SCIENCE, TECHNOLOGY, ENGINEERING & MATH (STEM) CAREER CLUSTER DESIGN

Engineering & Applied Mathematics Pathway – CIP Code 14.0101

Approved Pathway:

1) Includes minimum of three secondary-level credits.
2) Includes a work-based element.
3) Consists of a sequence: Introductory-level, Technical-level, and Application-level courses.
4) Supporting documentation include Articulation Agreement(s) and a Program of Study.
5) Technical-level and Application-level courses receive .5 state-weighted funding in an approved CTE pathway.

Concentrator Requirement

For a student to be a concentrator, at least 2 of 3 required secondary level credits taken must be a combination of technical and application levels.

INTRODUCTORY LEVEL

Principles of Tech. (8-9)	53153/ ✓ 03153	1 credit	Pre-Engineering Tech. (8-9)	21001	1 credit
Computing Systems (8-9)	10002/60002	1 credit	⭘ Engineering Appl (8-9)	21002	1 credit
Computer Appl. (8-9)	10004/60004	1 credit	⭘ Engineering Tech. (8-9)	21003	1 credit
Blueprint Reading	21108	.5 credit			

TECHNICAL LEVEL

⭘ Prin. Of Engineering	21004	1 credit	Engineering-Comprehensive	21005	1 credit
⭘ Engineering Design	21006	1 credit	Technical Innovation & Assessm	21054	1 credit
Advanced Production			Foundations of Electronics	21201	1 credit
Blueprint Reading	39108	.5 credit	Robotics	21009	1 credit

APPLICATION LEVEL

Emerging Technologies	21053	1 credit	Materials Science & Eng.	21252	1 credit
⭘Digital Electronics	21008	1 credit	⭘Eng. Design & Development	21007	1 credit
⭘Computer Integr. Manufac.	21010	1 credit	Civil Engineering	21011	1 credit
⭘Civil Eng. & Architecture	21012	1 credit	⭘Aerospace Engineering	✓ 21013	1 credit
⭘Biotechnical Engineering	✓ 21014	1 credit	Particular Topics in Engineering	21015	1 credit
Project Mgmt. & Res Scheduling	21205	1 credit			

⭘Course appropriate for Project Lead the Way Programs; competencies may be utilized by any/all schools.
✓ Course is eligible for Regents Qualified Admissions – Natural Science

ALL ONE CREDIT COURSES MAY BE TAUGHT AS TWO .5 CREDIT COURSES.