Instructor
J. U. QUEVEDO-Torrero
Jesusubaldo.QUEVEDO-torrero@unt.edu (preferred communication option)
Office: Discovery Park Building E250G
Office Hours: Mondays and Wednesdays 10:00am-11:30am. Please confirm by email. Office hours are for summer 2023 only from May 22 to July 28, 2023

Teaching Assistants:

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Join Zoom Meeting</th>
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<tbody>
<tr>
<td>Amanaganti, Niharika</td>
<td><a href="mailto:niharikareddyamanaganti@my.unt.edu">niharikareddyamanaganti@my.unt.edu</a></td>
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Meeting ID: 799 0196 5815
Passcode: E6A3mu
Meeting ID: 899 613 9387
Passcode: QCpN59

Communication Expectations: If you have questions regarding this class, please contact me via email and I will respond within 48 hours on weekdays (usually sooner). When you send emails, please use CSCE5200 as part of your subject. Please do not expect a response over the weekend. Feedback on assignments, exams, and grades will usually be posted within two weeks after the due date.

Welcome to UNT!
As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not
tolerate identity-based discrimination, harassment, and retaliation. UNT’s full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

Course Description

Covers traditional material and recent advances in information retrieval, study of indexing, processing, and querying textual data, basic retrieval models, algorithms and information retrieval system implementations. May cover advanced topics in intelligent information retrieval, including natural language processing techniques and link analysis.

Course Structure

This course takes place 100% online. We may have a couple synchronous video conferences with links posted throughout the semester if needed. Other than that, your interaction with me and with your fellow students will take place on Canvas. There are 10 weeks of content that you will move through. I will open a new module of 1 or 2 weeks each. Participation in video conferences is optional, but it is an opportunity for extra credit as indicated in the grading section.

Course Prerequisites

There are no required prerequisites for this course. However, to be successful in this course you will need to have:

- General programming experience, such as using C/C++, or Java or Python programming languages.
- Basic knowledge on data structures and algorithms, linear algebra and probability theory.

Course Objectives

By the end of this course, students will be able to:

1. Demonstrate understanding of core concepts in text-based information retrieval techniques, such as inverted indexes, vector space model, and TF-IDF term weighting.
2. Understanding the mechanism of Boolean retrieval models. Show how Boolean queries can be processed and how to optimize query processing.
3. Demonstrate understanding of linguistic modules used in document preprocessing and show how to process queries that have spelling errors and other imprecise matches to the vocabulary used in the document collection.
4. Demonstrate understanding of ranked retrieval models and able to apply and analyze several algorithms for constructing the inverted index from a text collection.
5. Demonstrate understanding of frequent and basic evaluation measures for information retrieval effectiveness and able to apply them in different scenarios.
6. Design and implement a complete information retrieval system and evaluate its performance by applying the learned knowledge.

Required Texts

Technical Assistance
Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

Rules of Engagement
Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individuals’ experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.

See these Engagement Guidelines (https://clear.unt.edu/online-communication-tips) for more information.

Course Requirements
Your course grade will be determined by a combination of the following:

- Weekly Posting Activities (online-discussions): 20%
- Assignments: 20%
- 2 Short Presentations 10%
- Exams: 50%
  - Exam 1: 15 %
  - Exam 2: 15 %
  - Exam 3: 20 %

Total 100% (No curve or relative grading)

Grading
A: 90-100% (Outstanding, excellent work. The student performs well above the minimum criteria.)
B: 80-89% (Good, impressive work. The student performs above the minimum criteria.)
C: 70-79% (Solid, college-level work. The student meets the criteria of the assignment.)
D: 60-69% (Below average work. The student fails to meet the minimum criteria.)
F: 59% and below (Sub-par work. The student fails to complete the assignment.)

Grading Scale: A=90, B=80-89.9, C=70-79.9, D=60-69.9, F=0-59.9 %.

Extra Credit Options

*Extra credit is optional. You do not have to participate in them to get an A in the course. These not mandatory activities cannot be substituted or make-up. They are optional. However, you must qualify to participate in extra credit options.*

To qualify for extra credit, you should not have incurred any of the penalties indicated in the next section.

- **Being on-time (class or video conference):** 0 points <80%, 1 point= 80%-89.9%, 1.5 points 90%-99.9, 2 points=100% (points applied on final grade)
- **Virtual (video conference) or Physical (classroom) attendance** 0 points <80%, 1 point= 80%-89.9%, 1.5 points 90%-99.9, 2 points=100% (points applied on Exam 3)
- **Early submissions** up 5% in indicated assignment/exam. If taking an exam, submit before the due date.
- **Others indicated in class.** These depend on the assignment.

Penalties

Incurring any of the following penalties disqualifies you from receiving any extra credit.

1. **Cheating:** Cheating on tests and programs will be dealt with very severely. You must make a diligent effort to prevent other students from seeing your test answers. Keep your paper covered and do not let your eyes wander during tests. You should not receive or give help to others while taking an exam.
   - First offense of Receiving or giving help while taking an exam= -25% deducted from grade
   - Second offense of Receiving or giving help while taking an exam= 0% in the exam. The exam will not be graded.
   - One of more incidents of cheating in exam= 0% in Exam
   - Cheating on a second exam= F in the course

2. **Plagiarism:** Plagiarism is a form of cheating. Copying someone else's program, changing a few lines, and turning it in as your own is plagiarism; thus, this is cheating. Each student is to write his or her own programs. You should not receive or give help to others on any program that goes beyond help in deciphering syntax errors. **First time penalty = 0% in assignment, second time penalty=F in the course.**

3. Inappropriate multiple requests of changing a grade for any of the following statements or something similar: (1) Being in probation, (2) last semester, (3) core course, (4) financial situation, (5) Being sick, (6) suspended from the university, (7) family issues, (8) others.
## Course Calendar

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<td>Short Presentation 2</td>
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### Weekly Posting Activities (online-discussions)

Discussion assignments are weekly activities that track attendance/participation to the online course. Students just need to follow the weekly video conference to post answers. They are very brief “in-class activities”, and answers are provided in the video (not homework style, not research). They will be due on Mondays but with a penalty free extension to Tuesdays. Most students get 100% credit on them. It is
suggested to post answers by Friday so that students have time during the weekend to reply/comment to other’s post.

Course Policies

Assignment Policy and Content Responsibility
You are expected to learn course materials and complete all readings and assignment on time. Students are responsible for all content presented in lecture slides, in the videos, and required readings from the textbook. All class materials will be posted on Canvas. For assignments (including projects), they are individual work, and no collaboration is allowed.

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Examination Policy
For each graded exam and quiz, you will be required to use Lockdown Browser with a webcam. You are not allowed to use your cell phones for any reason during an exam or quiz. For exams and quizzes, they are closed-book and closed-notes.

Late Work
No late submission is accepted.

Attendance Policy
While attendance will not be taken into grades, you will be expected to know and understand the requisite topics and concepts. You are responsible for checking announcements often to keep in touch with the whole class about upcoming events, assignments, or activities. Also check out your Canvas Calendar for assignment due dates so you can plan your semester accordingly.

Academic Integrity Policy
Cheating of any sort will not be tolerated in this course. All work turned in with your name on it must be your own work. Failure to adhere to these strict standards will cause disciplinary action that could be as severe as expulsion from the university. If it is determined a student cheated on any assignment in this course, they will receive an F for their final course grade and an academic integrity report will be filed with the Office of Academic Integrity. Further, UNT is now maintaining a database recording any acts of academic dishonesty that are available to employers. For more information see the UNT Student Academic Integrity Policy.