

# Computer Hardware & Systems Software

Brigham Young University – Hawaii

Winter 2014 (Jan 06 – Apr 11)

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GCB 105

## (1) Overview

How does a computer work? Sure, there's electricity, a monitor, mouse, keyboard et cetera, but how does it all *really* work? Want to know? Come discover!

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, what Brother Smith calls the Four C's:

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

IT 224 provides exposure to real-world issues and usages of computers and technology, and will enable you to identify hardware components, perform essential diagnostics and repairs, and evaluate software solutions.

**CREDITS:** Three (3)

**CLASS SCHEDULE:** Thu 07:40 – 10:50 a.m. (GCB 101)

**REQUIRED LAB SCHEDULE:** Students **MUST** enroll in one of the 224/L labs

**FINAL EXAM:** Last week of class in testing center

**CATALOG DESCRIPTION:** Introduction to computer operating systems, graphical and command line user interfaces, hardware and software installation, utility programs, software integration, and diagnostic techniques.

**REQUIRED TEXT:**

[\*TestOut PC Pro A+ 801/802\*](#), TestOut.com. ISBN: 978-1-935080-42-8

## (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](#)

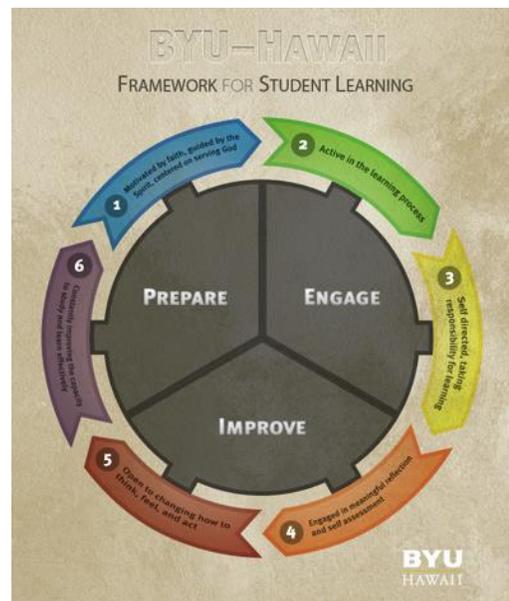
The Vision and Mission are the “why” and “what” – why BYU–Hawaii exists, and what it seeks to accomplish. But “how” – how will we, collectively, achieve those lofty standards?

## (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;*
- and,
- 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, maximum 1 week), to re-grade a previous assignment (5 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 the 2<sup>nd</sup> Friday of the semester 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**

Upon successful completion you will be able to:

- Apply knowledge of computing and mathematics appropriate to the discipline and receive appropriate feedback;
- Demonstrate mastery of problem analysis, and identify and define the computing requirements appropriate to its solution;
- Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs;
- Function effectively on teams to accomplish a common goal and receive appropriate feedback;
- Understand professional, ethical, legal, security and social issues and responsibilities;
- Communicate effectively with a range of audiences and receive appropriate feedback;
- Analyze the local and global impact of computing on individuals, organizations, and society;
- Recognize the need for, and an ability to, engage in continuing professional development;
- Use current techniques, skills, and tools necessary for computing practice;
- Use and apply current technical concepts and practices in the core information technologies and receive appropriate feedback;
- Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems and receive appropriate feedback;
- Effectively integrate IT-based solutions into the user environment; and,
- Understand best practices and standards and their application.

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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