



BROADCASTING SCIENCE

Tuesdays, January 25-April 26 (no class Feb 22, Apr 5; 12 weeks)

9:30am-11:00am

Ages 11+

Students learn about the physics, technology, and design behind podcasts, recordings, and radio broadcasts as they create content based on the science behind electromagnetic spectrum, waves, and sound dampening and amplification. Laptop or tablet is required for some classes. All lab costs are included in registration fee.

Instructor: Candra Umunna, BSc

Location: STEM Lab (suite 21)

Course fee: \$275 OR \$25/lab

10% sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

Electromagnetic Spectrum - Tuesday, January 25

We review the well-known spectrum of waves and look at the tendencies of waves in motion.

Sound Waves - Tuesday, February 1

Students breakdown the various parts of a sound wave to learn how physical changes of a wave shape affect how we perceive sound.

Speakers - Tuesday, February 8

This week, we use tools to deconstruct speakers to learn how different electrical components produce audio output.

Microphones and Amps - Tuesday, February 15

Kids investigate sound amplification, and why microphones produce feedback as they work on creating objects that can amplify sounds.

Sound Proofing - Tuesday, March 1

Students learn about sound dampening and mediums that affect the speed of sound as they attempt to build sound-proofing devices.



Streaming - Tuesday, March 8

Students examine how popular services are able to stream music, podcasts, and videos across the world by studying offline computer science basics.

Logo Design - Tuesday, March 15

Students begin building their portfolio as they plan their audio content and work through design software to create a logo for their streaming content. Laptop or tablet is required for this class.

Website and App Development - Tuesday, March 22

This week, we learn about web hosting on popular streaming platforms by learning coding techniques related to website and app creation. Laptop or tablet is required for this class.

Recording Audio - Tuesday, March 29

Today, we discuss the methods of setting up an effective studio space as we work on creating content. Laptop or tablet is required for this class.

Audio Content - Tuesday, April 12

Students learn about creating quality audio content as we continue to recording and exporting files. Laptop or tablet is required for this class.

Audio Editing - Tuesday, April 19

Students learn about post-process procedures involving noise reduction, trimming, and effects to enhance audio content. Laptop or tablet is required for this class.

Audio File Sharing - Tuesday, April 26

Students learn about different audio file extensions and experiment different ways to transport and share audio files. Laptop or tablet is required for this class.

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