COSC 216 Introduction to Cyber Security-CrsRvs-2019-03-23

- The workflow icon is no longer available. Please click on the Page Status after the orange circle icon near the page title. *

Form Information

The page you originally access is the global template version. To access the template document that progresses through the workflow, please complete the following steps:

First Step: **ONLY** change the text in the [brackets] so it looks like this: **CRIM 101 Intro to Criminology-CrsRvs-2015-08-10**

- ***If DUAL LISTED list BOTH courses in the page title***

Second Step: Click **"SAVE"** on bottom right

- ***DO NOT TYPE ANYTHING INTO THE FIRST PAGE OTHER THAN THE TEXT IN BRACKETS***
- ***Please be sure to remove the Brackets while renaming the page***

Third Step: Make sure the word ***DRAFT*** is in yellow at the top of the proposal

Fourth Step: Click on "**EDIT CONTENTS**" (*not EDIT*) and start completing the template. When exiting or when done, click **"SAVE"** (*not Save Draft*) on bottom right

When ready to submit click on the workflow icon and hit approve. It will then move to the chair as the next step in the workflow.
**Indicates a required field*

Proposer*	Xinwen Wu	**Proposer Email***	xwu@iup.edu
Contact Person*	Xinwen Wu	**Contact Email***	xwu@iup.edu
Proposing Department/Unit*	Mathematical and Computer Sciences	**Contact Phone***	7-2608

Course Level*	undergraduate-level

Course Revisions **(Check all that apply;fill out categories below as specified; i.e. if only changing a course title, only complete Category A)**	
Category A: catalog_desc_change course_prefix_number_change course_title_change mod_prereq	Category B: course_prefix_number_change course_revision ** Teacher Education: Please complete the Teacher Education section of this form (below)* ** Liberal Studies: Please complete the Liberal Studies section of this form (below)* ** Distance Education: Please complete the Distance Education section of this form (below) - Please check the APPROVED DE Course List - ON DOCUMENTS PAGE before completing this section* *If already approved - you DO NOT need to do a DE proposal*

Rationale for Proposed Changes (All Categories)

<table>
<tr><td><b>(I) Repeatable Course</b>
This is for a course that can be repeated
Multiple times e.g. Internship</td><td>If YES, please complete the following:
Number of Credits that May be Repeated:
Maximum Number of Credits Allowed to be Repeated:</td></tr>
<tr><td><b>Proposed Repeatable Course</b></td><td>If YES, please complete the following:
Number of Credits that May be Repeated:
Maximum Number of Credits Allowed to be Repeated:</td></tr>
<tr><td><b>(J) Number of Credits</b></td><td>Class Hours per week:3
Lab Hours:0
Credits:3</td></tr>
<tr><td><b>Proposed Number of Credits</b></td><td>Class Hours:Lab Hours:Credits:</td></tr>
<tr><td><b>(K) Current Course Student</b>
<b>Learning Outcomes (SLOs)</b></td><td>1. Write a suitable set of security policies for different scenarios.
2. Apply various access control techniques.
3. Compare the basic tools and techniques used to attack systems.
4. Explain the different types of attacks.
5. Specify procedures for password/username management.
6. Explore the use of security tools in defending user/group accounts.
7. Explore techniques for integrity management.
8. Demonstrate the use of logging, auditing, and backup techniques for security.
9. Explain the basic cryptography concepts.</td></tr>
<tr><td><b>(L) Proposed Course Student</b>
<b>Learning Outcomes (SLOs)</b>
For each outcome, describe how
the outcome will be achieved</td><td>Note that the text box in the table expands
<table>
<tr><th>SLO #</th><th>Outcome</th><th>How outcome is assessed</th></tr>
<tr><td>1</td><td>Recognizutcome</td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
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</table></td></tr>
</table>

(M) Previous Brief Course Outline *(It is acceptable to copy* *from old syllabus)*	*As outlined by the federal definition of a "credit hour", the following should be a consideration* *regarding student work - For every one hour of classroom or direct faculty instruction,* *there should be a minimum of two hours of out of class student work.* 1. Overview of computer security a. Definition and discussion of computer security b. Security problems in computing 2. Attacks to Host Computer Systems a. Attacker profiles b. Attacking strategies 3. Introduction to an operating system a. The operating systems overview b. Operating system utilities c. Operating system user administrative commands 4. Identification and Authentication a. Managing username and passwords b. Password management utilities c. Authentication techniques d. Use of password cracking tools 5. File systems and access control a. File ownership and user groups b. Strategies for defending group accounts c. working with files/directories d. Using File Manager 6. Integrity Management a. Immutable and append only files b. Read only files c. Checksum and signatures d. Use of integrity checking tools 7. File System and security a. Access control through file permissions b. Setting up access control lists c. Other file protection schemes d. Basic computer forensics methods e. Electronic records management f. Electronic evidence 8. Auditing, logging, backup a. Log file utilities b. Rotating and tracking log files c. Protecting and viewing log files d. Operating system specific tools for auditing and logging e. Backup file systems f. Linus tools for backup 9. Encryption for Host System a. Symmetric encryption b. Asymmetric encryption 10. Policies and guidelines a. Policy developpend only files b. c. 11. a. b. 12. 13. 14.

	the ways of modeling the natural, social and technical worlds The aesthetic facets of human experience the past and present from historical, philosophical and social perspectives the human imagination, expression and traditions of many cultures the interrelationships within and across cultures & global communities the interrelationships within and across disciplines

Liberal Studies courses must include the perspectives and contributions of ethnic and racial minorities and of women whenever appropriate to the subject matter. Please explain how this course will meet this	