

# Cape Cod Community College

## Curriculum and Programs

### Departmental Syllabus

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Prepared by the Department of Business

Date of Departmental Approval: October 5, 2015

Date approved by Curriculum and Programs: November 13, 2015

Effective: Fall 2016

**1. Course Number:** BIT243

**Course Title:** IT: Advanced Ethical Hacking II

**2. Description:** This is the second in a series of two courses that teach students how to create sophisticated attacks, and exploit fully patched, fully hardened systems (also known as penetration testing). Students create 0day exploits. Students create a working exploit for Microsoft Windows and Linux vulnerabilities as well as reverse engineer a Windows Binary. This course continues to prepare students to take the CEPT (Certified Expert Penetration Tester) and the ECSA (EC-Council Certified Security Analyst certification). To fully prepare for these certifications, both BIT242 and BIT243 must be successfully completed. Prior to starting this course, students are required to sign an agreement stating all knowledge learned in this course will not be used for illegal or malicious purposes.

**3. Student Learning Outcomes** (instructional objectives, intellectual skills):

Upon successful completion of this course, students are able to do the following

- Run network booting attacks.
- Construct network attacks and reconnaissance
- Perform attacks against NAC, VLANs, OSPF, 802.1X, CDP, IPV6, VOIP, SSL, ARP, SMNP and more.
- Compromise web servers, virtual machines, databases, routers, firewalls.
- Acquire the skills to engage in a more effective penetration testing process.

**4. Credit(s):** 3 credits

**5. Satisfies General Education Requirement:** No

**6. Prerequisite(s):** BIT242 IT: Advanced Ethical Hacking I or a CEH Certified Ethical Hacker Certification. Certifications must have been earned within the past 5 years

**7. Semester(s) Offered:** Varies

**8. Suggested Guidelines for Evaluation:** hands on labs, quizzes, midterm, final

**9. General Topical Outline** (Optional):