

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE  
Division of Engineering Technologies  
Department of Computer Systems Engineering Technology

**Course:** CSE-140 Operating Systems I Lab

**Date:** Fall 2015

**Professor:**

Andrew Collins      **Office:** 17/631      **Telephone:** 755-4759      **Email:** ajcollins@stcc.edu

Arnold Christainsen      **Office:** 17/631      **Telephone:** 755-4491      **Email:** aechristainsen@stcc.edu

**Credits:** 1

**1. Course Description:**

This course will introduce the student to computer operating systems. The course provides the information needed to understand and support the desktop, server, and network operating systems in use today –the latest Windows version both desktop and server, Linux, and Macintosh. Major concepts include operating system theory, installation, upgrading, configuring (operating system and hardware), file systems, security, hardware options, storage, resource sharing, network connectivity, maintenance, and troubleshooting. This course combines theory and technical practice for a stronger understanding. A three-hour lab component is included to give hands-on experience with these topics. Three lecture and 3 laboratory hours.

Corequisite(s): CSE 140

**2. Course Objectives:**

On successful completion of this course, the student should be able to:

- Understand the multiple operating systems commonly found in the Information Technology field today.
- Understand the functions common to all file systems
- Sequence the steps in installing operating systems
- Sequence the steps in upgrading operating systems
- Sequence the steps for installing peripherals
- Understand the theory behind operating systems
- Understand how hardware interacts with operating systems
- Understand the basic functions and design of file systems found in Windows, UNIX, and Macintosh operating systems
- Understand and demonstrate how operating systems interface with input, output, and storage devices

- Understand basic network theory and design utilizing various operating systems
- Sequence the steps to setup network resources through the multiple versions of software
- Understand standard operating and maintenance procedures for various operating systems

### 3. Textbook:

Your instructor provides lab material. The content will be made available on the CSET forums.

### 4. Grading and Evaluation Criteria:

Labs	90
Attendance	<u>10</u>
Total	100

### 5. Performance Policy:

**A. Attendance:** Attendance is mandatory. Each three absences will result in the loss of a letter grade. Excessive absences will result in the student being dropped from the course at the professor's discretion. 'Excessive' is quantized at the professor's discretion. An individual that is more than 10 minutes late to class will be considered absent.

It is the student's responsibility to make arrangements to make up any missed work. Missed work may only be made up if the professor allows. The schedule for any make up work will be at the instructor's discretion.

If the student knows in advance he or she may not be in lecture it is the student's responsibility to notify the professor in advance.

Attendance will be taken at each lecture and lab. Be sure to sign in or follow the instructor's guidelines to properly record your attendance in lecture.

**B. Policy on course disruptions:** Students are expected to act in a professional and mature manner. Course disruptions, loud or disruptive behavior, intimidation, violation of the policies and procedures set down in the STCC Student Handbook, or similar problems will result in the student being removed from the class.

Be sure to turn off all cell phones or other electronic devices before entering the lecture or lab. In many cases the professors allow cell phones during lab but not while lectures are in process. Talking or causing disruptions while lecture is in process is also considered disruptive.

At the professor's discretion he or she may attempt to correct the student's behavior or remove the student from the class.

**C. Due Dates:** The student is required to pass in all assigned work by the due date. Late work is will not be accepted and be counted as a zero.

**D. Quality:** Submission of poor quality work will not be accepted. Submissions which do not meet minimum documentation standards set forth in class, are incoherent, or are illegible will be returned [not graded] to the student. These cases are treated as if no work was submitted.

**E. Academic Honesty:** All students are assumed to do their own work. Using other's work is permitted, under some circumstances, with proper credit to the original author(s). Academic dishonesty of any manner is not tolerated. In the event it is discovered by the professor ALL PARTIES INVOLVED receive a grade of "F" [0.0]. No distinction is made between those "cheating" and those being "cheated from". If a student believes his/her work is being borrowed without consent it is her/his responsibility to report the incident. This is the only means to escape the consequences. All incidents are examined on a case-by-case basis by the professor whose decision is final.

## **6. Class Organization:**

The course is a lab format. Course materials are located on the CSET forums.

Students are expected to have Internet access, use common office applications for homework & documentation, and have the ability to save their work (USB key or other).

You need a USB flash drive at least 4GB in size or greater.

**7. Course Outline:** [may vary slightly]

<b>Week</b>	<b>Topics</b>
<b>1</b>	Install Windows 7
<b>2</b>	Install Ubuntu Linux
<b>3</b>	Computer Imaging w/Clonezilla
<b>4</b>	Windows Command Line
<b>5</b>	Installing Programs (Windows/Linux)
<b>6</b>	Truecrypt (you need your own flash drive)
<b>7</b>	Bootable Drives (you need your own flash drive)
<b>8</b>	Windows Competencies
<b>9</b>	Linux Competencies
<b>10</b>	OS X Competencies
<b>11</b>	Virtual Box
<b>12</b>	Windows Users Accounts
<b>13</b>	Windows Security
<b>14</b>	Bit Locker

**Notes:**

This class concentrates on Windows 7, but topics in Windows XP, Windows Vista, Linux and Mac OS X will be covered in the lectures and the lab. Instructor may vary the class structure at any time to suit the needs of the class.

## Course Methodology and Philosophy

S.T.C.C. invests a considerable amount of resources into equipment for student and faculty use. As a member of the faculty, I will make use of all available teaching methods and tools. For lectures, most instruction will use a combination of Power Point/Computer Presentation and blackboard/whiteboard. Students are encouraged to actively participate by way of relevant questions and comments about the subject matter under discussion. It is my responsibility to make sure that the subject matter is presented in as clear a manner as possible. Your feedback is invaluable to my ability to accomplish this goal.

You, as the student, also have your share of responsibility:

**Attendance:** The scope of the material presented in this course is broad. Attendance is required to experience all the information as presented by the instructor. In addition, your input into the classroom discussion helps other students to better understand the material.

**Preparation:** It is your responsibility to complete all assignments, reading and written, in a timely manner. Thorough preparation will help instill greater confidence in the subject matter and will facilitate lively classroom discussions. Proper preparation for quizzes and tests is also expected.

**Attitude and Behavior:** It is your responsibility to make sure that your contributions to this course, and your attitude toward the people around you, are positive. Foul language and disruptive behavior will not be tolerated in this course. In addition, school property must be treated with respect at all times. This is especially true in laboratories. If you do not understand how to use a particular piece of equipment, you are encouraged to ask for assistance. You should report malfunctioning equipment immediately. Always return equipment and components to their proper locations. Leave your study or work area clean and neat for the next student.

### **Students with Special Needs:**

Any student who feels s/he may need an accommodation based in the impact of a disability should contact the instructor privately to discuss your specific needs. Before any accommodations are put in place, you should contact the Office of Disability Services at 755-4785 or stop by Building 27/2nd Floor to coordinate reasonable accommodations for students with documented disabilities.