



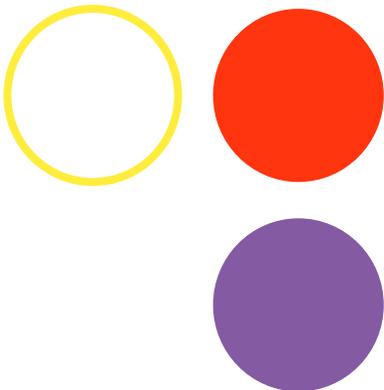
updated September, 2022

DATASOCIETY:

Leading User Experience for Everyone (LUXE)

2022-23

User Experience Courses



1. What Can Design Do For You? User Experience (UX) Principles for Software Development in the Air Force

2 hours of live instruction: in-person or virtual

This course will familiarize you with how to approach software development projects from the perspective of UX (user experience). You will learn the general tenets of human-centered design and understand how repeatedly gathering and interpreting user feedback affects the lifecycle of a project. You will also gain an appreciation for the wide variety of disciplines UX draws upon, explore the problems that practicing UX methods can help alleviate, and practice assessing the UX maturity of design and software engineering projects and organizations.

OBJECTIVES	PREREQUISITES
<ol style="list-style-type: none">1. Define core principles of UX and human-centered design2. Cultivate awareness of key UX methods and their place within the overall structure of a software development project3. Understand key differences between between United States Air Force design constraints and UX practices in industry4. Assess the UX maturity of software projects, teams, and processes5. Practice scoping a problem from a UX design perspective	No background in user experience design is required. Familiarity with software development project management is preferred.

SYLLABUS & TOPICS COVERED
<ol style="list-style-type: none">1. Defining user experience<ol style="list-style-type: none">a. A history of UX in the Air Forceb. What is a user? What is an experience?c. UX as multidisciplinary and research-backedd. UX and the software development cycle2. The user experience design process<ol style="list-style-type: none">a. Outlining the general principles of UX designb. Phases of a user-centered projectc. Accounting for non-linearity and iteration3. UX methods and strategies<ol style="list-style-type: none">a. Overview of four major UX methodsb. Tailoring methods for the military and defense industryc. Practice seeing like a designer4. Assessing UX maturity<ol style="list-style-type: none">a. Understanding the US Web Design System maturity modelb. Understanding the USAF UX Team maturity modelc. Assessing UX maturity and identifying blockers / enabler

REQUIREMENTS
<ul style="list-style-type: none">• Course conducted live: in-person, or virtual (Zoom or MS Teams) with student participation expected• Minimum class size 5, maximum class size 50

2. Leading by Design: User Experience (UX) for the United States Air Force

35 minutes of instruction: on-demand video based instruction

User experience design, commonly abbreviated UX, is most closely associated with private-sector software development processes. But in this 30-minute video-based course, you will learn how the Air Force stands to benefit from integrating UX principles and methods across its entire project lifecycle. This course will demystify the jargon of the UX design process and explain how it aligns with the structure of defense acquisition and engineering projects. You will also learn how incorporating UX design reflects the principles of leadership exemplified by Air Force officers.

OBJECTIVES	PREREQUISITES
<ol style="list-style-type: none">1. Define user experience design as a multidisciplinary problem-solving approach2. Identify how UX design best practices can be incorporated into waterfall and adaptive project workflows3. Illustrate the benefits of user-centered research and development in terms of actual USAF projects and processes (i.e., JCIDS)4. Describe the UX design process and contextualize designers' skills	This course is intended for senior officers and civilians in the US Air Force, ranks O5 to O10, GS-14 to SES. No background in user experience design is required.

SYLLABUS & TOPICS COVERED
<ol style="list-style-type: none">1. Problem-solving by design<ol style="list-style-type: none">a. What is user experience design?b. What disciplines does it draw upon?c. What are its major characteristics?2. From project and programs to products<ol style="list-style-type: none">a. Projects as designed experiencesb. Comparing waterfall vs. Agile project managementc. Risk mitigation from a UX perspective3. Recentring the user in generating requirements<ol style="list-style-type: none">a. The hidden risks of requirements by proxyb. UX design as necessary for Agile methodologyc. Continuous and iterative requirements verification4. Why your team needs a designer<ol style="list-style-type: none">a. The UX design process explainedb. Recognizing UX designers' skillsc. Repairing a broken OODA loopd. Maturing toward UX readiness

REQUIREMENTS
<ul style="list-style-type: none">• Access to a stable internet connection and audio/video playback

3. Design for Impact: Powering Up Your Next Software Project with User Experience (UX) Design

10 hours total: 5 hours of on-demand video based instruction, 5 live sessions

As consumers of digital products, software engineers and developers are often highly aware of the effect changing a product's design has on the overall experience. But changing the shape of a button or the fields in a drop-down menu is just the tip of the impact iceberg. In this blended learning course, you will discover how UX design best practices can affect every part of the development lifecycle. You will practice interpreting and creating design artifacts, like user stories and wireframes, and translate them into clear, user-focused engineering tasks. Finally, you will explore methods for engaging with users – and with designers – and implementing their feedback for maximum impact.

OBJECTIVES	PREREQUISITES
<ol style="list-style-type: none"> 1. Identify appropriate and actionable UX methods for different phases of the software development lifecycle 2. Practice creating UX design artifacts to center development on users and reduce costly rework and overengineering 3. Develop a common vocabulary to translate design inputs into actionable tasks and communicate engineering needs to designers 4. Recognize when, how, and why to gather user-centered feedback through research-based validation and testing methods 5. Understand when to adapt industry UX best practices to DoD cases 	<p>This course is intended for software developers and leaders of software development teams.</p> <p>Some background in user experience design is recommended.</p>
SYLLABUS & TOPICS COVERED	
<ol style="list-style-type: none"> 1. UX design in software development lifecycles <ol style="list-style-type: none"> a. Waterfall vs. Agile explained b. What do designers do? c. The crucial role of user access 2. User research and requirements generation <ol style="list-style-type: none"> a. From shall statements to user stories b. Varieties of initial user research c. Designing user flows d. Designing acceptance criteria e. Iterating on requirements 3. Optimizing the development pipeline <ol style="list-style-type: none"> a. Design and continuous integration / development (CI/CD) b. DevOps vs. DevSecOps c. Incremental development and feature prioritization d. Iterative CI/CD e. Resourcing for sustainment 	<ol style="list-style-type: none"> 4. Usability testing and test-driven development (TDD) <ol style="list-style-type: none"> a. Acceptance tests vs. usability tests b. Designing unit tests c. Usability tests formats d. Conducting usability tests e. Measuring and quantifying user feedback 5. Visual and interactive design <ol style="list-style-type: none"> a. Cognitive principles b. Designing visuals and interactions c. Wireframing and iteration d. Style sheets and design systems
REQUIREMENTS	
<ul style="list-style-type: none"> • Access to a stable internet connection and audio/video playback • For live sessions: in-person, or virtual (Zoom or MS Teams) with student participation expected • Minimum class size 5, maximum class size 50 	

4. Impact by Design: Generating Actionable Solutions with User Experience (UX)

4 hours total: 2 hours of on-demand video based instruction, 1 live 2 hour session

Solving problems in USAF requires balancing many competing priorities, including the needs of your Airmen, managing the resources available to you, and overcoming red tape to get the job done. In this 4-hour blended learning course, you will explore a new set of tools to add to your problem-solving arsenal based on user experience (UX) principles. After learning about the UX process, you will recognize opportunities to integrate user feedback into how you solve problems. You will also make connections between UX principles and USAF leadership and planning practices. The course ends with a facilitated live session in which you will practice the UX design process to prototype solutions related to a real-world problem.

OBJECTIVES	PREREQUISITES
<ol style="list-style-type: none">1. Recognize the user experience design of processes, tools, and projects related to your role2. Summarize the major steps of the UX design process as they relate to the user3. Select an appropriate UX design method to mature your solution4. Compare UX methods and principles with typical features of good leadership within USAF5. Implement the UX design process on a notional, practical problem to generate actionable solutions	<p>This course is intended for USAF personnel such as GS11-13, E6-9, or O2-4.</p> <p>No background in user experience design is required.</p>

SYLLABUS & TOPICS COVERED
<ol style="list-style-type: none">1. Overview of user experience and UX design principles<ol style="list-style-type: none">a. Recognizing your team's pain pointsb. Connecting management and designc. Structuring the design process2. The UX design Framework<ol style="list-style-type: none">a. Understand and relate in contextb. Get orientedc. Do somethingd. Observe to learn and iterate to improve3. Incorporating UX design into strategy<ol style="list-style-type: none">a. Comparing UX principles and leadership valuesb. Generating a UX action plan

SOFTWARE REQUIREMENTS
<ul style="list-style-type: none">• Access to a stable internet connection and audio/video playback• For live sessions: in-person, or virtual (Zoom or MS Teams) with student participation expected• Minimum class size 5, maximum class size 50

5. Getting User Experience (UX): Empowering the workforce with User Experience principles

2 hours of instruction: on-demand video based instruction

Delivering products and other services to the USAF workforce, within the Acquisition Process, requires working through numerous processes and navigating many different systems. Many problems need solutions, and many different stakeholders and end users exist. In this two hour course, you will explore how User Experience tactics can be applied to better understand the problem and the people impacted by the proposed solutions. The course also considers how User Experience tactics can impact the processes and systems you use daily, in order to optimize the effectiveness of each of those levers and mitigate the associated risks of implementation.

OBJECTIVES	PREREQUISITES
<ol style="list-style-type: none">1. Consider how to apply UX tactics to develop a better understanding of the problem in context of the acquisition process.2. Identify the value of distinguishing the needs of the end user and the needs of other stakeholders.3. Describe the impact of applying UX to internal processes and product improvement to deliver relevant capability to the Warfighter.	This course is intended for Acquisition Professionals.

SYLLABUS & TOPICS COVERED

1. Introduction to UX;
 - a. What is UX and what is not UX
 - b. UX in non technical terms
2. Applying UX to the Acquisition Process
 - a. Understanding the *right* problem
 - b. Delivering relevant capacity to the Warfighter through UX
3. UX and risk mitigation
 - a. Risk grows naturally
 - b. Applying UX to combat risk
4. UX in daily life
 - a. Types of work
 - b. Applying UX to your day to day work
5. Implementing UX principles
 - a. Assessing the state of UX
6. Conclusion
 - a. UX is a modern tool of management and leadership
 - b. Reduce cost, lower risk, and increase capability to the Warfighter by using UX

SOFTWARE REQUIREMENTS

- Access to a stable internet connection and audio/video playback

Start Your Team's User-Experience Journey

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