CS3733: Operating Systems

Basic Information

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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:
(1) CS 1713 (C Programming); (2) CS 3423 (Systems Programming); (3) CS 3843 (Computer Organization); (4) CS 3443 (Applications Programming);

Grade Policy:

First Midterm 15%
Second Midterm 15%
Final 30%
Projects & Quiz 40%

We will add bonus points for Projects (4%) and Exams (6%). The total points will be 1000 + 100 points together.
Final Grade Distribution (out of 1100):

<table>
<thead>
<tr>
<th>Grade Distribution</th>
<th>Points</th>
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<tbody>
<tr>
<td>&gt;= 960 A+</td>
<td>960 - 999</td>
</tr>
<tr>
<td>930 - 959 A</td>
<td>730 - 769</td>
</tr>
<tr>
<td>900 - 929 A-</td>
<td>700 - 729</td>
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<tr>
<td>870 - 899 B+</td>
<td>670 - 699</td>
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<tr>
<td>830 - 869 B</td>
<td>630 - 669</td>
</tr>
<tr>
<td>800 - 829 B-</td>
<td>600 - 629</td>
</tr>
<tr>
<td>770 - 799 C+</td>
<td>&lt;= 599</td>
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Course Policies:

- **General**
  - Attendance is **required** for this course. We will randomly have quizzes during the class, which will be 100 points in total.
  - Exams are closed books and closed notes.
  - No makeup will be given except with university sanctioned excuses.

- **Project Assignments**
  - You will expect to have four 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.
  - All assignments will be turned in at Blackboard only, which is easier for us track the states.
  - Assignments can turn in late, even without the prior consent. However, the penalty will be a 10% off each day.

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

Common Questions about the course, assignments or exams:
Please post common questions in the “HelpForum” of Blackboard system since other students may have similar questions. It is not efficient for me to answer common questions one by one. However, you are welcome to send me some specific questions that is only relevant to yourself, where the rule is further discussed in the following.

Rule of Sending Emails:
Please put the keyword “CS3733” and your ABC123 in your email subject or body so that I can find corresponding emails very quickly. The emails without the keyword “CS3733” will not be answered!!