

02/14/02

RECEIVED

LSC Use Only
Number

UWUCC USE Only

Submission Date

Feb 25 2002

Number

01-51a

Department

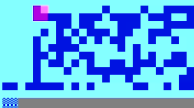
Department Curriculum Committee

1997

1183

WCC

15



Bachelor of Science- Computer Science/Information Assurance Track (NEW)

The Department of Computer Science is proposing a new track for the majors to enable them to specialize as information security officers, a new and growing career field.

Proposal- Information Assurance Track.Micco/Sanwar

In a rapidly developing field such as Computer Science, it is important that the graduate's education be broad

and fundamental so that new trends can more readily be followed. Our goal is to balance fundamentality and breadth with sufficient supervised practice so that our graduates are productive at the time they graduate but ready and willing to change with the field.

Most applied computer scientists work in cooperation with professionals trained in other areas and with managers. Hence, the ability to work and communicate with others of different educational backgrounds is an important characteristic. To that end, we encourage Computer Science majors to take a strong minor (or area of concentration) in a second area of interest. Computer Science majors should also take a minimum of

Proposal- Information Assurance Track.Micco/Sanwar

funded for ¼ release each to develop this new curriculum and we have already offered 3 five-day faculty workshops to help bring the faculty up to speed with the program. Included in this

3. Credit Requirements (see also attached summary)

A student who registers for the Information Assurance track will first complete the 27 credits in the Computer Science core, then they will take 2 required courses, COSC 316 Cybersecurity Basics and COSC 356 Network security. From there they will select one controlled elective and one upper level elective from the lists provided. Then they will take their 4sh internship or practicum where they work on real life projects under the supervision of the faculty. This will make 42 credits in the major. In addition we are requiring them to take a minor in the Criminology Department with courses that relate to cybercrime and surveillance. This course is part of their Liberal Studies

Proposal- Information Assurance Track.Micco/Sanwar

about network perimeter defenses, the importance of demilitarized zones, and how to protect their
internal networks from hackers and subverters. This course builds on

the Basics course but focuses on a much more in depth analysis of techniques for hardening

networks.

3. COSC 427 Cryptography (NEW)

Prerequisite: COSC 310, MATH 122 or 123

Proposal- Information Assurance Track.Micco/Sanwar

- b. Authorization: We have a letter supporting the hiring of additional faculty if the need arises (see attachment).

~~Provision of space: The required laboratory for supporting this program has been set~~

in Stright. The laboratory machines were purchased using funds from the NSF Cybersecurity grant.

- 3. Are other resources adequate? (Space, equipment, supplies, travel funds)

- a. Space: The needed laboratory has been set up on the first floor of Stright hall.

- b. Equipment: ~~Servers needed for the lab have been purchased with NSF funding~~

- c. Supplies: None

- d. Travel Funds: No travel funds are needed for faculty training in the near future. The NSF

Bachelor of Science Computer Science/Information Systems

Approved by the Board of Trustees

Notes:

(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. COSC 493

Department of Special Education and Clinical Services
Davis Hall, Room 203
570 South Eleventh Street
Indiana, Pennsylvania 15705-1087

724-357-2450
Fax: 724-357-7716
Internet: <http://www.iup.edu>

November 13, 2001

To Whom It May Concern:

As Chairperson of the University Senate of the Indiana University of Pennsylvania, I am often consulted on curriculum matters, as an ex officio member of our curriculum

committees. In the role, I am aware of the efforts of the Criminology and Computer Science departments in preparing a program in the area of CyberSecurity. I believe that our departments are uniquely qualified to offer such a program, and I strongly support the concept. As they proceed through the curriculum approval process, I am sure there will be appropriate input from all levels to optimize the quality of such a program.

Sincerely,



MEMORANDUM

TO: Gary Buterbaugh

FROM: Rich Nowell



RE: CyberSecurity Program

DATE: 11/13/01

Gary:

I don't have any power as Chair of the Senate to make any recommendations on curriculum approval, but I am attaching a letter of support, for what it's worth. I am sure the committee will give it a quick review to provide the necessary signature from

Indiana University of Pennsylvania



Department of Management Information Systems
The Eberly College of Business and Information Technology
664 Pratt Drive, Room 203
Indiana, Pennsylvania 15705-1087

724-357-2929
Fax: 724-357-4831
Internet: <http://www.eberly.iup.edu/im/>

Date: December 10, 2001

To: Dr. William Oblitey
Computer Science Department

From: Dr. Louise Burky
MIS & Decision Sciences Department

RE: MIS Minor

Dear Bill,

Please consider this a letter of approval for your Cybersecurity/Information Assurance minor ~~which would be available to our majors~~. At the present time, I can only commit to

**Statement Of Support For
Joint Minor In Cyber Security
Cyber Track in the BS Degree in Computer Science
APSCUF**

IUP-APSCUF believes that should this proposal clear the curriculum committee as written, IUP-APSCUF would
allow the proposal to be forwarded to the IUP Council of Trustees.

Approved: Patricia I. Heilman
Signature

Patricia I. Heilman
Printed Name

President, IUP-APSCUF

12-10-01
Date

Indiana University of Pennsylvania

College of Humanities and Social Sciences

724-357-9280

441 North Walk

Indiana, Pennsylvania 15705-1070

Internet: <http://www.iup.edu>

December 7, 2001

To Whom It May Concern:

The interdisciplinary Cyber Security Minor received provisional approval by the College of Humanities and Social Sciences Curriculum Committee on November 14, 2001. Two new courses that will be required for the minor were approved unanimously also.

Given the discussion at the College Curriculum Committee, I am confident that the Committee will also approve the Cyber Security Track proposal in the Computer Science B.S. Degree Program.

I applaud the development of this interdisciplinary program and look forward to its implementation.

Sincerely,



Brenda L. Carter, Dean

College of Humanities and Social Sciences