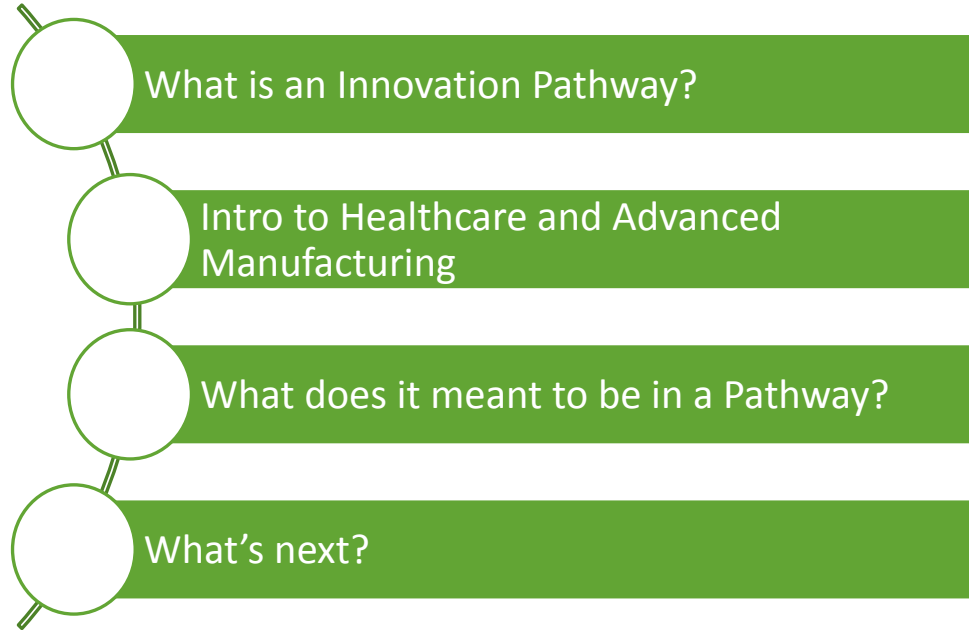


Innovation Pathways Opportunity

December 7, 2021

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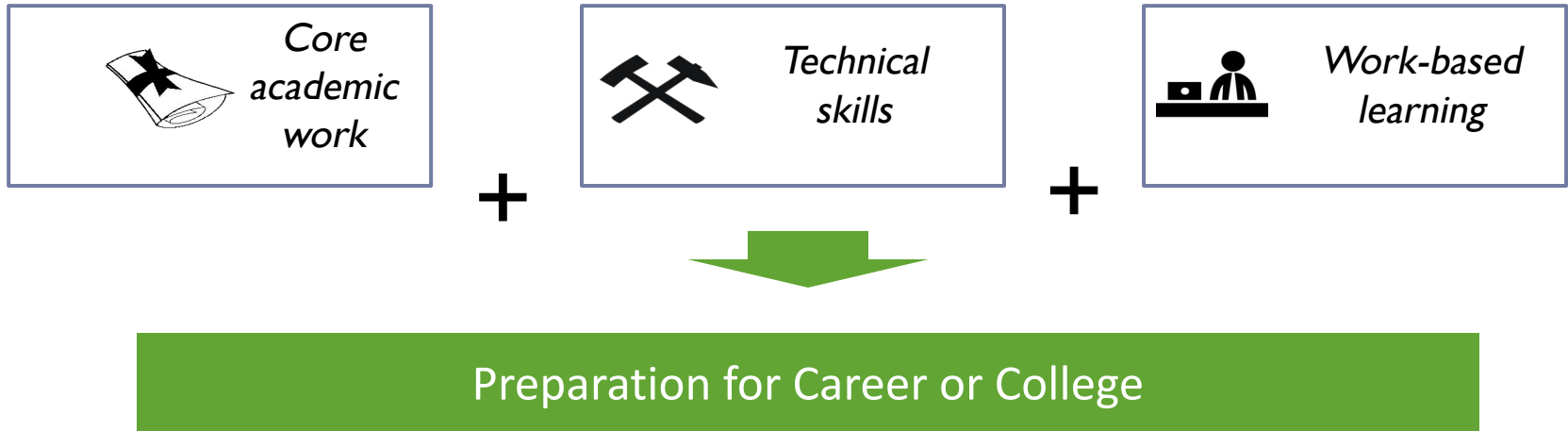
Today's Agenda

- 
- What is an Innovation Pathway?
 - Intro to Healthcare and Advanced Manufacturing
 - What does it mean to be in a Pathway?
 - What's next?

What are Innovation Pathways?

The Innovation Pathways program seeks to create a clearer connection between your educational experience and future career to better inform college and employment decisions.

What are Innovation Pathways?



Bartlett currently has two Innovation Pathways designations

Advanced Manufacturing



Health Care and Social Assistance



What is Advanced Manufacturing?

- \$103,826: Average compensation for manufacturing employees.
- 243,000: Average number of manufacturing jobs in Massachusetts.

Advanced Manufacturing

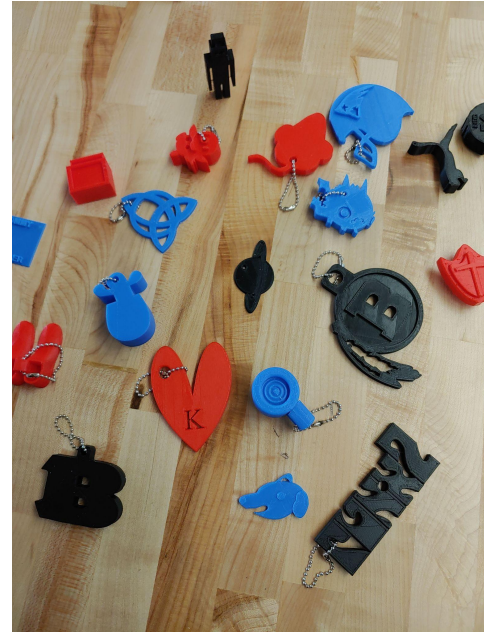
PLTW Introduction to Engineering Design

- First course of Advanced Manufacturing Pathway
- Learn the foundational skills of an engineer
- Work collaboratively
- Use the same 3D modeling and design tools engineering professionals
- Reverse engineer a product to understand the design decisions made by the creator

[Battery Powered Automata Test](#)

[LTHS IED Period 6 Onshape Automata Design Challenge \(2020-2021\)](#)

Current Students: Jess, Lily and Reese

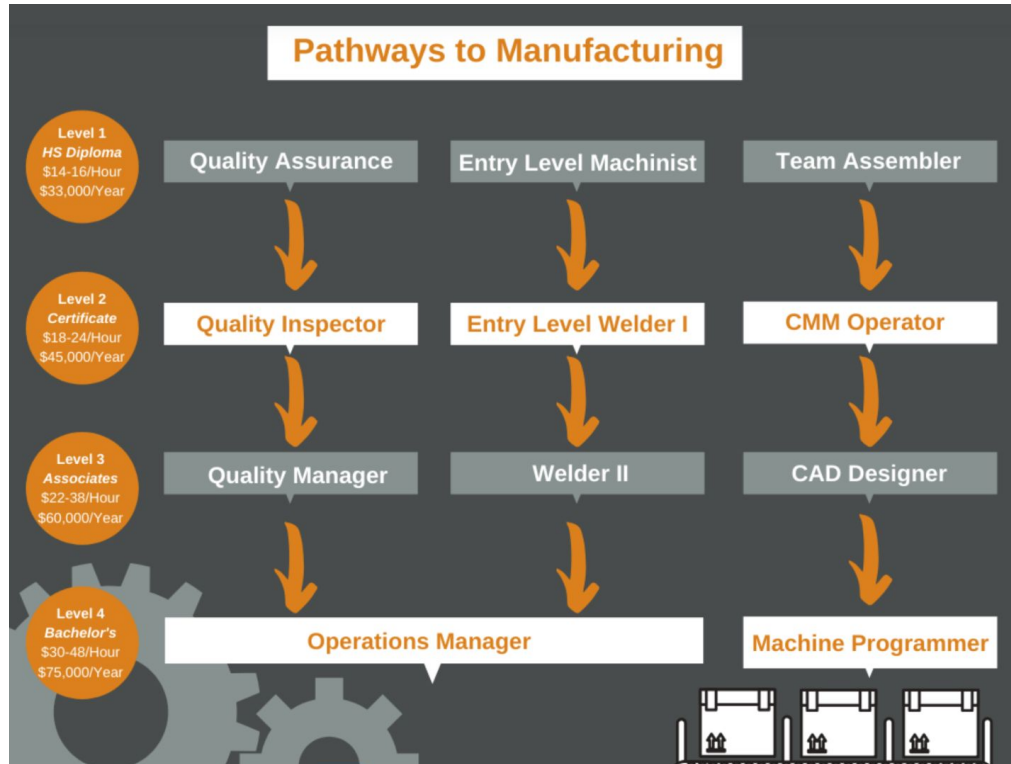


Coding a rover

Current Students: Brian and Graicen



What are manufacturing careers?



Industry Partners:

- [IPG Photonics](#) Located in Oxford, MA
[IPG Photonics Company Video](#)
- [Gentex Optics](#) Located in Dudley, MA
- [MassMEP](#)
- More to come!



What is Healthcare and Social Assistance?

- Projected 10% growth in Massachusetts Central region and 5.5% statewide
- \$65,000: Average compensation for health care and social assistance employees
- 606,000: Average number of health care and social assistance jobs in Massachusetts.





Healthcare

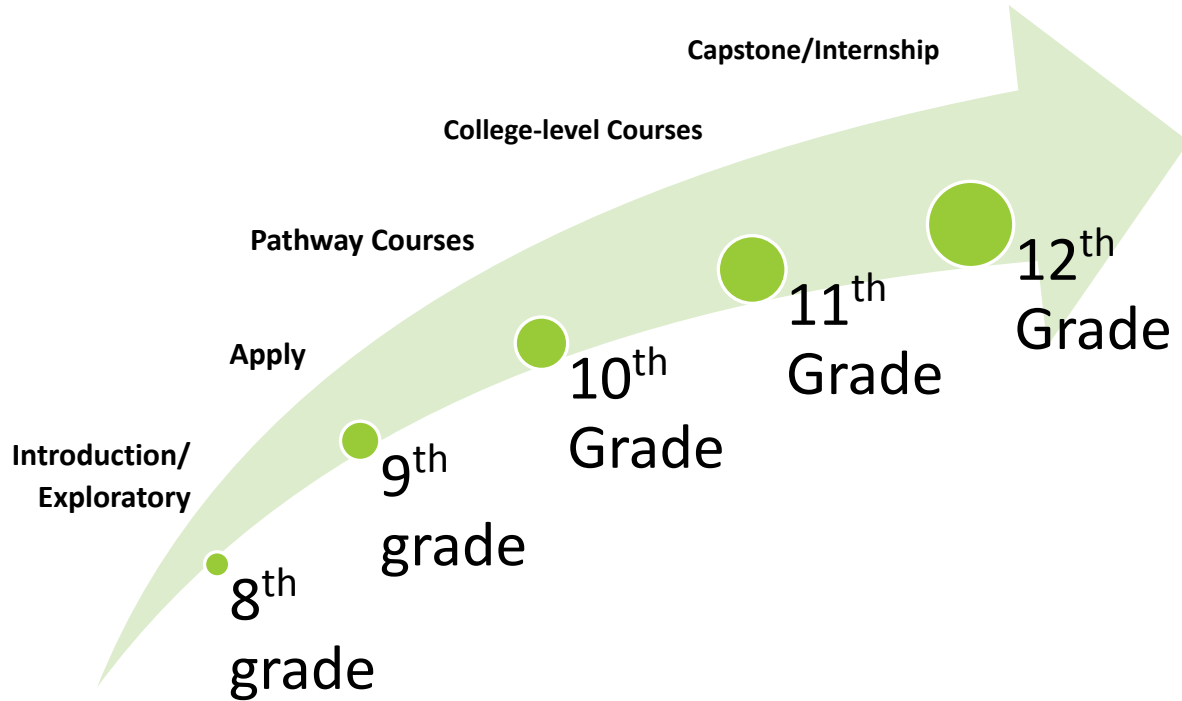
What are healthcare careers? Patient care

	HIGH SCHOOL DIPLOMA/ EQUIVALENCY	VOCATIONAL CERTIFICATE (1-2 YEARS)	ASSOCIATE'S DEGREE (2-3 YEARS)	BACHELOR'S DEGREE (4 YEARS)	POSTGRADUATE DEGREE (1-4 YEARS)
PATIENT CARE: THERAPEUTIC	Personal Care Aides Home Health Aides	Phlebotomists Massage Therapists Emergency Medical Technicians and Paramedics	Physical Therapist Assistants Respiratory Therapists	Substance Abuse and Behavioral Disorder Counselors Clinical, Counseling, and School Psychologists Dietitians and Nutritionists	
PATIENT CARE: NURSING		Nursing Assistants Medical Assistants	Licensed Practical and Licensed Vocational Nurses	Registered Nurses	Nurse Practitioners Nurse Anesthetist

What are healthcare careers? Admin and Informatics

	HIGH SCHOOL DIPLOMA/ EQUIVALENCY	VOCATIONAL CERTIFICATE (1-2 YEARS)	ASSOCIATE'S DEGREE (2-3 YEARS)	BACHELOR'S DEGREE (4 YEARS)	POSTGRADUATE DEGREE (1-4 YEARS)
MEDICAL ADMINISTRATION AND OPERATIONS	<ul style="list-style-type: none"> Receptionists Medical Secretaries Secretaries and Administrative Assistants Customer Service Representatives 			<ul style="list-style-type: none"> Business Operations Specialists Human Resources Specialists 	<ul style="list-style-type: none"> Medical and Health Services Managers
IMAGING AND HEALTH INFORMATICS	<ul style="list-style-type: none"> Medical Equipment Preparers 	<ul style="list-style-type: none"> Medical Records and Health Information Technicians Health Technologists and Technicians Pharmacy Technicians 	<ul style="list-style-type: none"> Radiologic Technologists Surgical Technicians Diagnostic Medical Sonographers Cardiovascular Technicians 	<ul style="list-style-type: none"> Medical and Clinical Lab Technician 	<ul style="list-style-type: none"> Pharmacists

Pathway Would Begin in Middle School and Extend Through 12th Grade



Program requirements and pathway courses

- 2 technical courses
- 100-hour Internship or Capstone
- 2 Courses that qualify as College level e.g., AP or Dual Enrollment

**The pathway can begin in 9th or 10th grade*

	ADVANCED MANUFACTURING	HEALTH CARE AND SOCIAL ASSISTANCE
9 th Grade*	Intro to Engineering	Biology (core) Health with First Aid/CPR
10 th Grade	Principles of Engineering	Chemistry and/or Principles of Biomedical Science
11 th Grade	Computer Integrated Manufacturing	Human Body Systems QCC Freshman Experience in Healthcare
12 th Grade	Internship or Capstone	Internship or Capstone (Medical Interventions) AP Science course – Biology, Chemistry, Physics or Psychology
Proposed Certifications	OSHA-10, MACWIC Engineering Levels I & II, NIMS, FUSION 360 CAD Certification	OSHA Healthcare, CPR, Home Health Aide, Laboratory Safe Procedures

Who Should Apply?

Students who are:

- Interested in one of the industry areas
- Motivated to get industry experience
- Eager for a chance to learn technical skills in a hands-on setting
- Committed to completing all of the requirements