



Summer 2003, Vol. 1

Tech Prep Leaves No Child Behind



In a time when “Education Reform” and “Accountability” are at the top of the requirements list for schools to receive state and federal funding, who has time for anything else? Tech Prep is here to help.

Over the past decade, Tech Prep has worked with local schools around the state to address these issues by increasing academic rigor in career and technical classrooms, exploring new ways of learning through integrated academics and contextual teaching, and helping students

connect what they learn in the classroom to “real life” through hands-on activities and work-based learning.

Although career and technical education has not traditionally been thought of as a “fast track” to college, Tech Prep is changing this perception through articulated career programs that prepare students for a successful post-secondary education—smoothing the transition from high school to college by reducing duplication of course work and offering college credit. Tech Prep gives students a head-start on college while providing them with advanced academic and technical training, leadership experience, and other workplace skills such as problem-solving, teamwork and communication.

All students need to be prepared for a productive and successful future. Tech Prep is committed to this effort by ensuring that *no child will be left behind*.

Changing the Face of Education

Tech Prep is a national initiative linking career and technical education programs offered at the high school level to degree and certificate programs at the post-secondary level. In the Tech Prep Education Act of 1990, this initiative was implemented to strengthen education programs for youth who might not earn a four-year post-secondary degree.

At the national level, the goals of Tech Prep legislation were to (1) prepare students for promising careers, (2) to improve the quality of both academic and vocational education and enhance effectiveness of preparing students for careers by more closely integrating them, and (3) to improve education for the “neglected majority,” those students in the middle quartiles who would most likely finish high school but were unlikely to complete a four-year post-secondary education program.

Employers were concerned that young people lacked both the social and technical skills required to succeed

in even entry-level jobs. Increasingly, employees in many fields do not require a four-year degree, but do require specific technical training.

“The vision of Tech Prep is to provide every student an opportunity to participate in a seamless educational system that includes the academic and technical knowledge and skills required for continued education and workforce readiness.”

—National Association for
Tech Prep Leadership

In Arizona, Tech Prep takes a local approach to addressing these issues. Twelve local Tech Prep Directors work with consortium high schools and post-secondary institutions to oversee articulation efforts and provide activities that help connect students to their futures. Arizona Tech Prep has tailored this national initiative to serve each community’s unique population.

A Letter From the Director:



Welcome to the first issue of *Connections*, the Arizona Tech Prep state newsletter. In this issue, you’ll discover what Tech Prep is all about—what we’re doing around the state to connect students to their futures and how you can be a part of this exciting initiative.

During the past eleven years, Tech Prep has made great inroads in streamlining the path from high school to college. Through the articulation of career and technical programs, students are able to start their post-secondary training and prepare for exciting, high-paying careers while they are still in high school.

Tech Prep is a winning proposition. With Tech Prep, high schools win through increased academic achievement when students make the connection between success in school and success in their futures. Community colleges win through higher program enrollments and more career and technical graduates. The business community wins by having well-trained employees who are ready to enter the workforce. And most importantly, students win as they get a head start on college and on a great future—saving time and money in the process.

We look forward to bringing you this publication throughout the year to keep you abreast of new ways Tech Prep can help you connect students to their futures.

Sincerely,

Dennis Fiscus
State Tech Prep Director
Arizona Department of Education

For more information visit us on the web at www.aztechprep.org.

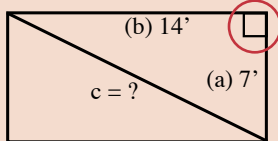
**Professional Development
Integrated Academics:
Real Life in Learning**

*Karl Peterson,
Pinal County Tech Prep*

“Today’s lesson is to determine the measurement of the hypotenuse of a triangle, its height, tangent and side opposite of the triangle.”

As a sophomore, the prospect of completing that lesson generated little interest. Yes, it was explained, we would learn the Pythagorean theorem: $a^2 + b^2 = c^2$. That is, the sum of the squares of the two sides of a right triangle equal the square of the third side, the hypotenuse. My interest level was fading fast.

Then my geometry teacher did something unexpected. She said, “What we are really going to do today is learn how to ‘square a corner’ and lay out a rectangle base for a 7-foot by 14-foot shed.”



Coincidentally, our construction trades instructor informed us the day before that our next project was building a 7 by 14-foot shed! Now I could use the “Pythagorean theorem” to construct the shed in my building trades class! My thought process went from, “What good is this?” to “This has application in things that real people do every day!”

When teaching and learning are integrated and applied, student understanding and retention of information increase significantly. As one Tech Prep instructor recently pointed out, “My students learn best in a context that matters to them. Integrating teaching/learning makes that happen. It really promotes student accomplishment and success.”

Tech Prep provides a variety of professional development opportunities for teachers to grow in their understanding of the benefits of integrated/applied contextual teaching/learning.

For more information on Integrated Academics or any of the Professional Development opportunities available in your area through Tech Prep, contact your local consortium director.

Tech Prep Works: Student Success Stories

Jan Graham, Western Maricopa Tech Prep

All over the state, Tech Prep programs are helping students gain skills for future success. In the Western Maricopa Tech Prep Consortium, our students and teachers are realizing some of this success right now. AZ Tech Prep Super Stars have been sighted recently at Buckeye Union High School, Barry Goldwater High School, and Ironwood High School. Congratulations to all of these outstanding Tech Prep students and teachers—they are AZ Super Stars—and they shine.



Barry Goldwater High School Tech Prep students beam with pride after winning the gold and silver in the 2003 AZ Skills USA Region V Architectural Drafting Competition. Robert Paulsell (left) won the gold and Stephen Lenhart (center) won the silver. Lenhart also won the silver in the American Design Drafting Association’s National Architectural Drafting Competition—College Level. T. J. Karch (right) won the bronze.



Buckeye’s Agriculture Mechanics team captured the state FFA championship in a four-hour skills event and qualified for the national competition in Louisville, Kentucky, in October. The Buckeye Agriculture Mechanics team, including Tech Prep students Tyler Sutter, Adam Cambron, Hunter Howe, and Ryan Sutter, was coached by FFA advisor Quint Molina and parent Dave Howe. Tyler Sutter received the highest individual score in the competition consisting of 80 participants in 20 teams. Cambron ranked third, Howe ranked fifth, and Ryan Sutter ranked eleventh.



Ironwood High School Tech Prep senior Jamil Coury plans to attend Arizona State University this fall using the \$20,000 Citigroup Academy Scholarship he was awarded through the National Academy of Finance Program. Coury was selected through an application process and on the basis of his outstanding academic and leadership skills. Over 32,000 students worldwide participate in the National Academy Foundation.

Connect to the Future of Arizona Tech Prep On-Line

The AZ Tech Prep website, www.aztechprep.org, is sporting a new look. Still known as *the place* to find up-to-date information on the state Career and Technical Education (CTE) Competencies as well as links to Arizona’s Academic Skills and Standards, the new website will now feature expanded information for educators and counselors, links for community college representatives and business leaders, and program information for parents and students. The website also contains a directory for local Tech Prep consortia around the state along with links to consortium websites. See the map “Tech Prep Around the State” (facing page) to find the name of your local Tech Prep consortium.

For more information visit us on the web at www.aztechprep.org.

Articulation: Giving High School Students A Head Start On College

If you have a Tech Prep program at your school, you've likely heard of *articulation*. However, unless you participated in the articulation process, you may not be aware of the benefits to your students and why they should be a part of Tech Prep.



According to the New Webster's Dictionary and Thesaurus, one definition of articulation is "the way in which different parts are joined together." Tech Prep's articulation process is exactly that: the way a high school career and technical program is linked to a post-secondary certificate or degree program to become a streamlined 2+2 program.

The purpose of articulation is to increase academic rigor within the high school program, reduce duplication of course work at the post-secondary level, and recognize the accomplishments and advanced skills gained during the student's high school training through college credit and/or advanced placement in the post-secondary

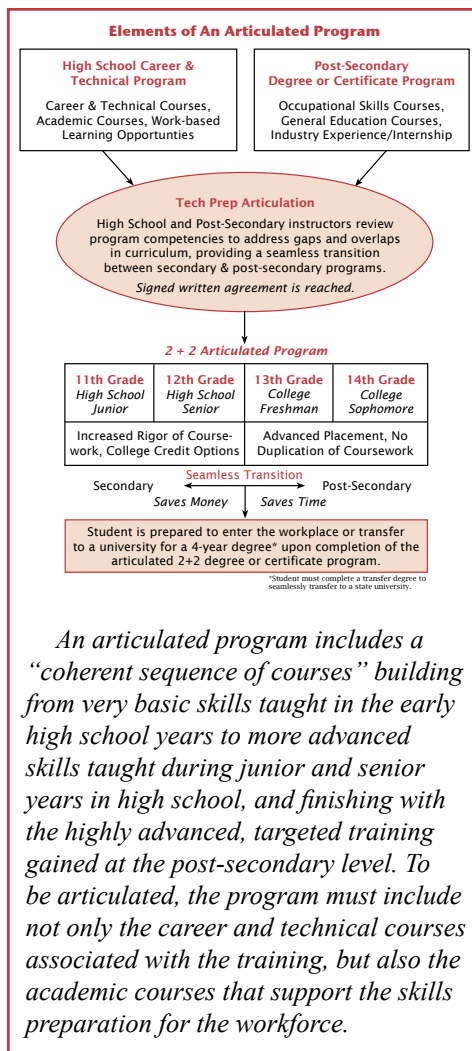
portion of the program.

During the articulation process, secondary and post-secondary instructors meet to review standards and competencies taught during the program and align curriculum. Even assignments, labs and other skill activities are discussed to ensure that students meet or exceed the requirements for college credit or advanced placement.

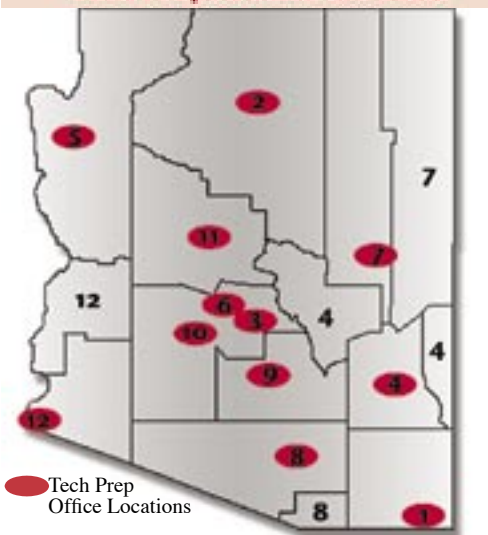
The award of articulated credit varies from consortium to consortium. However, all articulated programs must have a signed articulation agreement outlining the agreed-upon sequence of courses and provisions for granting credit to participating students. In some areas, students "enroll" at the college, although the course is taken during high school hours (dual enrollment).

In other parts of the state, the credit is awarded at the post-secondary institution following the completion of the articulation requirements, although the student does not actually enroll at the college during high school. The credit earned in an articulated program is generally provided by the post-secondary institution to students at a reduced rate (and in some areas, at no cost), and is generally transferable to other post-secondary institutions within the state.

For more information on articulated programs in your area, contact your local Tech Prep Consortium director.



Tech Prep Around the State



Tech Prep Office Locations

1. Cochise County
8. Pima and Santa Cruz Counties
2. Coconino County
9. Pinal County
3. East Valley
10. Western Maricopa
4. Eastern Arizona
11. Yavapai County
5. Mohave County
12. Yuma and La Paz Counties
6. Northeast Valley
7. Northeastern Arizona

Community College Corner

Nancy Dillon, Community College
Tech Prep Consultant



Tech Prep sometimes seems synonymous with *High School*, as it is often thought of only in the context of what it does for high school students and programs. However, Tech Prep also plays an important role by articulating career and technical secondary programs to postsecondary occupational programs. Tech Prep provides strong support for occupational degrees and certificates offered at the community college level.

This is accomplished through student recruitment and orientation, professional development opportunities for faculty, and student follow-up. Articulation efforts link college faculty with their secondary counterparts through face-to-face communication to achieve outreach for high school students—many of whom might not otherwise pursue higher education. Students can obtain college credits while in high school so a seamless transition to college is possible, and these Tech Prep links equal better-prepared students at the postsecondary level.

"Societies that maintain education systems that nurture knowledge acquisition at the exclusion of knowledge application will soon find that both their ideologies and technologies will erode."

—J.L. Hoerner

For more information visit us on the web at www.aztechprep.org.

Best Practices From Around The State



Students in Rick Long's Drafting Program build models from their designs.

Camp Verde High School Students Get Real-Life Work Experience

Lois Lamer, Yavapai County Tech Prep

Students in Camp Verde High School's Tech Prep articulated Drafting program get a taste of what it's like to work for a client.

Last fall Rick Long's drafting students participated in an architectural design contest at the request of one of the district board members. The students were asked by a local developer to submit house designs and plans for a client that included; Front, rear and side elevations, floor plan, sectional drawings, and landscape plans. Additionally, plans had to be good enough for approval by local building code authorities.

The client and the developer judged all drawings. First place winner, Junior Seth Scott, was awarded \$200 and his design will be used in the construction of the home. The second-place winner, Senior Leon Lukasik, received \$50. The third place winner, Junior Chris McCarthy, received \$20. Three other entries each received \$10; Juniors Danny Newton and Scott Welsch, and Senior Randy Procknow. Awards were donated by Tierra Verde Investments and Com Con.

"I hear and I forget; I see and I remember; I do and I understand."

—Old Chinese Proverb

Hands-On in Health Care at Paradise Valley High School

Gayle Smith, Northeast Valley Tech Prep Consortium

"This course is harder than my AP classes." "This program is really getting me ready for studying in college." "I'll have a good-paying job right out of high school." "The maturity level in this program is higher than in my other classes."

Are these statements you'd expect to hear from students in a Career/Technical Education course in high school? Yes! Jessica Rerick and Sam Tilford, students at Paradise Valley High School, are passionate about their positive experiences in their Health Care Assistant program.

Participation in this Tech Prep program gave these students direction and focus in pursuing their career goals. Both students agree that this program focused them on careers that connect them to continuing their education in college. Sam was accepted at Northern Arizona University and plans to become a pediatrician. Jessica will enroll at Paradise Valley Community College and then at a university to become a neo-natal nurse.

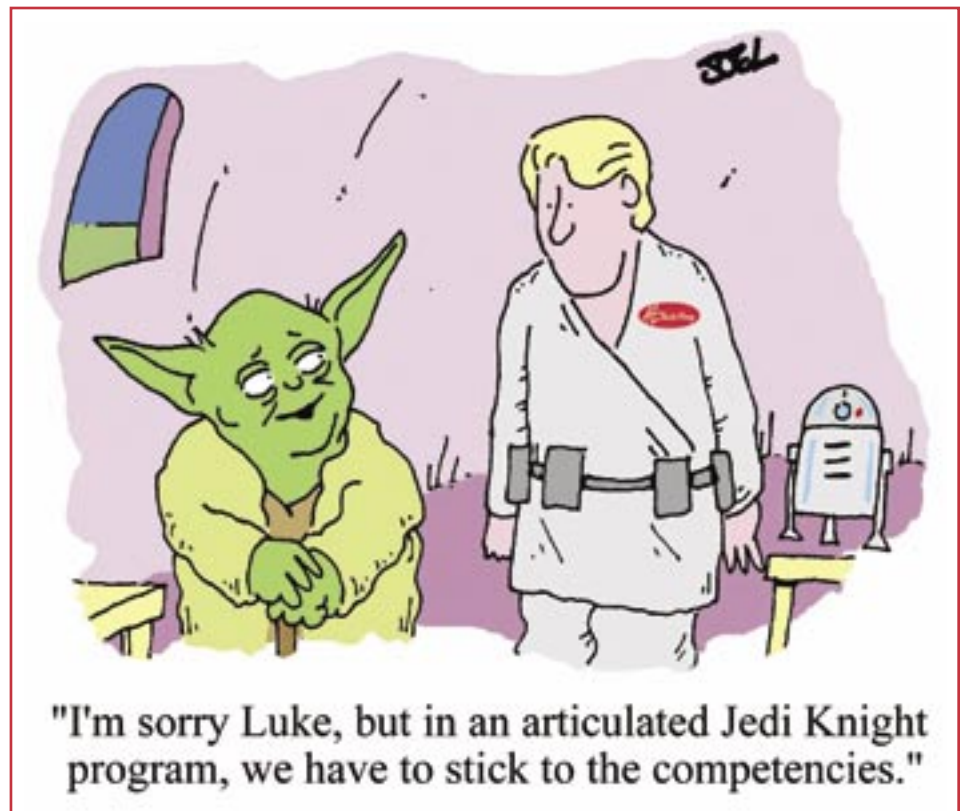
Experiences in the class have solidified their decisions to pursue careers in the healthcare field. Their on-site clinical experiences at Paradise Valley Hospital provided them with the hours necessary



Becky Laidig's nursing students gain hands-on experience in the workplace.

to take the State Board of Nursing Certified Nursing Assistant test. Sam and Jessica have on-site experiences in three-week rotations in departments such as Endoscopy, Radiology, Laboratory and Labor and Delivery. Both students adore their "real life" registered nurse teacher, Becky Laidig. "She's 'real' and doesn't just give us lectures and worksheets. She provides extreme hands-on experiences," says Sam.

Not only did this class provide hands-on experiences to help direct Jessica's and Sam's career choices, it also provided leadership skills they can use throughout their lives.



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