Washtenaw Community College Comprehensive Report

CSS 205 Essentials of Network Penetration Testing
Effective Term: Spring/Summer 2019

Course Cover

Division: Business and Computer Technologies
Department: Computer Instruction
Discipline: Computer Systems Security
Course Number: 205
Org Number: 13400
Full Course Title: Essentials of Network Penetration Testing
Transcript Title: Network Penetration Testing
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
    Consultation with all departments affected by this course is required.
Rationale: Minor change to add new faculty as an advisor and correct prerequisites
Proposed Start Semester: Winter 2019
Course Description: In this course, students are introduced to the techniques of network penetration testing using open source tools. Through various hands-on exercises, the student will be introduced to the concepts, techniques, tools and methodologies for evaluating and auditing network vulnerabilities and properly securing networks from attack. Students are expected to have knowledge of Linux, Windows, working at the command line of any Operating System and networking.

Course Credit Hours

Variable hours: No
Credits: 4
Lecture Hours: Instructor: 60 **Student:** 60
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 60 **Student:** 60
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Level 1

Requisites
Prerequisite
CSS 200 minimum grade "C"; may enroll concurrently

General Education

General Education Area 7 - Computer and Information Literacy
Assoc in Arts - Comp Lit
Assoc in Applied Sci - Comp Lit
Assoc in Science - Comp Lit

Request Course Transfer
Proposed For:

Student Learning Outcomes

1. Use tools and techniques to identify vulnerabilities in computer networks.
    Assessment 1
    Assessment Tool: Laboratory reports
    Assessment Date: Winter 2019
    Assessment Cycle: Every Three Years
    Course section(s)/other population: Random sample of a minimum of two sections of CSS 205 over the three-year cycle
    Number students to be assessed: All
    How the assessment will be scored: Departmentally-developed rubric
    Standard of success to be used for this assessment: 70% of the students will score 70% or higher
    Who will score and analyze the data: Department faculty

2. Using the results from penetration testing, design and implement security procedures and countermeasures on the network and hosts.
    Assessment 1
    Assessment Tool: Laboratory reports
    Assessment Date: Winter 2019
    Assessment Cycle: Every Three Years
    Course section(s)/other population: Random sample of a minimum of two sections of CSS 205 over the three-year cycle
    Number students to be assessed: All
    How the assessment will be scored: Departmentally-developed rubric
    Standard of success to be used for this assessment: 70% of the students will score 70% or higher
    Who will score and analyze the data: Department faculty

Course Objectives
1. Identify the importance of security management.
2. Describe the technologies that make networks and computers secure.
3. Identify and use software tools to scan, probe, analyze, and penetrate networks and hosts.
4. Identify attack scenarios and countermeasures.
5. Describe the business requirements for incident identification and response.
6. Identify the importance of business continuity planning.

New Resources for Course

Course Textbooks/Resources
Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom

Reviewer	Action	Date
Faculty Preparer:		
Michael Galea	*Faculty Preparer*	*Oct 27, 2018*
Department Chair/Area Director:		
Philip Geyer	*Recommend Approval*	*Oct 29, 2018*
Dean:		
Eva Samulski	*Recommend Approval*	*Nov 01, 2018*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*Nov 26, 2018*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Nov 28, 2018*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Dec 04, 2018*