CS3733: Operating Systems

Basic Information

Instructor: Tongping Liu
Email: Tongping.Liu@utsa.edu
Class Time: Tu/Th, 4:00pm-5:15pm
Class Room: MH 2.01.24
Office: NPB 3.328
Office Hours: Th: 2:30pm–3:50pm, 6:30pm–7:15pm

Course Description:
The emphasis of the course is on process management, but we will cover Parts 1 through 4 of SGG Book along with the Linux and Windows case studies. Most of our specific examples will come from UNIX, and we will be covering most of chapters 1-8 and 18 of USP as well as some of the project chapters.

—Introduction to OS (SGG Chapter 1)
—Programs and Processes (SGG 3.1, 3.2, and USP Chapter 2)
—CPU Scheduling (SGG 5.1-5.3, 5.6)
—Processes in UNIX (USP Chapter 3)
—UNIX I/O (USP Chapters 4, 5 and 6.1-6.4)
—The Token Ring (USP 7.1 7.3)
—Threads (SGG Chapter 4 and USP 12.1-12.2)
—Process Synchronization (SGG Chapter 6)
—POSIX Mutex and Semaphores (USP 13.1-13.2 and 14.1 14.4)
—Monitors and signals (SGG 6.7, USP 8.1-8.6, and 9.4)
—Network Communication (USP Chapter 18)
—Memory Management (SGG Chapter 18)
—Virtual Memory (SGG 9.1-9.4)

Required Text Books

• Operating System Concepts, by Silberschatz, Galvin and Gagne (SGG);
• UNIX Systems Programming, by Kay Robbins and Steve Robbins (USP);
**Prerequisites:**

- CS 1713 (C Programming)
- CS 3423 (Systems Programming)
- CS 3843 (Computer Organization)
- CS 3443 (Applications Programming)

In order to be able to work on the programming projects, the students must be comfortable with C/C++ programming languages;

- **If you have not met ALL of these prerequisites, you should not register this course.**

**Grade Policy:**

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Notes: Participation indicates that active participation in class and asking/answering questions over the blackboard. Quiz will be given in the middle/end of some normal and recitation classes.

**Final Grade Distribution:**

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**Course Policies:**

- **General**
  - Exams are closed books, closed notes.
  - No makeup will be given except with university sanctioned excuses.

- **Project Assignments**
– You will expect to have four or five project assignments. Project assignments should be finished independently but can be discussed. Both “borrowing” and “providing” solutions are considered to be plagiarism and will be reported. Also, they will result in a **FAIL** in this course.

– Assignments can turn in late, but with a 10% off each day. After one week, we will not accept the assignment, without the prior consent.

**Common Syllabus Information:**
http://provost.utsa.edu/syllabus.asp

**Common Questions about the course, assignments or exams:**

Please post those questions in the “HelpForum” of Blackboard system since other students may have similar questions. It is not efficient to answer those questions one by one. However, you are welcome to send me personal questions, where the rule is further discussed in the following.

**Sending Emails:**

I will receive tons of emails everyday. Thus, please put the keyword “**CS3733**” and your **ABC123** in your email subject or body so that I can find corresponding emails very quickly. **Those emails without the keyword “CS3733” will not be answered!!**