

**Community colleges can help close 'skills gap' in the workforce**  
**Your View – Op-Ed piece**  
**Donald Snyder, President of Lehigh Carbon Community College**

**The Morning Call**  
**September 2, 2012**

Students and instructors are returning to high school and college classrooms this fall in a nation that is struggling to hold on to a tenuous economic recovery. Little do they know that they may be part of the solution.

Leaders on both sides of the aisle constantly talk about the need to add manufacturing jobs to the economy. After more than a decade of steady decline, the nation saw an uptick in manufacturing jobs added to our economy: 109,000 in 2010 and 237,000 in 2011. That's promising news.

However, an October 2011 survey of American manufacturers by Deloitte Consulting LLP indicated that 5 percent of openings – nearly 600,000 jobs – at their companies remained unfilled because they could not find the workers with the right skills. At the same time, the ranks of the nation's underemployed rose from 8 million to 9.3 million. Do some simple math and it's readily apparent that almost half of those underemployed could find gainful work in the manufacturing sector if they had the right skills.

"Skills gap" is the phrase many experts use to identify this dilemma. Simply put, the market's demand for skilled workers is outstripping the supply.

Perhaps this should not be surprising. According to "The Undereducated American," a report from Georgetown University's Center on Education and the Workforce, the demand since 1990 for college-educated workers grew at 2 percent a year while the supply grew at only 1.5 percent. There is an increasing deficit of workers with post-secondary education. As job growth inevitably rebounds after the recession, our skills deficit will only become more pronounced and more serious.

The skills gap may be retarding how quickly we recover from the recession. The Deloitte Consulting study noted that 74 percent of manufacturers surveyed claimed that workforce shortages and skills deficiencies were keeping them from expanding operations or improving productivity. Demographic trends aren't helping either. According to the Governor's Manufacturing Advisory Council, the low number of new workers entering the industry, coupled with the growth in manufacturing, has left a staggering gap of available skilled workers.

Clearly, our nation needs more of its people – especially those aged 18-34 – to have access to a post-secondary education. Only with education can we close the skills gap, achieve the market's full employment potential and improve our country's ability to be more productive and competitive.

An obvious solution is improving access to community colleges. They are an ideal, cost-effective center for acquiring the in-demand skills of the manufacturing sector as well as preparing students for four-year degrees that improve their ability to contribute. But despite being one of the most affordable options for post-secondary education, community colleges still need to support many of their students' aspirations. About half of Lehigh Carbon Community College's students receive a combined \$21 million in financial aid every year.

In the shadow of our nation's dangerous skills gap, does it make sense that a majority of students are struggling to pay for the most affordable educational option available to them? Certainly not.

New programs are a start. The Pennsylvania Targeted Industry Program (PA-TIP) provides grant awards up to \$4,300 to Pennsylvania students enrolled in courses of study in the energy, advanced materials and diversified manufacturing, and agriculture and food production fields. The \$5 million program is funded by the Pennsylvania Higher Education Assistance Agency (PHEAA).

The federal government has allocated \$2 billion over four years for the Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant Program. Now in its second year, the program provides community colleges and other eligible institutions of higher education with funds to expand and improve their ability to deliver education and career training programs that can be completed in two years or less. It will help adults acquire the skills, degrees, and credentials needed for high-wage, high-skill employment while also meeting the needs of employers for skilled workers.

Business-education partnerships are another necessity. The Governor's Manufacturing Advisory Council has proposed a number of initiatives including "Adopt a School" programs led by the manufacturing community, industry-led standardization of skill needs and curriculum, and increased support career and technical education in Pennsylvania

And we're doing our part. In addition to everyday vocational education, LCCC's Carbon Center is creating a science, technology, engineering, and mathematics (STEM) focused learning environment and center that leads to career pathways in high-priority occupations. We're even working with elementary students. Children in the first through third grade program are exposed to developmentally appropriate STEM activities. Our Schools and Homes in Education (SHINE) after school enrichment program has a 32-week intensive STEM curriculum for fourth and fifth grade students based on state and national standards. And LCCC's newest addition is a 32-week STEM Career Academy for middle school and high school students focused on high priority occupations.

Together, we must move swiftly and decisively. Our country's long-term competitiveness depends on it.

# Bachelor of Applied Science in Technical Leadership



## From A.A.S. to Bachelor's Degree... RIGHT HERE AT LCCC !

Increasingly, employers recognize the need for technical professionals who have the skills needed to function in the global economy — and are ready to take on leadership and supervisory roles in technical workgroups and project teams.

The B.A.S. degree in Technical Leadership offers graduates of A.A.S. and other technical Associate degree programs a seamless pathway to a Bachelor's degree and beyond. It builds on the technical foundation provided by an Associate degree with knowledge and skills in areas such as communication, collaboration, workplace diversity, leading face-to-face and virtual teams, project management, financial accounting, conflict resolution, training and development, and intercultural communication.

**Leadership skills employers seek when hiring and promoting!**

## Flexible and Affordable to Meet Your Needs

### TRANSFER UP TO 60 CREDITS!

Up to 60 credits from your A.A.S. degree program may be transferred—avoiding the added expense of unnecessarily repeating courses.

### PART-TIME AND FULL-TIME OPTIONS

You make the choice! Enroll in the program full-time — or enroll part-time and continue working while earning your Bachelor's degree.

### EVENING CLASSES TO FIT YOUR SCHEDULE

With most classes held in the evenings — some online and others on-site at the LCCC Schnecksville campus — this program offers you the flexibility needed to make your Bachelor's degree an achievable goal.

### A STRONG CONNECTION TO INDUSTRY

An advisory board of experienced professionals from many fields will provide program guidance and interact with students in our unique capstone course.

### SUPPORT DESIGNED TO HELP YOU SUCCEED

LCCC and BU staff work together to provide the support you need to achieve your goals.

### For more information, visit:

[www.bloomu.edu/tech\\_leadership](http://www.bloomu.edu/tech_leadership)

or contact:

**Vince Basile**, Director, B.A.S. Program

LCCC Office, ARC 314-A

[vbasile@bloomu.edu](mailto:vbasile@bloomu.edu)

570-204-6901

**Classes start fall 2012**



# Bachelor of Applied Science in Technical Leadership

The message from employers is clear... There is a need for people who are technically skilled in their fields and have the ability to work effectively with their supervisors, colleagues and clients. More and more technical work is performed — not individually — but in project teams and workgroups.

*"For the people who get into [their field] because they don't like to work with other people, the reality of the job may come as a surprise. How do you get your brilliant design built if you can't explain what you need? If you alienate your client, how do you get more work? Business relationships still come down to human beings conducting the relationship — and it's important to have an understanding of how we tick."*<sup>1</sup>



**In this rapidly-changing, globalized workplace, companies seek technical professionals who are ready to assume leadership roles in project teams and workgroups.**



The courses and learning objectives of the Technical Leadership B.A.S. program closely match many of the Knowledge, Skills and Abilities (KSA's) associated with high-demand occupations identified by area employers in the Lehigh Valley Workforce Investment Board's recently published Lehigh Valley Skills Gap Analysis<sup>2</sup>

**APPLY NOW**

To set up a meeting or phone conference, contact:

**Vince Basile**, Director, B.A.S. Program

Email: [vbasile@bloomu.edu](mailto:vbasile@bloomu.edu)

Phone: 570-204-6901

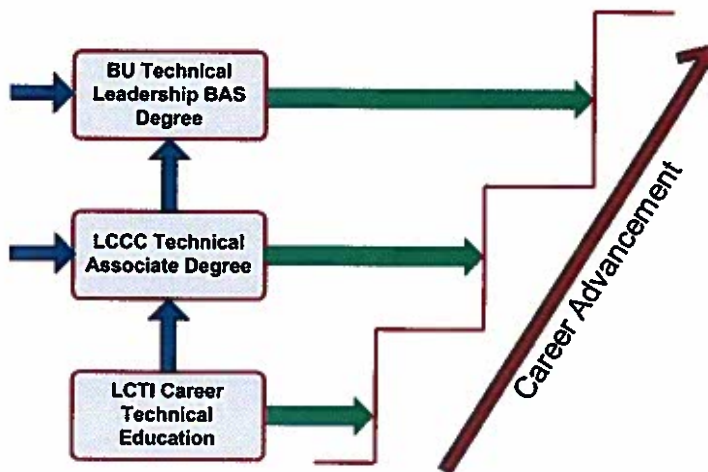
LCCC Office: ARC 314-A

## There are many ways to start and complete the Technical Leadership B.A.S. program...

**A.A.S. and other technical associate degree program graduates and working technical professionals with an associate degree:** May enter the Technical Leadership B.A.S. program directly

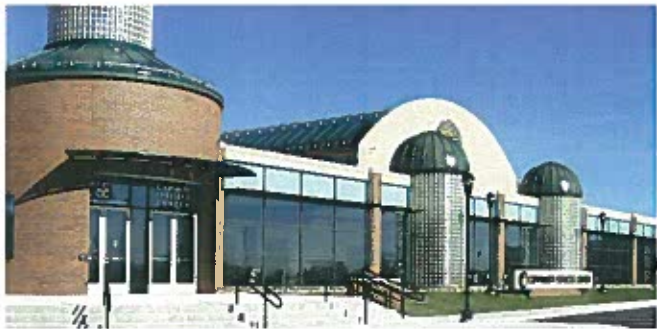
**Working technical professionals without an associate degree:** May complete their A.A.S. degree part-time at LCCC, then transfer seamlessly into the Technical Leadership B.A.S. program.

**High school students at LCTI:** May dual enroll during their Junior and Senior years, complete an A.A.S. or other technical associate degree program at LCCC, then transfer seamlessly into the Technical Leadership B.A.S. program.



<sup>1</sup> Leadership development in a technical field, by S. J. English. retrieved from the Larsen Design Group Blog

<sup>2</sup> Lehigh Valley Skills Gap Analysis, produced by the Lehigh Valley Workforce Investment Board, 2011



# Transfer and University Center Partners

## On-Site Partners

Bachelor Degrees offered at LCCC

### Albright College

Accounting BS  
Business Administration BS  
Crime and Justice BS  
Information Systems BS  
Information Systems and Management BS  
Organizational Behavior/Applied Psychology BS

### Bloomsburg University

Early Childhood Education BS  
Technical Leadership BAS

### Temple University

Mechatronics BSET

---

## e-University Transfer Center Partners

### Online Bachelor Degrees

#### California University of PA

Industrial Technology

#### Capella University

Business  
Business Administration  
Information Technology –  
Information Assurance and Security  
Health Informatics  
Nursing  
Psychology  
Public Administration  
Public Safety

#### Central Pennsylvania College Online

Accounting  
Business Administration  
Corporate Communications  
Criminal Justice Administration  
Homeland Security Management  
Information Technology

#### Drexel University

Business Administration  
Communication  
Communications and Applied Technology  
Computing and Security Technology  
Criminal Justice  
Education  
General Studies with a minor in Business  
General Studies - Individual Studies  
Health Services Administration  
Information Technology  
Information Systems  
Nursing

Professional Studies  
Property Management  
Psychology  
Other certificates, post baccalaureate, and  
graduate degrees available

#### Excelsior University

Criminal Justice Administration  
Electronics Engineering Technology  
General Business  
General Studies  
Health Sciences  
Information Technology  
Information Technology/Information  
Security  
Liberal Arts  
Nursing  
Psychology

#### Franklin University

Accounting  
Allied Healthcare Management  
Applied Management  
Applied Psychology  
Business Administration  
Business Economics  
Business Forensics  
Computer Science  
eMarketing  
Financial Management  
Financial Planning  
Forensic Accounting  
Healthcare Management  
Human Resources Management  
Information Technology

Interactive Media Design  
Management  
Management Information Sciences  
Marketing  
Organizational Communication  
Operations and Supply Chain  
Management  
Public Relations  
Public Safety Management  
Safety, Security & Emergency  
Management  
Web Development

#### Immaculata University

Financial Management  
Health Care Management  
Human Performance Management  
Organizational Dynamics

#### Kaplan University –

**Multiple majors in the following disciplines:**

Arts and Sciences  
Business and Management  
Criminal Justice  
Education  
Fire Science and Emergency Management  
Health Sciences  
Information Technology  
Legal Studies  
Nursing  
Technology

#### Upper Iowa University

Accounting  
Business  
Business Management  
Criminal Justice

Start here.



Stay here.

# Transfer Agreements and Services

More than half of the students attending LCCC intend to transfer to a four-year college or university after their community college experience. LCCC students find that they receive a quality program that prepares them well academically and socially for transfer to a four-year college or university. Lehigh Carbon Community College students are well recognized and well received by transfer institutions across the country.

Students are encouraged to select a four-year college major and intended transfer institution as early in their LCCC career as possible. This enables students to select courses and a program of study that will transfer and best fit their academic pathway. Advisors and counselors are available to help students define their long- and short-term goals, evaluate where they are academically, and assist with course selection and academic planning.

Lehigh Carbon Community College has established numerous articulation agreements that facilitate successful transfer. Dual admission agreements guarantee acceptance with junior standing at a college or university provided that certain criteria have been met. "Program-to-Program" agreements have been established to ensure a seamless transfer from the associate's degree into the junior year. Course equivalency information specifies course transferability between LCCC and other colleges and universities.

The list below is a sample of four-year colleges and universities who work closely with LCCC to establish course equivalency information, program-to-program articulation agreements, and/or dual or deferred admission agreements:

**Albright College**  
**Alvernia University**  
**Arcadia University**  
**Bloomsburg University of Pennsylvania**  
**Bucknell University**  
**California University of Pennsylvania**  
**Carlow University**  
**Cedar Crest College**  
**Central Pennsylvania College**  
**Chatham University**  
**Cheyney University of Pennsylvania**  
**Clarion University of Pennsylvania**  
**DeSales University**  
**Drexel University**  
**East Stroudsburg University of Pennsylvania**  
**Excelsior College**  
**Edinboro University of Pennsylvania**  
**Franklin University**  
**Harrisburg University of Science and Technology**  
**Immaculata University**  
**Indiana University of Pennsylvania**  
**Kutztown University of Pennsylvania**  
**Lehigh University**  
**Lincoln University of Pennsylvania**  
**Lock Haven University of Pennsylvania**  
**Mansfield University of Pennsylvania**  
**Marywood University**

**Millersville University of Pennsylvania**  
**Misericordia University**  
**Moravian College**  
**Muhlenberg College**  
**Neumann University**  
**Peirce College**  
**Pennsylvania College of Technology**  
**Pennsylvania State University**  
**Saint Francis University**  
**Seton Hill University**  
**Shippensburg University of Pennsylvania**  
**Slippery Rock University of Pennsylvania**  
**Temple University**  
**University of Pittsburgh**  
**University of Scranton**  
**Upper Iowa University**  
**West Chester University of Pennsylvania**  
**Widener University**  
**Wilkes University**  
**Wilson College**  
**York College**

For more information on Transfer Services and Agreements at Lehigh Carbon Community College see [www.lccc.edu/transfer](http://www.lccc.edu/transfer).



YOU WORK HARD TO EARN YOUR CREDITS, AND YOU DESERVE TO TAKE THEM WITH YOU. BUT UNLESS YOU PLAN CAREFULLY, IF YOU DECIDE TO TRANSFER TO ANOTHER COLLEGE OR UNIVERSITY, YOU COULD END UP REPEATING COURSES YOU ALREADY TOOK – COSTING YOU BOTH TIME AND MONEY.

PENNSYLVANIA NOW HAS AN INNOVATIVE STATEWIDE TRANSFER SYSTEM THAT ALLOWS UP TO 30 FOUNDATION CREDITS TO BE TRANSFERRED FROM ONE PARTICIPATING COLLEGE OR UNIVERSITY TO ANOTHER, ANYWHERE IN THE STATE. PACOLLEGETRANSFER.COM OFFERS ALL THE INFORMATION YOU NEED TO MAKE FULL USE OF THIS TRANSFER SYSTEM.

TAKE YOUR CREDITS WITH YOU.



**Contact Information**

For more information about the Pennsylvania statewide college transfer system

visit [www.PAccollegetransfer.com](http://www.PAccollegetransfer.com)





SCIENCE

TECHNOLOGY

ENGINEERING

ARTS

MATHEMATICS

AND

CAREER AND  
TECHNICAL  
EDUCATION

Gives your child a  
competitive edge in their  
future career!



## THE FUTURE IS NOW!

~~~~~  
Changing Education, One Child at a Time

### NOTABLE SUCCESS

SHINE IS 1 OF 9 PROGRAMS HIGHLIGHTED ON THE NATIONAL AFTER-SCHOOL ALLIANCE WEBSITE FOR OUR STEM EVALUATION RESULTS.

ATTENDANCEWORKS.ORG WEBSITE, HIGHLIGHTS THE SHINE PROGRAM AS AN AFTER-SCHOOL PROGRAM WHOSE STRATEGIES IMPROVE SCHOOL ATTENDANCE.

SHINE CO-PRESENTED IN 2 WEBINARS HOSTED BY THE NATIONAL LEAGUES OF CITIES & MS. HEDY CHANG, A NATIONAL CONSULTANT FROM CALIFORNIA'S ATTENDANCE WORKS.

NEWSPAPER 7 PART SERIES "THE MANY FACES OF SHINE," WAS PUBLISHED BY THE TIMES NEW, INC.

CONGRESSMAN LOU BARLETTA (APRIL 6, 2011) YOUTUBE--SPEAKS ON THE HOUSE FLOOR OF THE IMPORTANCE OF INVESTING IN PROGRAMS LIKE THE SHINE PROGRAM.

FOR MORE INFORMATION  
ON HOW TO REGISTER  
CONTACT

JEANNE MILLER, PROJECT DIRECTOR  
570-669-7010 / 570-668-6880  
WWW.SHINEAFTERSCHOOL.COM

Participating Districts Carbon County

Jim Thorpe / St. Joseph's  
Lehighton

Palmerton / St. John Neumann's

Panther Valley / Our Lady of the Angels  
Weatherly

&

The Carbon County Career &  
Technical Institute

### PROVEN RESULTS

BUILD COMMUNITY PARTNERSHIPS AND ACTIVELY ENGAGE LOCAL BUSINESS PARTNERS IN OUR EFFORTS TO EXPOSE STUDENTS TO FUTURE "LOCAL" CAREER OPPORTUNITIES.

100% of parents/guardians said they would refer the program to others.

82% of students said the program helped them to learn what the jobs of the future will be.

78% of students on the Post survey said the program helped them to understand the field of logistics, advanced manufacturing, business/finance & healthcare

77% improved in their academics

62% improved report card science grades

67% improved their academic report card performance

90% of students received satisfactory or passing grade in Science on 2010-2011 report cards

100% of families completed educational goals.

95% of students who participated in the 2011 Career Academy Pilot Project, said they became more excited about STEM Careers after their participation in the program.



BUILDING A BRIDGE BETWEEN HOME AND SCHOOL WHERE ALL ARE INVESTED IN THE SUCCESS OF THE CHILDREN AND THEIR FUTURE

Academy.

The College will not discriminate on the basis of race, color, sex, religion, ancestry, national origin, age, disabilities, veteran status or sexual orientation in its educational programs, activities, admissions, or employment practices as required by applicable laws and regulations. For information regarding civil rights or grievance procedures or for information regarding services, activities, and facilities that are accessible to and usable by persons with disabilities, contact the Office of Human Resources. Students may contact the Office of Disability Support Services, LCCC, 4523 Education Park Drive, Schuylkill, PA 18078-2598, 610-995-2121.

# EVOLUTION & EFFECTIVENESS OF STEAM (SCIENCE, TECHNOLOGY, ENGINEERING, ARTS & MATH) IN AFTER-SCHOOL PROGRAMS

SEEKING THE IMPOSSIBLE, BY PROVIDING ACTIVITIES THAT MOTIVATE AND PROMOTE THE CAREERS OF THE FUTURE WHILE INCREASING ACADEMIC ACHIEVEMENT.

The Carbon County SHINE

Career Academy will implement an extremely unique hands on STEAM curriculum, for students in grades 6th-9th through an after-school program and summer camps. Students will be exposed to academically challenging STEAM activities through a 36 week standards based after-school program.



CHANGING THE WAY WE SEE OURSELVES IN TODAY'S CHANGING WORLD.

*Activities focus on high priority occupations such as:*

- ADVANCED MANUFACTURING, ENGINEERING, LOGISTICS/TRANSPORTATION, HEALTH CARE/NUTRITION, BUSINESS AND FINANCE
- AND GOING GREEN.

Students use critical thinking and develop such skills as problem solving, effective communication and global awareness of needs for a successful 21st Century trained workforce.

## Design

The Career Academy will provide project based enrichment that reinforces academics and demonstrates a real world application to why reading, math, science and the arts play an important role in their future.

- 6th-8th grade students are provided real life skill experiences by working in high tech labs at the Carbon Career & Technology Institute
- 9th grade students from CCTI will be Team Leaders in the program
- Mon-Thurs, 3 hrs each evening (students may attend 2-4 days per week)
- 5-6 separate Career Projects lasting 5 weeks each
- Students are asked to participate in a minimum of 2 projects per year.
- 30 min. homework
- 30 min. dinner
- 2 hrs hands on STEAM Project instruction/mentoring/physical fitness & arts
- Hot meal & transportation back to home school



- Intensive hands on Summer Institutes are provided for all students
- High School Volunteers mentor youth as part of graduation/service learning projects, visit a college class, receive certificates of completion for their portfolios and focus on future educational opportunities for 2 and 4 year degree programs.

WHETHER A STUDENT WANTS TO BE AN ENGINEER, A SCIENTIST, A PIPE FITTER, DOCTOR, WELDER, MECHANIC OR IN THE FIELD OF BUSINESS & FINANCE, THEY WILL NEED THE SKILLS IN STEAM FOR THE JOBS OF THE FUTURE.



- ⇒ LCCC Education majors are employed as college interns providing them an early teacher pre-service laboratory experience.
- ⇒ Highly qualified teachers and instructors.

PRELIMINARY ANALYSIS REVEALS THAT HIGH QUALITY AFTER-SCHOOL PROGRAMS HAVE A SIGNIFICANT IMPACT ON STUDENT ENGAGEMENT AND PURSUIT OF STEM CAREER FIELDS.

- ⇒ 40 hours of professional development is provided for teachers and SHINE staff. Promote strong family involvement through family career expos, field trips, career awareness nights and educational programs.

## The CTE Projects

- Teaching students occupational specific skills!
- Experiencing the Real World of Careers!
- Building relevant, marketable skill sets!
- Work with leaders in business & industry.

- [1] Building a Real Hovercraft
- [2] Molecular Gastronomy (Food & the role of biotechnology on food)
- [3] Green Energy/Alternative Fuels
- [4] Environmental Science
- [5] Cars of the Future

**The SHINE Career Academy is FREE!**