

Rationale

App Creators introduces students to the field of computer science and the concepts of computational thinking, through the creation of mobile apps. Students are challenged to be creative and innovative, as they collaboratively design and develop mobile solutions to engaging, authentic problems. Students experience the positive impact of the application of computer science to society as well as other disciplines, particularly biomedical science.

Course Description

Students learn and apply computational thinking and technical knowledge and skills to create mobile apps. Students also acquire and apply skills pertaining to the design process, problem solving, persistence, collaboration, and communication.

Course Objectives

1. Students will be introduced to pair programming, app development, and the MIT App Inventor development tool.
2. Students will learn about the Model-View-Controller design pattern, app graphical design, event-driven programming, debugging, and algorithm creation using variables and conditional logic.
3. Students will create apps and interactive games using interface features, media, and animation.
4. Students will create algorithms using loops and create procedures to abstract the details of a task and reduce redundancy.
5. Students will design and create a mobile app solution for a personal or community problem.

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