CSCI 424 - Networked Applications

Syllabus

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By appointment.

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Course Description

This course explores server-side application programming concepts. Networked applications require data that comes from servers. Communicating with these servers is the major topic of this course. Server-side application programming requires a different skill set and a different style of thinking than client-side device programming. This course discusses server-side programming techniques focusing on RESTful Web Services.

Topics include network and communication protocols, Model/View/Controller design pattern, server-side frameworks, relational databases and database connectivity, dynamic content delivery, communication security, web services.

Prerequisites

The prerequisite for this class is CSCI 423, Mobile Device Programming. The prerequisite will be enforced.

Required Text & Materials

Required Texts. No text books are required for this class. Timely readings will be discussed in class.

Media. Though not requited, students might like to have an electronic means of saving course work and class files. A flash memory drive is probably your best option.

Internet Connection. Finally, since this is a Web programming computer class, students are expected to have an internet connection. We will be using the internet in a number of different ways. You may use the schools internet via the laboratory machines or a dialup or broadband connection from home.

Course Format

Each class, whether lecture or lab, will begin with a question and answer period. This is where students can ask questions regarding the previous assignment, lecture, lab or any other issues that may have arisen since the previous class meeting.

The lecture will expand on and highlight reading material. In addition, this is a self-directed course that requires the student to read the textbook and understand examples and code contained in each chapter. It is imperative that the student read the assigned material so that the student will be prepared for lecture. The lecture may or may not include all the material presented in the chapter(s). However, students are responsible for all material within covered chapter(s) unless informed otherwise.

You will also need to allocate time outside of your lab session to complete the work. Remember, this is a 400 level Computer Science course: you are expected to use computers at least 6+ hours per week to study, practice and complete the assigned material. You will succeed only with adequate preparation prior to class.

Academic Performance

Accomplishment Levels. Your level of accomplishment will be recognized at the end of the course with a letter grade. Individual accomplishment is measured against course standards and not against the performance of other students.

Letter Grades. At the end of the course, letter grades (including plus/minus) will be assigned based upon you cumulative score percentages as follows:

| Letter Grade | + | Grade | - |
|--------------|--------------|---------------|--------------|
| A | | 93.3% - above | 90.0 - 93.2% |
| В | 86.6 - 89.9% | 83.3 - 86.5% | 80.0 - 83.2% |
| С | 76.6 – 79.9% | 73.3 – 76.5% | 70.0 – 73.2% |
| D | 66.6 - 69.9% | 63.3 – 66.5% | 60.0 - 63.2% |
| F | | Below 60% | |

Weighting Distribution. The following weighting distribution will be used to compute your final grade:

| Programming Projects: | 50.00% |
|------------------------|--------|
| 1 Midterm examination: | 25.00% |
| 1 Final examination: | 25.00% |

Point Scores. Your final grade will be determined as a weighted average of your averages for assignments and exams. The weighting distribution is described in "Weighting Distribution" above. Each of the averages that are used for the weighted average is calculated as: number of points earned / total number of points x 100.

For example, if you earn 65 points out of a total of 80 points that it is possible for you to earn on laboratories, your laboratory average would be: $65/80 \times 100 = 81.25$. That final percentage is then weighted to produce a final, weighted percentage.

Extra Credit. No *special arrangements* will be made for extra credit for improving grades: there are ample opportunities for you to perform well with the assigned activities. However, there may be opportunities during the semester where I will give extra credit for attending special events.

Course Specifics

Attendance & Absences. Attendance to lectures is *mandatory and expected*. If you miss a lecture due to some unforeseen circumstance, *it is your responsibility to make up the missed material*.

Communication. All course communication will be accomplished in one of two ways: announcements during lecture and electronic communication.

- Missing a lecture is not an excuse for missing an announcement. See "Attendance & Absences" above.
- Email is the best way to communicate with your instructor outside of class. When using email, please include the following marker in the subject line: CSCI424. This marker shows that the email is from this class and will help me fight spam. If you do not include the marker, *I may delete the email without looking at it*! Also, I will not reply to general emails regarding the assignments; it is simply too difficult to do this without looking at your work. If you need assistance with your homework, come to the open lab period.
- Desire2Learn (D2L) is used in this class as a course management tool. All course material can be found at the courses D2L Web site.

Homework Policy. There will be two types of homework: reading assignments and Project activities. Each is described in detail below. In general, reading homework is to be completed before the next lecture and project activities are to be completed by the given due date.

Late assignments will not be accepted. Extensions may be granted in rare cases when extenuating circumstances (like serious illness or disability, a death in the family, an accident, etc.) exist, and are supported by written documentation. There will be no extension of assignment deadlines if computing facilities are down close to the due date unless the downtime exceeds 24 hours.

Some assignments or projects may require a written discussion and/or documentation. If written material is required for a project, it must be typed or word-processed. Handwritten submissions are not acceptable. The one exception is diagrams, which you can draw by hand provided that they are neat and legible.

Lecture

Reading Assignments. You will be expected to read the assigned material prior to lecture. By doing this, you will be prepared for the discussion covered during the lecture.

Examinations. There will be a midterm exam and a final exam conducted during finals week. Exams cannot be "madeup". If you miss an exam without prior approval by the instructor, you will receive a grade of 0 (zero). NO EXCEPTIONS!

Programming Projects

You will receive 2-4 programming projects throughout the semester. Programming Projects are to be submitted by the given due date and time. The way you submit your projects for grading will be given as part of the assignment description.

Late programming assignments will not be accepted; a grade of 0 will be given to all late assignments. Extensions that are not subject to penalty may be granted in rare cases when there are extenuating circumstances (such as serious illness or disability, a death in the family, an accident, etc.) and when these circumstances are supported by written documentation.

Since these are projects, they will require more time and effort than an assignment. The projects will be multi-week projects of usually 2 or 3 (or more) weeks. You need to begin your programming projects early and work at them through the assignment period. Do not start 2 days before the due date and expect to finish.

General

Grading questions. If you have a question about a grade, you should see me within one week of the day the graded work is returned to you (via D2L). You lose the right to re-grading after that.

Incompletes. Incompletes (a grade of "I") *are rarely granted*. The University has strict policies regarding grades of incomplete. These policies will be enforced. Incompletes are not to be used as a shelter from potentially low grades.

Academic Misconduct and Cheating. In this course, you are encouraged to study and prepare for lecture and labs with other students. However, when taking examinations, quizzes or working on individual assignments, you are to work alone. I will tell you if you are to work as a team. *University regulations are very explicit concerning academic misconduct and cheating*. These regulations will be fully enforced. The "University of Wisconsin-Parkside Misconduct Policy, Policy #28", http://www.uwp.edu/departments/governance/admin/policy/policy28.cfm for details. The bottom line: Do your own work. If you have any doubts, please talk to me – before you do anything you might regret.

Students with a Disability. Anyone who has special needs that must be accommodated to fulfill the course requirements should notify the *instructor and Renee Kirby* in the Office of the Educational and Career Development (WLLC D175, 595-2610). The University has many resources available to assist students with their academic studies.

Accommodation of Religious Observances. UW Parkside Senate policy requires that this institution make reasonable accommodations for a student's religious beliefs. *Please notify your instructor within the first two weeks* of class about any scheduled class date(s) that conflict with a religious observance.

Food and Drink in Class. Beverages and food are allowed in class as long as I do not have clean up after you. This is a privilege that I will revoke if I end up having to be your mother. Please practice a "carry in – carry out" policy.

Cellular Telephones and Pagers in Class. I find it very distracting, and quite frankly rude (as I'm sure other students do), when a ring tone goes off during class. As a courtesy to the instructor and other students, please either turn your cellular telephone or pager off or disable the ring tone during lecture and lab. If you must use the phone, please leave the classroom or lab and go to a place that will not disturb other students: use you cellular phone courteously.

Illnesses. If you are sick, please stay home. You are able to get all of your course materials on-line and you are able to turn in assignments on-line. So, if you are sick, there is no reason to be at school increasing others chances of getting sick. However, see **Attendance & Absences and Examinations above.**

Weapons. Weapons are prohibited in UW-Parkside buildings and all outdoor events. Anyone found in violation will be subject to immediate removal in addition to academic and/or legal sanctions. If you have a concern regarding weapons at this university, please contact the University Police (595-2455).

The instructor reserves the right to modify this syllabus at any time, as deemed necessary. The instructor reserves the right to adjust the scoring rubrics as is deemed necessary. The instructor also reserves the right to modify the number of and point totals of exams and/or labs.