

FINA 6900-001: SPECIAL PROBLEMS DOCTORAL SEMINAR

SPRING 2026

Instructor: Professor Amy Cyr-Jones (Cyr)

Email: amy.cyr@unt.edu

Class: Thursdays, 2-4:50pm

Classroom: BLB 245

Office hours: By appointment

Course Overview and Learning Objectives

This course is designed to equip Ph.D. students with the fundamental skills required for empirical research in finance. The focus is on understanding key financial databases, learning how to access and process data, and developing the technical proficiency needed for research assistant (RA) work and independent projects.

Students will gain hands-on experience with proprietary financial datasets, such as CRSP and Compustat, while also exploring free sources of financial data. Additionally, the course will introduce best practices in data cleaning, merging, and statistical analysis using Stata, SAS, and Python.

By the end of the semester, students will be able to efficiently extract, manipulate, and analyze financial data, making them valuable collaborators in empirical research projects. By the end of this course, students will:

1. Develop a foundational understanding of financial research databases and their applications
2. Gain practical experience in accessing and extracting data from WRDS and other financial data sources
3. Learn best practices for cleaning, merging, and managing financial datasets
4. Build proficiency in statistical analysis using Stata, SAS, and Python
5. Understand how AI and machine learning tools can assist in empirical finance research
6. Learn to critically evaluate research methodologies and avoid common pitfalls such as p-hacking and data mining biases
7. Apply their knowledge by replicating key empirical finance studies

Class Format

This course meets once per week for 3 hours. The structure of each class follows a blended approach.

- **Lecture (first half):** Each session begins with an in-depth lecture covering the week's topic, including theoretical background, database demonstrations, and empirical techniques.
- **Practical Application (second half):** Students will work on coding exercises, database queries, and case studies to apply what they have learned. This portion will involve group work and live problem-solving. During this time, students can ask questions about the lecture content, assignments, or issues they are encountering in their research.

Course Materials and Class Preparation

There is no textbook for this course, but that does not mean that there is no material that students will be expected to review between class sessions. Papers and associated materials for each week will be available to students through Canvas. You are expected to complete all assigned materials before the start of each class, participate during discussions, and work through hands-on exercises during the sessions.

Grading

Grading Component	Percentage of Overall Grade
Assignments	25%
Exam 1	20%
Exam 2	20%
Final Exam	35%

Extra Credit

There is no extra credit in this course and no individual extra credit opportunities will be granted.

Late Work

Late work will not be accepted under any circumstances.

Exams

There will be two midterm exams and a **comprehensive** final exam. You may use a calculator.

If you must miss a midterm due to a university-excused absence, then the weight of the exam(s) will be added to the final exam, making the final exam worth a larger percentage of your overall grade. **Under no circumstances will you be able to take the midterm at any time other than when it is offered to all students.** To maintain the integrity of the exam material, there will be no exceptions to this course policy.

All exams will be given **in class using the Canvas Lockdown Browser**. You **must** bring a laptop with internet accessibility and the Lockdown Browser **installed before the first exam**.

The time that it takes to install the Lockdown Browser will not be added to the exam.

Instructions can be found at <https://aits.unt.edu/support/lockdown-browser.html>.

Attendance

Research has shown that students who attend class are more likely to be successful. You should attend every class unless you have a university-excused absence such as active military service, a religious holy day, or an official university function as stated in the Student Attendance and Authorized Absences Policy (PDF) (<https://policy.unt.edu/policy/06-039>). If you cannot attend a class due to an emergency, please let me know.

ADA Accommodation Statement

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is confirmed, you may request your letter of accommodation. ODA will then email your faculty a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course.

You can request accommodations at any time, but it's important to provide ODA notice to your faculty as early as possible in the semester to avoid delays in implementation. Keep in mind that you must obtain a new letter of accommodation for each semester and meet with each faculty member before accommodations can be implemented in each class. You are strongly encouraged to meet with faculty regarding your accommodations during office hours or by appointment. Faculty have the authority to ask you to discuss your letter during their designated office hours to protect your privacy. For more information and to access resources that can support your needs, refer to the Office of Disability Access website (<https://studentaffairs.unt.edu/office-disabilityaccess>).

Academic Success Resources

UNT strives to offer a high-quality education in a supportive environment where you can learn, grow, and thrive. As a faculty member, I am committed to supporting you, and I want to remind you that UNT offers a range of mental health and wellness services to help maintain balance and well-being. Utilizing these resources is a proactive way to support your academic and personal success. To explore campus resources designed to support you, check out mental health services (<https://clear.unt.edu/student-support-services-policies>), visit unt.edu/success, and explore unt.edu/wellness. To get all your enrollment and student financial-related questions answered, go to scrappysays.unt.edu

Academic Integrity

The University of North Texas promotes the integrity of learning and embraces the core values of trust and honesty. Academic integrity is based on educational principles and procedures that protect the rights of all participants in the educational process and validate the legitimacy of degrees awarded by the University. In the investigation and resolution of allegations of student academic dishonesty, the University’s actions are intended to be corrective, educationally sound, fundamentally fair, and based on reliable evidence. Read the full Student Academic Integrity policy at <https://policy.unt.edu/policy/06-003>.

Generative AI Use

Throughout the semester, you will or may use specific Generative AI (GenAI) tools for certain assignments, with guidance on responsible use. These assignments help build ethical resilience and GenAI literacy, preparing you for careers in a GenAI-oriented workforce. In accordance with the UNT Honor Code, unauthorized use of GenAI tools is prohibited. Using GenAI content without proper credit or substituting your own work with GenAI undermines the learning process and violates academic integrity. If you're unsure whether something is allowed, please seek clarification.

Schedule

Class Number	Date	Topic	Databases
1	1/15	Event Studies in Finance & Calculating Daily Returns in Compustat	-WRDS Event Study Suite -Compustat Daily
2	1/22	Mutual Fund Databases	-Morningstar

			-CRSP Mutual Funds
3	1/29	FRED Yield Curve and TRACE Bond Data	-FRED -TRACE Bond
4	2/12	Hedge Funds and Activism	-Hedge Fund -Activist Insight
5	2/5	Exam 1	
6	2/19	Short-Selling and Engagement	-Activist Insight
7	2/26	International Governance	-BoardEx Global -Compustat Global
8	3/5	ESGAUGE	-ESGAUGE -BoardEx
9	3/12	No Class – Spring Break!	
10	3/19	Exam 2	
11	3/26	Value vs. Glamour	-Compustat
12	4/2	P-Hacking, Factor Proliferation, and Data Mining	-CRSP -TRACE
13	4/9	Web Scraping	-EDGAR
14	4/16	AI in Finance	-LLM
15	4/23	Final Exam	

Schedule is subject to change. Any revision to the course schedule will be communicated on Canvas.

UNT is committed to the safety and security of the campus community and recognizes the value of maintaining university operations. However, in the event university operations are disrupted due to an emergency or other hazardous conditions threatening the safety, health, or welfare of the campus community, UNT may be required to cancel classes, suspend operations, or close

campus in its entirety. Students will be notified by Eagle Alert if there is a campus closing that will impact a class.