

LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:
		Senate Action Date:	Senate
		02-101C.	App 4/22/03 App 4/29/03

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

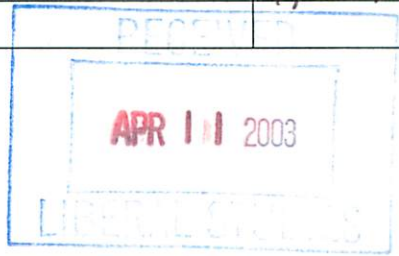
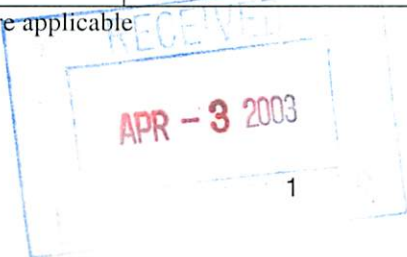
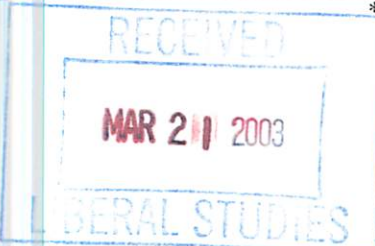
Contact Person: Sanwar Ali	Email Address: sanwar@iup.edu
Proposing Department/Unit: Computer Science	Phone: 7-7994

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply) <input type="checkbox"/> New Course <input type="checkbox"/> Course Prefix Change <input type="checkbox"/> Course Deletion <input type="checkbox"/> Course Revision <input type="checkbox"/> Course Number and/or Title Change <input type="checkbox"/> Catalog Description Change		
<u>Current</u> Course prefix, number and full title	<u>Proposed</u> course prefix, number and full title, if changing	
2. Additional Course Designations: check if appropriate <input type="checkbox"/> This course is also proposed as a Liberal Studies Course. <input type="checkbox"/> Other: (e.g., Women's Studies, Pan-African) <input type="checkbox"/> This course is also proposed as an Honors College Course.		
3. Program Proposals <input type="checkbox"/> New Degree Program <input type="checkbox"/> Catalog Description Change <input checked="" type="checkbox"/> Program Revision <input type="checkbox"/> New Minor Program <input type="checkbox"/> Program Title Change <input type="checkbox"/> Other <input type="checkbox"/> New Track		
<u>Current</u> program name	<u>Proposed</u> program name, if changing	
4. Approvals		
Dept Curriculum Committee Chair	Sanwar Ali	3/10/03
Department Chair	[Signature]	10 Mar 03
Coll. Curriculum Committee Chair	[Signature]	03/21/03
College Dean	[Signature]	3/21/03
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	Gail Schust	4/22/03

* where applicable

APR 23 2003



Program Revision- B.S. Computer Science/ Information Assurance Track

Part II. Description of Curriculum Change

1. Catalog Description for the Revised Bachelor of Science- Computer Science/Applied Computer Science Track

Liberal Studies: 50

As outlined in Liberal Studies section
with the following specifications:

Social Science: CRIM 101 (1)

Mathematics: MATH 123 (2)

Liberal Studies Electives: 4 cr. MATH 216 (2)

Major:

Required Courses: 42

COSC 105 Fundamentals of Computer Science 3sh

COSC 110 Problem Solving and Structured
Programming 3sh

COSC 210 Object-Oriented and GUI Programming 3sh

COSC 220 Applied Computer Programming 4sh

COSC 300 Assembly Language Programming 3sh

COSC 310 Data Structures and Algorithms 3sh

COSC 319 Software Engineering Concepts 3sh

COSC 341 Database Management 3sh

COSC 380 Seminar on the Computer Profession 1sh

COSC 480 Seminar on Technical Topics 1sh

Information Assurance Required Courses:

COSC 316 Cybersecurity Basics 3sh

COSC 356 Network Security 3sh

Select one of the following:

COSC 320 Software Engineering Practice 3sh

COSC 493 Internship (Information Assurance) 12sh (3)

Controlled Electives:

Select 3sh from the following:

COSC 345 Data Communications 3sh

COSC/IFMG 354 Testing and Controlling LANs 3sh

COSC 362 Unix Systems 3sh

COSC 481 Special Topics in Computer Science
(as approved for majors in this track) 3sh

IFMG 382 Auditing for EDP Systems 3sh

Upper-Level Electives:

Select 3sh from the following:

COSC 415 Internet Architecture and Programming 3sh

COSC 432 Operating Systems 3sh

COSC 427 Cryptography 3sh

COSC 482 Independent Study 3sh

COSC 400-level course with department approval 3sh

A minor in Criminology 15 (1)

Other Requirements: 12

Additional Writing:

ENGL 322 Technical Writing 3sh

Foreign Language 6sh

Additional Mathematics: 3 sh (2)

MATH 219 Discrete Mathematics

Free Electives: 1

Total Degree Requirements: 120

Program Revision- B.S. Computer Science/ Information Assurance Track

- (1) CRIM 101 (taken as part of the social science requirement) is counted as part of the 18sh Criminology minor. Fifteen (15) additional credits of CRIM are required.
- (2) MATH 123 can be substituted by taking both MATH 121 and 122. MATH 216 can be substituted by taking both MATH 214 and 417 or both MATH 217 and 417.
- (3) Only 4sh of COSC 493 may be counted towards the major. COSC 493 may be selected in either the second semester of the junior year or the first semester of the senior year. If COSC 493 is selected and approved, COSC 380 may be taken in the immediately preceding semester.

Program Revision- B.S. Computer Science/ Information Assurance Track
 Side-by-side comparison of Current and Proposed programs (the additions are shown in italics).

Current Program		Proposed Program
Bachelor of Science- Computer Science/ Assurance Track	Information	Bachelor of Science- Computer Science/ Information Assurance Track
Liberal Studies:	56-58	Liberal Studies:
As outlined in Liberal Studies section with the following specifications:		As outlined in Liberal Studies section
Mathematics: MATH 123 (or MATH 121 and 122)		Social Science: CRIM 101 (1)
Liberal Studies Electives: MATH 216 (or MATH 217 and 417), no course with COSC prefixes		Mathematics: MATH 123 (2)
		Liberal Studies Electives: 4 cr. MATH 216 (2)
Major:		Major:
Required Courses:	42-43	Required Courses:
COSC 105 Fundamentals of Computer Science	3sh	COSC 105 Fundamentals of Computer Science
COSC 110 Problem Solving and Structured Programming	3sh	COSC 110 Problem Solving and Structured Programming
COSC 210 Object-Oriented and GUI Programming	3sh	COSC 210 Object-Oriented and GUI Programming
COSC 220 Applied Computer Programming	4sh	COSC 220 Applied Computer Programming
COSC 300 Assembly Language Programming	3sh	COSC 300 Assembly Language Programming
COSC 310 Data Structures and Algorithms	3sh	COSC 310 Data Structures and Algorithms
COSC 319 Software Engineering Concepts	3sh	COSC 319 Software Engineering Concepts
COSC 341 Intro to Database Management Systems	3sh	COSC 341 Database Management
COSC 380 Seminar on the Computer Profession	1sh	COSC 380 Seminar on the Computer Profession
COSC 480 Seminar on Technical Topics	1sh	COSC 480 Seminar on Technical Topics
Information Assurance Required Courses:		Information Assurance Required Courses:
COSC 316 Cybersecurity Basics	3sh	COSC 316 Cybersecurity Basics
COSC 356 Network Security	3sh	COSC 356 Network Security
Select one of the following:		Select one of the following:
COSC 320 Software Engineering Practice	3sh	COSC 320 Software Engineering Practice
COSC 493 Internship (Information Assurance)	12sh(1)	COSC 493 Internship (Information Assurance)
Controlled Electives:		Controlled Electives:
Select 3sh from the following:		Select 3sh from the following:
COSC 345 Data Communications	3sh	COSC 345 Data Communications
COSC/IFMG 354 Testing and Controlling LANs	3sh	COSC/IFMG 354 Testing and Controlling LANs
COSC 362 Unix Systems	3sh	COSC 362 Unix Systems
COSC 481 Special Topics in Computer Science (as approved for majors in this track)	3sh	COSC 481 Special Topics in Computer Science (as approved for majors in this track)
IFMG 382 Auditing for EDP Systems	3sh	IFMG 382 Auditing for EDP Systems
Upper-Level Electives:		Upper-Level Electives:
Select 3sh from the following:		Select 3sh from the following:
COSC 415 Internet Architecture and Programming	3sh	COSC 415 Internet Architecture and Programming
COSC 432 Operating Systems	3sh	COSC 432 Operating Systems
COSC 427 Cryptography	3sh	COSC 427 Cryptography
COSC 482 Independent Study	3sh	COSC 482 Independent Study
COSC 400-level course with department approval	3sh	COSC 400-level course with department approval
A minor in Criminology	15	A minor in Criminology
Other Requirements:	6-19	Other Requirements:
Additional Writing:		Additional Writing:
ENGL 322 Technical Writing	3sh	ENGL 322 Technical Writing
Foreign Language Intermediate Level	0-6sh(2)	Foreign Language
Additional Mathematics:	8-10sh(3)	Additional Mathematics:
MATH 123 Calculus I for Physics, Chemistry, and Mathematics (MATH 121 and 122 may be substituted)		MATH 219 Discrete Mathematics
MATH 216 Probability and Statistics for Natural Sciences (MATH 217 and 417 may be substituted)		
MATH 219 Discrete Mathematics		

Program Revision- B.S. Computer Science/ Information Assurance Track

Current Program

Free Electives: 0-5
Total Degree Requirements: 124

- (1) Only 4sh of COSC 493 may be counted towards the major. COSC 493 may be selected in either the second semester of the junior year or the first semester of the senior year. If COSC 493 is selected and approved, COSC 380 may be taken in the immediately preceding semester.
- (2) Foreign language intermediate-level courses are counted as Liberal Studies electives.
- (3) Any of the Mathematics options satisfy the Learning Skill requirement, and one course may be counted as a Liberal Studies elective. The 8sh minimum applies students who take the MATH 123 and 216. The 10sh maximum applies to students who take MATH 121-122 calculus option and MATH 217-417 statistics option only.

Proposed Program

Free Electives: 1
Total Degree Requirements: 120

- (1) CRIM 101 (taken as part of the social science requirement) is counted as part of the 18sh Criminology minor. Fifteen (15) additional credits of CRIM are required.
- (2) MATH 123 can be substituted by taking both MATH 121 and 122. MATH 216 can be substituted by taking both MATH 214 and 417 or both MATH 217 and 417. The three-credit minimum applies to students who take MATH 123 and 216. The nine-credit maximum applies to students who do not take MATH 123 and MATH 216 but choose alternatives in addition to MATH 219.
- (3) Only 4sh of COSC 493 may be counted towards the major. COSC 493 may be selected in either the second semester of the junior year or the first semester of the senior year. If COSC 493 is selected and approved, COSC 380 may be taken in the immediately preceding semester.

3. Summary of Changes and Justification:

a) MATH 122 is deleted because only 3 or 4sh are needed for the Math component of Liberal Studies. If student takes MATH 121, she/he must also take MATH 122 for the Computer Science requirement (equivalent to MATH 123) but not as a Liberal Studies requirement.

b) We added MATH 214 as an option to choose either from MATH 216 or 217. MATH 417 is deleted because only 3 or 4sh are needed for Liberal Studies Electives. If a student takes MATH 214 or 217, she/he must also take MATH 417 for the Computer Science requirement (equivalent of MATH 216) but not as Liberal Studies requirement.

c) In the proposed program we increased semester hours for Minor in Criminology from 15sh to 18sh. The University catalog shows 18sh in Criminology minor. Furthermore, the SSHE Systems recently proposed that all minors have to have 18sh. To increase semester hours to 18, we have not added any new courses. CRIM 101, taken as part of the social science requirements, is counted as part of the minor. (Please see the footnote #1 under the proposed program and supporting letter.)

4. Letter of Support: Attached

- > 3. that IA track students then need take only 15 more credits of CRIM
- > courses to meet the CRIM minor requirement
- >
- > In this way, the change from 15 to 18 for the minor does not add any
- > credits to an already full set of requirements.
- >
- > Would you send me a letter or e-mail supporting this approach? The
- > College Curriculum Committee for NS&M is hung up on how we are doing the
- > counting of credits; and your support should clarify things.
- >
- > Jim
- >

Subject: 120 credits

Date: Fri, 21 Feb 2003 16:41:45 -0500

From: Jim Wolfe <jlwolfe@iup.edu>

To: dgiever@iup.edu

Dennis,

As we try to update the programs to meet the 120-credit limit, we have encountered a problem with the BS Information Assurance Track. As passed last year, the track showed a 15-credit minor in Criminology (in anticipation of the changes Crim was working on). For this year's revision, we feel that we must label the Criminology minor as 18 credits to agree with your current minor's count.

I was of the understanding that students in the IA track would be able to count CRIM 101 as part of the Criminology minor (as an alternative to taking CRIM 102 or just as one of the minor courses). This would be consistent with what is being done with the IA minor. Under that assumption, we are attempting to specify in the catalog entry

1. that students in the IA track take CRIM 101 as one of their social science courses,
2. that CRIM 101 would be counted as part of the Criminology minor, and
3. that IA track students then need take only 15 more credits of CRIM courses to meet the CRIM minor requirement

In this way, the change from 15 to 18 for the minor does not add any credits to an already full set of requirements.

Would you send me a letter or e-mail supporting this approach? The College Curriculum Committee for NS&M is hung up on how we are doing the counting of credits; and your support should clarify things.

Jim