Week 1 Overview

Help Center

The Computer and the Human

On this page:

Instructional Activities

Below is a list of the activities and assignments available to you this week. Click on the name of each activity for more detailed instructions.

Relevant Badges	Activity	Due Date*	Estimated Time Required
	Week 1 Video Lectures	Sunday, July 26	2 hours
	Week 1 Discussion	Sunday, July 26	1 hour
	Week 1 Quiz	Sunday, July 26	.5 hour
	Week 1 Project Milestone	Sunday, July 26	1–2 hours

* All deadlines are at 11:55 PM Central Time (time zone conversion) unless otherwise noted.

Time

This module will last **7 days** and should take **approximately 4–6 hours** of dedicated time to complete, with its readings and assignments.

Goals and Objectives

After you actively engage in the learning experiences in this module, you should be able to:

- Understand what data visualization is and the different kinds of data visualization.
- Understand how computer graphics are used to display shapes in 2-D and 3-D, and draw simple

2-D shapes on a web page using Scalable Vector Graphics
- Understand how we perceive, learn, and reason about information.

Key Phrases/Concepts

Keep your eyes open for the following key terms or phrases as you complete the readings and interact with the lectures. These topics will help you better understand the content in this module.

- Interactive Visualization, Presentation Visualization, and Interactive Storytelling
- Scalable Vector Graphics and the difference between how graphics' shapes are described versus how they are displayed.
- Photorealistic Rendering and Non-photorealistic Rendering
- The Model Human Processor and Fitts's Law
- Lateral Inhibition

Guiding Questions

Develop your answers to the following guiding questions while completing the readings and working on assignments throughout the week.

- What is data visualization and how is it used?
- How does the computer display information?
- How does the user perceive information?

Readings and Resources

- SVG Tutorial

Video Lectures

Video Lectures (and Follow-up Links)	Lecture Notes	Transcript	Video Download	SRT Caption File	Forum
1.1.1. Introduction (00:11:58)					
1.1.2. Some Books on Data Visualization (00:03:21)					
1.1.3. Overview of Visualization (00:11:02) **Further Reading:** Example of interactive visualization • Google Public Data Explorer Example of presentation visualization • Hans Rosling TED Talk					

Example of interactive storytelling • What's Really Warming the World?					
1.2.1. 2-D Graphics (00:10:09) **See also:** • SVG-example video					
1.2.2. 2-D Drawing (00:09:11) **Further Reading:** • SVG Tutorial					
1.2.3. 3-D Graphics (00:08:39)					
1.2.4. Photorealism (00:10:05)					
1.2.5. Non-Photorealism (00:06:09)					
1.3.1. The Human (00:11:08)					
1.3.2. Memory (00:12:16)					
1.3.3. Reasoning (00:07:24)					
1.3.4. The Human Retina (00:10:22)					
1.3.5. Perceiving Two Dimensions (00:08:23)					
1.3.6. Perceiving Perspective (00:08:36)					

* If you choose to download the videos, you may also want to download the "The Human" In-Lecture Questions

Tips for Success

To do well this week, I recommend that you do the following:

- Review the video lectures a number of times to gain a solid understanding of the key questions and concepts introduced this week.

- When possible, provide tips and suggestions to your peers in this class. As a learning community, we can help each other learn and grow. One way of doing this is by helping to address the questions that your peers pose. By engaging with each other, we'll all learn better.
- It's always a good idea to refer to the video lectures and chapter readings we've read during this week and reference them in your responses. When appropriate, critique the information presented.
- Take notes while you read the materials and watch the lectures for this week. By taking notes, you are interacting with the material and will find that it is easier to remember and to understand. With your notes, you'll also find that it's easier to complete your assignments. So, go ahead, do yourself a favor; take some notes!

Getting and Giving Help

You can get/give help via the following means:

- Use the Learner Help Center to find information regarding specific technical problems. For example, technical problems would include error messages, difficulty submitting assignments, or problems with video playback. You can access the Help Center by clicking on the **Help** link at the top right of any course page. If you can not find an answer in the documentation, you can also report your problem to the Coursera staff by clicking on the **Contact Us!** link available on each topic's page within the Learner Help Center.
- Use the Content Issues forum to report errors in lecture video content, assignment questions and answers, assignment grading, text and links on course pages, or the content of other course materials. University of Illinois staff and Community TAs will monitor this forum and respond to issues.

As a reminder, the instructor is not able to answer emails sent directly to his account. Rather, all questions should be reported as described above.

Created Tue 11 Dec 2012 10:59 AM PST

Last Modified Thu 23 Jul 2015 8:49 AM PDT