

ENG 177: GFX Innovation Scholars

Technology Entrepreneur Center
GRAINGER ENGINEERING



Fall 2024

- 1 credit hour
- Thursdays
- 10:00-10:50am
- 2320 DCL (Digital Computer Laboratory)
- We will continue meeting Spring 2025!

Instructor

Dr. Keilin Jahnke
deahl1@illinois.edu

Office Hours

Sign up available at
<https://calendly.com/kjahnke/officehours>

Course Purpose

Innovation Scholars is a section of the Scholars program in The Grainger Engineering First-Year Experience (GFX).

Innovation Scholars will learn about the important role of innovation and entrepreneurship in engineering. Students will learn about and develop their entrepreneurial mindset by identifying problems in the world around them, addressing them by creating value-driven innovations, and learning from and connecting with experts who have made an impact. Students will discover a variety of resources available on campus and participate in experiential opportunities to shadow innovators, attend innovation-focused events, and develop their own pathway to innovative impact.

Innovation Scholars create impact in a variety of contexts, including in startups, non-profit organizations, and large companies! Students will explore innovation and entrepreneurial opportunities offered on campus and through the Technology Entrepreneur Center including certifications and the ILEE dual degree.

Learning Objectives

Upon completion of this course, you will be able to:

1. Define innovation and entrepreneurship,
2. Understand the entrepreneurial mindset and reflect on personal growth,
3. Identify problems and opportunities for improvement and understand the complex, contextual framework in which they exist,
4. Generate novel ideas and design and build solutions,
5. Lead others in innovation,
6. Communicate your ideas effectively to a wide range of stakeholders,
7. Create a community of innovation scholars, and
8. Identify and utilize campus resources in the entrepreneurship ecosystem at Illinois.

Course Materials

It is highly recommended that you purchase the following materials for this course. The two texts are also available as a PDF download from the official website (more information shared during class), but please decide for yourself which format will be best for your learning.

1. Physical notebook
2. *Talking to Humans* by Giff Constable (2014)
3. *Testing with Humans* by Giff Constable (2018)

Course Platform

This course will use Canvas (canvas.illinois.edu) as the primary learning management system for:

1. Posting course materials and documents
2. Submitting assignments (unless otherwise noted) and viewing your grades and feedback
3. Announcements (verify that you have Compass set up to get these emailed to you)

Technology Policy

While participating in class sessions, please refrain from using devices; using a physical notebook and pen/pencil to jot down notes and ideas during class is highly recommended. You are welcome to use devices (laptop, tablet, etc.) when appropriate for activities or project work time. Recording material from this course, including class sessions and team meetings is forbidden. Additionally, sharing or posting recorded material online is prohibited and any violation of this policy will be forwarded to the Office of Student Conflict Resolution.

Student Diversity

The diversity represented by the participants in this course is deeply valued. Our diversity is a primary source of ideas and perspectives, and you will work in groups and teams in this course to practice the use of that diversity.

Attendance Policy

This course primarily uses active learning techniques during class sessions to work towards the course objectives. This includes small group and partner activities as well as whole class and small group discussions. Because of this, it is expected that you will attend class. If you are unable to attend a single class session, please complete the form available on Canvas prior to your absence. If you need to miss multiple, consecutive class sessions, please email the instructor and plan on signing up for office hours to develop a strategy to continue successfully in the course. Extended absences may require a formal letter from the Connie Frank CARE Center.

Office Hours and Emails

If you have questions, concerns, ideas you would like to share, are looking for a letter of recommendation, or any other reason to connect with the instructor, please do! **The best way to do so is to either ask before class or sign up for office hours.** If you need to share that you will be absent, please do so by completing the form on Canvas. If you need to email the instructor, please put the course number and semester in the subject line (ENG 177 Fall 2024).

Tentative Schedule and Assignment Due Dates

Week and Date		Topic	Assignment
1	August 29	Introduction to course and innovation	Student Questionnaire
2	September 5	Historical innovators and innovations	Pre-class Activity 1
3	September 12	Our role as innovators	Pre-class Activity 2
4	September 19	Introduction to the entrepreneurial ecosystem at Illinois	Pre-class Activity 3
5	September 26	Our role in the entrepreneurial ecosystem at Illinois	Pre-class Activity 4
6	October 3	Innovation Breakthrough 1 presentations	Innovation Breakthrough 1
7	October 10	Understanding “riskiest hypotheses”	Pre-class Activity 5
8	October 17	Impactful innovations Academic opportunities in innovation and entrepreneurship	Pre-class Activity 6
9	October 24	Empathy and understanding stakeholders	Pre-class Activity 7
10	October 31	Inspiration, ideation, and implementation	Peer Teaching Day
11	November 7	Sustaining innovation	Pre-class Activity 8
12	November 14	Testing “riskiest hypotheses”	Pre-class Activity 9
13	November 21	Innovation wrap-up and what next?	Pre-class Activity 10
Fall Break (no class)			
14	December 5	Innovation Breakthrough 2 feedback session	Innovation Breakthrough 2
15	December 12 (no class)	Reading Day optional office hours for questions and guidance	
16	Final Exam Week (no class)		Innovation Portfolio <i>Missing assignments due for partial credit</i>

Grading Overview

The assignments in this course are designed to help you enhance your innovation skills and entrepreneurial mindset in a variety of ways.

Assignment	Points
Pre-Class Activities (10 at 30 points each, details on Canvas)	300
Peer Teaching Day	100
Innovation Portfolio	200
Preparation & Participation	100
Innovation Breakthroughs (2 at 150 points, details on Canvas)	300
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Total	1000

Grading Scale

A+ 97-100%	B+ 87-89%	C+ 77-79%	D+ 67-69%	F <60%
A 93-96%	B 83-86%	C 73-76%	D 63-66%	
A- 90-92%	B- 80-82%	C- 70-72%	D- 60-62%	

Late assignments will be reduced 10%/day up to a maximum of 50% off and can be submitted through the date on the schedule.

Academic Integrity and Artificial Intelligence

You are expected uphold the highest ethical standards, to be honest, and to practice academic integrity. **This includes doing original work and citing sources**, including the work of other students. If an idea is your own, that is original work. If you used assistance to generate an idea or are quoting or stating the idea of another, please properly cite your source (MLA or APA format).

Throughout this class, we will discuss the exciting role and use of text and image generating AI tools (including ChatGPT, Microsoft Copilot, Google Gemini, among all others) in entrepreneurship and innovation! However, in order for you to successfully meet the learning objectives of this course, you will be informed as to how and when you can utilize these tools for assignments, projects, and class activities. Any use of these tools outside of these parameters will be considered academic dishonesty.

Please give special care to prepare high-quality submissions with proper grammar and spelling. The University of Illinois at Urbana-Champaign Student Code should also be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>. Academic dishonesty may result in a failing grade.

Every student is expected to review and abide by the Academic Integrity Policy: <https://studentcode.illinois.edu/article1/part4/1-401/>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

Emergency Response Recommendations

Emergency response recommendations can be found at the following website: <http://police.illinois.edu/emergency-preparedness/>. I encourage you to review this website and the campus building floor plans website within the first 10 days of class. <http://police.illinois.edu/emergency-preparedness/building-emergency-action-plans/>.

Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX Office. In turn, an individual with the Title IX Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options.

A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: wecare.illinois.edu/resources/students/#confidential. Other information about resources and reporting is available here: wecare.illinois.edu.

Religious Observances

Illinois law requires the University to reasonably accommodate its students' religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. You should examine this syllabus at the beginning of the semester for potential conflicts between course deadlines and any of your religious observances. If a conflict exists, you should notify your instructor of the conflict and follow the procedure at <https://odos.illinois.edu/community-of-care/resources/students/religious-observances/> to request appropriate accommodations. This should be done in the first two weeks of classes.

Disability-Related Accommodations

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 333-4603, email disability@illinois.edu or go to <https://www.disability.illinois.edu>. If you are concerned you have a disability-related condition that is impacting your academic progress, there are academic screening appointments available that can help diagnosis a previously undiagnosed disability. You may access these by visiting the DRES website and selecting "Request an Academic Screening" at the bottom of the page.

Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See <https://registrar.illinois.edu/academic-records/ferpa/> for more information on FERPA.

Mental Health

Significant stress, mood changes, excessive worry, substance/alcohol misuse or interferences in eating or sleep can have an impact on academic performance, social development, and emotional wellbeing. The University of Illinois offers a variety of confidential services including individual and group counseling, crisis intervention, psychiatric services, and specialized screenings which are covered through the Student Health Fee. If you or someone you know experiences any of the above mental health concerns, it is strongly encouraged to contact or visit any of the University's resources provided below. Getting help is a smart and courageous thing to do for yourself and for those who care about you.

- Counseling Center (217) 333-3704
- McKinley Health Center (217) 333-2700
- National Suicide Prevention Lifeline (800) 273-8255
- Rosecrance Crisis Line (217) 359-4141 (available 24/7, 365 days a year)

If you are in immediate danger, call 911.

*This statement is approved by the University of Illinois Counseling Center