

Instructor's Manual

IT 5423 – Computer Architecture, Operating Systems, and Networks

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This Instructor's Manual is meant to be a guide to how the developer of the course taught this online course, offer suggestions for alternative teaching styles, and ensure that the overall quality stays as high as the original.

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About this Instructor Guide

This guide was created to help you plan, set-up, manage and teach this course, **IT 5423 – Computer Architecture, Operating Systems, and Networks.**

Please read this document thoroughly. Because it is meant to be a reference guide, some important points may be repeated. Print this document and keep it handy with other course information. This Instructor's Manual is included in the course as a pdf file. It is located in the Instructor's Resources folder with the title "IT-5423 Instructors Guide.pdf". Be sure that the link to the file from the course homepage is **hidden** from student view. You may wish to delete the link from the course homepage before the course begins.

General Introduction

Motivation for the Course

This course will cover the most important aspects of computer systems: software, hardware, computer architecture, operating system, networking, etc. Typical computer architectures and operating systems will be introduced. Protocols in different layers of TCP/IP will be discussed. After taking this course, students should have a deep understanding of computer systems and networking and be prepared for higher level CS/IT courses.

Course Structure

The structure of the course is explained in the Course Organization section of the syllabus. The class is organized as weekly modules. Each weekly module contains a study guide and links to additional reading material, video lectures, and discussion boards/assignments/projects. The weekly study guide summarizes what is covered in that weekly module, lists learning outcomes, and provides a list of tasks to be accomplished. In order to accommodate the schedule of the students, which in many cases is unpredictable, the course was developed for asynchronous delivery. The calendar should list all aspects of the course including dates for reading chapters and other material, due dates for assignments, and dates for tests.

Course Communication

In this course, the instructor offers 12 hour email turnaround guarantee and provides a text number to students. A new instructor may not need to do the same. The bottom line is that there should be prompt response to students' inquiries.

Online Content

Most units contain material in addition to the textbook. Instructors are encouraged to include additional material. Additional material is likely to make the course more engaging and can be used for additional material for labs and assignments.

Grading Breakdown

Students are given their grading structure in the course syllabus. The types of graded assignments are up to the individual professor. Materials included in the original creation of the course include discussions, individual assignments, lab projects, and tests. Please refer to the Grading section in the syllabus for details. Each assignment/project generally has an instruction file. It includes: 1)

the objectives of the assignment; 2) a list of detailed instructions; 3) a grading guideline stating how the assignment would be graded.

TASK LIST - PREPARING TO TEACH THE COURSE

You should begin to formulate your plan for the semester. This section is broken down into tasks. Some tasks may be obvious but others are specific to an online course environment. If you like, use this section as a checklist to ensure you have accomplished the necessary tasks before students enter the course on the first day of class.

TASK #1 - Review the Textbooks

This course was developed to use the textbooks listed in the Reading Materials section of the syllabus. If you wish to change the textbooks, you are free to do so. However, make sure that the new textbooks will still allow students to achieve the course learning outcomes. Course Learning Outcomes may NOT be changed. These have been agreed upon by the IT department.

TASK #2 - Become familiar with the Course materials

Read through the Syllabus. You should read through at least the first two modules before beginning the course. Then, as you progress through the course, read all of the material in the modules for any changes you wish to make.

TASK #3 - Changes to the Syllabus

Necessary Changes:

- The Syllabus has a section titled “Instructor Information”. You will need to modify this section and add your name and contact information, and any other information about yourself that you would like to provide to students.
- Also be sure that the proper text edition is indicated in the Syllabus.
- Come up with your various graded activities – or use the ones presented.
- You may also need to change the weight of certain activities.
- You will definitely need to look for any dates that may appear in the syllabus and change them. There are dates to change in the Syllabus, the Course Plan, the Calendar, each quiz and assignment has a release and due date—these will need to be changed as well.

Main Discussion

You may want to post two messages in the "Announcements" topic:

1. Welcome to the Course
2. Questions and Comments about the Syllabus

This message welcomes students and describes how this discussion topic will be used. Ask students to also introduce themselves. I personally like for them to upload a photo as well.

The second message will be titled “Questions and Comments about the Syllabus.” Students are asked to read this message and compose a reply. If they have no questions or comments about the syllabus, they must post a reply message stating that they have read and understood the Syllabus and have no questions at this time. Later in the course, if a student claims they were unaware of a particular grading policy or course requirement you may need to indicate that they indicated at the beginning of the course that they did read and understand the course syllabus.

Change: You may wish to add new Topics and postings for the students. Some instructors create a topic for each week or module to confine the discussions to that topic. Others will require a certain number of postings each week. Others develop group activities centered around discussion and or problem solving.

TASK #4 - Setting Deadlines

You have to set up deadlines for everything in an online course with dates and times.

- **Submitted Assignments:** First, you need a deadline for issuing the assignment to students (this is your deadline). When establishing submission deadlines, be sure to include a time. You can change the assignments as you like.
- **Final Exam:** As it stands, the course has three exams given throughout the term. It is your prerogative to give a midterm and final or stick with the three exams or some other number of exams.
- **Calendar:** Try to add all pertinent dates to the calendar or get a student(s) assistant to do it based on the syllabus.

COURSE UNIT TASK LIST

You will need to prepare for the next unit (course week) before the unit is scheduled to begin.

Preparation Tasks:

- Check that any appropriate Discussion/Chat Topics have been set up and are visible to the students if they are included with this module.
- List the assignments for the coming week in the beginning page of the course, or the Announcements Topic (or some other area used for that purpose). This can also be done through email communications.
- Enter assignment deadlines for the coming week in the Calendar if they have not already been done for the whole semester. (I prefer getting the whole Calendar laid out and visible to students from the beginning of the term.)

During a Module:

- Facilitate and monitor discussions
- Read and respond to e-mail
- If appropriate, grade the reading assignment on a timely basis
- Read through the upcoming unit
- Prepare for upcoming unit

After a Module:

- Grade assignments
- Provide grades and feedback to students
- If required, close/lock the unit discussion topic(s).

CONCLUSION

If you have any questions about the course, please contact the author of this instructor's guide.

Appendix A: TECHNICAL REQUIREMENTS

These are the Technical Requirements of all students enrolled in the WebBSIT program.

Computers located in on-campus computer labs or libraries **cannot** be used as the primary computer resource for taking online classes. You will need the reasonably small suite of hardware and software listed below.

Required Hardware:

- Computer: A personal computer with Windows XP or higher, or a MacIntosh with OS X
- A sound card with speakers or headphones.
- A VGA (or equivalent) or better monitor.

Strongly Recommended Hardware

- Printer connected to the computer
- CD-ROM drive
- Microphone

Internet Connectivity (required)

- For a dial-up connection, at least a 56k modem is recommended. Slower dial-up connections will affect course performance.
- High speed Internet connectivity (cable or DSL) is strongly recommended.

Required software

- Microsoft Office XP or beyond, including: Word, Excel, PowerPoint
- Web Browser: A JavaScript enabled Web browser. These include Netscape 7.1, Internet Explorer 6.0 or newer versions of either. (Note: Internet Service Providers [ISP] with proprietary browsers, such as Prodigy or some versions of AOL, may have difficulty with JavaScript-based activities. Contact the ISP to determine if the browser will work with JavaScript.)
- Acrobat Reader
- Virus protection software