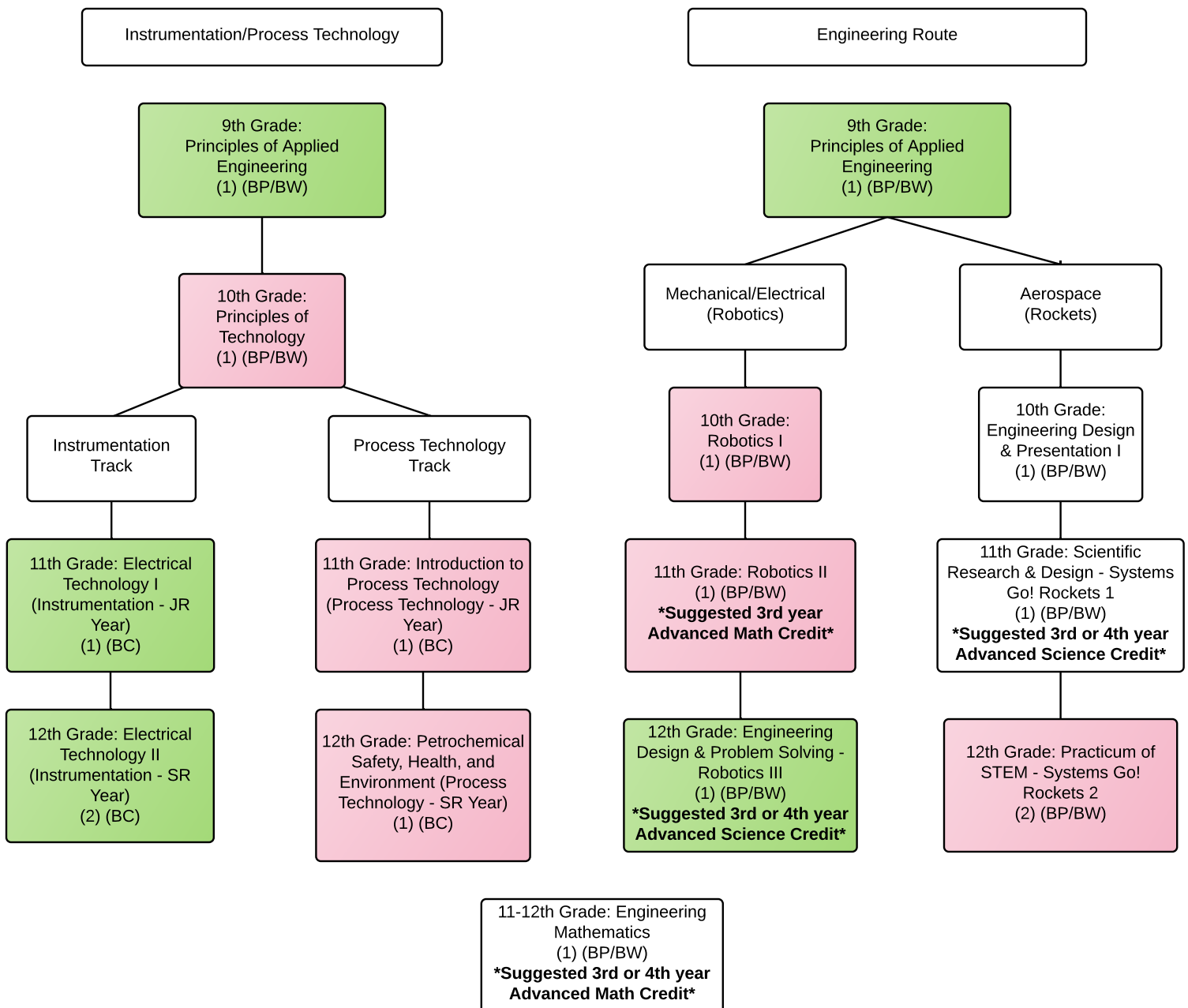


Science, Technology, Engineering, and Mathematics

This industry sector includes a vast scope of opportunities. The demand is high for engineers in a variety of specializations such as, aeronautical, architectural, biotechnical, chemical, civil, construction, industrial and mechanical. This field also includes opportunities for occupations and post-secondary training as a CAD technician, environmental planner, materials lab and supply technician, quality technician, drafter, or technical writer. Most positions require certification, licensing and/or a college degree. The five pathways in this sector emphasize real-world, occupationally relevant experiences of significant scope and depth. They are: Architectural and Structural Engineering; Computer Hardware, Electrical, and Networking Engineering; Engineering Design; Engineering Technology; Environmental and Natural Science Engineering. Computer Science jobs are growing at 2X the national average creating a large demand for college students majoring in this field of study. A Computer Science degree offers many career opportunities such as software systems developers, computer systems engineers, computer programmers, web developers, computer systems analysts and software application developers.



Science, Technology, Engineering & Math (STEM)

Engineering Career Cluster

Aerospace (Rockets) Pathway

9th Grade: Principles of Applied Engineering
1 Credit

10th Grade: Engineering Design & Presentation I
1 Credit

11th Grade: Scientific Research & Design - Systems Go! Rockets 1
1 Credit

* Suggested 3rd or 4th year Advanced Science Credit*

12th Grade: Practicum of STEM - Systems Go! Rockets 2
2 Credits

11th-12th Grade:
Engineering
Mathematics
1 Credit
*Suggested 3rd or 4th
year Advanced Math
Credit*

Science, Technology, Engineering & Math (STEM)

Engineering Career Cluster

Mechanical/Electrical (Robotics) Pathway

9th Grade: Principles of Applied Engineering
1 Credit

10th Grade: Robotics I
1 Credit

11th Grade: Robotics II
1 Credit

* Suggested 3rd year Advanced Math Credit*

12th Grade: Engineering Design & Problem Solving - Robotics III
1 Credit

Suggested 3rd or 4th year Advanced Science Credit

11th-12th Grade:
Engineering
Mathematics
1 Credit
*Suggested 3rd or 4th
year Advanced Math
Credit*

Science, Technology, Engineering & Math (STEM)

Instrumentation/Process Technology Career Cluster

Process Technology Pathway

9th Grade: Principles of Applied Engineering
1 Credit

10th Grade: Principles of Technology
1 Credit

11th Grade: Introduction to Process Technology
(Process Technology - JR Year)
1 Credit

12th Grade: Petrochemical Safety, Health and Environment
(Process Technology - SR Year)
1 Credit

11th-12th Grade:
Engineering
Mathematics
1 Credit
*Suggested 3rd or 4th
year Advanced Math
Credit*

Science, Technology, Engineering & Math (STEM)

Instrumentation/Process Technology Career Cluster

Instrumentation Pathway

9th Grade: Principles of Applied Engineering
1 Credit

10th Grade: Principles of Technology
1 Credit

11th Grade: Electrical Technology I (Instrumentation - JR Year)
1 Credit

12th Grade: Electrical Technology II (Instrumentation - SR Year)
2 Credits

11th-12th Grade:
Engineering
Mathematics
1 Credit
*Suggested 3rd or 4th
year Advanced Math
Credit*