Computer Hardware & Systems Software
Brigham Young University – Hawaii
Fall 2012 (Sep 10 – Dec 13)

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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; 3) Character; and,
2) Communication & Collaboration; 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: TTh 13:50 – 15:20 (GCB 140)
LABS: Tue 21:00 – 23:00; Wed 17:00 – 19:00; Thu 19:00 – 21:00 (GCB 101)
FINAL EXAM: Thu, Dec 13, 16:00 – 18:50
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:

SUPPLEMENTARY TEXT:
TestOut A+ Lab Sim, http://www.testout.com/home/certification-training/labsim-certification-training/a- ($89, see Bro. Smith for details)
(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

To 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

You will keep an activity log to record questions, ideas and insights, suggestions for class or exercise improvements, general comments, and an attendance record. There will be occasional, unannounced checks of your activity log. You will submit your log (or a photocopy) at term conclusion.

In-class time will rarely be used to regurgitate information from the text; you are expected to finish assigned readings BEFORE class and bring questions (or submit via Canvas beforehand). 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. Your activity log will be a useful tool to facilitate meaningful self-reflection and assessment, and to improve the course, especially for future students. This is where you (and I!) Improve. Does this look familiar?

Class begins promptly at 13:50. The penalty for tardiness is: $3.00, or 3 BYUH Bucks, or a 3% participation deduction. “Better late than never” is valuable as maxims go, but “best never late” is, well, best! The penalty for an unexcused absence is $10.00, or 10 BYUH Bucks, or a 10% participation deduction. Penalties apply EACH occurrence. Funds collected will be used for a class party or donated to a charity.¹ If nobody is late or absent the entire Term, Brother Smith will (a) hold a class party, and (b) give a 10% bonus on the final.

No alternate final exam date or time is permitted, and late assignments are accepted ONLY with the appropriate number of BYUH Bucks – NO EXCEPTIONS. Extra credit opportunities will earn BYUH Bucks and are available weekly. 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. 😊

Graded assignments include: weekly “Triple R’s”, hands-on labs, tests, quizzes, and participation points. The final grade is weighted as follows: Participation & Activity Log (15%), Quizzes (15%), Triple R’s (20%), Exams (20%), and Labs (30%).

(4.1) Alternate Syllabus

Subject to Brother Smith’s approval you may create an alternate syllabus; it must satisfy the same learning outcomes in Section (6) and be approved before Sep 21st. In the absence of an approved, signed, and filed alternate syllabus, you are subject to the terms and grading as outlined in this syllabus.

¹This is a standard industry practice, particularly for Agile (SCRUM) development projects.
(5) University Policies

The first Dress and Grooming violation will be penalized 15 BYUH Bucks or a 15% participation deduction; subsequent offenses will be reported to the Office of Honor and will incur dismissal from class (tardy or absence penalties applied). All other Honor Code violations will be reported immediately and handled individually.

(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 of IT 224, Computer Hardware & Systems Software, 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.
### (7) Calendar

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment Due</th>
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<tr>
<td>11</td>
<td>Introduction</td>
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<td>13</td>
<td>The Visible PC</td>
<td>Chapter 3</td>
<td>Introduction</td>
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<td>Microsoft Windows</td>
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**Mon 8th – Fri 12th**
**Testing Center Mid-Term #1**
**Chapters 3, 5-9, 11-12**

**Thu 1st – Wed 7th**
**Testing Center Mid-Term #2**
**All Prior Chapters and 4, 14-17, 21-22**

**THANKSGIVING**

**GCB 140, 16:00 – 18:50**
**COMPREHENSIVE FINAL EXAM**
Submit Activity Log

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**Legend**

- **“RRR”** Read, Reflect, Report weekly assignment
- **“LAB”** Hands-on lab work
- **“CR”** Community Repair Labs

**Activity Log** Record of course work, questions, insights, “ah-ha!” moments, etc.

See Canvas for information for each item

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CLASS SCHEDULE: TTh 13:50 – 15:20 (GCB 140)  

Student Acknowledgement  

I have reviewed the course syllabus for IT 224 and understand what is required for this course, including:  

- I must be an active learner, which occurs as I **Prepare, Engage, and Improve**. I will demonstrate that, in part, by daily updates to my activity log;  
- The due dates for assignments, that late work is accepted only with the proper number of BYUH Bucks;  
- Tardiness incurs a $3.00, or 3 BYUH Bucks, or 3% participation penalty EACH occurrence;  
- Unexcused absences incur a $10.00, or 10 BYUH Bucks, or 10% participation penalty EACH time;  
- Dress and Grooming Honor Code Violations will incur a 15 BYUH Bucks or 15% participation penalty on the FIRST occurrence. Subsequent violations will be reported to the Office of Honor, and I will be dismissed from class until I resolve the problem(s), and will incur the late (if I return the same class period) or absent penalty when dismissed;  
- All other 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 in IT 224 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