**IT 342 Operating Systems Fundamentals**

**FALL 2017 SYLLABUS**

| Where & When: | Three sections:  
| | • 001: Tuesday, 19:20 to 22:00 **Bull Run Hall 257**  
| | • 002: Thursday, 16:30 to 19:10 **Bull Run Hall 252**  
| | • DL1: -- no fixed meeting time Instructor: Charles Snow  

Section DL1 is a distance learning section, and has no fixed meeting day or time.

| Instructors: | For all questions relating to the course, please contact the instructor for your section:  
| | James Holdener: jholdene@gmu.edu  
| | Charles Snow: csnow@gmu.edu?subject=IT 342.002  

| Teaching Assistant: | For questions relating to the course, assignments, and grading, please contact the TA for your section:  
| | Madhurima Doppalapudi for sections 001 and 002: mdoppala@masonlive.gmu.edu  
| | Subhankar Ghosh for section DL1: sghosh4@masonlive.gmu.edu  

| Pre-requisites: | To be eligible to take IT 342, students must have already completed, earning at least a grade of C in:  
| | • IT 101 Introduction to Information Technology & IT 212 Computer Hardware Fundamentals  
| | or  
| | • IT 105 IT Architecture Fundamentals  
| | • IT 106 Introduction to IT Problem Solving Using Computer Programming  

| Description: | Practices and procedures for installing and configuring modern operating systems, including user accounts, file, print, and terminal servers, mobile computing, and disaster recovery. Through practical lab sessions, students receive real-world experiences with multiple operating systems.  

| Grading: | Individual sections of IT 342 may have slight variations in the exact weightings on course requirements; your instructor will provide exact details for your section. All students are graded on how they:  
| | • learn key terms and concepts,  
| | • can express, in written and oral formats, the principles of how operating systems control computers and make hardware useful for applications, including OS features and limitations,  
| | • participate in discussions, both in-class and/or in on-line discussions  

Assessment of student knowledge may use quizzes and exams.

| Course Policies: | Homework and/or reading assignments can be expected after many classes.  
| | Late work can be accepted, but only with the prior permission of the instructor, and may be subject to late penalty.  

Missed exams must be arranged with the instructor before the exam date. All students must be present, on campus, to write exams in this course.

While students are encouraged to discuss solutions to problems, students must submit their own, original, work. All students are expected to abide by the George Mason University Honor System and Code (which contains a definition of plagiarism, amongst other things). Further related information is available from IEEE and ACM.

Note that we reserve the right to submit student work for automated testing against other
submitted work to confirm a submission’s originality.

No student who fails the final exam will receive a grade higher than C.

Texts:  
**required:** Garg & Verma  
Operating Systems  

**optional:** Daniel J. Barrett  
*Linux Pocket Guide*, 3rd edition,  

**suggested** for those unfamiliar withlinux

**required:** TestOut Client Pro ISBN: 978-1935080466

**required:** TestOut LinuxPro ISBN: 978-1935080381

Schedule:  
Your instructor will provide a week-by-week schedule for your section – the list is subject to change during the semester. This list is subject to revision during the course.

Note that in the event of university closures (e.g., due to snow), your instructor may assign on-line work to make up a missed class. On-line sections are typically *not* cancelled when the university is closed: check with your section’s instructor in such a case.

Campus Services:  
A number of services are available to students, and you are encouraged to make use of them as you may need:

**Writing Center:** A114 Robinson Hall; 703 993 1200; [http://writingcenter.gmu.edu](http://writingcenter.gmu.edu)

**Office of Disability Services:** If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 703 993 2474. All academic accommodations must be arranged through the ODS, [http://ods.gmu.edu](http://ods.gmu.edu) and be arranged *before* any accommodation is needed.

**Counseling and Psychological Services (CAPS):** 703 993 2380; [http://caps.gmu.edu](http://caps.gmu.edu)

**University Policy:** The University Catalog, [http://catalog.gmu.edu](http://catalog.gmu.edu), is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at [http://universitypolicy.gmu.edu](http://universitypolicy.gmu.edu). All members of the university community are responsible for knowing and following established policies.
**Course Objective:** The purpose of IT 342 is to give students an understanding of the central concepts that make contemporary operating systems work. Knowing the how and why behind OS operating makes graduates better fit for system management and overall resource or project management. It is not the intent of the course to provide details on what particular commands are used in a given OS to perform a particular function; rather, given an understanding of the OS functions, a graduate can always look up the needed command. The course presents these underlying OS concepts, and illustrates many of them in class and in lab exercises using a popular proprietary OS (Microsoft Windows) and a popular open source OS (linux).

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<th>Course online Resources:</th>
<th>This semester the course will use the Blackboard LMS; individual sections may use additional resources.</th>
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<tr>
<td><strong>Labs:</strong></td>
<td>The lab exercises are done using two virtual machines, one Windows, one linux.</td>
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