2026 – 2027 Supply Chain & Transportation Cluster Sequence of Courses

Sub-Cluster: Air & Space Transportation

State Program		1	2	3	4	CIP & SOC Suggestions
SC0026005 **Aerospace Program** 480 hours or 960 OCAS 9879, 9880 SC0026006 **Aerospace Program - Advanced**	Pilot 480 hours	**8874 Aviation I** 120 hours Launching into Aviation Exploring Aviation & Aerospace	**8875 Aviation II** 120 hours Introduction to Flight Aircraft Systems Performance	**8876 Aviation III – Pilot** **5010 Aeronautics** 120 hours The Flying Environment Flight Planning	**8705 STEM Capstone** **8883 Aerospace Capstone** 120 hours Preflight Your Career Pilot Capstone	CIP: 36.0202 - Aircraft Pilot (Private) SOC: 99-9999 - No Match **Other Course: 8877 Aviation IV**

2026 – 2027 Digital Technology Cluster Sequence of Courses

Sub-Cluster: Unmanned Vehicle Technology

State Program		1	2	3	4	CIP & SOC Suggestions
SC0026005 **Aerospace Program** 480 hours or 960 OCAS 9879, 9880 SC0026006 **Aerospace Program - Advanced**	Unmanned Aircraft Systems 480 hours	**8874 Aviation I** 120 hours Launching into Aviation Exploring Aviation & Aerospace	**8875 Aviation II** 120 hours Introduction to Flight Aircraft Systems & Performance	**8876 Aviation III – UAS** **5010 Aeronautics** 120 hours The Flying Environment UAS Operations	**8705 STEM Capstone** **8883 Aerospace Capstone** 120 hours A World of UAS UAS Capstone	CIP: 36.0207 - Remote Aircraft Pilot SOC: 99-9999 - No Match **Other Courses: 8877 Aviation IV**

2026 – 2027 Supply Chain & Transportation Cluster Sequence of Courses

Sub-Cluster: Maintenance & Repair

State Program		1	2	3	4	CIP & SOC Suggestions
SC0026005 **Aerospace Program** 480 hours OCAS 9879	General Aviation Maintenance 480 hours	**8886 Applied Sciences of Aircraft Maintenance** 120 hours	**8887 Basic Electricity** 120 hours	**8885 Aircraft Materials and Corrosion Control** 120 hours	**8883 Aerospace Capstone** **8990 Work-Based Learning I – STEM** **8721 STEM Internship** 120 hours	CIP:15.0801- Aeronautical/Aerospace Engineering Technology/Technician SOC:17-3021- Aerospace Engineering and Operations Technicians Or CIP: 47.0607-Airframe Mechanics and Aircraft Maintenance Tech/Technician SOC: 49-3011.00 –Aircraft Structure, Surfaces, Riggins, and Systems Assemblers

2026 – 2027 Digital Technology Cluster Sequence of Courses

Sub-Cluster: Software Solutions

State Program		1	2	3	4	5	6	7-9	10-12
SC0026009 **Computer Science Program** 480 hours OCAS 9874	Computer Science 1440 hours	**2536 AP CS Principles** 120 hours	**2535 AP Computer Science A** 120 hours	**8160 Advanced Programming** 120 hours	**8871 Python** 120 hours	**8861 PLTW Cybersecurity** **8256 Cybersecurity Basics** 120 hours	**8705 STEM Capstone** **8716 PLTW Capstone** 120 hours	College Prep Math Year 1-3 360 hours	College Prep Lab Science Year 1-3 360 hours
SC0026002 **Computer Science Program – Adv** 960 hours OCAS 9874 & 9875	Computer Science 960 hours	**2536 AP CS Principles** 120 hours	**2535 AP Computer Science A** 120 hours	**8861 PLTW Cybersecurity** **8256 Cybersecurity Basics** **8160 Adv Programming** 120 hours	**8705 STEM Capstone** **8716 PLTW Capstone** 120 hours	College Prep Math Year 1-2 240 hours	College Prep Lab Science Year 1-2 240 hours	**CIP and SOC Suggestions**	
	Programming 960 hours	**8867 CS Discoveries** 120 hours	**2536 AP CS Principles** 120 hours	**2535 AP Computer Science A** 120 hours	**8160 Advanced Programming** 120 hours	**8871 Python** 120 hours	**8861 PLTW Cybersecurity** **8256 Cybersecurity Basics** 120 hours	**8705 STEM Capstone** **8716 PLTW Capstone** **8990 Work-Based Learning I – STEM** **8721 STEM Internship** 120 hours	CIP: 11.0201 Computer Programming/Programmer, General SOC: 15-1251.00 - Computer Programmers
SC0026013 **CS Academy** 1440 hours OCAS 9874, 9875, 9851	Intro to CS 480 hours	**8867 CS Discoveries** 120 hours	**2536 AP CS Principles** 120 hours	**2535 AP Computer Science A** 120 hours	**STEM Capstone** OCAS 8705 120 hours				

Pathway: Science and Mathematics

OCAS	Math	OCAS	Math
4830	Advanced Studies in Math I	4760	AP Statistics
4831	Advanced Studies in Math II	4612	Calculus
4412	Algebra II	4520	Geometry
4413	Algebra III	4611	Pre-Calculus (60 or 120 hours)
4615	AP Calculus AB	4614	AP Pre-Calculus
4616	AP Calculus BC	4740	Statistics & Probability
		4750	Trigonometry (60 hours)

CareerTech Approved College Prep Mathematics and Science Courses

OCAS	Science	OCAS	Science
5333	Anatomy & Physiology (120 hrs.)	5336	Microbiology
5035	AP Biology		
5055	AP Chemistry		
5121	AP Environmental		
5051	Chemistry I		
5333	Physiology (60) or Anatomy (60)		

Healthcare & Human Services

Sub-Cluster: Biotechnology Research & Development

State Program		1	2	3	4	5	6	7	8
SC0026008 **Biotechnology Program** 480 hours OCAS 9872	Biotechnology 960 hours	**8701 Survey of Biotech** 120 hours	**8702 Biotech I** 120 hours	**8703 Biotech II** 120 hours	**8704 Adv Biotech I** 120 hours	**8717 Advanced Biotech II** 120 hours	**5035 AP Biology** **5055 AP Chemistry** 120 hours	**5121 AP Environmental Science** 120 hours	**8705 STEM Capstone** 120 hours
SC0026001 **Biotechnology Program - Advanced** 960 OCAS 9872 & 9873	Biotechnology 480 hours	**8701 Survey of Biotech** 120 hours	**8702 Biotech I** 120 hours	**8703 Biotech II** 120 hours	**8705 STEM Capstone** 120 hours	**CIP and SOC Suggestions** CIP: 41.0101 Biology/Biotechnology Technology/Technician SOC: 19-4021 Biological Technicians			

Sub Cluster: Advanced Manufacturing, Engineering, Software Solutions, Robotics				CareerTech Approved College Prep Mathematics and Science Courses			
OCAS	**Math**	**OCAS**	**Math**	**OCAS**	**Science**	**OCAS**	**Science**
4830	Advanced Studies in Math I	4760	AP Statistics	5055	AP Chemistry	5051	Chemistry I
4831	Advanced Studies in Math II	4612	Calculus	5121	AP Environmental	5211	Physics I
4412	Algebra II	4520	Geometry	5213	AP Physics 1: Algebra-Based	5212	Physics II
4413	Algebra III	4611	Pre-Calculus (60 or 120 hours)	5214	AP Physics 2: Algebra-Based		
4615	AP Calculus AB	4614	AP Pre-Calculus	5216	AP Physics C: Mechanics		
4616	AP Calculus BC	4740	Statistics & Probability	5217	AP Physics C: Electricity and Magnetism		
		4750	Trigonometry (60 hours)				

2026 – 2027 Advanced Manufacturing Sequence of Courses

Sub-Cluster: Engineering

State Program		1	2	3	4	5	6	7	8
SC0016001 **Pre-Engineering Program** 480 hours OCAS 9862	Pre-Engineering - Adv 1440 hours	**8878 Engineering Essentials** 120 hours	**8709 PLTW IED** 120 hours	**8710 PLTW POE** 120 hours	**PLTW - Engineering Specialty Course** 120 hours	**PLTW - Engineering Specialty Course** 120 hours	**8716 PLTW Capstone** 120 hours	**College Prep Math** Year 1-3 360 hours	**College Prep Lab Science** Year 1-3 360 hours
	Pre-Engineering - Adv 960 hours	**8878 Engineering Essentials** 120 hours	**8709 PLTW IED** 120 hours	**8710 PLTW POE** 120 hours	**8716 PLTW Capstone** 120 hours	**College Prep Math** Year 1-2 240 hours	**College Prep Lab Science** Year 1-2 240 hours	**CIP and SOC Suggestions**	
	Pre-Engineering - Adv 480 hours	**8878 Engineering Essentials** 120 hours	**8709 PLTW IED** 120 hours	**8710 PLTW POE** 120 hours	**8716 PLTW Capstone** 120 hours	CIP: 14.0101 - Engineering, General SOC: 17-2199.00 - Engineers, All Others Or CIP: 14.0102 Pre-Engineering SOC: 99-9999 No Match			
SC0026010 **Pre-Engineering Program – Adv** 960 hours OCAS 9862 & 9871 SC0026014 **Pre-Engineering Program – Advanced** 1440 hours OCAS 9862, 9871, 9853	PLTW Engineering Specialty Courses	**8711 Digital Electronics** 120 hours		**8712 Computer Integrated Manufacturing** 120 hours		**8713 Civil Engineering & Architecture** 120 hours		**8854 Environmental Sustainability** 120 hours	**8715 Aerospace Engineering** 120 hours
	SREB Integrated Production Technology 480 hours	**8862 Advanced Technology for Design and Production** 120 hours		**8863 Systems of Advanced Technology** hours 120		**8864 Mechatronic Systems for Advanced Production** 120 hours		**8865 Design for the Production of Advanced Products** 120 hours	CIP: 15.0001 - Applied Engineering Technologies/Technicians SOC: 17-3024 Electro-Mechanical and Mechatronics Technologists and Technicians
	SREB Innovations in Science & Technology 480 hours	**8855 Nature of Science and Technology** 120 hours		**8856 Core Applications of Science and Technology** 120 hours		**8857 Impacts of Science & Technology** 120 hours		**8858 Creativity & Innovations** 120 hours	CIP: 14.0103 - Applied Engineering SOC: 17-2199 Engineers, All Other
	Applied Engineer 480 hours	**8879 Mechanical Design Engineering** 120 hours		**8882 Advanced Mechanical Design Engineering** 120 hours		**8826 Advanced Design Applications** 120 hours		**8705 STEM Capstone** **8721 STEM Internship** **8990 Work-Based Learning I - STEM** 120 hours	CIP: 14.0103 - Applied Engineering SOC: 17-2199 Engineers, All Other

Sub Cluster: Advanced Manufacturing, Engineering, Software Solutions, Robotics				CareerTech Approved College Prep Mathematics and Science Courses			
OCAS	**Math**	**OCAS**	**Math**	**OCAS**	**Science**	**OCAS**	**Science**
4830	Advanced Studies in Math I	4760	AP Statistics	5055	AP Chemistry	5051	Chemistry I
4831	Advanced Studies in Math II	4612	Calculus	5121	AP Environmental	5211	Physics I
4412	Algebra II	4520	Geometry	5213	AP Physics 1: Algebra-Based	5212	Physics II
4413	Algebra III	4611	Pre-Calculus (60 or 120 hours)	5214	AP Physics 2: Algebra-Based		
4615	AP Calculus AB	4614	AP Pre-Calculus	5216	AP Physics C: Mechanics		
4616	AP Calculus BC	4740	Statistics & Probability	5217	AP Physics C: Electricity and Magnetism		
		4750	Trigonometry (60 hours)				

2026 – 2027 Advanced Manufacturing Cluster Sequence of Courses

Sub-Cluster: Robotics

State Program		1	2	3	4	CIP and SOC Suggestions
SC0026004 **Robotics Engineering Program**	OCAS 9878 Robotics 480 hours	**8833 Robotics Engineering** 120 hours	**8160 Advanced Programming** 120 hours	**8866 Advanced Robotics Engineering** 120 hours	**8705 STEM Capstone** **8721 STEM Internship** 120 hours	CIP: 15.0405 Robotics Technology/Technician SOC: 17-3024.01 – Robotics Technicians