

# TE 333: Creativity, Innovation, Vision

**Technology Entrepreneur Center**  
GRAINGER ENGINEERING



## Fall 2024

- 4 credit hours
- Tuesday/Thursday
- 12:30pm-1:50pm
- 2320 DCL (Digital Computer Laboratory)

## Instructor

**Dr. Keilin Jahnke**  
[deahl1@illinois.edu](mailto:deahl1@illinois.edu)

## Office Hours

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

## Course Purpose

The purpose of this course is to **enhance your creativity, innovation, and vision.**

## Learning Objectives

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

1. Define creativity, innovation, and vision,
2. Use a model as a means to represent the creative process in order to:
  - 2.1. find problems, including increasing your curiosity and ability to embrace problems as opportunities,
  - 2.2. master a set of tools to have ideas, while delaying decision making and tolerating ambiguity,
  - 2.3. take initiative, including prototyping to answer key questions and facilitate decision making,
  - 2.4. implement solutions, including marshaling resources and persisting,
3. Practice creativity skills regularly and use feedback to improve,
4. Arrange your lifestyle to enhance creativity,
5. Recognize when and how to apply creativity skills in your life,
6. Foster an environment for creativity, including dealing with obstacles to creativity,
7. Evaluate or critique your own ideas and those of others,
8. Understand and use theories of creativity,
9. Lead others in creative processes, and
10. Communicate creatively and effectively.

## Course Philosophy

Creativity is a vital skill that can be enhanced by learning. You enhance your creativity by becoming proficient with a set of *techniques*, developing a *mindset* that favors creative behaviors, and by establishing a *lifestyle* that promotes having ideas and bringing them to be.

Much of the knowledge you learn in this course will occur through reading, activities, and discussion. Class time will be used to discuss the readings and to work on applications in which you practice new skills by creating in a supportive environment. Class time will also involve reflection and feedback. By design, the course has many components, so staying organized, archiving what happens, and looking for connections will help you get the most from the experience.

## Required Course Materials

1. *Creative Confidence* by Tom Kelley and David Kelley (2013)
2. *Zig Zag: The Surprising Path to Greater Creativity* by Keith Sawyer (2013)
3. Physical notebook
  - o Choose whichever style you like best! This will be periodically collected by the instructor.

## Course Platform

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

1. Posting course materials and documents
2. Submitting assignments (unless otherwise noted)
3. Announcements (verify that you have Canvas 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 actually required! 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 (TE 333 Fall 2024).

## Tentative Schedule and Assignment Due Dates

Week	Topic	Tuesday	Thursday
1	<ul style="list-style-type: none"> <li>Principles of creativity</li> <li>Enhancing creativity</li> <li>Introduction to the creativity model</li> </ul>	<b>August 27</b>	<b>August 29</b>
2	<ul style="list-style-type: none"> <li>Juxtaposition</li> <li>The role of curiosity in creativity and innovation</li> </ul>	<b>September 3</b> Interests & Goals Presentation	<b>September 5</b>
3	<ul style="list-style-type: none"> <li>Problem and opportunity identification techniques</li> <li>Introduction to bioinspiration</li> </ul>	<b>September 10</b> Creativity Log – Check 1	<b>September 12</b>
4	<ul style="list-style-type: none"> <li>Free association</li> <li>Discussion of <i>Creative Confidence</i></li> </ul>	<b>September 17</b> Read <i>Creative Confidence</i> & Submit Reflection	<b>September 19</b>
5	<ul style="list-style-type: none"> <li>Brainstorming</li> <li>Introduction to pitching</li> </ul>	<b>September 24</b>	<b>September 26</b> BioInspiration Team Project & Pitch
6	<ul style="list-style-type: none"> <li>Ideation techniques</li> <li>Innovators and innovation</li> <li>Discussion of <i>Zig Zag</i> reading</li> </ul>	<b>October 1</b> Creativity Log – Check 2	<b>October 3</b> Read <i>Zig Zag</i> (Introduction + Step 1 + 2 + 3) & Submit Insights
7	<ul style="list-style-type: none"> <li>Creativity and decision making in teams</li> </ul>	<b>October 8</b> Semester Project Pitch	<b>October 10</b>
8	<ul style="list-style-type: none"> <li>Ideation techniques</li> <li>Discussion of <i>Zig Zag</i> reading</li> </ul>	<b>October 15</b>	<b>October 17</b> Read <i>Zig Zag</i> (Step 4 + 5 + 6) & Submit Insights
9	<ul style="list-style-type: none"> <li>Synthesizing insights</li> </ul>	<b>October 22</b>	<b>October 24</b> Semester Project Insights & Focus Report
10	<ul style="list-style-type: none"> <li>Developing idea directions</li> <li>Discussion and application of <i>Zig Zag</i> reading</li> <li>Art and visual creativity</li> </ul>	<b>October 29</b> Read <i>Zig Zag</i> (Step 7 + 8 + Conclusion) & Submit Insights	<b>October 31</b> Creativity Log – Check 3
11	<ul style="list-style-type: none"> <li>Peer teaching – topics in areas of student expertise</li> </ul>	<b>November 5</b>	<b>November 7</b> You Teach Us – What You Know
12	<ul style="list-style-type: none"> <li>Prototyping and storyboarding</li> <li>Assessing innovative ideas</li> <li>Introduction to implementation plans</li> </ul>	<b>November 12</b>	<b>November 14</b> Semester Project Directions & Ideas Report
13	<ul style="list-style-type: none"> <li>Peer teaching – topics in creativity</li> <li>The role of empathy in creativity</li> </ul>	<b>November 19</b> You Teach Us – Creativity & Innovation	<b>November 21</b> Creativity Log – Check 4
<b>Fall Break (no class)</b>			
14	<ul style="list-style-type: none"> <li>Vision as the foundation for creativity and innovation</li> </ul>	<b>December 3</b>	<b>December 5</b> Semester Project Prototypes & Feedback Report
15	<ul style="list-style-type: none"> <li>Creativity reflection and wrap up</li> <li>Course evaluations</li> </ul>	<b>December 10</b> Creativity Log – Check 5	<b>December 12</b> <b>Reading Day (no class)</b>
16		<b>Final Exam Time on Tuesday, December 17 from 9-11am</b> Semester Project Presentation	<b>Due December 17 by 11:59pm</b> Semester Project Final Report & Proposed Next Steps Semester Project Team Evaluation <i>Missing assignments (partial credit)</i>

## Grading Overview

The assignments in this course are designed to help you enhance your creativity in a variety of ways. Being a student is rigorous, so each assignment has been developed to purposefully promote your creative development.

### Readings

<i>Creative Confidence</i> Reflection	40
<i>Zig Zag</i> Insights (3 assignments, 15 points each)	45

### General Assignments

Interests & Goals Presentation	30
BioInspiration Team Project & Pitch	70
You Teach Us – What You Know	70
You Teach Us – Creativity & Innovation	70

### Creativity Log

Check 1	45
Check 2	45
Check 3	45
Check 4	45
Check 5	75

### Semester Project Part 1: Having Ideas

Pitch	25
Insights & Focus Report	50

### Semester Project Part 2: Bringing Ideas to Be

Directions & Ideas Report	50
Prototypes & Feedback Report	50
Presentation	75
Final Report & Proposed Next Steps	90
Final Team Evaluation	30

### Attendance, Preparation, and Participation

50

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### Total

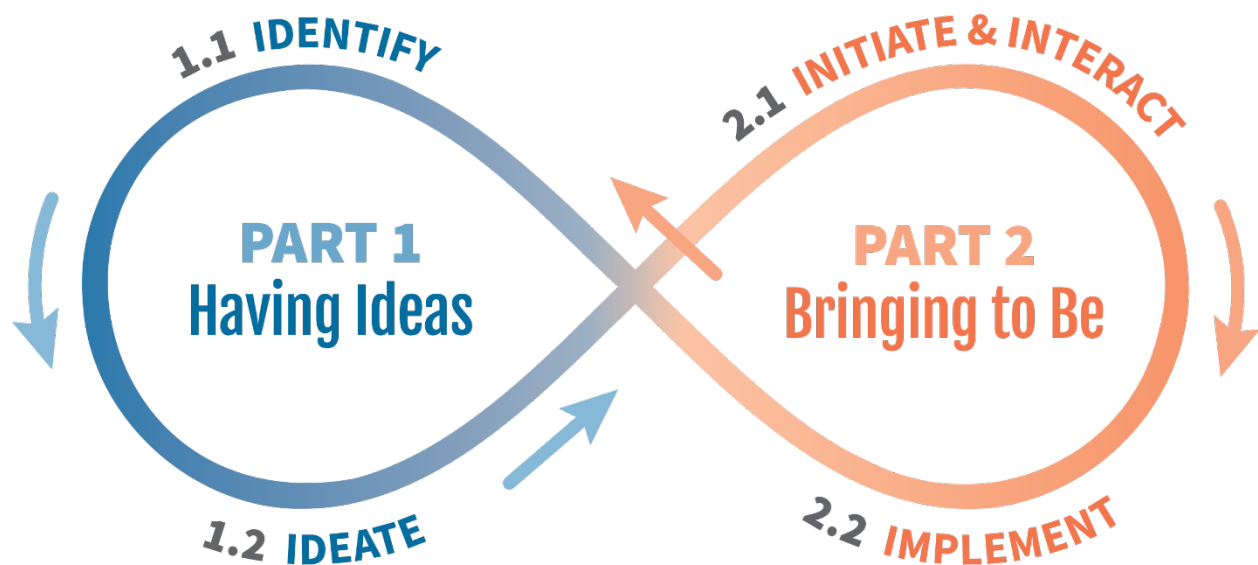
1000

### Grading Scale

A+ 980-1000	B+ 870-899	C+ 770-799	D+ 670-699	F <600 points
A 930-979	B 830-869	C 730-769	D 630-669	
A- 900-929	B- 800-829	C- 700-729	D- 600-629	

*Late assignments will be reduced 10% per day up to a maximum of 50% off if submitted by date on the schedule.*

## Model of Creativity



### PART 1 | Having Ideas

#### 1.1 Identify

- Cultivating curiosity
- Finding problems and opportunities
- Reframing
- Understanding
- Evaluating
- Applying wisdom

**Evaluate** – *Is it a good opportunity? Does it have value?*

#### 1.2 Ideate

- Stockpiling knowledge
- Thinking analogically
- Connecting
- Ideation techniques
- Diverging before converging
- Tolerating ambiguity

**Evaluate** – *Is it a good idea? Is it innovative? Does it make a positive impact?*

#### 2.1 Initiate & Interact

- Taking initiative
- Managing risks
- Prototyping
- Modeling
- Analyzing

**Evaluate** – *Is it a reasonable risk, project, product?*

#### 2.2 Implement

- Marshaling resources
- Collaborating
- Managing time
- Stewarding money
- Persisting

**Evaluate** – *Is the problem solved? What needs adjustment?*

**Iterate:** At any point, loop back as needed.

## Assignment Format Policy

All assignments should be submitted to Canvas as a PDF. Other formats will not be accepted, unless otherwise noted. If you need assistance in creating PDFs on your device, please contact the instructor.

## 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 creativity 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.

## Resource: Illinois Writers Workshop

The Writers Workshop's mission is to support the University of Illinois community by providing free writing assistance for students, faculty, and staff from all disciplines and at all stages of the writing process. Whether you are working on a course paper, senior capstone, personal statement, group writing project, thesis or dissertation, or manuscript for publication, our consultants are available to help. Visit us at any stage of the writing process: brainstorming, organizing ideas, polishing final drafts, citing sources, and more. The Workshop offers online appointments, in-person appointments, and evening drop-in hours. The Workshop also sponsors writing groups and provides hands-on presentations about academic writing skills. Find more information at [writersworkshop.illinois.edu](http://writersworkshop.illinois.edu) or learn more about our policies

(<https://writersworkshop.illinois.edu/about-the-workshop/policies/>) and our services

(<https://writersworkshop.illinois.edu/services/>).

## 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](https://wecare.illinois.edu/resources/students/#confidential). Other information about resources and reporting is available here: [wecare.illinois.edu](https://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](mailto: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