Distributed Objects Programming

Howdy! This course is an introduction to the principles of distributed computing and programming in the context of the emerging data-centric view of computing (popularized by recent discussions of Big Data and Cloud Computing). We will examine four main types of distributed data-intensive systems: (i) peer-to-peer systems, (ii) web-based systems, (iii) cloud computing systems, and (iv) crowd-powered systems (i.e., crowdsourcing). This class will blend both theory and practice, so you will be exposed to compelling foundational topics as well as some very practical (and useful!) languages, toolkits, and frameworks. Welcome aboard!

Rather than preparing lectures, we will read a mix of papers, online tutorials, and other resources. We will critically discuss those materials and you will pull out important points.

Lecture
TR 8:00-9:15 AM
HRBB 113

Prerequisite
- CSCE 315

Americans with Disabilities Act (ADA) Policy Statement
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.
People

Instructor
Dr. J. Michael Moore, PhD

- Email: jmichael@cse.tamu.edu
- Office: HRBB 325
- Phone: 979-845-5475
- Office Hours: Monday-Thursday, 11 AM-12 PM or by appointment
  Note: I teach until 10:50 on Tuesday/Thursday so I might be a few minutes late on those days.
- Web: http://faculty.cse.tamu.edu/jmichael/

Teaching Assistant (TA)
Subhajit Mandal

- Email: subhajitm89@tamu.edu
- Office: HRBB 330A
- Office Hours: Tuesday/Friday 12 – 1 PM or by appointment

WEB LINKS

Course Website: http://courses.cse.tamu.edu/jmichael/sp15/438

Piazza:
Link: http://piazza.com/tamu/spring2015/csce438/home
Signup: http://piazza.com/tamu/spring2015/csce438

eCampus: Access via https://howdy.tamu.edu/

Learning Outcomes
At the end of the course, students should be able to:

1. Use source information:
   a. Find pertinent resources for a topic.
   b. Read sources critically and pull out relevant points.
   c. Identify credible information from a source and explain why it credible or not.
2. Compare and contrast distributed systems discussed in class.
3. Summarize topics covered in the course, pulling out pertinent information and conveying it succinctly.

Important Dates

- Midterm Exam: March 5, 2015
- Final Exam: May 8, 2015, 1 – 3 PM

See the course website for details, reading, slides, assignments, etc.:

http://courses.cse.tamu.edu/jmichael/sp15/438/
Grading

<table>
<thead>
<tr>
<th>% total</th>
<th>Letter grade</th>
<th>&gt;=90</th>
<th>80-89</th>
<th>70-79</th>
<th>60-69</th>
<th>&lt;60</th>
</tr>
</thead>
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**EXAMS**

Midterm Exam (15%) – March 5, 2015, during lecture time

Final Exam (20%) – May 7, 2015, 12:30 – 2:30 PM

Missed exams will be rescheduled only for excused absences. See Attendance section.

Exams are closed book and closed notes. However, you may bring one standard 8.5” by 11” piece of paper with any notes you deem appropriate or significant (front and back). No calculators or other electronic devices allowed.

**QUIZZES**

Quizzes will be done weekly. Quizzes will cover material from assigned readings and information covered in class discussion.

Quizzes are closed book and closed notes. There will be no make-up quizzes. See Make Up under Attendance section.

**HOMEWORK**

Homework will be a combination of programming assignments and questions. See the course website for details for each type.

Can be submitted late if your late day allocation allows. See Late Work under Attendance section.

Submit to eCampus and provide a hard copy at the next class meeting or place in instructor or TA mailbox. Must be typed.

**PARTICIPATION**

1. Piazza will facilitate class interaction and help. For 2% you will need to make at least 4 substantive posts (not anonymous). A count of appropriate responses will be posted in eCampus so you will know your status. You cannot count more than 2 posts in a month.

2. Class discussion will be vital for this class. For 4%, I will make note of who contributes during class.

3. Students in the class will take turns “leading” the discussion. For 9%, you will be assigned one or more class discussion days. On those days you will come prepared with discussion points and questions to guide class discussion.

4. At the end of the semester, I will use, interactions with me during office hours, piazza activity beyond the minimum, and completeness of graded work to potentially boost borderline grades to the next level.
Attendance & Make Up

Please review Texas A&M student rule 7: http://student-rules.tamu.edu/rule07

Attendance is expected. If you do miss class for any reason, it is your responsibility to find out what you missed. While assignment information will be posted online, it is a good idea to talk to classmates to see if additional information was discussed.

Attendance will not be taken for a grade, and you will not be penalized for excused absences. However, graded activities will be tied to your attendance. It will also indicate whether you utilized course resources such as the instructor and teaching assistants.

Make Up

- **Exams**: Missed exams will only be rescheduled for excused absences. Note that if advanced notice is not feasible, you have 2 business days provide me notification. See student rules. A zero will be assigned for exams due to an unexcused absence. Documentation must be submitted prior to taking a missed exam.

- **Quizzes**: There will be no make ups for quizzes, and a zero will be recorded for all missing quiz grades. However, to accommodate illness and other things that life can throw at you, I will drop at least 2 quiz grades. If you have more than 2 excused absences, we will address what to do. When exceeding the 2 automatic drops you must present documentation for all absences at that time (i.e. 2 for the automatic drops plus the additional ones that need to be addressed). Do not submit documentation before exceeding 2 excused absences for quizzes.

Late Work
Submission time is determined by the timestamp recorded for your submission on eCampus.

For the homeworks you have a total of **5 late days** that you can use during the semester. A single assignment can be submitted **up to 3 days late** only, so we can post solutions in a timely fashion. For this class, a late day is an indivisible 24 hour period. Once you exhaust your 5 late days, we will not accept any late submissions.
Academic Integrity

“An aggie does not lie, cheat or steal, or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System.

Aggie Honor System Office
You should be familiar with the Aggie Honor System Office. Their website provides more information on academic integrity, plagiarism, etc.
http://aggiehonor.tamu.edu/

- Definitions of academic misconduct, including plagiarism
  http://aggiehonor.tamu.edu/RulesAndProcedures/HonorSystemRules.aspx#definitions
- Potential sanctions

Plagiarism
Individual programming MUST be done on your own. You must write assignments in your own words. Plagiarism will not be tolerated.

To help identify possible instances of plagiarism, we may use the Stanford Moss system. Students found to have engaged in plagiarism will be punished. A typical result is an F in the course and submission of the incident to the Aggie Honor System.

Walk the Line
Collaboration and team work are important for facilitating learning, and your peers can be a great resource. So you are encouraged to discuss problems and general approaches with each other (but not actual solutions). Regardless, unless stated otherwise, all assignments must be done on your own. The basic rule is that no student should explicitly share a solution with another student (and thereby circumvent the basic learning process), but it is okay to share general approaches, directions, and so on. If you have an issue that needs clarification, contact the instructor or TA.

Cover Sheet
Every assignment must be turned in with a cover sheet, available on the course website. The cover sheet lists all references that you used and a signed Aggie Honor Code. If you use any source, reference it/her/him. Sources can include a person, a book, a solution set, a web page, etc. For example if you chat with another student about an assignment, then document it, including classmates, e.g. “Sally pointed me to the relevant information for problem 5.”

Submit the cover sheet as a separate document on eCampus, e.g. don’t include it as the first page of your culture report document.