seminar I	1		(none)	Math 541 Capstone Seminar II	1		(none)
Term credit total: 9			Term credit total:	9			
Total Program Total: Credits: 42		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 me	mber.
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(a)	(b)	(c)	(d)	(e)	( <b>f</b> )
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	% of Time 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.
PART 1. Full-Time					
Faculty					
Vladislav Kargin,	20%-50%	Math 501 Probability	Ph.D., New York	Mathematics	Ph.D. in Economics,
Assistant Professor		Math 530 Linear Algebra for Statisticians	University		Boston University
		Math 573 Applied Probability and Stochastic Processes			
Aleksey Polunchenko,	20%-50%	Math 501 Probability	Ph.D., University of	Applied	M.Sc. in
Assistant Professor		Math 502 Statistics	Southern California	Mathematics	Mathematical
		Math 530 Linear Algebra for Statisticians			Finance
		Math 531 Regression (I)			SAS Certified Base
		Math 532 Regression (II)			Programmer
		Math 534 Data Analysis			(Certificate)
		Math 537 Reliability			Microsoft Certified
		Math 538 Sequential Analysis			Professional
		Math 559 Time Series Analysis			
		Math 540 Capstone Seminar I			
		Math 541 Capstone Seminar II			
Xingye Qiao,	20%-50%	Math 501 Probability	Ph.D., University of	Statistics	
Assistant Professor		Math 502 Statistics	North Carolina at		
		Math 531 Regression (I)	Chapel Hill		
		Math 532 Regression (II)			
		Math 534 Data Analysis			
		Math 535 Statistical Learning and Data Mining			
		Math 536 Nonparametric Smoothing and			
		Semiparametric Regression			
		Math 556 Design of Experiments			
		Math 570 Applied Multivariate Analysis			
		Math 540 Capstone Seminar I			
		Math 541 Capstone Seminar II			
Anton Schick,	20%-50%	Math 501 Probability	Ph.D., Michigan State	Statistics	
Professor		Math 502 Statistics	University		

(a)	(b)	(c)	(d)	(e)	( <b>f</b> )
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	% of Time 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 Elhear Algebra for Statisticians Math 536 Nonparametric Smoothing and Semiparametric Regression Math 538 Sequential Analysis Math 553 Nonparametric Inference Math 554 Sampling Theory Math 559 Time Series Analysis			
Zuofeng Shang	20%-50%	Math 573 Applied Probability and Stochastic Processes Math 540 Capstone Seminar I Math 541 Capstone Seminar II Math 501 Probability	Ph.D. University of	Statistics	
Assistant Professor	20%-50%	Math 501 Probability Math 502 Statistics Math 530 Linear Algebra for Statisticians Math 531 Regression (I) Math 532 Regression (II) Math 534 Data Analysis Math 535 Statistical Learning and Data Mining Math 536 Nonparametric Smoothing and Semiparametric Regression Math 537 Reliability Math 553 Nonparametric Inference Math 554 Sampling Theory Math 557 Survival Analysis Math 570 Applied Multivariate Analysis Math 573 Applied Probability and Stochastic Processes Math 540 Capstone Seminar I Math 541 Capstone Seminar II	Wisconsin-Madison	Statistics	
Ganggang Xu, Assistant Professor	20%-50%	Math 501 Probability Math 502 Statistics Math 530 Linear Algebra for Statisticians Math 531 Regression (I) Math 532 Regression (II) Math 534 Data Analysis Math 535 Statistical Learning and Data Mining Math 536 Nonparametric Smoothing and Semiparametric Regression Math 556 Design of Experiments Math 559 Time Series Analysis	Ph.D., Texas A&M University	Statistics	

(a)	(b)	(c)	(d)	(e)	( <b>f</b> )
Faculty Member Name and Title and/or Rank at the Institution (Include and identify Program Director.)	% of Time 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 570 Applied Multivariate Analysis Math 540 Capstone Seminar I Math 541 Capstone Seminar II			
Qiqing Yu, Professor and Program Director	20%-50%	Math 501 Probability Math 502 Statistics Math 530 Linear Algebra for Statisticians Math 531 Regression (I) Math 532 Regression (II) Math 534 Data Analysis Math 537 Reliability Math 556 Design of Experiments Math 557 Survival Analysis Math 540 Capstone Seminar I 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 Math 502 Statistics Math 531 Regression (I) Math 532 Regression (II) Math 535 Statistical Learning and Data Mining Math 570 Applied Multivariate Analysis Math 540 Capstone Seminar I Math 541 Capstone Seminar II	Ph.D., University of Guelph	Statistics	