Senate Bill 1112-17

UNIVERSITY SENATE

UNVERSITY AT ALBANY STATE UNIVERSITY OF NEW YORK

Introduced by: Undergraduate Academic Council

Date: April 2, 2012

REVISIONS TO INF MAJOR

IT IS HEREBY PROPOSED THAT THE FOLLOWING BE ADOPTED:

- 1. That this takes effect for the Fall 2012 semester.
- 2. That this proposal be forwarded to President George M. Philip for approval.

University at Albany – State University of New York	
Course and Program Action Form Proposal No.	
Please check one: Course Proposal X Program Proposal	
Please mark all that apply:	
New Course Re	vision of: Number Description
Cross-Listing	Title
Shared-Resources Course	Credits
Deactivate/Activate Course (boldface & underline as appropriate) X Other (specify): Add upper-level electives	
Department: Informatics Effective Semester, Year: Fall 2012	
Course Number Current: New: New:	Credits:
Course / Program Description to appear in Bulletin (nlease limit course descriptions to 50 words or less):	
A minimum of 18 graduation credits including I INF 100; I INF 201; I INF 202; any one course from among I CSI 101, 105, 201; and any two courses with prerequisites from one of nine Informatics options, as follows:	
General: ICSI 203, ICSI 204, ICSI205, CSI 300Z, 410, I INF 423, 424, 362, I IST 402, 433. This option is open to students with any major EXCEPT a Faculty-Initiated Interdisciplinary major with a Concentration in Information Science (i.e., the IST major)	
[The eight Cognate options – ART, COM, CSI, etc. – are unchanged.]	
Prerequisites statement to be appended to description in Bulletin:	
If S/U is to be designated as the only grading system in the course, check here:	
This course is (will be) cross listed with:	
This course is (will be) a shared-resources course with:	
Explanation of proposal:	
This Program Action Form accompanies 19 Course Action Forms that operationalize the move of the BA in Information Science (Faculty-Initiated Interdisciplinary Major with a Concentration in Information Science) from the Department of Information Studies (IST) to the Department of Informatics (INF), approved by the Provost in August 2010. The Registrar's Office is aware of this change. Since that time, Informatics has been assigning instructors and scheduling all courses for this degree, including those cross-listed between IST and INF. In addition to the rationalization of INF and IST courses, there are several changes in degree requirements described and explained in an attachment.	
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering:	
Chair of Proposing Department	Date
Approved by Chair(s) of Departments having cross-listed course(s) [Please attach copies of approval email or memo] Date	Dean of College Date
Chair of Academic Programs Committee Date	Dean of Undergraduate or Graduate Studies Date

Department: Informatics Effective date: Spring 2012

This Program Proposal and the accompanying Course Action Forms are intended to complete the move of this degree from the Department of Information Studies (IST) to the Department of Informatics (INF). This move was approved by the Provost in August 2010 and implemented in the Fall 2010 semester.

Course changes

The Course Proposals are needed to rationalize and simplify what has heretofore been a mixture of INF, IST, and cross-listed INF/IST offerings. They generally fall into three categories of actions (sometimes more than one for a given course):

- Deactivation of IST courses: 100X, 301X, 361, 395, 423, 424, 468, and 499W. Five of these are already cross-listed with INF (100, 301, 423, 424, 468); two will be added as INF equivalents (395, 499); and one will be dropped (361, and replaced with a new INF 362).
- Creation of INF courses: 395, 499W to replace the corresponding IST courses that were not previously cross-listed; and INF 362 to supplement the electives offered.
- Changes to existing INF courses to:
 - 0 remove cross-listing with deactivated IST courses (INF 100X, 301X, 423, 424, 468);
 - 0 modify prerequisites to preclude duplication by students with prior credit for deactivated IST courses (INF 100X, 301, 423, 424);
 - 0 modify prerequisites for existing INF courses (202, 423, 424) to include CSI 105 as an alternative to CSI 101/110/201; and
 - 0 add a prerequisite that was planned several years ago but never implemented (INF 301).

This last change in INF 301 will assure proper sequencing of students in both the Information Science Major and the Informatics Minor (to which this course will be added as an upper-division elective in a separate proposal). The new prerequisite (INF 100X) will also assure that all students in the course have already met the GenEd Information Literacy requirement, hence the proposal to drop the 'X' designation as unnecessary and redundant. This will also preclude junior and senior students with inadequate preparation (or interest) from enrolling in this course. These students, who typically number a few tens per semester, can readily be accommodated in INF 100X, which is offered every semester in a 400+-seat Lecture Center. Hence, the change of INF 300X to INF 300 does *not* represent a loss in GenEd capacity for the University or its students.

Program changes

The changes proposed for the degree requirements recognize and are motivated by two important shifts both within and without the University.

Firstly, most of our students are interested in a degree that might be best-described as "applied computing and information" (though rarely in these words by the students themselves). They want to use computers as tools to design, build, count, communicate, and so on. They need enough academic exposure to "technology" to understand how hardware and software tools work, but many of them have no interest in or facility for the algorithmic, mathematical, and programming disciplines of computer science. This is true for students who come to Albany as freshmen and especially true for transfers.

Secondly, to oversimplify, the origin of this major was rooted in an "individual-asinformation-seeker" perspective. This is subtly evident in the emphasis of the core and upper-division required courses on psychology, linguistics, and logic. Without in any way challenging the value of that outlook, it is imperative to accommodate the change to an information-ready, networked, highly social, online world. This might be termed the "group-as-information-creators-and-sharers" perspective.

Even with the interdisciplinary framework of Informatics, the challenge is how to package and deliver such a program, both for and to the students, when neither we nor they can be sure what will appear tomorrow. While it is tempting to anticipate a future proposal for, say, a B.S. in Informatics, right now we need to work within the existing framework. Hence, we expect to modify the Faculty-Initiated major often. These proposals are the first step and include three types of changes:

- Add four technical courses to the required core:
 - 0 INF 201, Intro to Web Technologies;
 - 0 INF 202, Intro to Data & Databases;
 - 0 INF 423, Networking Essentials; and
 - 0 INF 424, Hardware and Operating Systems Essentials.

All of these have been offered for at least the past three years, but were not required. The latter two courses effectively replace the required upper-division PSY and LIN courses. This change responds particularly to student need for and interest in technical content. We have also been offering INF 423 and INF 424 on a more frequent basis to accommodate these additional students.

- Modify the supporting courses in the core:
 - o add A COM 100 (to replace A LIN 220);
 - 0 add A SOC 115 (as an alternative to A PSY 101 or 102);
 - 0 add A MAT 106, 111, or 112 (to replace A PHI 210); and
 - o retain A MAT 108.

This change addresses the shift in outlook from individual to group. It also provides with the calculus and statistics survey courses a minimal "numeracy" for any student completing this degree.

- Shift the emphasis on electives to applied computing and information:
 - o retain CSI 203, 204, 205, and add 210, 300Z, 310, 410, 490;
 - o add INF 395 (proposal pending), 362 (proposal pending), 399, 468, 496;
 - o add IST 402, 433;
 - o add A PHY 451;

- o retain B ITM 330; and
- o add R POS 368.

These changes expand the number of upper-division elective courses from ten to eighteen, and the offering Departments from three to six, both of which we hope to increase depending on seat availability in other units. At this time, continued expansion of the elective list is the best way to allow for and respond to potential shifts in both student interest and areas of technological advancement.

The current version of the major has a 31-credit core and 6 upper-division credits in LIN and PSY, for a net required 37 credits; plus 9 credits of electives, for a total of 46 credits. The proposed version differs only in requiring a 3-credit introductory computing class (CSI 105) instead CSI 201 (4 cr), which means a required block of 36 credits, and a total of 45.

Proposed Information Science revision General Program B.A.: A minimum of 45 credits including:

36 credit required core:

Information Science & Society I INF 100X, Information and Internet Access (3) I INF 301, The Information Environment (3) I INF 499W, Senior Seminar in Information Science (3) A COM 100, Language and Social Action (3) A PSY 101 or 102 or A SOC 115, Introduction to Psychology or Introduction to Sociology (3)

Programming I CSI 105 (or substitute), Introduction to Computing and Information (3)

Statistics A MAT 108 (or substitute), Statistics (3)

Calculus A MAT 106 (or substitute), Survey of Calculus (3)

Technology I INF 201, Introduction to Web Technologies (3) I INF 202, Introduction to Data and Databases (3) I INF 423, Networking Essentials (3) I INF 424, Hardware and Operating Systems Essentials (3)

9 credits electives:

I INF 362, Intermediate Web Development (3)
I INF 399, Special Topics (3)
I INF 496, Special Topics (3)
I IST 402, History of Recorded Information (3)
I IST 433, Information Storage and Retrieval (3)
A PHY 451, Bayesian Data Analysis and Signal Processing (3)
B ITM 330, Business Information Systems and Technologies (3)
R POS 368, Information Technology and World Politics (3)
I CSI 203, Data Processing Principles (3)
I CSI 204, Scientific Computing (3)
I CSI 205, Object oriented programming for data processing apps (3)
I CSI 210, Discrete structures (4)
I CSI 300Z, Social, Security, and Privacy implications of computing (3)
I CSI 310, Data Structures (3)
I CSI 410, Introduction to Databases (3)

(may only include 6 credits of ICSI 490, INF 395, INF 468)

I CSI 490, Internship in Computer Science (1-6) I INF 395, Internet Practicum (3) I INF 468, Internship (3)

Other notes

I CSI 105 substitutes: I CSI 101, I CSI 110, I CSI 201 A MAT 108 substitutes: R CRJ 281, A ECO 320, A PSY 210, A SOC 221 A MAT 106 substitutes: A MAT 111, A MAT 112