INFO6945: DOCTORAL SEMINAR IN INFORMATION ISSUES

Spring, 2021

Instructor: Junhua Ding, Ph.D.  Time: Saturday: 9:00am - 12:00pm
Email: jinhua.ding@unt.edu  Place: Zoom/Frisco Hall Park A161
Office: Discovery Park E292G  Phone: (940)565-2186

Course Pages

1. Course management: Canvas: https://unt.instructure.com/
2. Online lecture delivering: Zoom: https://unt.zoom.us
3. Face-to-face lecture: Place: Frisco Hall Park A161. Date: 1/16/21, 2/13/21, 3/27/21

Office Hours:

Formal Catalog Course Description

Discussion of general issues and specific research efforts in information science and related fields by faculty, students and guests. Presentation of dissertation proposals and completed dissertations by students.

Textbooks

No textbook. Reading materials will be assigned in the beginning of the class. Please see a list of recommended readings in Appendix.

Prerequisite

(Informal) This course is only open to PHD students who have taken INFO 6000 and INFO 6940. If you have not taken INFO 6000 and INFO 6940, it is better you take this class next year.

Software

The following software and computing environments might be used in this course.

- TensorFlow, PyTorch, Google Colab, Python Jupyter Notebook, JupyterLab, Python Frameworks such as NumPy, SciPy, Pandas; Microsoft Excel; MySQL.

Objectives

Through a semester-long reading, writing, and discussion, students will be able to:

1. Define information science, including its important concepts, scope, sub areas, and relevance to other disciplines;
2. Define data science, including its important concepts, scope, sub areas, processes, and relevance to other disciplines;
3. Describe and present one or more important information problems or data science problems that are currently investigated in the broad field of information science and data science;
4. Prepare professional presentations and interactions for academic conferences;
5. Develop professional curriculum vitae and skills for job seeking in academics and industry;
6. Develop or improve critical thinking skills as an information and data sciences scholar;
7. Develop or improve scholarly reading and writing skills.

To achieve the above learning objectives, each student is expected to spend at least 12 hours of off-classroom work. Students with insufficient reading and writing preparations are expected to spend more time on reading and writing.

Topics

The following is the tentative schedule with the covered topics. Actual schedule may be adjusted according to progress:

1. Introduction (Syllabus, Academic Integrity, Information Science Overview, and Data Science Overview)
2. Information Science and Data Science Conferences, Journals and Publications; Term Project, PhD Life and Proposals. Weekly Assignment 1: Term Project Proposal
4. Information Issues: Information Access, Seeking, and Retrieval. Weekly Assignment 3
5. Information Issues: Knowledge Representation and Reasoning. Weekly Assignment 4
8. Data Science Issues: Data Curation. Weekly Assignment 6
11. Data Science Issues: Data Visualization. Weekly Assignment 9

Grading Policy

Students are required to attend the class on time, complete all assignments, projects, and readings on time. Grading will be based on assignments to be assigned as the course proceeds.

Grades will be computed as follows:

- Weekly Reading and Writing Assignments: 40%
- Presentations: 20%
- Attendance and Participation: 15%
- Term Paper: 25%

**Grading Scale:** A: 90-100; B: 80-89; C: 70-79; D: 60-69; F: 59 or below.
All assignments, projects, and term paper requirements are posted in Canvas, and students are required to upload their work into Canvas. Late submission of work will be graded with reduced points (20% reduction of total points for each day delay). The final grade is calculated based on grade points of assignments, presentation, term paper, Attendance and Participation.

- **Class Attendance and Participation** (15%). Students are required to attend each class meeting and actively participate in discussions and/or presentations. Prior to the meeting, please prepare your questions that may result from the weekly assignments, other readings, or experience for discussion.

- **Weekly Reading and Writing Assignments** (40%) Students will have weekly assignments. Most of them will be critical literature review. The specification of critical literature review will be discussed in the class, and students are required to submit the review and participate in the discussion of the review in the class.

- **Presentation** (20%) Each student will be required to pick a topic, select up to 3 readings for the class, lead a discussion of that topic in class for 45 minutes, and write a report regarding the topic. The topics will be discussed in the first class. Students will pick his/her topic by the end of the second week. Specification will be discussed in the first class.

- **Term Paper** (25%. The proposal 5%, the final report 20%) Each student will submit a term paper that addresses an information or data problem assigned or negotiated with the instructor. Each student needs submit a term project proposal by Week Three (3). This paper should have a new topic different from the students’ previous doctoral class assignments. We will discuss the topics for the term paper in class. A topic will be determined for each student in the first two weeks. Specification for the Term Paper will be available by Week Three (3) of the Semester.

**Incomplete**

A grade of incomplete (I) will be given only for a justifiable reason (such as a serious illness or military service) and only if you are passing the course. It is your responsibility to contact the instructor to request an incomplete and discuss requirements for completing the course. If you do not remove the incomplete within the timeframe agreed upon with the instructor or within one calendar year, you will receive a grade of an F. Please refer to [http://essc.unt.edu/registrar/academic-record-incomplete.html](http://essc.unt.edu/registrar/academic-record-incomplete.html) for more information.

**Withdrawal**

A grade of withdraw (W) or withdraw-failing (WF) will be given depending on your participation and grades to date. If you simply disappear and do not file a formal UNT withdrawal form, you may receive a grade of an F.

**Teaching Philosophy**

My philosophy of teaching is that the teacher and the students engage in learning in a stimulating environment where we grow mentally, emotionally, and socially together. I am committed to work with students and create an atmosphere where students can meet their full potentials. Students are invited to share their ideas and take challenges. Most of the classes are considered challenging, as I do demand students to work hard, think hard, and take challenges. As a seminar course at Ph.D. level, this class requires active participation of students in class discussions. The instructors will lead the discussions with questions. Guest speakers are invited to interact with students.

**Technical Assistance**

UIT Help Desk: [http://www.unt.edu/helpdesk/index.htm](http://www.unt.edu/helpdesk/index.htm). The University of North Texas provides student technical support in the use of Zoom and Canvas and supported resources. The student help desk may be reached at:
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- Email: helpdesk@unt.edu
- Phone: 940.565-2324
- In Person: Sage Hall, Room 130

Hours

- Monday-Thursday 8am-midnight
- Friday 8am-8pm
- Saturday 9am-5p
- Sunday 8am-midnight

Canvas technical requirements: https://clear.unt.edu/supported-technologies/canvas/requirements

Minimal Technical Skills and Resources Needed

Each student should be able to access computers that have environment for running and developing Python programs with databases Microsoft Excel and mySQL. Google Colab (https://colab.research.google.com/) is a recommended environment for developing course projects and running sample codes from the textbook.

Communication

Students can email their questions to the instructor and the teacher assistant (TA). They are also encouraged to talk to the instructor and TA during the office hours. Emails are normally respond within 24 hours, and all assignments, quizzes, projects, and papers should be graded within 10 days after the submission deadline.

ADA Statement

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.

Class Policy

- **Prohibition of Discrimination, Harassment, and Retaliation:** 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. According UNT Policy 16.004, UNT prohibits discrimination and harassment because 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 in its application and admission processes; educational programs and activities; employment policies, procedures, and processes; and university
facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

- **Attendance Policy:** You are expected to attend class on time via Zoom. You are responsible for announcements and assignments given in class. If you miss a class, it is up to you to obtain notes and any other information that was provided in the class. Those who do not attend class or review the recorded lectures in a timely manner can count on doing poorly in this course.

- **Academic Integrity Policy:** Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

  Students caught cheating or plagiarizing will receive a “0” for that particular assignment or exam (or specify alternative sanction, such as course failure). Additionally, the incident will be reported to the Office of Student Rights and Responsibilities, which may impose for further penalty. According to the UNT catalog, the term “cheating” includes, but is not limited to: (a). use of any unauthorized assistance in taking quizzes, tests, or examinations; (b). dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (c). the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university; (d). dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or (e). any other act designed to give a student an unfair advantage. The term “plagiarism” includes, but is not limited to: (a). the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgment; and (b). the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

- **Emergency Notification & Procedures:** UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Blackboard for contingency plans for covering course materials.

- **APA Style:** When doing the assignment, it is important to provide details of all the sources of information that you have used to prepare your work. All written assignments should follow APA (American Psychological Association) style to ensure that all sources are cited completely, correctly, and with consistency. The purpose of APA style is to (a). give credit to the author whose ideas or research you have used, (b). provide the exact location for sources of information used in the text of your paper, and (c). enable your reader to verify information you have provided or to explore your topic in greater depth. Consult the Publication Manual of the American Psychological Association, 6th edition.

- **Acceptable Student Behavior:** Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student’s conduct violated the Code of Student Conduct. The university’s expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at deannofstudents.unt.edu/conduct.

- **Access to Information - Eagle Connect:** Students’ access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to
a student’s Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail: eagleconnect.unt.edu/

- **Student Evaluation Administration Dates:** Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 [insert administration dates] of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from ”UNT SPOT Course Evaluations via IASystem Notification” (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the SPOT website at http://spot.unt.edu/ or email: spot@unt.edu.

- **Sexual Assault Prevention:** UNT is committed to providing a safe learning environment free of all forms of sexual misconduct, including sexual harassment sexual assault, domestic violence, dating violence, and stalking. Federal laws (Title IX and the Violence Against Women Act) and UNT policies prohibit discrimination on the basis of sex, and therefore prohibit sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking, and/or sexual assault, there are campus resources available to provide support and assistance. UNT's Survivor Advocates can assist a student who has been impacted by violence by filing protective orders, completing crime victim’s compensation applications, contacting professors for absences related to an assault, working with housing to facilitate a room change where appropriate, and connecting students to other resources available both on and off campus. The Survivor Advocates can be reached at Survivor Advocate@unt.edu or by calling the Dean of Students Office at 940-565- 2648. Additionally, alleged sexual misconduct can be non-confidentially reported to the Title IX Coordinator at oeo@unt.edu or at (940) 565 2759.

- **Use of Student Work:** A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student’s permission unless all of the following criteria are met:
  
  - The work is used only once.
  - The work is not used in its entirety.
  - Use of the work does not affect any potential profits from the work.
  - The student is not identified.
  - The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student’s written permission.
Appendix: Reading List (Recommended)

Information Science


Data Science


10. Chuanqi Tan, Fuchun Sun, Tao Kong, Wenchang Zhang, Chao Yang, and Chunfang Liu, A Survey on Deep Transfer Learning, arXiv:1808.01974v1, 2018


