

STEM PATHWAYS MODEL

Science Foundation Arizona - The Arizona STEM Network

PATHWAY COMPONENTS	A. STEM EDUCATION OUTREACH AND CAREER EXPLORATION (Recruitment) - Community college-led activities and events that generate enthusiasm and engage student interest in STEM career fields.	B. FOUNDATIONAL KNOWLEDGE AND SKILLS (Retention) - Education programs and strategies that improve college students' foundational STEM knowledge and skills.	C. TRANSFERABLE CERTIFICATIONS AND DEGREES (Workforce) - Job and research experiences and competency-based programs with industry that align to industry-recognized credentials.
1. STUDENT SUPPORT STRATEGIES-Resources, processes and strategies that encourage student success.	<i>A1. Student-success strategies are incorporated in outreach activities and events that promote STEM career exploration.</i>	<i>B1. Student-support strategies lead students to achieving foundational STEM knowledge and skills.</i>	<i>C1. Student-support strategies help students optimize course selection and credits earned toward a stackable credential or degree.</i>
2. INDUSTRY ENGAGEMENT-Vital to keeping schools current, providing teachers with resources, and capturing student interest in STEM careers.	<i>A2. Industry plays a supporting role in outreach activities, tours and events, capturing student interest in real-world STEM opportunities.</i>	<i>B2. Industry contributes to program development and mentors students in real-world experiences.</i>	<i>C2. Industry offers internships, apprenticeships, and job-shadowing experiences that guide students to earning industry-recognized certifications and degrees.</i>
3. TECHNOLOGY-Integrated across the Pathway to provide better access to education resources, virtual tours, internships and mentorship.	<i>A3. College outreach activities have access to technology labs and technical equipment that generate student interest and awareness of STEM careers.</i>	<i>B3. Technology programs offer students hands-on learning experiences; technology is utilized to access instruction and student learning opportunities between institutions.</i>	<i>C3. Technical equipment is available at industry for students to gain the appropriate experience and prepare for competency-based testing and certifications.</i>
4. CURRICULAR ALIGNMENT-Ensures all course credits count toward a credential.	<i>A4. College Outreach activities and events inform parents and students about curricular alignment to STEM career programs.</i>	<i>B4. Dual enrollment or early college STEM academies, including intrusive advisement that lead to student success.</i>	<i>C4. Colleges and industry align curriculum with industry-recognized certifications and include credits that transfer toward stackable degree programs.</i>

