ITS 210.50: Network Operating Systems - Desktop - Online

Dianne M. Burke
University of Montana - Missoula, dianne.burke@umontana.edu

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Course Description, Overview, Objectives, and Textbooks

Course Description:

The class provides an in-depth study of a secure, multi-user, client-based network operating system. Topics include installation, administration of resources, performance, network services, and security.

Course Overview:

Network Operating Systems - Desktop builds upon material introduced in ITS 150 Networking Basics. Foundational concepts involving operating system installation, configuration, management, administration, security, and optimization are examined using Windows 7.
The course combines classroom-based activities with instructor-led lab exercises. The lab component of the course is intended to provide students the opportunity to apply technologies commonly used by professionals in the I.T. field. Objectives from the course provide contemporary skills in computer support applicable to all professional fields.

Course Objectives:

Upon completion of this course:

1. Students will install a secure, multi-user, client-based network operating system. (Chapters 2 and 3)
2. Students will implement and administer operating system resources. (Chapters 4 and 6)
3. Students will understand and implement share and NTFS permissions. (Chapters 4 and 6)
4. Students will configure and troubleshoot workstation performance measurement/monitoring. (Chapter 8)
5. Students will understand, configure, and troubleshoot network connectivity. (Chapter 5)
6. Students will configure applications including browsers and compatibility settings. (Chapter 7)
7. Students will configure local and domain users, implement account control, and manage account profiles. (Chapter 9)
8. Students will secure a desktop operating system using password, authentication, and authorization controls as well as configure the local firewall. (Chapter 10)
9. Students will examine standard troubleshooting protocols to solve operating system problems. (Chapter 12)

Required Materials:

ITS 210 requires both a textbook and access to the online labs. If you purchase a used textbook, check to see if the labs are included (usually not). You can purchase the textbook separately from the labs using the following ISBNs:


As an alternative, you can purchase a combination pack containing the textbook and the virtual labs using this ISBN, which is available through the UM Bookstore:


Virtual PC Virtualization Software (free download from Microsoft Corp.)

USB 2.0 Thumb Drive or Electronic Storage Drive (minimum 16 GB, 32 GB will give you more flexibility)

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**Course Structure, Assessment, and Grading**

**Topic Outline:**

**UNIT I - Overview, Installation, and Deployment**

Chapter 1: Introducing Windows 7
Chapter 2: Installing Windows 7
Chapter 3: Deploying Windows 7

**UNIT II - Workstation and Network Resources**

Chapter 4: Working with Disks and Devices
Chapter 5: Connecting to a Network
Chapter 6: Sharing Resources

**UNIT III - Performance**

Chapter 8: Managing and Monitoring Windows 7 Performance

**UNIT IV - User Account Control and Security**

Chapter 9: Working with Workgroups and Domains
Chapter 10: Securing Windows 7

**UNIT V - Application Management and Mobile Device Support**

Chapter 7: Working with Applications
Chapter 12: Using Mobile Computers
Course Schedule:

In general, we’ll work through one chapter a week. We take 2 weeks to complete Chapter 1, which gives you time to become familiar with the course assignments and allows any late enrollment students to catch up.

Evaluation Procedures:

Grades will be assessed as follows:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weight:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review Questions</td>
<td>15%</td>
</tr>
<tr>
<td>Research Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Pre-Tests, Quizzes, and Written Exams</td>
<td>30%</td>
</tr>
<tr>
<td>Skills Exams</td>
<td>15%</td>
</tr>
<tr>
<td>Comprehensive Final Exam</td>
<td>30%</td>
</tr>
</tbody>
</table>

Grading Scale:

<table>
<thead>
<tr>
<th>Letter Grade:</th>
<th>90-100%</th>
<th>80-89%</th>
<th>70-79%</th>
<th>60-69%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td></td>
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</tbody>
</table>

Asking Questions and Communicating with me:

I am always available to answer questions, but I would like you to use your classmates as a resource, too. If you have a question about course content or instructions, please post to the Student Q&A forum located at the top of the course shell. In my face-to-face classes I subscribe to the rule of “Ask 3, then me,” which means I’d like you to check with 3 of your classmates and if none of you know the answer, then ask me. Online, please post your questions and see if anyone else knows the answer. If no one in the class can answer the question after 24 hours, I’ll weigh in. The guideline for posting to the Q&A forum is this: if you’d raise your hand in class to ask the question, post it to the forum. Note that if you’re reporting errors in the course shell or broken links, I’ll take care of those items immediately.

Of course, questions about grades or anything concerning personal information should go straight to email. The analogy for a face-to-face class would be if you’d want to ask the question in the hall or away from other students, send an email.

I monitor the Q&A forums daily and I check email at least once a day in the evening. I will respond within 24 hours, though if I’m online I often respond immediately. Students have pretty good luck catching me online at 10:00 p.m. 😊
Course Modules:

We will usually cover a chapter every week and your work will be due weekly on Friday at 11:55 p.m. Some of you will want to work ahead, and I open the appropriate course module one week before we actually begin the unit. Modules are set to automatically open on Saturday mornings. Please post to Student Q&A if a module isn’t visible when you expect it to be. This is a new feature in Moodle, and it’s quite useful when it works.

Review Questions:

As we cover each chapter in the textbook I will assign review questions over the material. In addition, there are review questions throughout the lab instructions. These will be assigned as we work through each chapter.

If you choose to do so, you may drop one set of text/lab review assignments. For example, we will cover a total of 7 chapters during the semester, and you have the option to turn in only 6 text/lab review assignments and not be penalized. If you turn in all 7 assignments, I’ll give extra credit. You do not have to coordinate this with me – simply don’t turn in the assignment you want to skip. You’ll receive a 0 in the gradebook (I know this makes you uncomfortable), but I will drop the lowest grade at the end of the semester so you won’t be penalized.

All submissions will be made to Moodle, through the appropriate interface (often in the form of a non-timed online quiz so I can simplify the grading). Late work is not accepted.

Research Assignments:

We will have frequent research assignments where you’ll be expected to find the answer to a question or scenario. You will turn in a written ‘report’ answering the question and you’ll need to provide three citations to back up your answer. Research ‘reports’ are usually about half a page long and should be written with good grammar and complete sentences. Your citations should be URLs or other material specific enough for me to see the source of your answer.

All submissions will be made to Moodle, and must be in PDF format. Late work is not accepted.

You will be allowed to drop 1 research assignment during the semester. The same conditions apply as I covered in the review questions.

Chapter Summary:

To make sure that you’ve read the textbook and listen to the lectures, I will have you take a chapter as we work through a particular chapter. This won’t be a detailed quiz – I’ll ask 2 or 3 broad questions about the material to see if you understood the high points. Please look in the Exemplars area of the Course Information section to view
sample questions and answers. Chapter Summary quizzes are the first assignment that you’ll complete for each unit, and completing the quiz will unlock the rest of the chapter assignments.

You will be allowed to drop 1 Chapter Summary assignment during the semester. The same conditions apply as I covered in the review questions.

**Exams:**

We will have four written exams throughout the semester, one for each unit. I combine Units III and IV into a single exam. I’ll allow you to drop the written exam with the lowest grade. (Unlike the review questions, you don’t get extra credit for taking all of the exams. You just get an attagirl or an attaboy.)

There will be three skills exams where you’ll be asked to perform certain tasks and to take screen shots of the completed activity. We’ll go over this in detail prior to the first skills exam so you’ll know what to expect. You must complete all skills exams – each skills exam counts toward your final grade.

One of the skills exams will be a Windows 7 Virtual Machine that you will build and customize. This will be due between Units IV and V. You will have approximately 5 weeks to work on your virtual machines, and we will go over this assignment in detail during the semester.

The final exam is comprehensive and will be held during finals week as noted on page 1 of the syllabus.

**Due Dates/Times:**

I use the Moodle calendar to specify due dates. Make sure to browse the calendar. I’ve set all of the due dates before the semester starts so you know exactly what your workload is before we begin. If there are any changes after the semester starts, I’ll make sure to include that in my weekly announcements at the top of the course shell.

All exams are to be taken on the assigned date and time unless prior arrangements are made. Assignments are due by the indicated date and time. I understand that many of you juggle school, work, and family responsibilities, so I’ve implemented the “drop a review set/research assignment/exam” policy. This gives you some latitude, and should help keep your stress level manageable during the semester.

Unless you’re intentionally dropping an assignment, stay on top of your due dates. Late work is not accepted.
Naming and Submitting Assignments:

For assignments that you upload to the Moodle shell, please use a word processor and submit in PDF format. (Please see the Course Information section of the Moodle Shell for information on generating PDFs.) Each written assignment should contain your name and section in the upper right corner of your paper. Save and name your documents using the following convention:

Lastname Firstname ITS210 Ax.y assignment name (where Ax.y is the assignment, such as A1.1, A2.3, etc. and assignment name is the assignment name).

Students frequently contact me, explaining that they uploaded the wrong assignment or need to go back and correct something. If this happens, you can go into the Moodle shell and delete your submission, then upload the corrected version. This is available to you any time before the assignment deadline.

Professionalism:

All work performed in the course should be completed in a professional manner and be of business quality. Think of this semester as a dry run for your life in the business world. In addition to doing your ‘job’ correctly and on time, demonstrate professionalism through your attention to detail and in particular, through your efforts in all written communications. Use complete sentences, avoid slang and texting shorthand (no lols, please), and use proper grammar. Employers often ask for writing samples or give you a writing test as part of the application/interview process, so use your assignments as an opportunity to practice this skill.

Changes to Syllabi:

I reserve the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances. If changes are made to the syllabus, amended copies will be dated and made available to the class. I will make every effort to limit any changes after the start of the semester.

Online Information:

For online sections, the course is offered entirely online through UMOnline. Audiocasts will be used to supplement reading materials. An Internet connection with reasonable (DSL) bandwidth is recommended.

Class materials will generally be available at the start of each week. Expect lessons to consist of a mixture of reading material, review questions, discussion boards, audiocasts, webcasts, and research activities.

Technical support is available through http://umonline.umt.edu and by telephone at 406.243.4357 for the IT Central Help Desk and 406.243.6394 for Moodle-specific questions.
University Regulations

Academic Conduct and Collaboration Policies:

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://www.umt.edu/vpsa/policies/student_conduct.php

Using the Web to research materials and concepts is an integral part of learning in the twenty-first century. Studying with other students is a productive method of learning. A certain amount of collaborating on concepts with other students and using resources found on the Internet in an assignment is recommended. However, copy and paste is not acceptable. It is expected that each student will input his/her assignment into the computer, and each student must be able to explain answers to any assignment turned in. In other words, type or write your own work, even if you collaborate with others on homework. Collaboration on exams is strictly forbidden.

Despite this warning, I run into situations every semester where students work together and submit identical work. Please don’t do this to yourself.

Plagiarism:

Plagiarism will not be tolerated. If I suspect plagiarism, I will notify both the student(s) and the department chair as I investigate the situation. Assignments involving plagiarism will receive a 0. That said, I encourage research from a variety of sources, including discussions with your classmates. Make sure as you complete your assignments that everything is in your own words. Please don’t copy material from other students. For projects with an assigned partner you are permitted to turn in collaborative work.

Disability Accommodations Policy:

Students with documented disabilities will receive appropriate accommodations in this course when requested in a timely manner. Please be prepared to provide a letter from the DSS Coordinator and a description of the requested accommodation. Please submit your requests early in the semester or even before the start of class. Accommodations will be available after we’ve discussed your request, but will not be available retroactively. I want each student to succeed, and putting accommodations in place as soon as possible helps make that happen.

Some of your online activities are timed quizzes or exams. When I receive your DSS letter, I will add you to the group that is given extended time. Without a DSS letter, students will be given the standard time allotment for the activity.