

DOCUMENT N: COURSE AND PROGRAM DEVELOPMENT COVER SHEET

Instruction: See Course and Program Development Policy and Procedures.

CO SC 430

SHORT TITLE OF PROPOSAL: Network Security

COURSE # 430

Box 1: TYPE OF ACTION	ADD(NEW) <input checked="" type="checkbox"/>	DEACTIVATE <input type="checkbox"/>	MODIFY <input type="checkbox"/>	OTHER <input type="checkbox"/>
Box 2: LEVEL OF ACTION	Non-Credit <input type="checkbox"/>	Undergraduate <input checked="" type="checkbox"/>	Graduate <input type="checkbox"/>	OTHER <input type="checkbox"/>

Box 3: ITEM OF ACTION (check appropriate boxes)		APPROVAL SEQUENCE (see box 4 below)	DOCUMENTS REQUIRED (see box 5 on back)	INFO COPIES (see 2 on back)
<input type="checkbox"/>	1 Experimental Course ¹	AC	NOP	
<input type="checkbox"/>	2 Course Title	ABCD	NO	
<input type="checkbox"/>	3 Course Credits	ABCD	NO	
<input type="checkbox"/>	4 Course Number	ABCD	NO	
<input type="checkbox"/>	5 Course Level	ABCD	NO	
<input type="checkbox"/>	6 Deactivate a Course	ABCDEF	NO	a, b
<input type="checkbox"/>	7 Pre & Co-Requisite	ABCD	NO	a, b
<input type="checkbox"/>	8 Course Content	ABCD	NOP	a, b
<input checked="" type="checkbox"/>	9 New Course	ABCDEF	NOPQ	a, b
<input type="checkbox"/>	10a Certificate Program (ug/g) exclusively within existing degree program	ABCDEFHJL	NOQ	a, b, d
<input type="checkbox"/>	10b Certificate Program (ug/g) where degree programs do not exist or where courses are selected across degree programs (12 or more credits)	ABCDEFHIK	NOSR, 6	a, b, d
<input type="checkbox"/>	11a UG Concentration (exceeds 24 credit hours)	ABCDEFGHIK	NO, 5	a, b, d
<input type="checkbox"/>	11b Masters Concentration (exceeds 12 credit hours)	ABCDEFGHIK	NO, 5	a, b, d
<input type="checkbox"/>	11c Doctoral Concentration (exceeds 18 credit hours)	ABCDEFGHIK	NO, 5	a, b, d
<input type="checkbox"/>	12 Program Requirements	ABCDEF	NO	a, b, d
<input type="checkbox"/>	13 Program Title	ABCDEFGHIK	NO, 5	a, b, c, d
<input type="checkbox"/>	14 Off-Campus Deliver of Existing Program	ABCDEFHJK	NO, 4	a, b, c, d
<input type="checkbox"/>	15 Closed Site Program	ABCDJL	NOT	a, b
<input type="checkbox"/>	16 Program Suspension ⁹	ABCDEGJL	NOQ	a, b, c, d
<input type="checkbox"/>	17 Program Termination	ABCDEFHJL	NO, 10	a, b, c, d
<input type="checkbox"/>	18 Degree Program	ABCDEFGHIK	NOQRS, 3,8	a, b, c, d
<input type="checkbox"/>	19 New Center	ABCDEFGH		
<input type="checkbox"/>	20 Other	Varies	Varies	Varies

Box 4: APPROVAL SEQUENCE		APPROVAL SIGNATURES	DATE
A Department	Chair:	<i>Nancy Bo</i>	<i>11-23-05</i>
B Final faculty review body within each school	Chair:	<i>Margaret J. Potthart</i>	<i>12-14-05</i>
C College Dean	Dean:	<i>[Signature]</i>	<i>12/19/05</i>
D Provost and Senior Vice President for Academic Affairs	Provost:	<i>[Signature]</i>	<i>1/5/06</i>
E Curriculum Review Committee (UFS subcommittee)	Chair:	<i>[Signature]</i>	<i>1/11/06</i>
F University Faculty Senate	Chair:		
G University Council ¹¹	Chair:		
H President	President:		
I Board of Regents – approval			
J Board of Regents – notification only			
K MHEC – approval			
L MHEC – notification only			
M Middle States Association notification	Required only if the mission of the University is changed by the action		

Box 5: DOCUMENTATION (check boxes of documents included)					
<input checked="" type="checkbox"/>	N. This Cover Sheet	<input checked="" type="checkbox"/>	Q. Full Description/Rationale	<input type="checkbox"/>	T. Contract
<input checked="" type="checkbox"/>	O. Summary Proposal	<input type="checkbox"/>	R. Full 5-page MHEC Proposal	<input type="checkbox"/>	U. Other
<input checked="" type="checkbox"/>	P. Syllabus	<input type="checkbox"/>	S. Financial Tables	<input type="checkbox"/>	

1. Approval automatically lapses after two offerings unless permanently approved by Action 9
2. Codes: a) Director of Library Services (Langsdale or Law) b) College Dean c) Planning Office d) EMSA
3. Letter of Intent is required by USM at least 30 days before a full proposal can be submitted. Letter of Intent requires only the approval of the dean and the provost and is forwarded to USM by the Office of the Provost.
4. One-page letter to include: Program title & degree/certificate to be awarded; resources requirements; need and demand; similar programs; method of instruction; and oversight and student services *
5. One-page letter with description and rational *
6. One or two-page document that describes: centrality to mission; market demand; curriculum design; adequacy of faculty resources; and assurance program will be supported with existing resources. *
7. Learning objectives, assessment strategies; fit with UB strategic plan
8. Joint Degree Program or Primary Degree Programs require submission of MOU w/ program proposal
9. Temporary suspension of program to examine future direction; time not to exceed two years. No new students admitted during suspension, but currently enrolled students must be given opportunity to satisfy degree requirements.
10. Provide:
 - a. evidence that the action is consistent with UB mission and can be implemented within the existing program resources of the institution.
 - b. proposed date after which no new students will be admitted into the program;
 - c. accommodation of currently enrolled students in the realization of their degree objectives;
 - d. treatment of all tenured and non-tenured faculty and other staff in the affected program;
 - e. reallocation of funds from the budget of the affected program; and
 - f. existence at other state public institutions of programs to which to redirect students who might have enrolled in the program proposed for abolition.
11. University Council *review* (for a recommendation to the President or back to the Provost) shall be limited to curricular or academic policy issues that may potentially affect the University's mission and strategic planning, or have a significant impact on the generation or allocation of its financial resources.

* Required by MHEC

DOCUMENT O – SUMMARY PROPOSAL

College: Liberal Arts	Department: Information Arts and Technologies	Cost Code:
Contact Person: Stuart Moulthrop	Phone: 5301	Effective Semester: Fall, 2006

O-1: Briefly describe what is requested:

Introduce a new course for the Applied Information Technology curriculum.

For new courses or changes in existing courses (needed by Registrar):

New Title: Network Security	Title #: COSC 430	Credits: 4
Course Abbreviation: Net. Security		
Old Title:	Title #:	Credits:

O-2: Set forth the rationale for the proposal:

a. benefits to be derived from adding this course

Network security has always been a major responsibility for IT managers, and has become even more prominent since 9-11. Students correctly perceive expertise in this area as a major career asset. By adding this course we both strengthen an important undergraduate major, and contribute to the population of trained professionals in a crucial industry.

b. curricular and programmatic justification for offering the course

Under terms of a National Science Foundation grant in which we participate with Towson University, the Applied Information Technology program is required to develop two new core courses in information and network security. Additionally, the AIT curriculum has not been revised since its inception, and needs to be re-aligned with changing needs in the IT field.

c. frequency with which the course will be offered

Once per semester initially, then every semester once all students admitted under the previous curriculum have graduated.

d. faculty available to teach it (this has resource connections)

Prof. Mohammed Ketel

e. whether or not the course is required - i.e., how it fits into the curriculum, including overall program goals and specific concentrations, tracks or specializations

This course will be required of all students entering Fall, 2006 and later.

f. how it relates to other CLA curricula and/or upper level general education (if applicable)

Not applicable.

g. how it relates to other UB schools, the community colleges, or other institutions including articulation agreements (if applicable)

These changes do not affect requirements in other divisions or schools within U.B. AIT has one articulation agreement, with CCBC. The program director will work with representatives from the School of Applied Information Technology at CCBC to revise the articulation agreement if required, though this course has no lower-division implications in itself.

O-3 Resources Needed:

Course fee of \$45.00 per student is required to maintain currency of software and hardware.

	Personnel	Equipment	Expendables	Facility Costs	TOTAL COSTS
Start-up First Year	\$	\$	\$	\$	\$
Annual Thereafter	\$	\$	\$	\$	\$

Indicate probable source of additional funds, if needed:

O-4 Impact including OTS and Library resources (Complete a or b)

- a) Impact was reviewed. All impacted units were contacted and understandings worked out. No unit objects to the proposal as currently submitted. The units contacted were:

Lawrence, OTS


Department Chair Signature

11-23-05
Date

- b) Impact was reviewed. All objections were worked out except those documented in attachments. Units contacted were:

Department Chair Signature

Date

DOCUMENT P – COURSE SYLLABUS

Date prepared: 11/23/2005
Prepared by: Mohammed Ketel and Stuart Moulthrop
Department: Information Arts and Technologies
Course Number: COSC 430
Course Title: Network Security
Credit Hours: 4.0
Prerequisites: COSC 307, Administering and Supporting a Network Operating System

Catalog Description: This course provides an introduction to the various technical and administrative aspects of Information Security and Assurance. It discusses the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. Ethical, legal, and professional issues in information security will also be discussed.

Class Size: 24

Content Outline:

1. Course Introduction
2. Firewall Planning and Design
3. Developing a Security Policy
4. Firewall Configuration Strategies
5. Firewall Configuration Strategies (continued)
6. Packet Filtering
7. Working with Proxy Servers and Firewalls
8. Authenticating Users
9. Encryption and Firewalls
10. Choosing a Bastion Host
11. Setting Up a Virtual Private Network
12. Building Your Own Firewall
13. Ongoing Administration
14. Security Resources

Learning Goals: Students will demonstrate knowledge of key issues for protecting information assets, will be able to determine appropriate levels of response to security incidents, and be able to design a consistent, reasonable information security system.

Assessment Strategies:

1. Demonstration of ability to design and implement a system that meets current industry standards.

DOCUMENT P – COURSE SYLLABUS

2. Examination to determine knowledge of key issues.

Required Text: Benton et al., *Mastering Network Security*. Sybex, 2004.
ISBN: 0782141420.

Course Fee: Lab fee required

DOCUMENT Q: FULL DESCRIPTION/RATIONALE

Network Security

This course deals with the conceptual and technological aspects of network security. It discusses the role of major networking devices, including routers, firewall technology and servers, in establishing a secure network. It provides students with a comprehensive overview of building and maintaining firewalls in a business environment. It covers the installation techniques, discusses how to make an intelligent choice of firewall technology, and presents basic firewall troubleshooting. Specific topics covered include: firewall planning/design, security policy, configuration, packet filtering, proxy servers, authentication, encryption, and VPNs. Prerequisite: COSC 307, Administering and Supporting a Network Operating System.

Three forces drive an acutely increased interest in network security/information assurance: (1) the response to national security threats following September 11, 2001; (2) the need to develop nationally sustainable industries and career paths resistant to outsourcing; and (3) the continuing spread and advance of information technology through government, business, and society. In addition, the University of Baltimore has entered into a cooperative relationship with Towson University as part of a National Science Foundation grant to promote curricular innovation in network security and information assurance. Terms of this agreement require the Applied Information Technology program to develop two new core courses in this area.