



COURSE OUTLINE

Course introduction and practical information

- Welcome to HTML5 Apps and Games!
- Course outline, grading and due dates
- Course forums
- Course tools

About W3C and the Web

- About W3C and the Web
- Why accessibility is important
- Why internationalization is important

Week 1: Advanced HTML5 multimedia

- 1.1 Video introduction - Week 1
- 1.2 The Timed Text Track API
- 1.3 Advanced features for audio and video players
- 1.4 Creating tracks on the fly, syncing HTML content with a video
- 1.5 The Web Audio API
- 1.6 Exercises – Week 1

Week 2: Game programming with HTML5

- 2.1 Video introduction - Week 2
- 2.2 Basic concepts of HTML5 game development
- 2.3 A simple game framework: graphics, animation and interactions

- 2.4 Time-based animation
- 2.5 Animating multiple objects, collision detection
- 2.6 Sprite-based animation
- 2.7 Game states
- 2.8 Exercises – Week 2

Week 3: HTML5 file upload and download

- 3.1 Video introduction - Week 3
- 3.2 File API and Ajax / XHR2 requests
- 3.3 Drag and drop: the basics
- 3.4 Drag and drop: working with files
- 3.5 Forms and files
- 3.6 IndexedDB
- 3.7 Conclusion on client-side persistence
- 3.8 Exercises – Week 3

Week 4: Web components and other HTML5 APIs

- 4.1 Video introduction - Week 4
- 4.2 Web Components
- 4.3 Web Workers
- 4.4 The Orientation and Device Motion APIs
- 4.5 Where to from here?
- 4.6 Final exam
- 4.7 Course evaluation



LENGTH: 4 weeks



LEVEL: Advanced



EFFORT: 6-8 hours per week



INSTITUTION: W3Cx