



UNIVERSITY  
AT ALBANY

State University of New York

Office of the Provost & Vice President for Academic Affairs

December 18, 2013

Elizabeth L. Bringsjord  
Interim Provost and Vice Chancellor  
State University of New York  
System Administration  
State University Plaza  
Albany, NY 12246

Dear Dr. Bringsjord,

I am pleased to submit for your consideration the attached program announcement for an undergraduate program in Informatics. The new program has been fully approved on campus via multi-level governance review.

We would appreciate your publication of this program announcement to the State University campuses to solicit any feedback they may have. Following the thirty day review period, we will conduct a site review, the results from which will be incorporated in the complete program proposal that we will submit. Should there be a need for additional information or clarification to facilitate processing, please contact Suzanne Freed, Asst Vice Provost for Undergraduate Education at [sfreed@albany.edu](mailto:sfreed@albany.edu).

Thank you for your consideration and assistance.

Sincerely,

Susan D. Phillips, Ph.D.  
Provost and Vice President for Academic Affairs

Enclosure

- c. Dr. Jeanette Altarriba, Vice Provost and Dean for Undergraduate Education
- Dr. Sue Faerman, Interim Dean College of Computing and Information
- Dr. George Berg, Chair Informatics
- Dr. Jennifer Goodall, Assistant Dean, Department of Informatics
- Ms. Suzanne Freed, Asst Vice Provost for Undergraduate Education



# Program Announcement: Undergraduate Degree Program

**Form 1A**

Before submitting a proposal for a new program leading to an undergraduate degree, a SUNY campus must submit a cover letter signed by the Chief Executive or Chief Academic Officer and a completed Program Announcement (PA) to the SUNY Provost at [program.review@suny.edu](mailto:program.review@suny.edu). The PA procedure is described at the end of this form.

Section 1. General Information															
Item	Response <i>(type in the requested information)</i>														
<b>a) Institutional Information</b>	List each campus (and its 6-digit <a href="#">SED Institution Code</a> ) where the entire program will be offered: University at Albany State University of New York 210500														
<b>b) Program Locations</b>	List the name and address of each off-campus location (e.g., <a href="#">extension site or extension center</a> ) where courses (but not the entire program) will offered, <b>or check here [ X ] if not applicable.</b>  If applicable, send documentation to show that <a href="#">SUNY policy on off-campus locations</a> has been followed.  Will 50% or more of the program be offered at a distance? [ X ] Yes [ ] No														
<b>c) Proposed Program Information</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; padding: 2px;">Program Title:</td> <td style="padding: 2px;">Informatics</td> </tr> <tr> <td style="padding: 2px;"><a href="#">Award(s)</a> (e.g., A.A.S., B.A.):</td> <td style="padding: 2px;">B.S.</td> </tr> <tr> <td style="padding: 2px;">Number of Required Credits:</td> <td style="padding: 2px;">Minimum [ 120 ] If tracks or options, largest minimum [ ]</td> </tr> <tr> <td style="padding: 2px;">Proposed Program Codes:</td> <td style="padding: 2px;"><a href="#">HEGIS Code</a> [ 0702 ] 6-digit <a href="#">CIP 2010 Code</a> [11.0104 ]</td> </tr> <tr> <td colspan="2" style="padding: 2px;">If the program will be accredited, list the accrediting agency and expected date of accreditation: n/a</td> </tr> <tr> <td colspan="2" style="padding: 2px;">If applicable, list the <a href="#">New York State certificate title(s) and type(s)</a> to which the program leads: n/a</td> </tr> <tr> <td colspan="2" style="padding: 2px;">If applicable, list the New York State <a href="#">professional licensure title(s)</a> to which the program leads: n/a</td> </tr> </table>	Program Title:	Informatics	<a href="#">Award(s)</a> (e.g., A.A.S., B.A.):	B.S.	Number of Required Credits:	Minimum [ 120 ] If tracks or options, largest minimum [ ]	Proposed Program Codes:	<a href="#">HEGIS Code</a> [ 0702 ] 6-digit <a href="#">CIP 2010 Code</a> [11.0104 ]	If the program will be accredited, list the accrediting agency and expected date of accreditation: n/a		If applicable, list the <a href="#">New York State certificate title(s) and type(s)</a> to which the program leads: n/a		If applicable, list the New York State <a href="#">professional licensure title(s)</a> to which the program leads: n/a	
Program Title:	Informatics														
<a href="#">Award(s)</a> (e.g., A.A.S., B.A.):	B.S.														
Number of Required Credits:	Minimum [ 120 ] If tracks or options, largest minimum [ ]														
Proposed Program Codes:	<a href="#">HEGIS Code</a> [ 0702 ] 6-digit <a href="#">CIP 2010 Code</a> [11.0104 ]														
If the program will be accredited, list the accrediting agency and expected date of accreditation: n/a															
If applicable, list the <a href="#">New York State certificate title(s) and type(s)</a> to which the program leads: n/a															
If applicable, list the New York State <a href="#">professional licensure title(s)</a> to which the program leads: n/a															
<b>d) Contact Person for Proposal</b>	Name and title: Suzanne K Freed Assistant Vice Provost for Undergraduate Education Telephone: 518-242-6046 E-mail: <a href="mailto:sfreed@albany.edu">sfreed@albany.edu</a>														
<b>e) Chief Executive or Chief Academic Officer Approval</b>	Name and title: Dr Susan D Phillips Provost and Vice President for Academic Affairs Email for receiving comments: <a href="mailto:provost@albany.edu">provost@albany.edu</a> Date: December 17, 2013  <b>If the intended program will be offered jointly with one or more other institutions, provide the following information for each institution:</b>  Partner institution's name, CEO's name and title:														

*Version 2013-10-15*

<b>Section 2. Program Summary</b>
-----------------------------------

In 300 or fewer words, describe the proposed program, including its purpose, content, structure, and duration.

<b>Expected Enrollment</b>	<b>When Program Begins</b>	<b>In Year 5</b>
Full-time students	239	350
Part-time students	10	50

**Program Summary:**

The BS in Informatics offers students a broad-based academic degree with the in-depth training and educational experiences necessary to prepare them for specific technology-focused careers. The liberal arts foundation of this degree will ensure that graduates develop lifelong learning strategies, so critical in the always-changing field of technology. To preserve the ability to respond to these changes, the program is designed to offer specialized concentrations. These concentrations can be modified and new ones can be added as needs arise.

Informatics is technology applied to specific fields. Informatics serves as the bridge between computing and information technology and specific application domains, ranging, for example, from the government and public policy to economics to health care. Computing and information technologies have become increasingly embedded in the day-to-day operations of commerce, industry and the private sector. More individuals are needed who understand a diverse set of technologies and how to apply them across fields, to solve problems, improve productivity and collect and analyze data.

The BS in Informatics responds to the projected growth in technology related careers, both nationally and regionally.

**Content and Structure:**

This major consists of 54 credits taken in context of a 120 credit degree. All students will take a common core (42 credits) that address Information and Society, Practical Applications, Math and Research, and Experiential Learning. Each student will also complete a 12 credit concentration in one of the following: Interactive User Experience, Cyber Security, Computer Networking, Social Media, Data Analytics, Software Development or Information Technology. A student-designed concentration is available with approval.

**Section 3. Curriculum**

Provide a list of all courses in the curriculum, including (Liberal Arts and Sciences, SUNY General Education Requirement, Transfer Path courses) to show the entire structure and content of the program. Expand or duplicate the table as needed for tracks, concentrations and specializations.

See attached table and additional information.

## SUNY Undergraduate Sample Program Schedule Program

Track Title and Award: Informatics, BS

a) Indicate academic calendar type: [X] Semester [ ] Quarter [ ] Trimester [ ] Other (describe):

b) Label each term in sequence, consistent with the institution's academic calendar (e.g., Fall 1, Spring 1, Fall 2)

c) Name of SUNY [Transfer Path](#), if one exists: N/A

d) Use the table to show how a typical student may progress through the program; copy/expand the table as needed. Complete all columns that apply to a course.

Term 1: Fall 1								Term 2: Sprg 1									
See KEY.								See KEY.									
Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites	Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites		
ICSI 105 Computing and Information	3		3	3				IINF 200 Res Meth for Informatics	3			3		X	IINF 100		
IINF 100 Information in the 21 <sup>st</sup> Century	3		3	3				IINF 201 Intro to Web Technology	3		3	3			IINF 100		
Natural Science Gen Ed	3	NS	3					AMAT 108 Statistics	3	MS	3	3					
Arts Gen Ed	3	AR	3					UUNI 110 Writing and Critical Inquiry	3	BC	3						
Elective	3							Elective	3								
Term credit totals:	15	6	12	6				Term credit totals:	15	6	9	9					
Term 3: Fall 2								Term 4: Sprg 2									
See KEY.								See KEY.									
Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites	Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites		
IINF 202	3			3			ICSI 105	IINF 203	3			3		X	ICSI 105		
IINF 301	3		3	3			IINF 100	Social Science Gen Ed	3	SS	3						
AMAT 101, 104, 106 or 112	3	MS	3	3				US Historical Perspectives	3	AH	3						
Foreign Language Gen Ed	3	FL	3					Humanities	3	H	3						
International Perspectives Gen Ed	3	WC	3					Elective	3								
Term credit totals:	15	9	12	9				Term credit totals:	15	9	9	3					
Term 5: Fall 3								Term 6: Sprg 3									
See KEY.								See KEY.									
Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites	Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites		
IINF 305 Digital Project Management	3			3		X	IINF 201 and 202	Informatics Concent. Course	3			3					
Informatics Concentration Course	3			3				Informatics Experiential Course	3			3					
Elective, Liberal Arts	3		3					Elective, Liberal Arts	3		3						
Elective	3							Elective	3								
Elective	3							Elective	3								
Term credit totals:	15		3	6				Term credit totals:	15		3	6					
Term 7: Fall 4								Term 8: Sprg 4									
See KEY.								See KEY.									
Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites	Course Number & Title	Cr	GER	LAS	Maj	TPath	New	Co/Prerequisites		
Informatics Concentration Course	3			3				Informatics Concent Course	3			3					
Informatics Experiential Course	3			3				Informatics Experiential Course	3			3					
Elective, Liberal Arts	3		3					INF 499W	3		3	3			Informatics seniors only		
Elective, Liberal Arts	3		3					Elective, Liberal Arts	3		3						
Elective	3							Elective	3								
Term credit totals:	15		6	6				Term credit totals:	15		6	9					
<b>Program Totals (in credits):</b>		<b>Total Credits: 120</b>		<b>SUNY GER: 30</b>		<b>LAS: 60</b>		<b>Major: 54</b>		<b>Elective &amp; Other: 42</b>		<b>Upper Division: 21</b>		<b>Upper Division Major: 21</b>		<b>Number of SUNY GER Categories:</b>	

## Further details:

### Experiential Learning (9 credits)

I INF 465 Senior Capstone Project (3) *(new course)*

I INF 466 Undergraduate Research (3) *(new course)*

I INF 467 Technology-based Community Support (3) *(new course)*

I INF 468 Undergraduate Internship (3)

I INF 469 Undergraduate Internship for Online IT Students (9) *(new course)*

E APS 487 Peer Mentoring (3)

### Concentrations (12 credits)

#### *Interactive User Experience*

I INF 302 Human-Computer Interactive Design (3) *(new course)* Prereq, IINF 301

I INF 362 Intermediate Interactive Design (3) *(new title)* Prereq, IINF 302

Select two from:

I INF 308 Programming for Informatics (3) *(new course)* Prereqs: ICSI 105 and IINF 100

I INF 363 Digital Design (3) *(new course)* Prereq: IINF 201

I INF 401 Case Studies in Digital Citizenship (3) *(new course)* Prereq: IINF 301

I INF 462 Current Technologies in Web Design (3) *(new course)* Prereqs: IINF 362 and IINF 363

I INF 496 Special Topics (3) (as appropriate, repeatable) Prereq: Junior or Senior standing

I CSI 107 Web Programming (3)

I CSI 124X Computer Security Basics (3)

A DOC 324 (= A JRL 324) Introduction to Documentary Photography (3)

A DOC 330 (= A HIS 330) Foundations of Documentary Web/Hypermedia Production (3)

A DOC 406 (= A HIS 406) Practicum in Historical Documentary Filmmaking (4)

A DOC 407 (= A HIS 407) Readings and Practicum in Digital History and Hypermedia (4)

### *Cyber-security*

I CSI 124X Computer Security Basics (3)

I INF 306 Information Security & Assurance (3) *(new course)* Prereq: IINF 202

Select two from:

I INF 401 Case Studies in Digital Citizenship (3) *(new course)* Prereq: IINF 301

I INF 452 Computer and Network Security (3) *(new course)* Prereq: IINF 306

I INF 453 Information Security and Privacy (3) *(new course)* Prereq: IINF 306

I INF 454 Human Aspects of Cyber-security (3) *(new course)* Prereq: IINF 306

I INF 455 Prevention and Protection Strategies in Cyber-security (3) *(new course)* Prereq: IINF 306

I INF 496 Special Topics (3) (as appropriate, repeatable) Prereq: Junior or Senior standing

I CSI 300Z Social, Security and Privacy Implications of Computing (3) Prereq: ICSI 105

I CSI 424 Information Security (3) Prereq: ICSI 400 or 402

I CSI 426 Cryptography (3) Prereq: ICSI 333. Coreq: ICSI 403

### *Computer Networking*

I INF 303 Intermediate Networking (3) (currently I INF 423) Prereq: IINF 203

I INF 304 Intermediate Hardware and Operating Systems (3) (currently INF I 424) Prereq: IINF 203

Select two from:

I INF 306 Information Security & Assurance (3) *(new course)* Prereq: IINF 202

I INF 403 Advanced Networking and Security (3) *(new course)* Prereq: IINF 303, IINF 404

I INF 404 Advanced Systems and Security (3) *(new course)* Prereq: IINF 304

I INF 452 Computer and Network Security (3) *(new course)* Prereq: IINF 306

I INF 470 Physical Computing (3) *(new course converted from previous special topic)* Prereq: Junior or Senior standing

I INF 496 Special Topics (3) (as appropriate, repeatable) Prereq: Junior or Senior standing

### *Social Media*

I INF 307 Current Topics in Social Media (3) *(new course)* Prereq: IINF 301

I CSI 131 Introduction to Data Analytics: Seeking Information in Data with Computation (3) *(new course converted from previous special topics)*

Select two from:

I INF 308 Programming for Informatics (3) *(new course)* Prereq: ICSI 105 and IINF 100

I INF 363 Digital Design (3) *(new course)* Prereq: IINF 201

I INF 401 Case Studies in Digital Citizenship (3) *(new course)* Prereq: IINF 301

I INF 496 Special Topics (3) (as appropriate, repeatable) Prereq: Junior or Senior standing

I CSI 432 Network Science (3) Prereq: ICSI 403

A SOC 210 Sociology of Culture (3) Prereq: ASOC 115

A SOC 255 Mass Media (3) Prereq: ASOC 115

A SOC 270 Social and Demographic Change (3) Prereq: ASOC 115

A DOC 224 (= A HIS 224) Nonfiction Media Storytelling (3)

### *Data Analytics*

I CSI 131 Introduction to Data Analytics: Seeking Information in Data with Computation (3) *(new course converted from previous special topics)*

I INF 300 Probability and Statistics for Data Analytics (3) *(new course)* Prereqs: AMAT 108, ICSI 131

Select two from:

I INF 407 Modern Issues in Databases (3) *(new course)* Prereqs: IINF 202, ICSI 131

I INF 408 Analysis, Visualization, and Prediction in Analytics (3) *(new course)* Prereqs: IINF 300, IINF 407

I INF 451 Bayesian Data Analysis and Signal Processing (3) Prereqs: AMAT 214, ICSI 101 or 201

I IST 433 Information Storage and Retrieval (3) Prereqs: None

I CSI 431 Data Mining (3) Prereqs: ICSI 310

I CSI 432 Network Science (3) *(new course)* Prereqs: ICSI 403

I CSI 436 Machine Learning (3) Prereqs: ICSI 401

*Software Development*

I CSI 201 Introduction to Computer Science (4)

I CSI 310 Data Structures (3) *Prereqs: ICSI 201*

I CSI 418Y Software Engineering (3) *Prereqs: ICSI 405*

Select one from:

I INF 455 Prevention and Protection Strategies in Cyber-security (3) *(new course)Prereqs: IINF 306*

I CSI 405 Object Oriented Programming Principles and Practice (3) *Prereqs: ICSI 310*

*Information Technology (online only)*

I INF 302 Human-Computer Interactive Design (3) *(new course)Prereqs: IINF 301*

I INF 303 Intermediate Networking (3) (currently I INF 423) *(new course)Prereqs: IINF 203*

I INF 306 Information Security & Assurance (3) *(new course)Prereqs: IINF 202*

I INF 308 Programming for Informatics (3) *(new course) Prereqs: ICIS 105 and IINF 100*

*Self-Designed (with Departmental Approval only)*

Student must provide a proposal of courses to take to support the proposed self-designed concentration that includes at least four (4) courses. At least 9 credits of a self-designed concentration should be taken while enrolled in the INF BS program. Proposal must be approved by INF faculty before the student can declare it.