

Information Assurance and Security

Brigham Young University – Hawaii

Fall 2013 (Sep 09 – Dec 13)

Asst. Professor Joshua Smith

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GCB 105

(1) Overview

Was it Mr. Plum, in the Observatory, with the Candlestick? Although information assurance & security is not *exactly* like Hasbro's famous Clue® game, there are many similarities: information security personnel must be detailed, tenacious, accurate, quick and capable. If not, you lose and the game is over – the bad guys win.

As if information assurance and security wasn't enough, in an increasingly hyper-connected and "flat" world, old labor standards are insufficient – a College degree, by itself, is inadequate. To succeed you must possess, and effectively demonstrate, the Four C's:

- 1) Critical Thinking;
- 2) Communication & Collaboration;
- 3) Character; and,
- 4) Competence.

To this end, IT 481 provides exposure to real-world issues, plus opportunities to understand, develop, and practice key concepts and skills for successful information assurance and security. So, buckle up, prepare for some fun, some work (!), and let's go.

CREDITS: Three (3)

CLASS SCHEDULE: MWF 09:50 – 10:50 (GCB 111)

OPTIONAL LAB SCHEDULE: TTh 08:00 – 09:00 (GCB 101)

FINAL EXAM: Fri, Dec 13, 10:00 – 12:50

CATALOG DESCRIPTION: Introduction to information security providing a foundation of computer security concepts, including general security, communication security, infrastructure security, basics of cryptography, and operational and organizational security. Prerequisite(s): IT 280/L

REQUIRED TEXT:

Principles of Information Security, 4th ed., Michael E. Whitman and Herbet J. Mattord, Cengage Learning, 2012, ISBN: 978-1-111-13821-9

SUPPLEMENTARY READINGS:

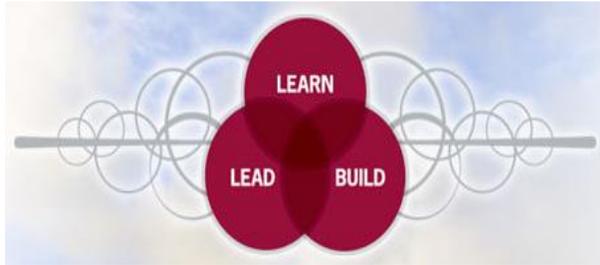
Hands-On Information Security Lab Manual, 3rd ed., Michael E. Whitman and Herbet J. Mattord, Cengage Learning, 2011, ISBN: 987-1-435-44156-9

Hacking Exposed 7: Network Security Secrets & Solutions, 7th ed., Stuart McClure, Joel Scambray, & George Kurtz, Mc-Graw Hill, 2012, ISBN: 978-0-07-017028-5.

Hands-On Ethical Hacking and Network Defense, 2nd e., Michael T. Simpson, Kent Backman, & James E. Corley, Cengage Learning, 2011, ISBN: 978-1-4354-8609-6.

(2) BYU–Hawaii Vision & Mission

Brigham Young University–Hawaii . . . exists to assist individuals in their quest for perfection and eternal life and in their efforts to influence the establishment of peace internationally. [BYU–Hawaii Vision](#)



*[T]o integrate both spiritual and secular **learning**, and to prepare students with character and integrity who can provide **leadership** in their families, their communities, their chosen fields, and in **building** the kingdom of God. [BYU–Hawaii Mission](#)*

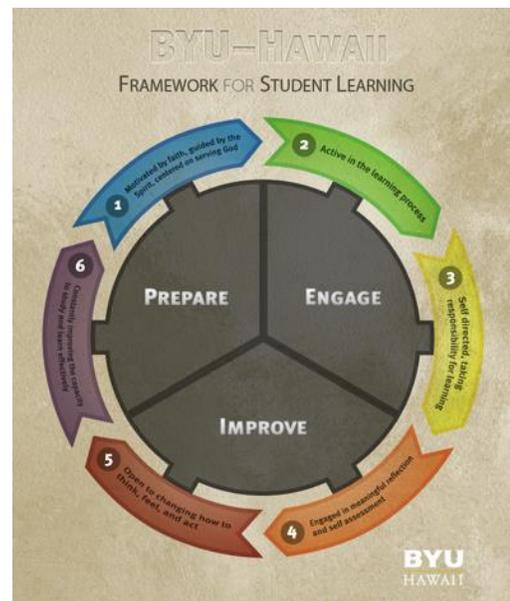
The Vision and Mission are the “why” and “what” – why BYU–Hawaii exists, and what it seeks to accomplish. But “how” – how will we, collectively, achieve those lofty standards?

(3) Framework for Student Learning

The [Framework for Student Learning](#) is a powerful tool designed to empower us to rise to President McKay’s Vision and realize our shared Mission to **Learn, Lead, and Build**.

As we **Prepare, Engage, and Improve**, we will maximize our learning, which occurs best when we are:

- 1) *Motivated by faith, guided by the Holy Spirit, and centered on serving God;*
- 2) *Active in the learning process;*
- 3) *Self-directed and take responsibility for our learning;*
- 4) *Engaged in meaningful reflection and self-assessment;*
- 5) *Open to changing how we think, feel, and act;*
- 6) *Constantly improving our capacity to study and learn effectively.*



(4) Expectations, Policies, & Grading

Class time will rarely be used to regurgitate information from the text; you are expected to finish assigned readings **BEFORE** class and bring questions. This requires that you (and I!) **Prepare**. Class time will be focused on clarifications, discussions, answering questions, and hands-on exercises. This is where you (and I!) **Engage**. Assignments will provide opportunities to receive feedback and correction, thereby helping you to **Improve**; likewise, your feedback is welcomed, so that I too may **Improve**.

Everyone begins the semester with 20 BYUH-Bucks. Bucks may be used to submit an assignment late (1 Buck daily), to re-grade a previous assignment (10 Bucks + late cost), or as extra credit at the end of the semester.

You may earn additional BYUH Bucks (100 maximum) as follows:

- 5 Bucks – Submit a devotional report (1pg, each, 1” margins, 1.5 spacing, Times New Roman) sharing your thoughts, impressions, resolutions, things you liked, didn’t like, etc – NOT merely a summary of what the speaker said; or,
- 15 Bucks – Submit a 2-4pg report on some topic related to the recent class discussions.
- X Bucks – I will consider other ways to receive additional BYUH Bucks.

See the calendar of assignments and topics in Canvas, subject to change during the semester. No alternate final exam date or time is permitted and late assignments are accepted ONLY with the appropriate number of BYUH Bucks. Grades will be updated in Canvas promptly, after items are graded.

Bro. Smith agrees to **Prepare, Engage, and Improve**. What about you, will you also commit to **Prepare, Engage, and Improve**? *You* are primarily responsible! Poor use of the *Framework* will reduce individual and class learning. ☺

(4.1) Alternate Syllabus

Subject to Brother Smith’s approval you may create an alternate syllabus; it must satisfy the same learning outcomes identified in Section (6) and be approved before Monday, Sep 20th at 5:00 p.m. *In the absence of an approved, signed, and filed alternate syllabus with Brother Smith, you are subject to the terms and grading as outlined in this syllabus.*

(5) University Policies

All University personnel are expected to comply with the University Policies as part of their agreement to attend BYU-Hawaii. Subsets of the Honor Code policies are included below and are [available in more detail online](#).

(5.1) [Academic Honesty](#)

Plagiarism, fabrication or falsification, cheating, and other academic misconduct.

(5.2) [Dress and Grooming](#)

Men. A clean and neat appearance should be maintained. Shorts must cover the knee. Hair should be clean and neat, avoiding extreme styles or colors, and trimmed above the collar leaving the ear uncovered. Sideburns should not extend below the ear- lobe. If worn, moustaches should be neatly trimmed and may not extend beyond or below the corners of mouth. Men are expected to be clean-shaven and beards are not acceptable. (If you have an exception, notify the instructor.) Earrings and other body piercing are not acceptable. For safety, footwear must be worn in all public places.

Women. A modest, clean and neat appearance should be maintained. Clothing is inappropriate when it is sleeveless, strapless, backless, or revealing, has slits above the knee, or is form fitting. Dresses, skirts, and shorts must cover the knee. Hairstyles should be clean and neat, avoiding extremes in styles and color. Excessive ear piercing and all other body piercing are not appropriate. For safety, footwear must be worn in all public places.

(5.3) [Special Needs](#)

Brigham Young University Hawaii is committed to compliance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. The university makes every effort to accommodate individuals with disabilities within the scope of existing laws.

(5.4) [Sexual Harassment](#)

Unlawful Sexual Harassment is contrary to the teachings of The Church of Jesus Christ of Latter-day Saints, the university's Honor Code and applicable civil rights laws and regulations. BYUH's Honor Code requires that university personnel and students abide by Title VII of the Civil Rights Act of 1964 and Title IX of the Educational Amendments of 1972 which prohibit sexual harassment.

(6) ABET & WASC Learning Outcomes

Information technology, including the Internet, has emerged as one of the critical infrastructures, if not the most critical infrastructure, of modern organizations. Within any organization where you work, you will be touched by information systems and related technologies in various different roles: end-user, developer, or manager. Your ability to understand and use the right technology tools to safeguard information is an important prerequisite for successful performance in your workplace. This course provides the knowledge you need to understand the role of information assurance and security in modern organizations. After completing the course, students will be able to:

- Identify and prioritize information assets;
- Identify and prioritize threats to information assets;
- Define an information security strategy and architecture;
- Plan for and respond to intruders in an information system;
- Describe legal and public relations implications of security and privacy issues;
- Present a disaster recovery plan for recovery of information assets after an incident.

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Student Acknowledgement

I have reviewed the course syllabus and understand what is required, including:

- I must be an active learner, which occurs as I **Prepare, Engage,** and **Improve.** I will demonstrate that, in part, by regular updates to my activity log;
- The due dates for assignments, that late work is accepted only with the proper number of BYUH Bucks;
- Honor Code violations will be immediately reported and appropriate action will be taken, up to and including an automatic failing grade “F”;
- I am committed to work hard and do my very best and will promptly contact the professor, Brother Smith, if I have any questions or problems related to the course work or my group work; and,
- I will come with a positive attitude, prepared to work, learn, and have fun.

Printed Name

Signature

Date