School: **McBride High School**
Pathway Name: **Engineering & Sustainability (ENG)**
Industry Sector: **Engineering and Design Pathway**

Pathway Vision: **Engineering for a sustainable future.**
Pathway Mission: McBride Engineering will provide an innovative and empowering environment that encourages each student to become a critical thinker, a leader, and an ethical representative in the green economy.

2027-2028 Course of Study
Graduating Class of 2031

		HS Grad Req.	9th grade	10th grade	11th grade	12th grade	UC/ CSU A-G Req.
Technical Core	**Required Technical Core** *3-course thematic sequence: CTE, PLTW, or Technical*	3	**PLTW Honors Principles of Engineering 2503** ***LBCC Credit by Exam*** *ETEC 20 Introduction to Engineering and Design* **&** **PLTW Introduction to Design & Engineering 1077** ***LBCC Credit by Exam*** *ETEC 30 Principles of Engineering Technology*	See below for the optional pathway-aligned elective	See below for the optional pathway-aligned elective	**PLTW Honors Engineering Capstone 2509**	'g' 1
Academic Core	History/Social Science	3		AP World History 2318	AP United States History 2236	AP Government and Politics 2234 & Personal Finance	'a' 2
	English	4	English 1-2 Accelerated 1403	English 3-4 1408	AP English Language and Composition 1458	AP Literature & Composition 1449 **or** CSU ERWC 1474	'b' 4

Academic Core	Math	3	Geometry Accelerated 2971 **or** Algebra 2986	Algebra 2 Accelerated 2964 **or** Geometry Accelerated 2971	AP Precalculus 3053 **or** Algebra 2 Accelerated 2964 **or** Functions/Statistics/Trig 3069	*Recommended 4th Year Math:* AP Calculus: AB 3158 or AP Precalculus 3053 *Other options:* or AP Statistics 3157 or Finite Math 3150	'c' 3
	Lab Science	2	Physics of the Universe 3853	Biology: The Living Earth 3865	Recommended Chemistry 1-2 Honors 3832	Recommended 4th year Science: AP Environmental Science 4032 or AP Chemistry 3820 Other non- AP option: Anatomy/Physiology Honors 3815	'd' 2
	Language Other Than English (LOTE)	1 or VAPA	Spanish 1-2 1831 **or** Spanish for Spanish Speakers 3-4 1839	Spanish 3-4 1832	Recommended Spanish 5-6 1833	Advanced option: AP Spanish Language and Culture 1860	'e' 2
	Visual and Performing Arts (VAPA)	1 or LOTE	Fulfilled by **PLTW Honors Introduction to Design & Engineering** *(Technical Core)* 1077				'f' 1
	Optional Pathway-Aligned Elective Course			**PLTW Honors Digital Electronics 2507** ***LBCC Credit by Exam*** *ETEC 40 Electronics for Engineering Technology*	**PLTW Honors Computer Integrated Manufacturing 2511** ***LBCC Credit by Exam*** *MTFAB 90 Computer Integrated Manufacturing*		'g' 1
	Physical Education	2	Introduction to Kinesiology 3704	Advanced Kinesiology 3710			

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Global Elective Courses	Additional courses that provide pathway enrichment	3	McBride Elective Options *subject to change*	**Opt-In Dual Enrollment** **LBCC at McBride Options:** *Engineering Technology* ETEC 10 Intro to Engineering Technology *Urban Planning/ Architect.* ARCHT 32 SketchUp 1			
Work-Based Learning	Required work-based learning opportunities		Field Trip to Peterson Automotive Museum 3D Printing Shop (IED) Solidworks Cert. (POE) Safety & Measurement Shop Training (POE) LBCC Engineering Pathways Partnership Engineering Technology - Certificate of Achievement *Strongly Recommended* *Partially fulfilled by PLTW Credit by Exam & ETEC 10*	Field Trip to Local Engineering College Soldering & Electronics Training (DE) *Introduction to Urban Planning - Certificate of Accomplishment | LBCC* *Recommended* Partially fulfilled by ARCHT opt-in dual enrollment courses	Manufacturing Day Field Trip Shop Skills Training: CNC, laser engraver (CIM)	OSHA certification (EDD) Complete Metal and Wood Shop Training including power tools (EDD)	
Integrated Curriculum	Multidisciplinary Integrated Curriculum		**Heat Island Effect & Drone Mapping** PLTW Introduction to Design PLTW Principles of Engineering Geometry Accelerated Physics in the Universe	**Water Rights & Ecosystem Sensors** PLTW Digital Electronics Biology in the Living Earth ELA 3-4 Acc Spanish 3-4	**Net-Zero Buildings Materials Manufacturing** PLTW CIM Chemistry Honors AP Pre-Calc	**Senior Capstone Project Prototypes & Sustainable Solutions** PLTW Capstone AP Environmental Science AP Chemistry	

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