EDU 2107
Bennington College
Spring 2026

Robotics and STEM Education: A Workshop

(1 credit)

Class Time: Fridays 10:30am – 12:20pm (1st 7 weeks)

Me

Hugh Crowl Office: Dickinson 104
Email: hcrowl@bennington.edu Phone: x4481

Office Hours: Wednesday 9:30am-11am, Thursday 1pm-2:30pm ***or by appointment***

Text: *Assigned as needed*

Course Homepage: Course material will be posted at http://crowl.bennington.edu/robotics/ Make sure to regularly check our course page there to ensure you get all of the relevant information.

Course Overview: In this course, students will gain experience with using simple programmable robots and how they can be utilized in STEM education. The focus of this class will be on learning and designing lessons for K-12 students utilizing these robots. This class is accessible for students at all levels of computer programming experience (including none).

Course Goals: After this course is completed, I hope you will have developed an understanding of how a K-12 educator might use small robots to teach STEM (and non-STEM) concepts to their students.

Project: As a capstone project for this class, you will be expected to develop lesson plans for a chosen age group that clearly connect to science standards.

Class Participation: This is a small, seminar- and lab-based class. I expect everyone in class to ask questions, participate in discussions, help to work on problems, and generally contribute to a positive classroom environment. I recognize that some students are more comfortable doing this than others, but my expectations are that you will contribute to the best of your ability and that all will actively engage with class activities.

Please note that ***class attendance is mandatory***. As a once-a-week class with only seven (!) meetings, it is critically important that you attend all classes. Missing even one class can seriously affect your class participation grade. Missing 2 or more classes during the semester may lead to you failing the class. Please see me in extraordinary circumstances.

Evaluation/Grading:
40% Class Participation 20% Take-home Work 40% Final Project

Tentative Schedule (likely to change)

	Topic
February 20	Robot and Coding Fundamentals
February 27	Moving, Turning, and Shapes
March 6	Lights and Sound
March 13	Incorporating Other Curricular Elements
March 20	Sensing the Environment
March 27	Final Projects and Peer Review
April 3	Assembling a Curriculum