CS6420: Advanced Software Engineering Research
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Overview: This heavily project-based course guides students to write a research paper in the area of Software Testing.

Pre-requisites: Students should already have identified their dissertation work with partial progress on one topic that they plan to finish a publication on this semester. This work-in-progress will serve as the center of this course as students work on the four course goals listed below.

Curriculum
Course goals:
1. Create research questions that may be assessed qualitatively and/or quantitatively.
2. Demonstrate the ability to conduct a literature review, including critical analysis of how previous work relates and differs to that of your own work.
3. Demonstrate the ability to create an experimental design, analysis, and meaningful discussion of results.
4. Write a research paper that contains an abstract, introduction, related work, experiments, results, and discussion.

Course grading
No late assignments will be accepted without a university approved medical excuse. No make-up assignments will be given. Cheating will result in failure in the course. Please reference the UNT academic integrity policy for more information on cheating.

The grading breakdown of the final course grade is as follows:
Homework Assignments: 10%
Course Project: 90%
   Course Project Part 1: Research project plan (due 1/26)
   Course Project Part 2: Research questions and experimental design plan (due 2/2)
   Course Project Part 3: Related Work (due 2/23)
   Course Project Part 4: Results and Analysis (due 3/22)
   Course Project Part 5: Final Report (due 4/19)
Total 100%

Course grading will be a combination of “student peer review” (50%) and professor grading (50%). Students in the course will practice peer reviews for each other, similar to that of peer reviewed conference and journal publications.

The following scale will be used to translate to letter grades:
A >= 90
B >= 80
C >= 70%,
D $\geq 60\%$

F $< 60\%$

**Attendance:** Attendance and class participation are strongly encouraged so plan to attend regularly. Students are responsible for any material and announcements covered in class. If your schedule does not allow you to attend class on-time, you should not register for this course.

**Grading Questions:** If you believe that there is a mistake in the grading on one of your assignments, projects, or exam you must bring these inquiries to the professor within one week of when the graded work is returned in class. After this grace period, it is too late.

**Disabilities:** We are happy to make accommodations to students that have documentation of their needs from the UNT Disability Services.