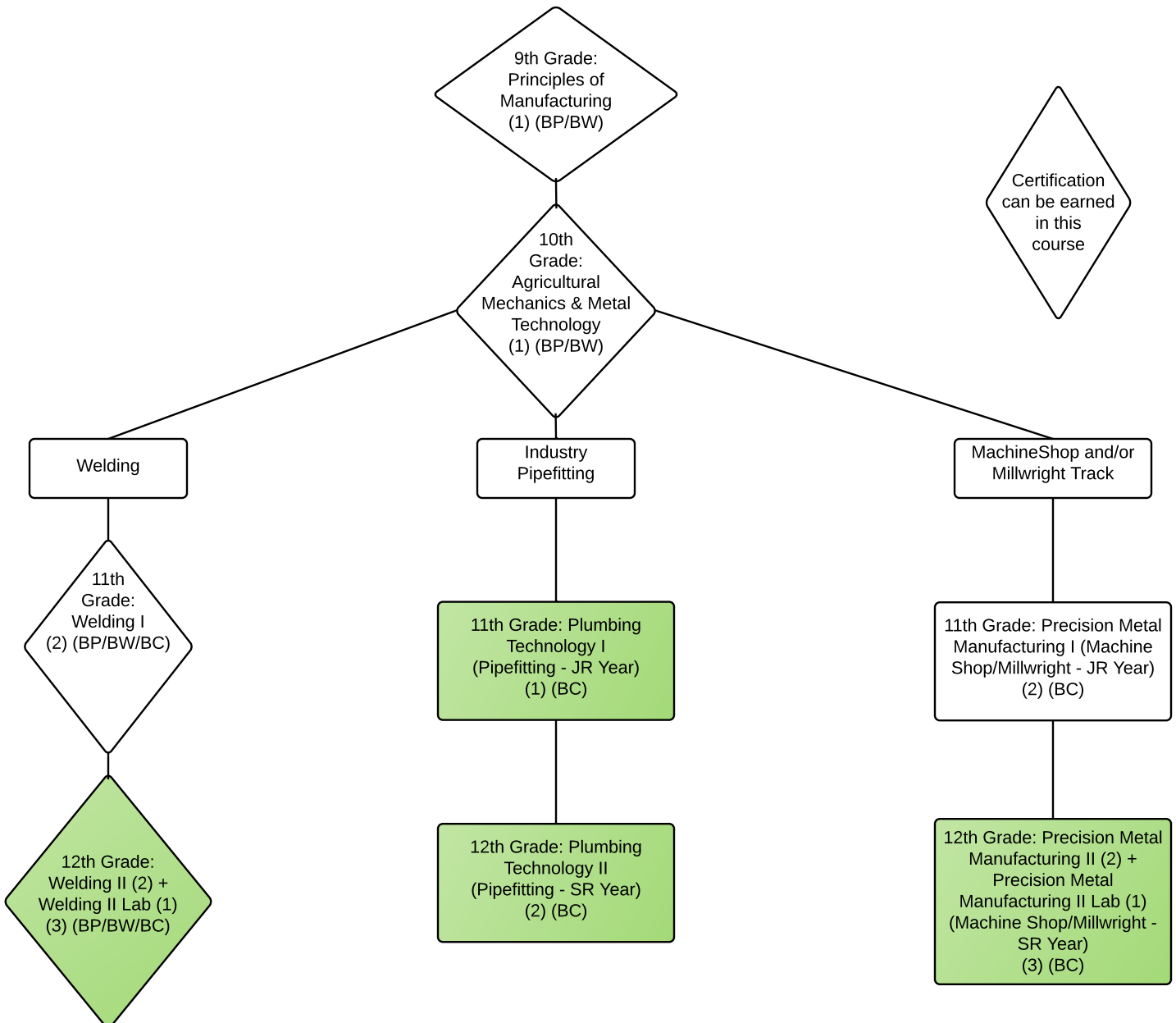


Manufacturing

This industry sector focuses on careers in planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering, graphic communications, and graphic design. Products include every aspect of the economy including: computers, communications equipment, electronic components, high-tech instruments, apparel, metal products, chemicals, plastics, aircraft, ships, missiles and space products, and search and navigation equipment to name a few. Both large and small manufacturers are important participants in the electronics, multimedia, and other emergent regional industrial clusters. Many positions require certification and some require licensing. As in all industry sectors, students' instructional program should integrate technical preparation and academics with career awareness, career exploration, and skill preparation.



Business & Industry Endorsement

Manufacturing Career Cluster

MachineShop and/or Millwright Pathway

9th Grade: Principles of Manufacturing
1 Credit *NCCER Core Certification

10th Grade: Agricultural Mechanics & Metal Technology
1 Credit *OSHA Certification

11th Grade: Precision Metal Manufacturing I
(MachineShop/Millwright - JR Year)
2 Credits

12th Grade: Precision Metal Manufacturing II
(MachineShop/Millwright - SR Year)
3 Credits

Business & Industry Endorsement

Manufacturing Career Cluster

Industry Pipefitting Pathway

9th Grade: Principles of Manufacturing
1 Credit *NCCER Core Certification

10th Grade: Agricultural Mechanics & Metal Technology
1 Credit *OSHA Certification

11th Grade: Plumbing Technology I (Pipefitting - JR Year)
1 Credits

12th Grade: Plumbing Technology II (Pipefitting - SR year)
2 Credits

Business & Industry Endorsement

Manufacturing Career Cluster

Welding Pathway

9th Grade: Principles of Manufacturing
1 Credit *NCCER Core Certification

10th Grade: Agricultural Mechanics & Metal Technology
1 Credit *OSHA Certification

11th Grade: Welding I
2 Credits *Advanced NCCER & AWS Certifications

12th Grade: Welding II + Lab
3 Credits *Advanced NCCER & AWS Certifications