

Why get a STEAM certificate?

The STEAM pathway certificate at Windham High School is designed to elevate hands-on engagement in content areas of Science, Technology, Engineering, Arts, and Math. Students will need to be innovative in applying their knowledge in order problem-solve, collaborate with peers, and turn their ideas into action.

In a world of unlimited information, the value of an education is not just knowledge acquisition, but learning how to use that knowledge to solve problems.





## STEAM FOR ALL

- All students have the opportunity for applied classroom learning
- Gain entrepreneurial skills
- Some courses will require independent learning/motivation to succeed
- Work with industry partners for career exploration.

### **OBJECTIVES**

The student will be able to:

- Complete a sequential program that emphasizes STEAM subject matter, technical skills and their application to real world problems/challenges.
- Extend knowledge through internships, mentorships and job-shadowing in their chosen field.
- Create a product of their own work.

## OUR EDUCATIONAL PHILOSOPHY

"STEAM is about having our students become creators/producers of knowledge rather than just consumers of knowledge."

# COURSE CERTIFICATE PATHWAY

#### 9TH GRADE

Science --> Integrated Science

Technology --> Computer Science (Python or AP

Principles)1

Engineering --> None

Art --> None

Math --> Algebra 1 or Geometry

#### **10TH GRADE**

Science --> Biology

Technology --> None

Engineering --> Engineering A (0.5 credit)

Art --> Art or Music elective (0.5 credit)

Math --> Geometry or Algebra II

#### 11TH GRADE

Science --> Chemistry or Physics

Technology --> None

Engineering --> STEAM Project Based Learning (0.5 credit)2

Art --> Art or Music (0.5 credit)

Math --> Algebra II or Pre-Calculus

#### 12TH GRADE

Science --> Chemistry or Physics or Early College class

Technology --> Capstone Class

Engineering --> None

Art --> Art or Music (0.5 credit)

Math --> Pre-Calculus or Calculus and Statistics (0.5 credit)

\*Technology, Engineering and Art classes do not have to be taken in sequence.

\*3.5 of Social Studies & 2 of Foreign Language are also required

\*One of the Science or Math classes has to be an AP or Early College class

\*Minimum GPA 3.2

1 - CTE Computer Technology can be substituted for CS Principles 2 - CTE Biotechnology can be substituted for STEAM PBL class