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Fall 9-1-2018

# ITS 165.02: OS Commands and Scripts

Steven L. Stiff

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**Missoula College UM****Department of Applied Computing and Engineering Technology**

**Course Number and Title** .....ITS 165 OS Commands & Scripts -  
**Section** .....02 (CRN 74003) -  
**Term** ..... Fall 2018 -  
**Semester Credits** .....3 -  
**Prerequisites** .....M 90 or consent of instructor -

**Faculty Contact Information**

<b>Faculty</b>	<b>Office</b>	<b>Office Hours</b>
Steven (Steve) L. Stiff	MC322	MWF, 11:30 AM – 12:30 PM
Phone: (406) 243-7913		or by appointment
Email: <a href="mailto:steven.stiff@umontana.edu">steven.stiff@umontana.edu</a>		

**Class Meeting Times and Final**

**Lecture Day, Time, and Location** ..... MW, 2:00pm – 2:50pm, MC122  
**Lab Day, Time, and Location** ..... R, 12:30 PM – 2:00 PM, MC025  
**Final Exam Date, Time, and Location** ..... T, 12/11/18, 1:10pm – 3:10pm, MC122

**Course Description**

Emphasis on the use of the Windows 7 and Windows 10 operating system (OS) command line interface, and includes the creation and execution of script files in Windows environment. Focus is on OS installation, system configuration, file management, networking resources, and disaster recovery practices in the Microsoft environment, using both the command interpreter and graphical user interface.

**Course Overview**

This course examines the use and power of the Microsoft Windows operating system (OS) command line interface (CLI), including a comparison of command line commands and with their Windows graphical user interface (GUI). When using the Windows GUI, we use the operating system much like we drive a high-performance sports car: we use our mouse to travel around the Windows environment, executing applications at the speed of a mouse-click; we do not care about what the system is actually doing “under the hood.” As with the sports car, we occasionally we need to “tune up” or repair our OS. With Windows, we can use the convenience of the GUI to execute OS utilities to configure our operating system. However, as with a sports car, we sometimes need a specialized set of tools to perform specific operations, tools that are not available in the GUI toolbox.

In Windows, this specialized set of tools is accessed via the CLI. With the CLI we can perform highly-specific operations not available via the GUI. The CLI permits us to fine-tune (modify) OS commands, which allows us to tweak very specific areas of the operating system. In this course we are going to open up this specialized Windows toolbox and learn how to use these tools “under the hood” of the operating system. You will see and experience some of the power available through the command line interface, and also develop some insight into what actually occurs when you point-and-click.

**Course Objectives**

Upon completion of this course, the student will be able to:

- Identify the purpose, function, and structure of an operating system as it relates to hardware, software, and user.
- Execute OS operations and tasks from the command line, such as file management, network resource management, system configuration, system maintenance, disaster recovery, and OS installation.
- Create and execute OS operations and tasks using batch files and script files.
- Use critical thinking to develop and implement troubleshooting techniques.

**Required Materials**

- The course text is available in the course shell as individual chapter PDF files; there is no course text in the UM Bookstore.
- 1 each external hard disk drive, minimum of 200GB, USB 2.0 or better.
- 1 each 16GB electronic storage device, USB 2.0 or better
- Other course materials as provided or required by the instructor.

**Evaluation and Grading Criteria**

**Assessment**

Assignments, quizzes, projects, etc. ....	35.0%
Laboratories .....	30.0%
Exams .....	35.0%
Attendance Bonus .....	2.0%

**Grading Scale**

100% - 90% .....	A -
90% - 80% .....	B -
80% - 70% .....	C -
70% - 60% .....	D -
< 60% .....	F -

**Course Policies**

**Online Component**

Various components of the course will be delivered via UOnline (<http://umonline.umt.edu>) using the Moodle Course Management Software. It is the responsibility of the student to be familiar with, and able to work in, the Moodle **shell**. Moodle training is available through UOnline at [Moodle 101 for Students](#).

**Careers and Professional Development**

As you progress through the IT program coursework towards a certificate in IT and an Associate of Applied Science degree in IT, never lose sight of the fact that you are pursuing a career choice. A number of the topics covered in this Course Policies section of the syllabus discuss the expectations of this course, similar to the expectations of an employer. These topics emphasize particular aspects of professional development and personal responsibility such as attendance, assignment completion, and classroom behavior, much the same as an employer emphasizes being on time, on task, and representing the company.

Be sure to review the topic on **Careers and Professional Development** in the **Course Information: Things You Need to Know** section of this course’s Moodle shell.

**Attendance**

- Regular classroom attendance is expected and attendance is taken.
- Students more than 5 minutes late for class will not receive credit for attendance.

**Attendance Bonus**

The attendance bonus is based on course attendance and is added to the student’s semester percentage. This policy provides students the possibility of advancing their semester grade to the next grade level by being diligent in their attendance. The bonus is awarded as follows:

Attendance %	Bonus %
95% - 100% .....	2.0% -
90% - 95% .....	1.5% -
85% - 90% .....	1.0% -
80% - 85% .....	0.5% -

**Assignments and Exams**

- All assigned work is due at the assigned time on the assigned date.
- All exams are to be taken at the assigned time on the assigned date.
- **All late or missed work receives a score of 0.** Late work is accepted only in extraordinary circumstances, and is accepted and graded at the instructor’s discretion.

**Electronic Communication Devices**

- All electronic communication devices must be secured, muted, or tuned off prior to the start of class.
- Any use of an electronic communication device during an exam is considered cheating and will be handled at the instructor's discretion (refer to *Student Conduct*).
- Audio and/or video recording of class sessions is not permitted without prior approval of the instructor (refer to *Students with Disabilities*).

**Email**

This course uses your student email account for all course email communication. Therefore, you are - required to monitor and use your student email account for all course email communication. -

**Student Conduct**

- *All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or disciplinary sanction by the University.*
- *Student conduct is governed by the Student Conduct Code. All students need to be familiar with the Student Conduct Code. It is available for review or can be downloaded at <http://www.umt.edu/vpesa/Dean%20of%20Students/default.php>.*

**Students with Disabilities**

- Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely manner. Please be prepared to provide me a copy of your *Letter of Verification* supplied by your *Disability Services for Students* (DSS) Coordinator for my records. Refer to <http://life.umt.edu/dss> or call **406-243-2243** (voice/text) for information regarding your rights.
- When requesting accommodations, please contact me after class or in my office to discuss your needs. This is done in order to maintain your privacy and minimize class disruptions.
- For students requesting examination accommodations, you must supply me the completed Learning Center (LC) scheduling form for my signature at least 3 days prior to the scheduled test date (the LC requires the signed form at least two days prior to testing). LC contact information is available at <http://mc.umt.edu/learning-center/> or call **406-243-7826**.

**Policies for Dropping and Adding Courses, Changing Sections, Grading, and Credit Status**

- The University Policy for dropping courses or requesting grading/credit status changes can be found in the academic catalog or on the web at <http://www.umt.edu/registrar/students/dropadd.php>. All students should be familiar with this policy.
- If you are having difficulty with the course for any reason and decide not to continue, please complete a drop form. A properly completed and approved drop form will prevent you from receiving a failing grade on your college transcript.
- Please note: if you are receiving financial aid, dropping a course may affect your financial aid status.

**Changes to Syllabus**

NOTE: The instructor reserves the right to modify the syllabus and assignments as needed based on faculty, student, and/or other circumstances. When changes are made to the syllabus, a dated, amended copy will be made available to the class.

**Semester Dates**

Mon, August 27..... Autumn Semester Classes Begin -  
 Mon, September 3 ..... Labor Day – No Classes, Offices Closed -  
 Tue, November 6 ..... Election Day – No Classes, Offices Closed -  
 Mon, November 12..... Veterans Day Observed – No Classes, Offices Closed -  
 Wed-Fri, November 22-23 ..... Thanksgiving Break – No Classes, Offices Closed -  
 Mon-Fri, December 10-14..... Final Exams -

**ITS 165 Course Outline**

(tentative)

**Unit 1: Introducing Command Line Commands & Batch File Scripting**

- Unit 1-1. Overview of Operating Systems -
- Unit 1-2. Introduction to Batch Files -
- Unit 1-3. Working with Command Syntax -
- Unit 1-4. Working with Formatting and Storage Media -
- Unit 1-5. Working with Files and Directories -

**Unit 2: More Command Line Commands & Batch File Scripting**

- Unit 2-1. Working with Internal Commands COPY and TYPE
- Unit 2-2. Using DEL, REN, MOVE, and RD /S
- Unit 2-3. Using ATTRIB, SUBST, XCOPY, DOSKEY, and Text Editors
- Unit 2-4. Organizing and Managing Your Hard Disk
- Unit 2-5. Using Pipes, Filters, and Redirection

**Unit 3: Working with Linux Terminal**

- Unit 3-1. Working with Linux Terminal, Part 1 -
- Unit 3-2. Working with Linux Terminal, Part 2 -
- Unit 3-3. Working with Linux Terminal, Part 3 -

ITS 165 Course Schedule

(tentative)

- Week 1: Course Introduction  
Unit 1-1: Overview of Operating Systems
- Week 2: Labor Day  
Unit 1-1: Overview of Operating Systems  
Unit 1-2: Introduction to Batch Files  
Labs: Lab\_01, Lab\_02, Lab\_CH01
- Week 3: Unit 1-2: Introduction to Batch Files  
Unit 1-3: Working with Command Syntax
- Week 4: Unit 1-3: Working with Command Syntax  
Unit 1-4: Working with Formatting and Storage Media  
Labs: Lab\_CH02; Lab\_CH03A, Lab\_CH03B
- Week 5: Unit 1-4: Working with Formatting and Storage Media  
Unit 1-5: Working with Files and Directories  
Labs: Lab\_CH04
- Week 6: Unit 1-5: Working with Files and Directories  
Unit 2-1: Working with Internal Commands COPY and TYPE  
Labs: Lab\_CH05A, Lab\_CH05B
- Week 7: Unit 2-1: Working with Internal Commands COPY and TYPE  
Unit 2-2: Using DEL, REN, MOVE, and RD /S  
Labs: Lab\_CH06A, Lab\_CH06B
- Week 8: Exam 1  
Unit 2-2: Using DEL, REN, MOVE, and RD /S  
Unit 2-3: Using ATTRIB, SUBST, XCOPY, DOSKEY, and Text Editors
- Week 9: Unit 2-3: Using ATTRIB, SUBST, XCOPY, DOSKEY, and Text Editors  
Unit 2-4: Organizing and Managing Your Hard Disk  
Labs: Lab\_CH07A, Lab\_CH07B, Lab\_CH08A, Lab\_CH08B
- Week 10: Unit 2-4: Organizing and Managing Your Hard Disk  
Unit 2-5: Using Pipes, Filters, and Redirection  
Labs: Lab\_CH09A, Lab\_CH09B
- Week 11: Election Day  
Unit 2-5: Using Pipes, Filters, and Redirection  
Unit 3-1: Ubuntu Linux
- Week 12: Veterans Day  
Unit 3-1: Ubuntu Linux  
Labs: Lab\_CH10A, Lab\_CH10B
- Week 13: Unit 3-1: Working with Linux Terminal, Part 1  
Thanksgiving Break
- Week 14: Unit 3-2: Working with Linux Terminal, Part 2  
Labs: Lab\_Linux\_1, Lab\_Linux\_2
- Week 15: Unit 3-3: Working with Linux Terminal, Part 3  
Labs: Lab\_Linux\_3
- Week 16: Final Exam, Tuesday, 12/11/18, 1:10pm – 3:10pm, MC122