(1) Overview

Like IT 220, this course is “hands-on” so expect lots of time in class spent with online exercises and labs. We will continue with the online Red Hat Academy. We’ll build upon earlier concepts with increased focus on administrative (root) functions. And who knows, perhaps by term conclusion, you won’t detest command-line interfaces so much. Perhaps.

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.

To this end, IT 420 provides exposure to real-world issues, plus opportunities to understand, develop, and practice key concepts and skills for successful use and navigation of the Linux – specifically, Red Hat – environment. So, buckle up, prepare for some fun, some work (!), and let’s go.

CREDITS: Three (3)
CLASS SCHEDULE: TTh 12:10 – 15:20 (GCB 140)
OPTIONAL LAB SCHEDULE: MWF 08:00 – 09:30 (GCB 101)
FINAL EXAM: Thu, Aug 30, 12:10 – 15:20
CATALOG DESCRIPTION: Develops skills needed to set up and manage Linux systems on existing networks, including installation, hardware, fstab, bootloader, passwords, dns, rpm, and kernel services.
Prerequisite(s): CIS 101 and IT 220

REQUIRED TEXT:
Online RedHat Academy Workbooks

SUPPLEMENTARY READINGS:
(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 !!) Prepare. Class time will be focused on clarifications, discussions, answering questions, and hands-on exercises. This is where you (and !!) 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 !!) Improve. Does this look familiar?

Class begins promptly at 12:10. 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. Students never tardy or absent will be entered into a drawing for a “fabulous” prize.

No alternate final exam date or time is permitted, and late assignments are accepted ONLY with the appropriate number of BYUH Bucks – NO EXCEPTIONS. Opportunities for extra credit may be available and students may recommend others. 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

Yes, you read that correctly. Subject to Brother Smith’s approval, you may devise an alternate syllabus. Proposals must satisfy the same learning outcomes in Section (6). Brother Smith reserves the right to approve proposed syllabi. Approval must occur before Jul 26th, 17:00; contact Brother Smith for specifics.

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.

¹ This 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 the course, students will:

- Demonstrate mastery ability to apply knowledge of computing and mathematics knowledge appropriate to the discipline;
- Demonstrate mastery ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
- Demonstrate basic ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs;
- Demonstrate mastery ability to use of current techniques, skills, and tools necessary for computing practice;
- Demonstrate basic ability to use and apply current technical concepts and practices in the core Information Technologies;
- Demonstrate basic ability to identify and analyze user needs and take them into account in the selection, creation, evaluation, and administration of computer-based systems; and,
- Demonstrate basic ability to effectively integrate IT-based solutions into the user environment.
### (7) Calendar

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<thead>
<tr>
<th>Date</th>
<th>Topic(s)</th>
<th>Reading(s)</th>
<th>Assignment(s) Due</th>
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<tr>
<td><strong>July</strong></td>
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<tr>
<td>Week 1</td>
<td>Tue 17 Syllabus, RHA, Canvas RHEL Installation (5)</td>
<td>Workbook 01</td>
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<td>Thu 19</td>
<td>Workbook 01</td>
<td>A01</td>
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<td>Week 2</td>
<td>Tue 24 Hardware &amp; Device Configuration (5)</td>
<td>Workbook 02</td>
<td>V01; LT01; MC01;</td>
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<td>Thu 26 Filesystem Management (8)</td>
<td>Workbook 03</td>
<td>V02; LT02; MC02;</td>
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<td>Presentation 02</td>
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<td>Week 3</td>
<td>Tue 31</td>
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<td>August</td>
<td>Thu 02 System Initialization &amp; Services (5)</td>
<td>Workbook 04</td>
<td>V03; LT03; MC03;</td>
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<td>Presentation 03</td>
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<td>Week 4</td>
<td>Tue 07 User and Group Administration (8)</td>
<td>Workbook 05</td>
<td>V04; LT04; MC04;</td>
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<td>Thu 09</td>
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<td>Presentation 04</td>
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<td>Week 5</td>
<td>Tue 14 Network Configuration (5)</td>
<td>Workbook 06</td>
<td>V05; LT05; MC05;</td>
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<td>Thu 16</td>
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<td>Week 6</td>
<td>Tue 21 System Administration Tools (5)</td>
<td>Workbook 07</td>
<td>V06; LT06; MC06;</td>
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<td>Thu 23 RPM: Package Management (4)</td>
<td>Workbook 08</td>
<td>V07; LT07; MC07;</td>
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<td>Presentation 07</td>
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<td><strong>June</strong></td>
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<td>Week 7</td>
<td>Tue 28 RHCSA Exam</td>
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<td>V08; LT08; MC08</td>
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<td>Thu 30 Final Exam (Class Party...)</td>
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<td>Presentation 08</td>
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**Legend**

- **"A"** Individual Assignments
- **"GA"** Group Assignments
- **"V"** Video Assignments
- **"LT"** Workbook Lab Test
- **"MC"** Workbook Multiple Choice Test
- **Presenter** Individual presentation of the Workbook
- **Activity Log** Record of course work, questions, insights, “ah-ha!” moments, etc.

See Canvas for information for each item
Linux Systems Administration
Brigham Young University – Hawaii
Summer 2012 B01 (Jul 16 – Aug 31)

Asst. Professor Joshua Smith
http://jsmith.cis.byuh.edu
j.smith@byuh.edu
808-675-3388
GCB 105

CLASS SCHEDULE: TTh 12:10 – 15:20 (GCB 140)

Student Acknowledgement

I have reviewed the course syllabus for IT 420 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” for the semester;
- I am committed to work hard and do my very best in IT 420 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