

STEM Initiatives at the Maricopa Community Colleges

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STAR-PATH

STAR-PATH (Successful, Talented Adults @ Rio-Practice, Analytics, Technology, and Help), a five tiered college and career student support model, is designed to support the needs of the students entering and exiting the program as a bridge to post-secondary education and/or training to obtain employer identified skills. STAR-PATH Tiers include:

- Tier 1 is the Student Success Seminar.
- Tier 2 helps students prepare to take the General Educational Development (GED) exam and refresh basic skills to prepare for college.
- Tiers 3, 4, and 5 focus on occupational, technical and post-secondary education where students receive training in employer-identified skills.

For more information, please visit <http://www.riosalado.edu/programs/abe/Pages/STAR-PATH.aspx>

Maricopa's Concurrent Enrollment Program in Nursing

The Concurrent Enrollment Associate-Baccalaureate Nursing Program at the Maricopa Community Colleges is designed for nursing students who are interested in earning their Bachelors of Science in Nursing (BSN) degree from Arizona State University, Northern Arizona University, or the University of Phoenix while pursuing their Associate of Applied Science (AAS) in Nursing degree from a Maricopa community college.

For more information, please visit <http://www.maricopa.edu/nursing/ConcurrentEnrollment.php>

Arizona Sun Corridor – Get Into Energy Consortium (ASC-GIEC):

The ASC-GIEC grant is a 3-year, \$13.5 million project aimed to meet the critical employment needs of the Arizona's energy and mining industries. The consortium has five member community colleges in the state of Arizona: Estrella Mountain, Chandler-Gilbert, Northland Pioneer, Pima, and Yavapai. Credentials earned at three different points in the program are stackable and all are required for a successful career in energy:

- Basic Training – Students will demonstrate basic, foundational skills by earning both the National Career Readiness Certificate (NCRC) and the Energy Industry Employability Skills (EES) Certificate.
- Industry Fundamentals – Students will demonstrate industry fundamentals skills by earning the Energy Industry Fundamentals (EIF) Certificate.
- Job Specific – Students will demonstrate job specific skills by earning a college degree and/or the Nuclear Uniform Curriculum Program (NUCP) certificate, both of which are industry recognized credentials.

For more information, please visit <http://az.getintoenergy.com/>

TAACCCT Manufacturing Grant

The Maricopa Community Colleges secured a \$2.5 million TAACCCT grant from the Arizona State Governor's Office in the fall of 2013. This grant will support the advanced manufacturing programs at Mesa Community College. Other Maricopa colleges with manufacturing programs will also be included in this grant funded program. The Arizona Manufacturing Partnership, Arizona Commerce Authority, Science Foundation Arizona, East Valley Partnership and other employer based groups will be involved in creating stronger connections between the colleges, students and industry regarding employment opportunities.

Arizona Precision Manufacturing Apprenticeship Program (AzPMAP)

Created with a \$286,000 grant from the Arizona Department of Economic Security, the Arizona Precision Manufacturing Apprenticeship Program (AzPMAP) creates a sustainable formal path for workers to enter the green manufacturing field resulting in a steady flow of top quality candidates to the local manufacturing community.

It is the goal of this initiative to provide a centralized, registered Apprentice program for the state that will provide a 3-4 year path to Journey worker status. The effort will provide a program that will minimize the barriers for employers, recruit employers and students into the program, and tap into other resources to maximize success rates.

The AzPMAP:

- Attracts an ongoing supply of qualified job seekers to support the demands of the advanced manufacturing industry.
- Prepares a ready workforce with portable, industry recognized, skill credentials.
- Employs and retains a skilled and competent manufacturing workforce to meet the current and future needs of industry.
- Deploys an integrated program infrastructure which provides flexibility, efficiency, effectiveness, measurable results throughout the process.

For more information, please visit <http://www.azpmap.org/>

Intel Ultimate Engineering Experience (IUEE)

Hosted by Chandler-Gilbert Community College in the summer of 2013, IUEE was a six-week program geared to support undergraduates exploring engineering education. The IUEE Program was designed to generate excitement and energize students by introducing more hands-on technical engineering experience to support retention goals. Participants were exposed to different parts of the engineering/manufacturing process, so they could see the practical application to what they were learning. In all, 110 engineering students participated in the program, which included three main projects:

- Ideation: Participants learn how to identify problems, to look at these problems as opportunities, and gain the confidence to become the innovators of tomorrow.
- Apps for Good: With a focus on solving real-life issues that matter to students and/or the communities they live in, participants will learn about the full software product development process in a very practical way.
- Build A Robot: Students start by learning basic robot building instructions, programming and movement then move on to working with sensors and more complex robot behaviors.

For more information, please visit <http://www.intel.com/content/www/us/en/jobs/locations/united-states/students/future-engineers.html#IUEE>

Unmanned Aircraft Systems

Chandler-Gilbert Community College's Associate in Applied Science (AAS) in Airway Science Technology, Flight Emphasis program is designed to prepare students to apply technical knowledge and skills to the flying of commercial, agricultural, public service, corporate, or private aircraft, and to prepare students to sit for the following Federal Aviation Administration (FAA) written and practical examinations:

- Track I: Commercial Pilot Certificate with Single Engine Airplane Land Rating; Instrument Rating; and the Multiengine Rating as well as the Flight Instructor Certificate with the Single Engine Airplane Land Rating.
- Track II: Commercial Pilot Certificate with Helicopter Rating; Instrument Rating as well as the Flight Instructor Certificate with the Helicopter Rating.
- Track III: Commercial Pilot Certificate with Single Engine Airplane Land Rating; Instrument Rating; and the Multiengine Rating as well as the Flight Instructor Certificate with the Single Engine Airplane Land Rating. Students will also have experience in the actual or simulated operations of a small Unmanned Aircraft Systems (UAS) as permitted by Federal Regulations.

For more information, please visit

<http://www.cgc.maricopa.edu/Academics/aviation/Pages/Airway%20Science%20Flight%20Emphasis.aspx>

Skill Standards/Common Core Resources for the State of Arizona

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Arizona's College and Career Ready Standards (AZCCRS) Home Page:

<http://www.azed.gov/azccrs/>

- General Information about AZCCRS:
<http://www.azed.gov/azccrs/generalinfo/>
- Arizona College and Career Ready Standards Overview – PDF
http://www.azed.gov/azccrs/files/2013/10/arizonas-college-and-career-ready-standards-general-overview_10072013.pdf
- English Language Arts and Literacy Standards
<http://www.azed.gov/azccrs/elastandards/>
- Mathematics Standards
<http://www.azed.gov/azccrs/mathstandards/>

Resources for business leaders to better understand the College and Career Ready Standards and the importance of college and career readiness:

<http://www.achieve.org/>

Campaign developed to support the implementation of the College and Career Ready Standards:

<http://letssolvethis.com/>

Arizona Business & Education Coalition Career Readiness Page

<http://azbec.org/pages/CollegeCareerReadiness1/>