AI-Powered Experience Design - Syllabus

Course Information

Course Name: ITLS-3870: AI-Powered Experience Design
Instructor: Dr. Ramy Shaaban, Department of Instructional Technology and Learning Sciences
Email: ramy.shaaban@usu.edu

Course Overview

Artificial intelligence is rapidly changing how designers create content, build experiences, and interact with users. In this course, you will learn how to use AI intentionally, creatively, and responsibly as part of the experience design process.

This course is designed specifically for designers—not programmers. You do not need coding experience. Instead, you will learn how to work with AI systems through effective prompting, tool exploration, automation, and minimal-code ('vibe coding') approaches.

You will explore how AI can support:

- Ideation and storytelling
- Visual, audio, and video creation
- Interface and experience design
- Intelligent and automated design workflows

Ethics, bias, accessibility, and human-centered design principles are introduced early and revisited throughout the course.

By the end of the semester, you will be able to design and prototype AI-enhanced experiences that are thoughtful, ethical, and grounded in human needs.

What You Will Learn

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

1. Explain how artificial intelligence has evolved and how modern AI systems work at a high level
2. Distinguish between traditional AI, machine learning, generative AI, and agentic AI
3. Use prompt engineering to generate text, images, audio, and video intentionally
4. Evaluate AI-generated outputs for quality, bias, and relevance to user experience
5. Design human-centered experiences that integrate AI appropriately
6. Build simple automated workflows that connect multiple AI tools
7. Reflect critically on ethical and societal implications of AI in design

Alignment with IDEA Learning Objectives

Utah State University uses the IDEA Student Ratings of Instruction system to evaluate teaching effectiveness based on student learning progress. The course learning objectives above align with the following IDEA Learning Objectives, which will be used to assess progress in this course:

IDEA Learning Objective	Aligned Course Objectives	Importance
1. Gaining a basic understanding of the subject (factual knowledge, methods, principles, theories)	Objectives 1, 2	**Essential**
3. Learning to apply course material (to improve thinking, problem solving, and decisions)	Objectives 3, 4, 5, 6	**Essential**
4. Developing specific skills, competencies, and points of view needed by professionals in the field	Objectives 3, 5, 6	**Essential**
6. Developing creative capacities (inventing, designing, writing, performing in art, music, drama, etc.)	Objectives 3, 5	**Essential**
9. Learning how to find, evaluate, and use resources to explore a topic in depth	Objectives 4, 6	**Important**
10. Developing ethical reasoning and/or ethical decision making	Objective 7	**Important**
11. Learning to analyze and critically evaluate ideas, arguments, and points of view	Objectives 4, 7	**Important**

Note: *At the end of the semester, you will be asked to evaluate your progress on these IDEA objectives as part of the course evaluation. Your feedback helps improve instruction and course design.*

Course Structure

This course is hands-on and project-based. Each week includes:

- Short lectures or readings
- Tool exploration and guided practice
- Weekly assignments or labs
- Reflection and discussion

Most work is asynchronous, with structured deadlines to support collaboration and feedback.

Weekly Schedule

Week 1 – AI for Designers: Past, Present, and Possibilities

Introduction to AI from a designer's perspective. History of AI, traditional systems, and basic machine learning concepts. Why AI matters for experience design today.

Week 2 – Generative, Agentic, and Vibe-Based AI

Overview of generative AI, agentic AI, and vibe coding. How designers interact with modern AI systems and what these shifts mean for creativity, control, and ethics.

Week 3 – Prompt Engineering as a Design Skill

Learning how to write effective prompts for text generation. Prompting as intentional interaction design, not trial-and-error.

Week 4 – AI as a Creative Partner

Using AI for ideation, storytelling, personas, and early-stage design concepts while maintaining human judgment.

Week 5 – Visual Alchemy: Image Generation for Experience Design

Creating concept art, mood boards, and UI visuals using AI image tools. Visual consistency and ethical considerations.

Week 6 – From Visuals to Interfaces

Applying AI-generated visuals to interface and brand design. Evaluating designs through a UX and accessibility lens.

Week 7 – Designing with Sound and Voice

Using AI to generate music, sound effects, and voice narration for interactive experiences.

Week 8 – Lights, Camera, AI

AI-generated video and animation for storytelling, demos, and instructional content.

Week 9 – Multimodal Experience Design

Combining text, image, audio, and video into cohesive, user-centered experiences.

Week 10 (Spring Break – No Class)

March 9-13: No assignments due. Enjoy your break!

Week 11 – Human–AI Interaction and UX Design

Design principles for AI-powered systems: transparency, trust, feedback, and user control.

Week 12 – Vibe Coding for Designers

Creating simple interactive prototypes using AI-assisted, minimal-code workflows.

Week 13 – Automate This! AI Workflows and Design Pipelines

Connecting multiple AI tools using no-code automation platforms to streamline content creation and design workflows.

Week 14 – Ethics, Responsibility, and the Future of AI in Design

Bias, authorship, intellectual property, accessibility, sustainability, and future trends.

Week 15 – Project Development and Design Critique

Refining final projects through structured feedback and critique.

Week 16 – Final Project Showcase and Reflection

Presentation of final projects and reflection on learning and professional growth.

Assignments and Grading

Total Course Points: 1000

Grading Summary

Component	Points	Weight
Weekly Labs & Reflections (10)	200	20%
Online Discussions (10)	150	15%
Final Project	350	35%
Final Reflection Portfolio	100	10%
TOTAL	**800**	**100%**

USU Grading Scale

Final letter grades are assigned based on the percentage of total points earned. Per USU policy, letter grades may be modified by plus (+) or minus (-) symbols, with no A+ or D- grades awarded.

Grade	Points	Percentage	Grade	Points	Percentage
A	4.00	93–100%	**C**	2.00	73–76%
A-	3.67	90–92%	**C-**	1.67	70–72%
B+	3.33	87–89%	**D+**	1.33	67–69%
B	3.00	83–86%	**D**	1.00	60–66%
B-	2.67	80–82%	**F**	0.00	Below 60%
C+	2.33	77–79%			

Assignment Descriptions

Weekly Labs & Reflections (200 points)

Hands-on practice using AI tools paired with short reflective writing about what worked, what didn't, and what you learned. Each lab includes guided exploration of specific AI tools and a reflection component.

10 Labs × 20 points each = 200 points

Week	Lab Topic	Points
2	Exploring Generative AI Tools	20
3	Prompt Engineering Fundamentals	20
4	AI-Assisted Ideation and Personas	20
5	Image Generation and Visual Design	20
6	Interface Design with AI Visuals	20
7	Sound and Voice Generation	20
8	Video and Animation Creation	20
9	Multimodal Experience Integration	20
12	Vibe Coding Prototypes	20
13	Workflow Automation	20

Online Discussions (150 points)

Weekly discussions where you share work, critique examples, and respond to peers. This is a key part of the online learning community. Each discussion requires an initial post and substantive responses to at least two peers.

10 Discussions × 15 points each = 150 points

Week	Discussion Topic	Points
2	First Impressions: Your AI Experience	15
3	Prompt Craft: Sharing Effective Prompts	15
4	AI as Collaborator vs. Tool	15
5	Visual Ethics: AI-Generated Imagery	15
6	Critiquing AI-Designed Interfaces	15
7	The Sound of AI: Audio in Design	15
8	Video Generation: Possibilities and Limits	15
9	Multimodal Showcase and Peer Feedback	15
11	Human-AI Interaction Best Practices	15

Week	Discussion Topic	Points
12	Vibe Coding: Lessons Learned	15

Final Project (350 points)

For your final project, you will use vibe coding to design and build a functional digital product of your choice. Vibe coding allows you to create real, working applications by describing what you want in natural language and collaborating with AI to generate the code—no traditional programming experience required.

Choose Your Project:

You have flexibility in selecting the type of project that aligns with your interests and professional goals. Options include, but are not limited to:

- **Personal or Professional Portfolio:** A website showcasing your work, skills, and experience
- **Website:** A landing page, blog, informational site, or creative web experience
- **Web Application:** An interactive tool, dashboard, or utility that runs in a browser
- **Mobile Application:** A mobile app prototype or functional application

Vibe Coding Requirement:

Your project must be developed using vibe coding techniques—collaborating with AI tools to generate, refine, and iterate on your code through natural language prompts. You are free to use any vibe coding tools available, including but not limited to:

- Antigravity
- Anthropic Claude / Claude Artifacts
- Cursor
- Replit Agent
- new
- Lovable
- Other AI-assisted coding platforms

Project Components:

- Project proposal (25 points) – Due Week 11
- Progress check-in (25 points) – Due Week 13
- Final deliverable and documentation (200 points) – Due Week 16
- Presentation/showcase (100 points) – Week 16

Note: Detailed project guidelines and rubrics will be provided separately.

Total: 350 points

Final Reflection Portfolio (100 points)

A reflective submission connecting your learning journey, ethical considerations, and future application of AI in your field. The portfolio should demonstrate growth throughout the semester and articulate your personal framework for working with AI as a designer.

Portfolio Components:

- Learning journey narrative (40 points)
- Ethical framework statement (30 points)
- Future application plan (30 points)

Due: Finals Week | Total: 100 points

Tools and Technology

You will explore a variety of AI tools throughout the course. Specific tools may change as technologies evolve, but may include:

- Text generation tools
- Image, audio, and video generation tools
- No-code automation platforms
- AI-assisted prototyping tools

No prior coding experience is required.

Free AI Tools for Students

This course is designed so you do not need to spend money on AI tool subscriptions. Many AI platforms offer free tiers, free trials, or special student programs. Below is a comprehensive guide to accessing AI tools at no cost.

Generative AI Chatbots and Research Assistants

Google Gemini (Google AI Pro) – Free 1-Year Student Subscription

- Full access to Gemini Pro, Deep Research, NotebookLM Plus, and 2TB Google Drive storage
- Includes AI integration in Google Docs, Sheets, Slides, and Gmail
- Verify student status through SheerID using your personal Google account
- Sign up deadline: January 31, 2026 (check gemini.google/students for current eligibility)
- Valued at approximately $240/year

Perplexity Education Pro – Free 1-Month + Referral Program

- 1 free month of Pro for verified students (via SheerID)
- Earn additional months by referring classmates (up to 6 months through referrals)
- Includes Study Mode, expanded citations, unlimited uploads, and multi-model AI access
- Sign up with your .edu email at perplexity.ai
- Discounted rate of $4.99/month for students after free period

ChatGPT – Free Version Available

- Free tier available to all users with GPT-4o mini
- Limited access during peak times; suitable for basic tasks
- Note: OpenAI occasionally offers limited-time student promotions—check chatgpt.com/students periodically

Claude (Anthropic) – Free Tier + Institutional Access

- Free tier available at claude.ai with daily usage limits
- Check if USU offers Claude for Education through institutional partnerships
- Student Builder program offers free API credits for student projects (apply at claude.com/programs/campus)

Google NotebookLM – Free

- 100% free AI research assistant for all users
- Upload PDFs, documents, websites, and YouTube videos
- Creates summaries, audio overviews, study guides, and FAQs

- NotebookLM Plus included with Google AI Pro student subscription

Vibe Coding and AI-Assisted Development Tools

Cursor – Free 1-Year Student Subscription

- Full Cursor Pro access for verified university students
- Includes 500 fast premium requests/month, advanced AI models, and smart indexing
- AI-powered code editor built on VS Code with natural language coding
- Sign up at cursor.com/students with your .edu email
- Valued at $240/year

GitHub Copilot Pro – Free for Students

- 100% free for verified students through GitHub Education
- AI pair programmer providing real-time code suggestions
- Part of the GitHub Student Developer Pack (100+ additional benefits)
- Includes $100 Azure credits, JetBrains IDEs, and more
- Apply at education.github.com/pack

Replit – Free Starter Plan

- Free Starter plan includes $3 in credits and basic AI features
- Browser-based IDE supporting 100+ programming languages
- AI assistant and Agent features available
- Note: Credits refresh monthly; sufficient for learning and small projects

Bolt.new – Free Tier

- Free tier available with token limits that reset monthly
- Browser-based vibe coding platform—no installation required
- Build and deploy websites and web applications from natural language prompts
- Free projects include Bolt branding on deployment

Lovable – Free Tier

- Free plan: 5 credits daily, up to 30 credits/month
- AI-powered no-code app builder with visual editor
- Create websites and web applications from text descriptions
- Note: Free tier projects are publicly visible in Lovable's library

Claude Artifacts – Free with Claude Account

- Create interactive web components, visualizations, and simple applications
- Built into the free Claude.ai interface
- Excellent for prototyping and learning vibe coding concepts

Workflow Automation Tools

n8n – Free (Self-Hosted or Cloud Free Tier)

- Open-source workflow automation—completely free when self-hosted
- Cloud plan has a free tier for limited workflows
- Powerful AI integrations including LangChain nodes

- Free for students for personal and academic learning

Zapier – Free Plan

- Free plan: 5 Zaps (automations) and 100 tasks/month
- Connects 6,000+ apps with no-code automation
- Sufficient for learning automation concepts and small projects

Make (formerly Integromat) – Free Plan

- Free plan: 1,000 operations/month
- Visual workflow builder with advanced conditional logic
- 2,800+ app integrations

Design and Creative Tools

Figma – Free Professional Plan for Students

- Free Professional plan for verified higher education students
- Includes unlimited files, version history, and team collaboration
- Verify status at figma.com/education/apply
- Renewable while enrolled in school

Canva – Free for Higher Education (Check Institution)

- Canva Education is free for K-12 teachers and students
- Higher education: Check if USU participates in Canva for Campus
- Free tier always available with basic features
- AI-powered design tools for presentations, graphics, and videos

Important Notes

- **Verify Deadlines:** Student offers have enrollment deadlines that may change. Check each platform's education page for current availability.
- **Use Personal Email:** Most platforms require verification through SheerID using a personal email account (not your school Google Workspace account).
- **Auto-Renewal:** Free trials often require a payment method and auto-renew at regular rates. Set calendar reminders to cancel before trial ends if you don't want to continue.
- **Stack Free Tiers:** You can use multiple tools' free tiers in combination to accomplish more without paying.
- **Free Versions Are Sufficient:** All course assignments can be completed using free tools. You are never required to purchase subscriptions.

Late Submission Policy

Timely submission of assignments is expected and helps you stay on track with course material. However, life happens, and the following policy is designed to be fair while encouraging accountability.

Standard Late Policy:

- Assignments submitted within 24 hours of the deadline: 10% deduction
- Assignments submitted 24–48 hours after the deadline: 20% deduction
- Assignments submitted 48–72 hours after the deadline: 30% deduction
- Assignments submitted more than 72 hours late will not be accepted without prior approval

Extensions:

If you anticipate difficulty meeting a deadline due to illness, emergency, or other extenuating circumstances, please contact the instructor as soon as possible—preferably before the deadline. Extensions may be granted on a case-by-case basis with appropriate documentation.

Discussion Posts:

Because online discussions depend on timely participation from all students, late discussion posts will receive a maximum of 50% credit. Discussions close one week after the original deadline.

Major Projects:

The Midterm Project and Final Project have firm deadlines. Late submissions for these assignments require prior approval from the instructor. Unapproved late submissions may result in significant grade penalties or a zero.

Class Ethics and Academic Integrity

This course explores AI as a creative and professional tool. With that exploration comes responsibility. The following guidelines establish expectations for ethical behavior in this class.

Use of AI Tools in This Course

AI tools are not only permitted in this course—they are required. You will use AI to generate text, images, code, and other content as part of your assignments. This is fundamentally different from courses where AI use may be restricted. However, the following principles apply:

- **Transparency:** Always document which AI tools you used and how you used them. Process documentation is a graded component of major assignments.
- **Critical Evaluation:** Never submit AI-generated content without reviewing it for accuracy, quality, bias, and appropriateness.
- **Human Judgment:** You are responsible for the final output. AI is a tool; you are the designer making intentional choices.
- **Original Thought:** Reflections, critiques, and design rationales must represent your own thinking and analysis.

Academic Integrity

All students are expected to uphold USU's standards of academic integrity. The following are considered violations:

- Submitting work created entirely by AI without your own creative input, refinement, or critical evaluation
- Copying another student's work, prompts, or project ideas without permission and attribution
- Fabricating process documentation or falsely claiming to have used certain tools or methods
- Submitting the same work for multiple courses without prior approval from all instructors involved
- Misrepresenting AI-generated content as entirely human-created in contexts where that distinction matters

Respect and Professionalism

This course includes online discussions and peer feedback. All interactions should be:

- **Respectful:** Critique ideas, not people. Offer constructive feedback that helps peers improve.
- **Professional:** Communicate as you would in a professional design environment.
- **Supportive:** Help create a learning community where experimentation and questions are encouraged.

Ethical Use of AI-Generated Content

As designers working with AI, you have ethical responsibilities beyond this classroom:

- Do not use AI to create deceptive, harmful, or misleading content
- Be aware of potential biases in AI outputs and work to mitigate them
- Respect copyright and intellectual property—do not use AI to replicate copyrighted works

- Consider the environmental impact of AI tool usage
- Do not generate content that depicts real individuals without consent

Consequences of Violations

Violations of academic integrity or class ethics policies may result in a zero on the assignment, failure of the course, or referral to the USU Office of Student Conduct, depending on the severity of the violation. If you are unsure whether something constitutes a violation, ask the instructor before submitting.