

Visual Accessibility with MIT App Inventor

eSpark Syllabus

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2020-2021

Learning Objectives -- By the end of this course...

1. Know what low vision disabilities are

- a. Know that there are several types of low vision (glaucoma, astigmatism, cataracts)
- b. Know that low vision can impact many types of people and for different reasons (preexisting, developed with age)
- c. Know the different ways people with low vision navigate mobile devices (screen readers, screen magnifiers, high contrast)
- d. Realize that different low vision users have different needs

2. Be able to judge apps as accessible or not

- a. Recognize how mobile apps are and are not accessible to users with low-vision
- b. Recognize how mobile apps must be compatible with existing visual accommodation software
- c. Be able to recognize when an app is too low contrast
- d. Understand the importance of alt-text fields

3. Be able to use the accessibility extensions in MIT App Inventor to make accessible apps

- a. Utilize the App Inventor accessibility changes to make their own apps
- b. Realize in what areas the expansions improve visual accessibility
- c. Understand the helpfulness of easy toggling for accessibility

4. Know the importance of accessible design

- a. Understand that making mobile apps more accessible expands the audience and is morally right
- b. Understand that accessible design in general is an essential part of the design process

Schedule

Title	Description	Time
Before-class survey (Optional)	Students take a short survey assessing their previous knowledge on accessible design	15 minutes
Low vision simulation	Students try out a low vision simulator on their browser and discuss what they have learned	10 minutes
Persona Discussion	Students will split into groups and receive a “persona” of a person with low vision they will be designing for.	20 minutes
App Testing	Students will test out several apps and discuss whether these apps would be accessible by their assigned personas	30 minutes
Accessible App Design	Students will use the App Inventor add ons to make accessible apps of their own	50 minutes
After-class survey (Optional)	Students will take a short survey to give feedback on the quality of the course	15 minutes