

# Letter of Intent/Program Announcement

## Out-of-State Programs

**Form 7**

Version 2014-11-17

Before submitting an *Out-of-State Program Proposal* for 50% or more of an academic program to be delivered at an out-of-state location, a SUNY campus must submit a Letter of Intent (LI) for graduate programs or a Program Announcement (PA) for all other programs with a cover letter to the Executive Vice Chancellor and Provost (Provost) at: [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The process is described at the end of this form.

Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton - Binghamton University
	Address:	4400 Vestal Parkway East PO Box 6000 Binghamton, NY 13902
	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 100%; height: 100px;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Biomedical Engineering
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 30 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0905.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	14.0501
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs</p> <p>Signature and date:</p>
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	<p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Biomedical Engineering (BME) graduate program at Binghamton University prepares students for careers in industry, business, academia or research lab environments by offering a flexible program of coursework and mentoring that enables students to engage in creative and independent research on cutting-edge research topics. The program is designed to prepare students for leadership positions in biomedical research, education and entrepreneurship and for success in a global environment. Graduates will have diverse career opportunities in academia, industries and businesses, working to improve human health and well-being through scientific and technological innovations.

The MS degree can typically be completed in 1.5 to 2.5 years. On the combined Bachelor of Science (BS)/MS 4+1 program, the MS degree component can be completed within 1 year. Students complete the core curriculum and electives, and undertake thesis research or a termination project. All students are required to complete 30 credits of coursework, including:

- Core graduate coursework (12 credit hours)
- Graduate elective coursework (12-15 credit hours)
- BME 599: Thesis (6 credit hours) or BME 598: Project (3 credit hours)
- Submit a termination project or a master's thesis with oral defense.

The proposed Out-of-State MS BME program will be offered in [REDACTED] to meet a global demand for high-skilled biomedical engineering professions. Binghamton University is uniquely poised for implementing this program.



All courses and program content will be offered in English.

### Section 3: Institutional Mission and Planning

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing MS in BME program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff who operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED] [REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED] has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]

- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, including [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone). The proposed Out-of-State Biomedical Engineering graduate program will offer unique educational opportunities for students to be

equipped with a comprehensive skill set covering life science, biomedical science and engineering, which will put the graduates well ahead of their peers in the growing job market.

## Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally. The Biomedical Engineering faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and engineering software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

██████████ will focus on operational and logistical aspects at the ██████████ location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. ██████████ will also be responsible for the day-to-day administration of the ██████████ campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution ██████████. It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Depending on space availability in the additional location, we may delay the start of this degree program.

<b>Expected Enrollment</b>	<b>When Program Begins</b>	<b>In Year 5</b>
Full-time students	40	80
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0



## **For other SUNY campuses responding to the Letter of Intent or Program Announcement**

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### **Letter of Intent/Program Announcement Process**

A campus must submit a LI or PA before submitting an *Out-of-State Program Proposal* for 50% or more of a credit-bearing program to be offered at an out-of-state location.

It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).

# Letter of Intent/Program Announcement

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Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
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	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 400px; height: 80px; margin: 10px 0;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Computer Science
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 31 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0701.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	11.0701
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	



<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs</p> <p>Signature and date:</p>
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	<p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Master of Science in Computer Science (MS CS) program is intended for students with a strong background in computer science and a desire to prepare for research studies or professional practice. Prospective students must complete a baccalaureate degree in computer science or a closely related field.

To earn the MS CS degree, students must complete 31 credits of computer science graduate courses as outlined below. Students can elect to complete a track in artificial intelligence or cybersecurity.

- (1) Complete the following three core courses (total of 9 credits).
  - CS 551 - Systems Programming
  - CS 571 - Programming Languages
  - CS 575 - Design & Analysis Comp Algorithms
- (2) Complete at least one of the following computer systems electives (3 credits):
  - CS 520 - Computer Architecture & Organization
  - CS 528 - Computer Networks
  - CS 550 - Operating Systems
- (3) Complete courses for either the project or thesis option (total of 19 credits).
  - Project Option: Six electives (making a total of ten courses) and a 1-credit project the student develops and presents.

- Thesis Option: Five electives (making a total of nine courses) and a 4-credit thesis the student writes and defends.

Students complete the Artificial Intelligence track by substituting four of the electives with four courses designated for this track — two are required and two are electives. The two required courses for this track are:

CS 536 - Intro to Machine Learning

CS 565 - Intro to Artificial Intelligence

And the two electives for this track are from a list of AI-related courses.

Students complete the Cybersecurity track by substituting four of the electives with four courses designated for this track — two are required and two are electives. The two required courses for this track are:

CS 558 - Intro to Computer Security

CS 559 - Science of Cyber Security

And the two electives for this track are from a list of cybersecurity-related courses.

All courses and program content will be offered in English.

### **Section 3: Institutional Mission and Planning**

- Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, “through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces.” The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhancing SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing MS in Computer Science graduate program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff who operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED]  
[REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED]  
[REDACTED] has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.





- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, including [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone). The proposed Out-of-State Computer Science graduate program will offer excellent educational opportunities for students to be equipped with a comprehensive skill set covering advanced computer science knowledge, AI/ML, cybersecurity, and other problem-solving skills, which will put the graduates well ahead of their peers in the growing job market.

#### Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The School of Computing faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and required software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

[REDACTED] will focus on operational and logistical aspects at the [REDACTED] location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and

facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. [REDACTED] will also be responsible for the day-to-day administration of the [REDACTED] campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution [REDACTED]. It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Expected Enrollment	When Program Begins	In Year 5
Full-time students	60	120
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0

## **For other SUNY campuses responding to the Letter of Intent or Program Announcement**

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

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The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

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Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).



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<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton - Binghamton University
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	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 100%; height: 100px;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Electrical and Computer Engineering
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 30 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0909.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	14.4701
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d)</b> <b>Campus</b> <b>Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e)</b> <b>Chief</b> <b>Executive or</b> <b>Chief</b> <b>Academic</b> <b>Officer</b> <b>Approval</b>	<b>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 proposed program. <i>E-signatures are acceptable.</i></b> Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs Signature and date:
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	Partner institution's name and 6-digit <a href="#">SED Code</a> :  Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Master of Science in Electrical and Computer Engineering (MS ECE) prepares students for development-oriented engineering careers and/or continuation to doctoral studies by providing 1) Increased depth in an area of focus, 2) Expanded breadth in supporting areas, and 3) Focused study of recent advances in the area of focus. The program offers the balance of advanced theory and practical engineering knowledge necessary to prepare its graduates for professional practice and/or for continuation into a PhD program. The program culminates with either a thesis or a project report through which students develop their ability to perform independent investigation of recent advances and present the results in a written document. The typical time for completion is 18-24 months of full-time study.

To complete the MS in Electrical and Computer Engineering, students must maintain at least a B average in the graduate coursework outlined below.

- (1) Students acquire depth by completing 3 courses (9 credits) in a single Area of Focus. Focus areas are defined by program faculty and represent major sub disciplines in ECE.
- (2) Students must complete 2 Breadth Courses (6 credits) from two different areas that are distinct from their chosen area of focus.
- (3) Students complete one Math Methods Course (3 credits): EECE 506 - Mathematical Methods In EE or EECE 507 - Mathematical Methods In COE or another graduate mathematical methods course with prior approval from the director of graduate programs



- (4) Students complete 2 approved elective courses (6 credits) for thesis option or 3 approved elective courses (9 credits) for project option.
- (5) Students must complete EECE 598 - Project/Pre-Thesis
- (6) Students choosing the thesis option must also complete EECE 599 - Thesis (3 credits)

All courses and program content will be offered in English.

### Section 3: Institutional Mission and Planning

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing MS in Electrical and Computer Engineering program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff that operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED]

[REDACTED] has been a Binghamton University partner for more than a decade [REDACTED] has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]



- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]

- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, including [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone). The proposed Out-of-State Electrical and Computer Engineering graduate program will offer excellent educational opportunities for students to be equipped with a comprehensive skill set covering advanced engineering knowledge and other problem-solving skills, which will put the graduates well ahead of their peers in the growing job market.

#### Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The ECE department faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and engineering software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

[REDACTED] will focus on operational and logistical aspects at the [REDACTED] location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. [REDACTED] will also be responsible for the day-to-day administration of the [REDACTED] campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution [REDACTED]. It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus.

MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Depending on space availability in the additional location, we may delay the start of this degree program.

<b>Expected Enrollment</b>	<b>When Program Begins</b>	<b>In Year 5</b>
Full-time students	40	80
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0



## **For other SUNY campuses responding to the Letter of Intent or Program Announcement**

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### **Letter of Intent/Program Announcement Process**

A campus must submit a LI or PA before submitting an *Out-of-State Program Proposal* for 50% or more of a credit-bearing program to be offered at an out-of-state location.

It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).


# Letter of Intent/Program Announcement

## Out-of-State Programs

**Form 7**

Version 2014-11-17

Before submitting an *Out-of-State Program Proposal* for 50% or more of an academic program to be delivered at an out-of-state location, a SUNY campus must submit a Letter of Intent (LI) for graduate programs or a Program Announcement (PA) for all other programs with a cover letter to the Executive Vice Chancellor and Provost (Provost) at: [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The process is described at the end of this form.

Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton – Binghamton University
	Address:	4400 Vestal Parkway East PO Box 6000 Binghamton, NY 13902
	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  	
<b>c) Proposed Program Information</b>	Program Title:	Healthcare Systems Engineering
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 30 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0913.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	14.3501
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs</p> <p>Signature and date:</p>
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	<p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Healthcare Systems Engineering (HSE) graduate program at Binghamton University provides students with the skills to design, analyze, and optimize healthcare systems. With a focus on healthcare operations, data analytics, and process improvement, the program equips students to address challenges in healthcare delivery and patient care. Graduates are prepared for leadership roles in healthcare management, operations, and technology implementation, driving improvements in efficiency, cost reduction, and patient outcomes.

The Master of Science (MS) in HSE degree program is offered in a 15-week semester-based curricular structure. Students need to complete a minimum of 30 credits to complete the program, which typically takes 1.5 to 2 years. All students are required to complete six core courses (Applied Probability and Statistics, Modeling and Simulation, Quality Assurance for Engineers, Fundamentals of Healthcare Systems, Industrial and Systems Engineering in Healthcare, and Healthcare Financial Engineering; 18 credits in total). The rest of the curriculum can be completed in one of the following three options:

- Thesis: Two additional graduate-level elective courses (at least one at 600- level), plus 6 credits of thesis work followed by oral presentation and defense.
- Project: Three additional graduate-level elective courses (at least one at 600-level), plus a project of at least 3 credits followed by oral presentation and defense.
- Coursework only: Three additional graduate-level elective courses, and one 600-level course (Advanced Topics in Health Systems), which contains project-based coursework to serve as capstone for the termination requirement.



The MS HSE program at Binghamton University provides a unique education with applications across healthcare sectors like hospitals, insurance, and medical device manufacturing, and healthcare consulting. As healthcare becomes more complex and expensive, there is increasing demand for professionals skilled in optimizing systems and using data-driven decisions to enhance patient care. Binghamton's proposed Out-of-State program in [REDACTED] seeks to meet this need, offering world-class HSE education to a region poised for healthcare growth and innovation.

All courses and program content will be offered in English.

### Section 3: Institutional Mission and Planning

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing MS in Healthcare Systems Engineering graduate program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff who operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED]

[REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED]



has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]

- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, including [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone).

The proposed Out-of-State HSE graduate program will offer students a unique opportunity to develop expertise in areas such as healthcare optimization, process improvement, data analytics, financial modeling, and operations management. With a focus on practical problem-solving and interdisciplinary collaboration, this program will equip graduates with the advanced technical and analytical skills needed to thrive in the evolving healthcare sector, positioning them ahead of their peers in healthcare delivery, management, and technology.

## Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The HSE faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and engineering software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

[REDACTED] will focus on operational and logistical aspects at the [REDACTED] location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. [REDACTED] will also be responsible for the day-to-day administration of the [REDACTED] campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution ( ). It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Depending on space availability in the additional location, we may delay the start of this degree program.

Expected Enrollment	When Program Begins	In Year 5
Full-time students	40	80
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0

## For other SUNY campuses responding to the Letter of Intent or Program Announcement

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### Letter of Intent/Program Announcement Process

A campus must submit a LI or PA before submitting an *Out-of-State Program Proposal* for 50% or more of a credit-bearing program to be offered at an out-of-state location.

It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).



# Letter of Intent/Program Announcement

## Out-of-State Programs

**Form 7**

Version 2014-11-17

Before submitting an *Out-of-State Program Proposal* for 50% or more of an academic program to be delivered at an out-of-state location, a SUNY campus must submit a Letter of Intent (LI) for graduate programs or a Program Announcement (PA) for all other programs with a cover letter to the Executive Vice Chancellor and Provost (Provost) at: [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The process is described at the end of this form.

Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton - Binghamton University
	Address:	4400 Vestal Parkway East PO Box 6000 Binghamton, NY 13902
	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 200px; height: 20px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 300px; height: 20px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 150px; height: 20px;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Information Systems
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 31 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0702.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	11.0103
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs</p> <p>Signature and date:</p>
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	<p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Master of Science in Information Systems (MS IS) program prepares students to meet the growing demand for professionals skilled in data mining and analysis, and in creating and configuring systems to process vast quantities of information. The program curriculum is designed for students who have an interest in computer systems strictly from the user/application perspective and whose career paths are focused on computer hardware and software systems operations and maintenance. This differs from computer science programs, which tend to emphasize software and hardware theoretical foundations; design; and formal analysis techniques for assessment of performance, cost and functional tradeoffs.

Students will develop the skills for:

- Configuring and integrating various IS components, such as networking and software systems, databases, data analytics and web-based systems and software packages.
- Programming and scripting, including software testing skills, starting from basic programming principles to the use of packages and utilities for larger applications.

For students to earn the MS in Information Systems degree, they must complete 31 credits of graduate courses as outlined below. Students can elect to complete a track in Applied Data Science.

(1) Complete the following three core courses (total of 9 credits).

INFO 501 Information Systems I

INFO 502 Information Systems II

## INFO 532 Database Systems

- (2) Complete seven electives (making a total of ten courses) and a 1-credit project the student develops and presents.

Students complete the Applied Data Science track by substituting four of the electives with four courses designated for this track — two are required and two are electives. The two required courses for this track are:

INFO 535 - Applied Data Mining

INFO 536 - Applied Machine Learning

And the two electives for this track are from a list of Data Science related courses.

All courses and program content will be offered in English.

### Section 3: Institutional Mission and Planning

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing MS in Information Systems graduate program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff who operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.



The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED] [REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED] has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]

- [REDACTED]
- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, including [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone). The proposed Out-of-State Information Systems graduate program will offer excellent educational opportunities for students to be equipped with a comprehensive skill set covering database management, data analytics, data mining, machine learning, cybersecurity, and other problem-solving skills, which will put the graduates well ahead of their peers in the growing job market.

#### **Section 5: Resources and Projected Enrollment**

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The School of Computing faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and required software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

[REDACTED] will focus on operational and logistical aspects at the [REDACTED] location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. [REDACTED] will also be responsible for the day-to-day administration of the [REDACTED] campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution ( ). It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Depending on space availability in the additional location, we may delay the start of this degree program.

Expected Enrollment	When Program Begins	In Year 5
Full-time students	40	80
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0



## For other SUNY campuses responding to the Letter of Intent or Program Announcement

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### Letter of Intent/Program Announcement Process

A campus must submit a LI or PA before submitting an *Out-of-State Program Proposal* for 50% or more of a credit-bearing program to be offered at an out-of-state location.

It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).

# Letter of Intent/Program Announcement

## Out-of-State Programs

**Form 7**

Version 2014-11-17

Before submitting an *Out-of-State Program Proposal* for 50% or more of an academic program to be delivered at an out-of-state location, a SUNY campus must submit a Letter of Intent (LI) for graduate programs or a Program Announcement (PA) for all other programs with a cover letter to the Executive Vice Chancellor and Provost (Provost) at: [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The process is described at the end of this form.

Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton – Binghamton University
	Address:	4400 Vestal Parkway East PO Box 6000 Binghamton, NY 13902
	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 100%; height: 100px; min-height: 80px;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Industrial and Systems Engineering
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 30 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0913.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	14.3501
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs Signature and date:</p>
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	<p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Industrial and Systems Engineering (ISE) graduate program equips students with the advanced knowledge, techniques, and tools required to model, analyze, optimize, and improve systems in diverse industries. The program prepares students to tackle real-world challenges in manufacturing, healthcare, logistics, operations management, and more.

The Master of Science in ISE degree program is offered in a 15-week semester-based curricular structure. Students are required to complete a minimum of 30 credits to complete the program. Students are required to complete four core courses (Applied Probability and Statistics, Enterprise Systems Engineering, Modeling and Simulation, and either Operations Research or Quality Assurance for Engineers; 12 credits in total). The rest of the curriculum can be completed in one of the following three options:

- Thesis: Four additional graduate-level elective courses (at least one at 600- level), plus 6 credits of thesis work followed by oral presentation and defense.
- Project: Five additional graduate-level elective courses (at least one at 600-level), plus a project of at least 3 credits followed by oral presentation and defense.
- Coursework only: Six additional graduate-level elective courses, including at least one 600-level course that contains project-based coursework to serve as capstone for the termination requirement.

In addition to the required courses, students completing the Health Systems Concentration must:

- Take SSIE 537 - Industrial and Systems Engineering in Healthcare, plus
- Take one approved healthcare-related course as one of their chosen electives, plus
- Present and defend a healthcare-related thesis or project, or
- Complete SSIE 637 - Advanced Topics in Health Systems (coursework-only option).

Students completing the Engineering Management Concentration (EMC):

- Complete seven core courses (Applied Probability and Statistics, Enterprise Systems Engineering, Operations Management Supply Chains, Modeling and Simulation, Advanced Decision Modeling, Operations Research, and Engineering Project Management; 21 credits in total), plus
- One 600-level course, plus
- Present and defend an engineering-management-related thesis, or
- Complete two additional 600-level courses and present and defend an engineering-management-related termination project, or
- Complete two additional graduate courses and the Advanced Engineering Management capstone project course.

All courses and program content will be offered in English.

### **Section 3: Institutional Mission and Planning**

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing M.S. in ISE program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff who operate the existing program.



- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED]  
[REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED] has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]



- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone).

The proposed Out-of-State ISE graduate program will provide students with unique educational opportunities to develop a comprehensive skill set in areas such as optimization, process improvement, data analytics, systems modeling, and operations research. Through a strong emphasis on practical problem-solving and interdisciplinary thinking, this program will equip graduates with the advanced technical and analytical skills required to excel in a rapidly evolving job market, which will position them well ahead of their peers in industries such as manufacturing, healthcare, logistics, and technology.

## Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The ISE faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and engineering software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

██████████ will focus on operational and logistical aspects at the ██████████ location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. ██████████ will also be responsible for the day-to-day administration of the ██████████ campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution (██████████). It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Expected Enrollment	When Program Begins	In Year 5
Full-time students	60	120
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0

## **For other SUNY campuses responding to the Letter of Intent or Program Announcement**

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### **Letter of Intent/Program Announcement Process**

A campus must submit a LI or PA before submitting an *Out-of-State Program Proposal* for 50% or more of a credit-bearing program to be offered at an out-of-state location.

It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).



# Letter of Intent/Program Announcement Out-of-State Programs

**Form 7**

Version 2014-11-17

Before submitting an *Out-of-State Program Proposal* for 50% or more of an academic program to be delivered at an out-of-state location, a SUNY campus must submit a Letter of Intent (LI) for graduate programs or a Program Announcement (PA) for all other programs with a cover letter to the Executive Vice Chancellor and Provost (Provost) at: [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The process is described at the end of this form.

Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton – Binghamton University
	Address:	4400 Vestal Parkway East PO Box 6000 Binghamton, NY 13902
	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 100%; height: 100px;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Mechanical Engineering
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 30 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	0910.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	14.1901
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs Signature and date:</p> <p><b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b></p> <p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Mechanical Engineering (ME) Department offers graduate programs in the broad field of mechanical engineering. The program leading to the Master of Science (M.S.) degree provides a balance of advanced theory and practical knowledge necessary for either practice within the profession or for advancement to a doctoral program. Students will choose one of the following areas of emphasis (AOE), based on their interests:

1. Dynamics and Mechatronics
2. Manufacturing and Materials
3. Solid Mechanics and Mechanical Design
4. Thermofluid and Energy Sciences

The M.S. in ME program is offered in a 15-week semester-based curricular structure. A minimum of 30 credits are required to complete the program. Students are required to complete:

- Three core courses:
  1. Analytical Methods
  2. Computational Course (Finite Element Analysis or Computational Fluid Dynamics)
  3. Mechanics Course (Elasticity, Plasticity, Applied Mechanics for Design, Mechanics and MFG of Composite, Adv. Mech. Vibrations, or Intro To Fluid Dynamics)
- Three courses in a single area of emphasis
- Two technical elective courses



The rest of the curriculum is completed by one of the following two options:

- Thesis: Six credits of thesis work followed by oral presentation and defense.
- Project/Internship: One additional area of emphasis course, plus a 3-credit project or a 3-credit industrial internship.

All courses and program content will be offered in English.

### Section 3: Institutional Mission and Planning

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing M.S. in ME program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff who operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED] [REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED] has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]

- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.



The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, which include [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone).

The proposed Out-of-State ME graduate program will provide students with unique educational opportunities to develop a comprehensive skill set in areas such as mechanical design, manufacturing, materials, mechatronics, thermofluids, and energy systems. Through a strong emphasis on practical problem-solving and interdisciplinary thinking, this program will equip graduates with the advanced technical and analytical skills required to excel in a rapidly evolving job market, which will position them well ahead of their peers in industries such as manufacturing, transportation, defense, energy generation, robotics, and automation.

## Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The ME faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and engineering software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

[REDACTED] will focus on operational and logistical aspects at the [REDACTED] location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. [REDACTED] will also be responsible for the day-to-day administration of the [REDACTED] campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution ( ). It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Depending on space availability in the additional location, we may delay the start of this degree program.

Expected Enrollment	When Program Begins	In Year 5
Full-time students	40	80
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0

## **For other SUNY campuses responding to the Letter of Intent or Program Announcement**

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### **Letter of Intent/Program Announcement Process**

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It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).



# Letter of Intent/Program Announcement

## Out-of-State Programs

**Form 7**

Version 2014-11-17

Before submitting an *Out-of-State Program Proposal* for 50% or more of an academic program to be delivered at an out-of-state location, a SUNY campus must submit a Letter of Intent (LI) for graduate programs or a Program Announcement (PA) for all other programs with a cover letter to the Executive Vice Chancellor and Provost (Provost) at: [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The process is described at the end of this form.

Section 1. General Information		
<b>a) Institutional Information</b>	Institution's 6-digit <a href="#">SED Code</a> :	211000
	Institution's Name:	State University of New York at Binghamton - Binghamton University
	Address:	4400 Vestal Parkway East PO Box 6000 Binghamton, NY 13902
	Dept of Labor/ <a href="#">Regent's Region</a> :	Southern Tier
<b>b) Program Locations</b>	List each out-of-state location where the program will be offered by partner institution name (if applicable), address, and state or country:  <div style="background-color: black; width: 100%; height: 100px;"></div>	
<b>c) Proposed Program Information</b>	Program Title:	Systems Science
	<a href="#">Award(s)</a> (e.g., A.A., B.S.):	M.S.
	Number of Required Credits:	Minimum [ 30 ] If tracks or options, largest minimum [   ]
	Proposed <a href="#">HEGIS Code</a> :	4904.00
	Proposed 6-digit <a href="#">CIP 2020 Code</a> :	30.0601
	If the program will be accredited, list the accrediting agency and expected date of accreditation:	
	If applicable, list the SED <a href="#">professional licensure title(s)</a> <sup>[1]</sup> to which the program leads:	

<b>d) Campus Contact</b>	Name and title: Terrence Deak, Vice Provost and Dean of The Graduate School Telephone and email: 607-777-2077; tdeak@binghamton.edu
<b>e) Chief Executive or Chief Academic Officer Approval</b>	<p><b>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 proposed program. <i>E-signatures are acceptable.</i></b></p> <p>Name and title: Donald E. Hall, Provost and Executive Vice President for Academic Affairs</p> <p>Signature and date:</p>
	<b>If the program will be registered jointly<sup>[2]</sup> with one or more other institutions, provide the following information for <u>each</u> institution:</b>
	<p>Partner institution's name and 6-digit <a href="#">SED Code</a>:</p> <p>Name, title, and signature of partner institution's CEO (or <b>append</b> a signed letter indicating approval of this proposal):</p>

## Section 2: Program Identify and Abstract

In no more than 300 words, describe the proposed program, including its purpose, academic content, structure, and duration.

The Systems Science graduate program at Binghamton University is a unique, internationally recognized, highly transdisciplinary program that provides students with concepts, principles and methods for understanding, modeling, analyzing, optimizing and improving various forms of complex systems. Such systems thinking and problem-solving skills will be an invaluable asset when the student blazes a new trail in any scientific, engineering, business or management profession in today's increasingly complex world.

The Master of Science in Systems Science degree program is offered in a 15-week semester-based curricular structure. Students need to complete a minimum of 30 credits to complete the program, which typically takes 1.5 to 2 years. All students are required to complete four core courses (Introduction to Systems Science, Computational Tools, Applied Probability and Statistics, and either Modeling and Simulation or Collective Dynamics of Complex Systems; 12 credits in total). The rest of the curriculum can be completed in one of the following three options:

- Thesis: Four additional graduate-level elective courses (at least one at 600- level), plus 6 credits of thesis work followed by oral presentation and defense.
- Project: Five additional graduate-level elective courses (at least one at 600-level), plus a project of at least 3 credits followed by oral presentation and defense.
- Coursework only: Six additional graduate-level elective courses, including at least one 600-level course that contains project-based coursework to serve as capstone for the termination requirement.



This Systems Science program is highly unique and not offered widely at other higher education institutions. There is a growing demand, however, for systems-oriented workforce that is trained with Systems Science concepts, tools, and problem-solving skills, especially in rapidly growing socio-economic regions like [REDACTED]. The proposed Out-of-State program to be offered in [REDACTED] is precisely to meet this global need for interdisciplinary systems education for which Binghamton University is uniquely poised.

All courses and program content will be offered in English.

### Section 3: Institutional Mission and Planning

- a. Explain the relationship of the program to SUNY's and the institution's strategic plan.

Binghamton University has long been deeply committed to international education. Strategic Priority 6 in our campus Road Map strategic plan focuses on international education and partnerships. Specifically, the plan states, "through partnerships with universities, non-governmental organizations and colleagues around the world, Binghamton will strengthen its research; offer opportunities to its students, faculty and staff as well as to students and faculty from our partners; and make a positive impact on the world and the many challenges it faces." The proposed Out-of-State program fully aligns with SUNY's and Binghamton University's strategic plans by establishing a strong presence and reputation of SUNY and Binghamton University in a global market and thereby significantly enhances SUNY's global competitiveness. It will help create new channels of revenue, talents, innovations, and international collaborative opportunities between SUNY and [REDACTED] one of the fastest growing global markets.

- b. Describe the program's relationship to existing or projected programs in the same or related disciplines and its expected impact on them.

The proposed Out-of-State program will offer the exact same curriculum as the currently existing M.S. in Systems Science graduate program offered at Binghamton University. It is not expected to have any major impact on the existing program because it will operate with a separate team of teaching faculty and staff, who will be trained by the current Binghamton University faculty and staff that operate the existing program.

- c. Summarize proposed arrangements for required external instruction (e.g., clinical instruction, agency placement, practice teaching, internships) and how those arrangements would affect other programs in the same facilities. Attest to the sufficiency of proposed off-campus external instruction locations for projected enrollment.

The proposed Out-of-State program will be offered in facilities in [REDACTED] maintained by [REDACTED] is an extension of [REDACTED]

[REDACTED] has been a Binghamton University partner for more than a decade. [REDACTED]

has agreed to provide necessary instructional space, facilities and staff support to run this program. It will not affect other programs currently run by [REDACTED]

- d. What authorizations are necessary to offer academic programs at the proposed out-of-state location?

In addition to approvals by Watson College and Binghamton University's Faculty Senate, approval by SUNY Global and the SUNY Board of Trustees is necessary to offer this program.

#### Section 4: Market Need and Demand

- a. Identify the need for the proposed program within the SUNY system in terms of the availability and capacity of similar programs offered by other SUNY campuses at the out-of-state location. If there could be a reasonable perception of duplication or redundancy, please provide the rationale for adding this program.

We are not aware of any other SUNY program offerings in [REDACTED]

- b. Identify similar programs at non-SUNY U.S. institutions, public and private, offered at the international location and, where appropriate, the potential impact on them.

[REDACTED]

- c. Identify the potential need for this program in terms of the economy and/or educational needs of the area in which it is to be located.

[REDACTED]



- d. If the program is designed to prepare graduates for immediate employment, estimate employment opportunities and explain how the estimate was made.

The employment opportunities in engineering and technology sectors in [REDACTED] are rapidly expanding as the country accelerates development in tech industries and social infrastructure. Several recent estimates have been reported by multiple sources, including [REDACTED] and First Meridian Business Services (20% tech job market increase expected within 2025 alone). The proposed Out-of-State Systems Science graduate program will offer unique educational opportunities for students to be equipped with a comprehensive skill set covering AI/ML, data science, mathematical modeling, computer simulation, and other systems thinking and problem-solving skills, which will put the graduates well ahead of their peers in the growing job market.

## Section 5: Resources and Projected Enrollment

- a. Will faculty from the home campus teach in the program or will additional faculty be hired?

Faculty will be hired locally in [REDACTED]. The Systems Science faculty on Binghamton University's home campus will also visit and train the local faculty and offer guest lectures and other kinds of interactions with students on a regular basis.

- b. What are the costs associated with the program and how will existing/anticipated resources address these costs?

The costs associated with the proposed program will include the expenses for hiring and training local faculty, the travel expenses for the home campus faculty and the local faculty to visit each other for exchange, the fees for local facility usage, and other administrative costs including student support, equipment and technology, and laboratories. As participants will be Binghamton University students, they will have access to Binghamton University libraries and any required software via the internet. The upfront costs will be covered by an initial investment of funds approved by the Provost in consultation with the President and CFO.

[REDACTED] will focus on operational and logistical aspects at the [REDACTED] location. This includes providing the necessary physical infrastructure such as land, rental space, utilities, and facilities to host the programs. It will manage the recruitment and administration of non-teaching staff, support the marketing and promotion of degree programs, and assist Binghamton with recruitment and admission processes. [REDACTED] will also be responsible for the day-to-day administration of the [REDACTED] campus and offer student support services, such as counseling and career guidance, in partnership with Binghamton University.

- c. Complete the table below and explain how projected enrollments were determined. Since expected enrollment may affect the future campus enrollment composition and totals, estimate the impact of the program on total campus enrollment.

Projected enrollments were estimated through discussion with the partner institution ( ). It is anticipated that some students who enroll in the proposed program will be interested in continuing their education in PhD programs offered at the Binghamton University home campus. MS students who wish to continue in the PhD program will seek admission through standard application processes and be admitted according to regular PhD admissions standards as capacity permits. In addition, the additional location will provide opportunities for cultural immersion and global experiences for Binghamton students from the home campus.

Depending on space availability in the additional location, we may delay the start of this degree program.

Expected Enrollment	When Program Begins	In Year 5
Full-time students	40	80
Part-time students	0	0
No. of students enrolled at the main campus going to the out-of-state location	0	0

## **For other SUNY campuses responding to the Letter of Intent or Program Announcement**

Do you have a similar or related program in the location proposed for this program? • What has been your experience with the program and/or location? • Would the introduction of this program have any effect, positive or negative, on your institution? If so, please specify. • Do you perceive a need for this kind of program? • Is there opportunity for articulation or inter-institutional cooperation? **Your response should be addressed to the President of the proposing campus with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu).**

### **Letter of Intent/Program Announcement Process**

A campus must submit a LI or PA before submitting an *Out-of-State Program Proposal* for 50% or more of a credit-bearing program to be offered at an out-of-state location.

It is the responsibility of the proposing campus, by means of the LI or PA, to seek substantive information from other SUNY campuses (particularly those with experience with related programs) and to use this information to construct a sound program proposal that fully addresses any suggestions, concerns or objections expressed by other institutions or the office of the SUNY Provost.

The SUNY Provost reviews each LI or PA for accuracy and completeness as well as for substantive issues, such as alignment with campus mission, and requests changes when needed.

Once an LI or PA is acceptable, the SUNY Provost's office circulates it in a weekly *Program Review Update*, which starts a 30-day comment period. The *Update* is sent to all campus presidents, chief academic officers, and others who have requested to be on the SUNY Program Review listserv.

Within 30 days, the President of each interested campus should send comments to the President of the proposing campus, with a copy to the Provost at [program.review@sysadm.suny.edu](mailto:program.review@sysadm.suny.edu). The comments may include advice and suggestions about articulation opportunities, enrollment trends in related programs, opportunities for cooperation, as well as concerns about potential competition with existing programs at similar locations, or other issues.

The proposing campus shall address any matters or concerns expressed by other SUNY institutions in response to the LI or PA before submitting its *Out-of-State Program Proposal*.

Once the 30-day comment period is over and any objections have been resolved, the campus submitting the PA may proceed to develop and submit the proposal. For a LI, the Provost's office will send a written response to the proposing campus that may authorize the campus to proceed with the program proposal.

A PA is valid for one year and a LI is valid for two years from the date of the Provost's approval letter, which means that an *Out-of-State Program Proposal* must be submitted within the respective period. If the LI or PA expires, the campus is required to submit another LI or PA to start the cycle again.

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[1] If the proposed program leads to a professional license, a [specialized form for the specific profession](#) may need to accompany this proposal.

[2] If the partner institution is non-degree-granting, see SED's [CEO Memo 94-04](#).