## NEW COURSE PROPOSAL FORM

**ACADEMIC AREA:** BUSINESS AND TECHNOLOGY

**PROGRAM:** AS NETWORKING Services Technology

**PROPOSEd by**: Andy Blitz

**PRESENTER:** Scott Vanselow

**SUBMISSION DATE:** 1/4/2013

**CURRENT COURSE PREFIX, NUMBER AND TITLE:**

### CTS 2120 COMPUTER AND NETWORK SECURITY (SECURITY+) SECTION I

**COURSE INFORMATION: TYPE iN THE APPROPRIATE INFORMATION FOR EACH ITEM:**

**DEPARTMENT:** BUSINESS AND TECHNOLOGY

**COURSE PREREQUISITE(S):** CTS 2321 OR CTS 2334 OR EQUIVALENT PROFICIENCY TO: A PASSING SCORE ON THE IC3 KEY APPLICATIONS EXAM OR A QUALIFYING SCORE ON THE IC3 FAST TRACK EXAM OR A COMPUTER RELATED PROFESSIONAL CERTIFICATION FROM THE FLORIDA DEPARTMENT OF EDUCATION STATEWIDE ARTICULATION AGREEMENTS - INDUSTRY CERTIFICATION HTTP://WWW.FLDOE.ORG/WORKFORCE/DWDFRAME/ARTIC\_INDCERT2AAS.ASP

**MINIMUM GRADE OF prereqUISITE(s):** D

**COURSE COREQUISITE(S):** None

**COURSE CREDITS OR CLOCK HOURS:** 3

**credit type:** COLLEGE CREDIT (TRANSFERABLE)

**CONTACT HOURS:** 3

**COURSE DESCRIPTION:**

This course is designed to provide a student with a broad-based knowledge of network security, and to prepare students for further study in specialized security fields. This course will also prepare the student to take the CompTIA Security+ certification exam.

**GENERAL TOPIC OUTLINE:**

* Systems Security
* Network Infrastructure
* Access Control
* Assessments & Audits
* Cryptography
* Organizational Security

**LEARNING OUTCOMES:**

TYPE IN ALL OF THE LEARNING OUTCOMES, ASSESSMENTS AND GEN ED COMPETENCIES AS THEY SHOULD BE DISPLAYED IN THE SYLLABUS

|  |  |  |
| --- | --- | --- |
| LEARNING OUTCOMES | ASSESSMENTS | GENERAL EDUCATION COMPETENCIES |
| The student will be able to secure systems. | Lab activities including:  Security threat differentiation.  Security risks to hardware and peripherals.  OS hardening.  Application security.  Security applications.  Virtualization technology.  Security+ exam or simulation |  |
| The student will be able to secure network infrastructure and explain three major security concerns relating to data communications. | Lab activities including:  Port & protocol threats and mitigation techniques.  Network design elements.  Network security tools.  Vulnerabilities and mitigations associated with network devices, transmission media and wireless.  Data communication discussion.  Security+ exam or simulation |  |
| The student will be able to implement computer system access control and configure access lists to limit traffic and enhance security. | Lab activities including:  Access control methods and models.  Security groups.  Security controls to file and print resources  Logical access control methods.  Authentication models.  Physical access security methods.  Security+ exam or simulation |  |
| The student will be able to create security assessments and audits and address security issues raised by the ability to access servers remotely. | Lab activities including:  Risk assessments and implement risk mitigation.  Vulnerability assessments using common tools.  Penetration testing versus vulnerability scanning.  Monitoring tools and methodologies.  Logging procedures and results evaluation.  Audits of system security settings.  Security+ exam or simulation |  |
| The student will be able to use cryptography. | Lab activities including:  General cryptography concepts.  Hashing concepts, algorithms, and applications  Encryption concepts, algorithms, and applications.  Public key cryptography.  PKI and certificate management.  Cryptography QR project.  Security+ exam or simulation | QR |
| The student will be able to implement organizational security, document security policies and violations, and establish, document and disseminate user security guidelines. | Lab activities including:  Redundancy planning.  Disaster recovery.  Incident response procedures.  Legislation and organizational policies.  Environmental controls.  Reducing the risks of social engineering.  Security+ exam or simulation |  |
| The student will be able to identify and discuss technical issues related to emerging security technologies. | Emerging security technology report. | TIM |
| The student will be able to design a directory and security structure. | Security structure design project. |  |

### SECTION II (Must complete each item below)

**ICS CODE FOR THIS COURSE:** ADVANCED AND PROFESSIONAL - 1.16.07 - COMPUTER & INFO SCIENCE

**IF YOU INTEND TO RESTRICT STUDENT REGISTRATION BASED ON THE STUDENTS’ MAJOR(S), ENTER ALL APPLICABLE MAJOR RESTRICTION CODE(S)—Enter “NA” OR MAJOR code(S):**

NA

**GRADE MODE:** STANDARD GRADING

**IS THIS AN “INTERNATIONAL OR DIVERSITY FOCUS” COURSE?** NO

**IS THIS A GENERAL EDUCATION COURSE?** NO

**IS THIS A WRITING INTENSIVE COURSE?** NO

**iS THIS AN HONORS COURSE?** NO

**IS THIS A REPEATABLE\* COURSE?** NO

(A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3-credit hour course, can be repeated 1 time and a student can earn a maximum of 6 credits.)

\*not the same as Multiple Attempts or Grade Forgiveness

**IF “YES”, WHAT IS THE MAXIMUM NUMBER OF CREDITS A STUDENT CAN EARN FOR THIS COURSE? if “NO”, ENTER “na” BELOW.**

NA

**DO YOU EXPECT TO OFFER THIS COURSE THREE TIMES OR LESS (experimental)?** NO

**WILL THESE CHANGES HAVE AN IMPACT ON OTHER COURSES, PROGRAMS OR DEPARTMENTS?**

NO

**IF “YES,” please eXPLAIN or submit comments (ENTER “NA” or COMMENTS):**

NA

**IF “YES,” HAVE YOU DISCUSSED THIS PROPOSAL WITH ANYONE (FROM OTHER DEPARTMENTS AND/OR PROGRAMS) REGARDING THE IMPACT? WERE ANY AGREEMENTS MADE (ENTER “NA” OR COMMENTS)?**

NA

**DO YOU ANTICIPATE THAT STUDENTS WILL BE TAKING ANY OF THE PREREQUISITES LISTED FOR THIS COURSE IN DIFFERENT PARTS OF THE SAME TERM?** NO

**IS ANY COREQUISITE LISTED ON THIS COURSE LISTED AS A COREQUISITE ON ITS PAIRED COURSE?**

eXAMPLE: CHM 2032 IS A COREQUISITE FOR CHM 2032L AND CHM 2032L IS A COREQUISITE FOR CHM 2032.

NO

### SECTION III (MUST COMPLETE EACH ITEM BELOW)

**PROVIDE JUSTIFICATION FOR EACH CHANGE ON THIS PROPOSED CURRICULUM ACTION (OTHER EXPLANATORY INFORMATION)—ENTER “na” OR TEXT:**

This will be a new requirement in the Networking certificate and degree programs to meet state framework requirements and workplace needs. The course has the strong endorsement of the department advisory committee.

**nOTE:** Changes for the Fall 2013 Term must be submitted and approved no later than the January Curriculum Committee Meeting prior to the start of the next academic year. Changes during mid-school year are NOT permitted. Extreme circumstances will require approval from the appropriate dean as well as the Vice President of Academic Affairs to begin in either the spring or summer term.

**TERM IN WHICH PROPOSED ACTION WILL TAKE PLACE:**

FALL 2013

NA

**oRDER OF APPROVAL FOR EXCEPTIONS IS AS FOLLOWS:**

SIGNATURE #1 NEEDED FOR EFFECTIVE TERM EXCEPTION:



SIGNATURE #2 NEEDED FOR EFFECTIVE TERM EXCEPTION:



**FACULTY ENDORSEMENTS:**PLEASE SEPARATE FACULTY MEMBERS WITH A COMMA (,)



**DEPARTMENT CHAIR / PROGRAM COORDINATOR ENDORSEMENT:**

 1/3/2013

**ASSOCIATE / ACADEMIC DEAN ENDORSEMENT:**

 1/4/2013

**DEANS’ COUNCIL Review – verified by:**

 1/16/2013

**STUDENT ASSESSMENT COMMITTEE CHAIR ENDORSEMENT:**

 2/11/2013

**FOR CURRICULUM COMMITTEE MEETING DATE: February 22, 2013**

Completed curriculum proposals must be uploaded to the dropbox by the deadline. Please refer to the *Curriculum Committee Critical Dates for Submission for Proposals* document available in the document manager in the MyEdisonState Portal:

* Document Manager
* VP Academic Affairs
* Curriculum Process Documents