

Dunkirk CSD/E2CCB PTECH



William Smock – PTECH Director, Dunkirk CSD

WSmock@Dunkirk.wnyric.org

PTECH Cohort 1



What is PTECH?

- ▶ PTECH stands for Pathways in Technology Early College High school
- ▶ The WNY PTECH STEM College & Career Academy is designed to be a college campus within an educational center
- ▶ It is a potential 6 year commitment for students, who can finish the program at their own speed
- ▶ The benefits include:
 - ▶ Completion of NYS Regents Diploma
 - ▶ **Cost free** JCC A.A.S Degree in Welding Technology, Mechanical Technology: Design Specialization or Mechanical Technology: Machine Tool Specialization
 - ▶ Mentoring, work study program, internships and preferential hiring from local businesses needing employees with the skills and degrees PTECH students have obtained
 - ▶ College atmosphere from day one of their freshman year
 - ▶ Project based learning (get out of your seat!)
 - ▶ We are one of 60 PTECH programs world-wide

Program Details

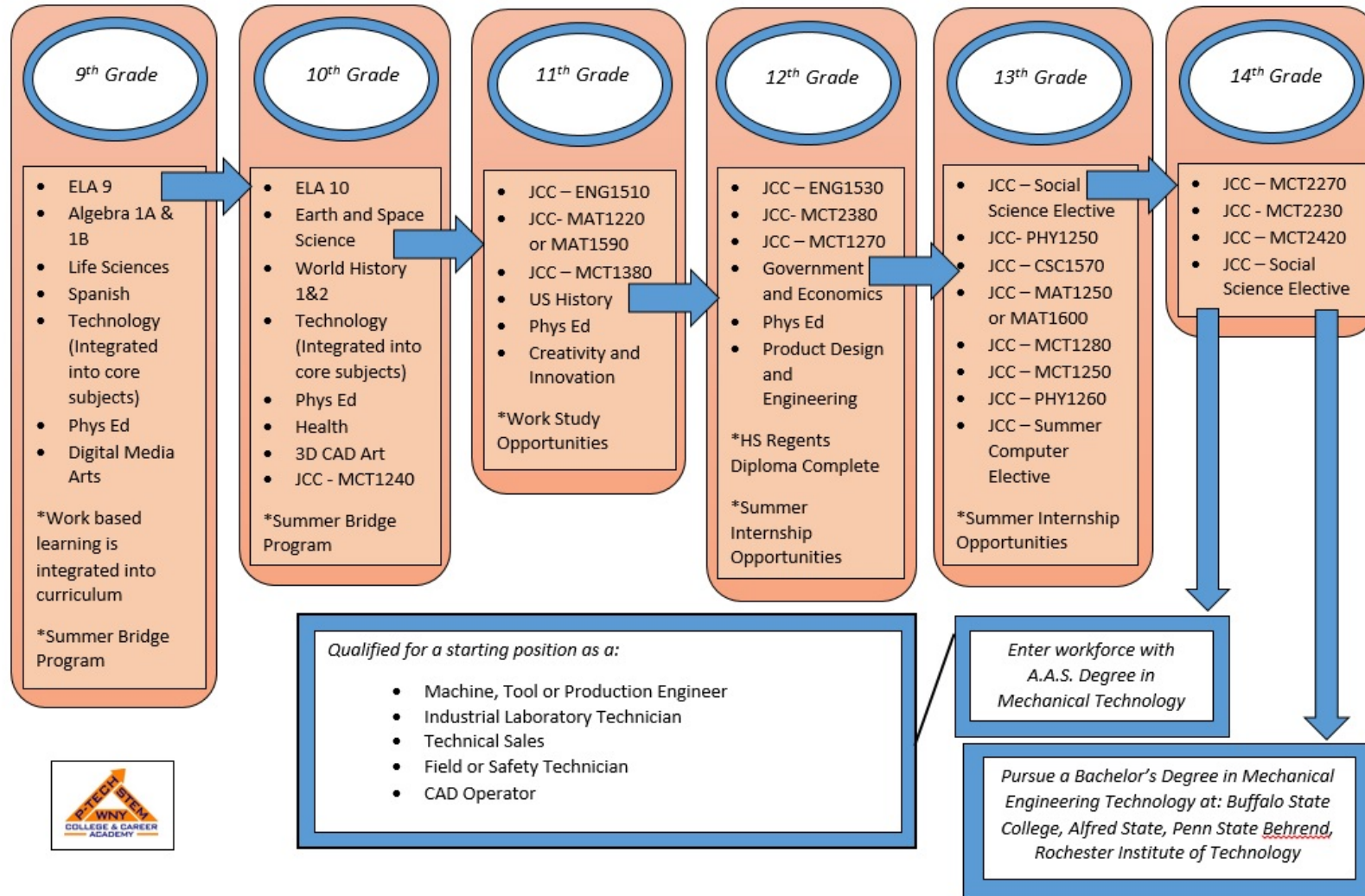
- ▶ The degrees and program paths are based on the needs of Chautauqua County manufacturers, so after graduation students are qualified for skilled job vacancies
- ▶ 2/3 of skilled jobs require a high school diploma and a 2 year degree – students will receive both through PTECH
- ▶ Only 35% of students enrolled in an AAS program will graduate in 2 years – this means that students in PTECH will graduate before 65% of those students who are not enrolled in PTECH and of the same grade level
- ▶ By 2020, NYS will need 350,000 middle skill level workers – where are they going to come from? PTECH!
- ▶ Science Technology Engineering and Mathematics (STEM) curriculum will be taught and connected through a collaborative environment with hands-on learning using state-of-the-art welding and manufacturing equipment
- ▶ Students will utilize 1:1 technology integration throughout the program
- ▶ Jamestown Community College has committed to a free and reduced tuition rate(not paid by student or family)

WNY STEM College and Career Academy

- ▶ Students enrolled in PTECH will be members of an exclusive academy which will be housed at the BOCES LoGuidice center for the first two years
 - ▶ September 2017 PTECH will occupy the newly renovated Dunkirk School #6, known as the PTECH College and Career Academy
- ▶ The program will not have academic or social ties to other BOCES programs during their instructional day
- ▶ Students can still participate in their home school's athletic and after school activities
- ▶ PTECH students will begin college courses in their sophomore year and will be considered college *and* high school students until they complete their programs
- ▶ PTECH programs must be completed in 6 years, but can be finished in as little as 4.5 – depending on the pace of the student in the program
- ▶ Students will be mentored by industry officials starting in their freshman year
- ▶ PTECH graduates are considered first in line for jobs in their career path, but this does not guarantee a job

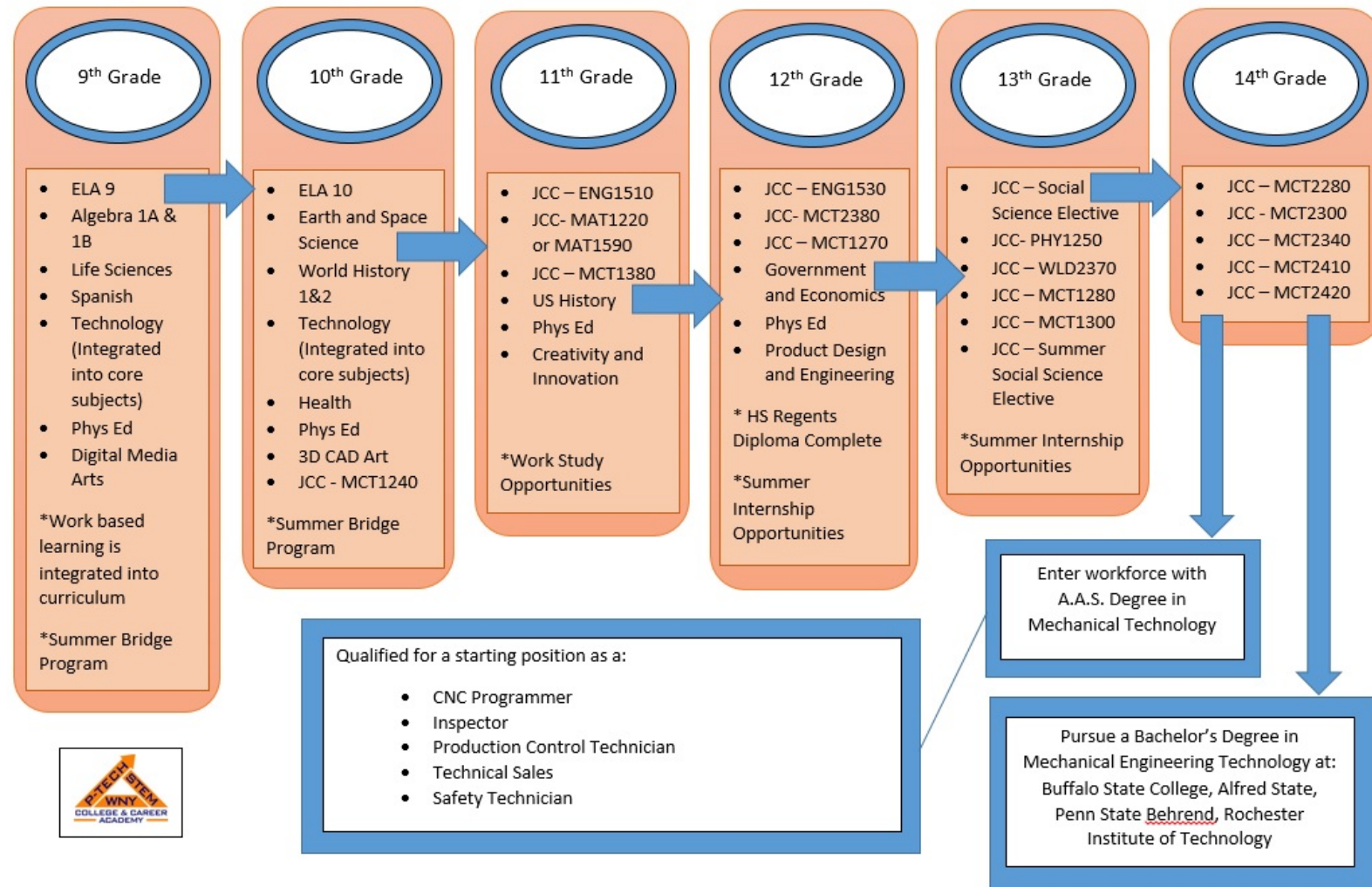
Mechanical Technology: Design Specialization Pathway

WNY PTECH College and Career Pathway- A.A.S. in Mechanical Technology: Design Specialization

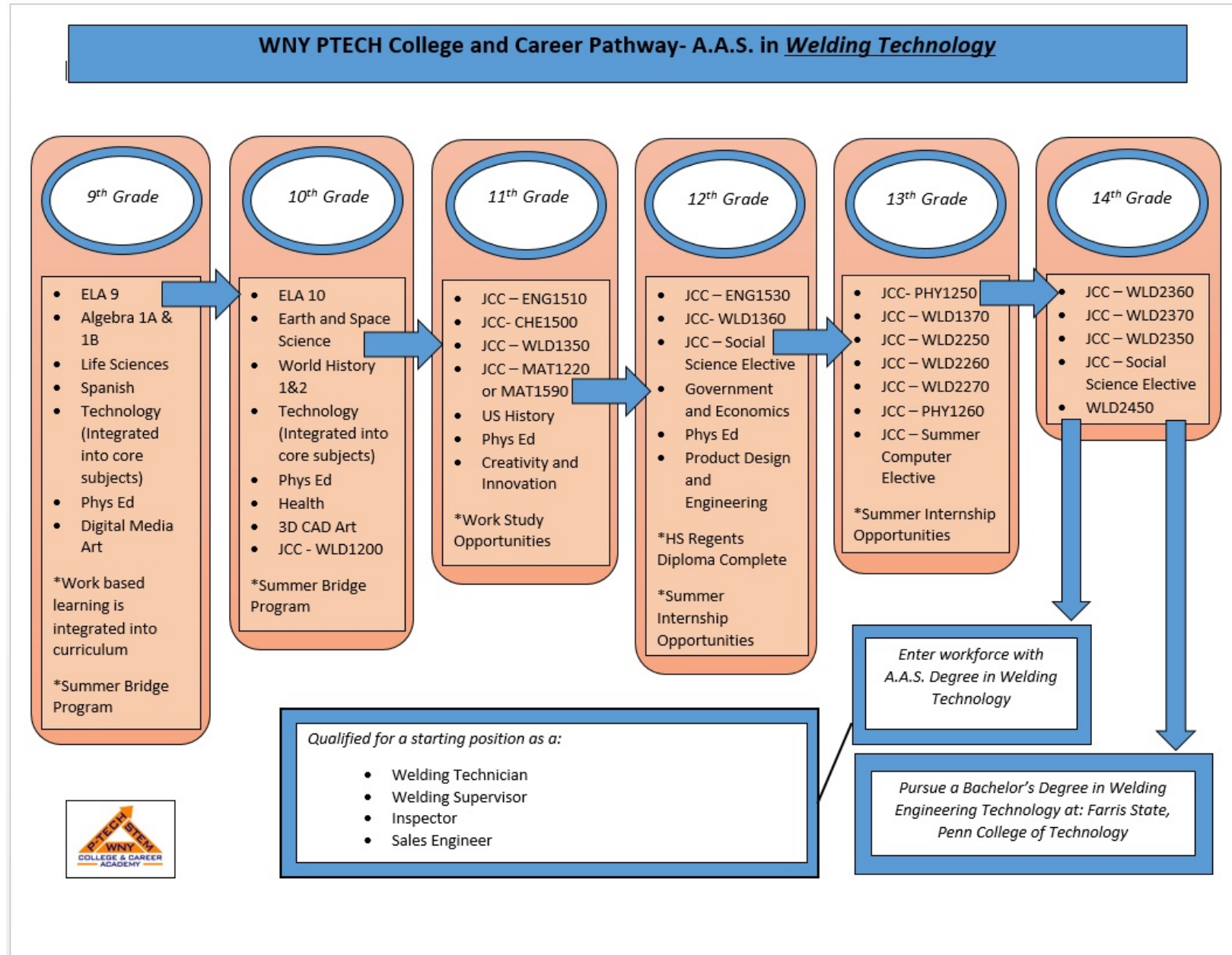


Mechanical Technology: Machine Tool Pathway

WNY PTECH College and Career Pathway- A.A.S. in *Mechanical Technology: Machine Tool*



Welding Technology Pathway

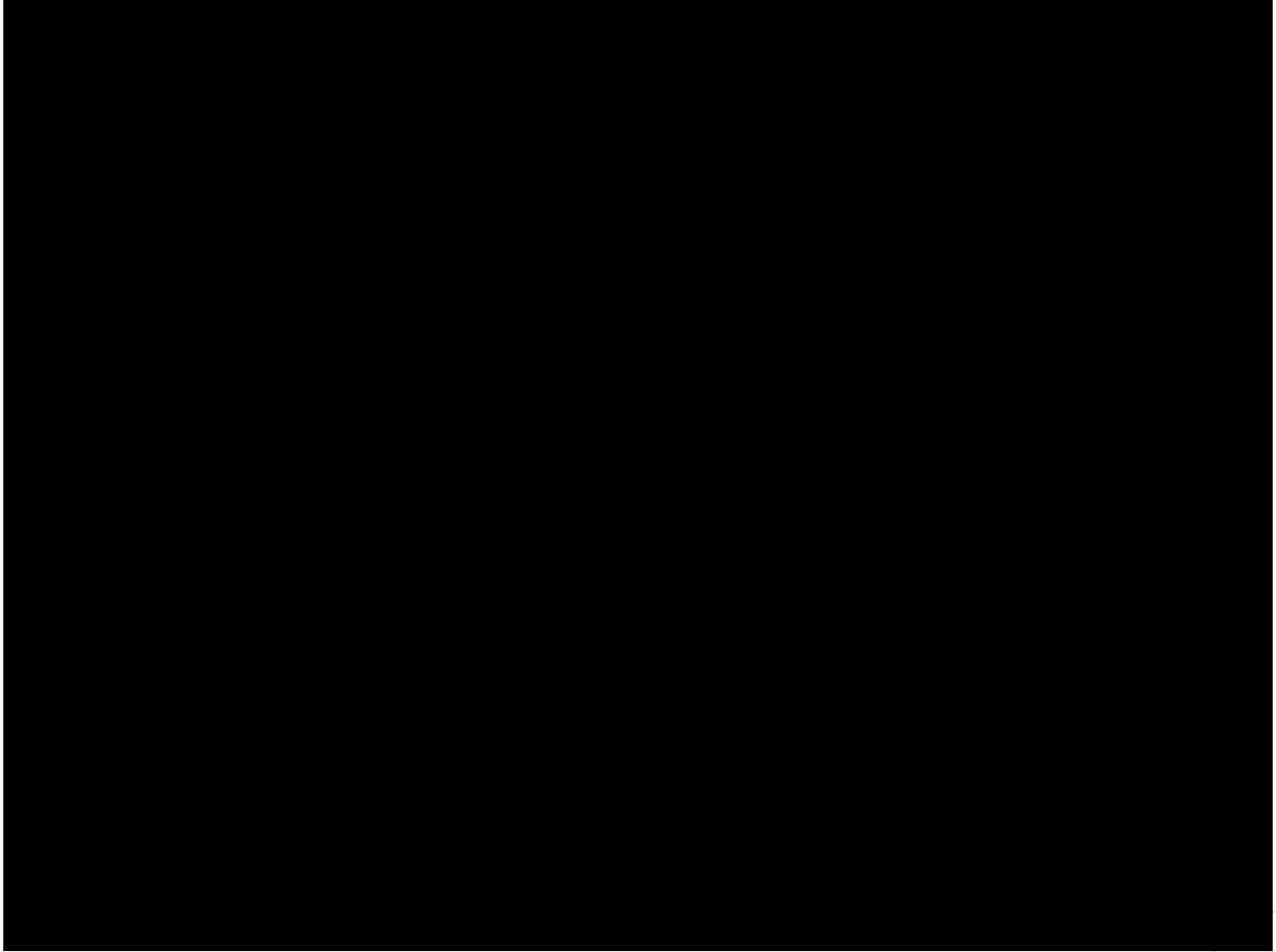


Program Elements

New instructional approaches

- ▶ Career infused in core academic courses (Work-Based Learning)
- ▶ Project-Based Learning leveraging workplace
- ▶ Early exposure to college instructional environment
- ▶ Modeling of workplace behavior and practice
- ▶ Innovative use of the daily/weekly schedule
- ▶ Extended time for learning in schedule & calendar
- ▶ Monthly visits to or from area manufacturers
- ▶ Participation in Chautauqua County STEM Events:
 - ▶ MFG Day
 - ▶ STEM Wars
 - ▶ Technology Expo





Considerations for PTECH

- ▶ Currently enrolled as an 8th grade student
- ▶ Interested in STEM (Science Technology Engineering Mathematics)
- ▶ Letter of recommendation from a teacher
- ▶ Completion of application by parent/guardian and school district
- ▶ Wants to go to college for Welding or Machine Technology
- ▶ Learns more from being in a non-traditional classroom setting



Ideal Candidate Description

- ▶ Interest in the real world applications of math and science
- ▶ Ability to respectfully communicate and work with others
- ▶ Motivated to learn in a challenging work environment
- ▶ Interest in using technology to research and acquire new information
- ▶ Desire to learn time management, collaboration and problem-solving skills
- ▶ Students who WANT to go to college but feel they WILL NOT
- ▶ Excellent work ethic
- ▶ Can pass a drug test (to work in industry after graduation)



Important Information

- ▶ There is room for only 40 students per year to enroll in the PTECH program and enrollment is in 8th grade
- ▶ Recruitment for PTECH begins now
- ▶ Recruitment ends March 25th 2016 and student determinations are made in April 2016
- ▶ Students will begin PTECH with a week long summer bridge program between 8th and 9th grade
- ▶ The summer bridge program will be hosted by JCC and will give students a jump start on college prep, team building, ethics training, safety training, robotics competition, computer programming, etc.



PTECH Business Sponsors Include:

- ▶ Lakeside Precision Machining (Precision metal working)
- ▶ Cummins JEP (Diesel engines)
- ▶ Dunkirk Metal Products (Drainage/stamping/welding)
- ▶ Blackstone Advanced Technologies (Metal Fab.)
- ▶ Remtronics (Space Servos)
- ▶ Allen Industrial (Technology supplier)
- ▶ SKF Aeroengine (Bearing manufacturing)
- ▶ Heidenhain (CNC controller manufacturing)
- ▶ Titan X Manufacturing (Automotive cooling)
- ▶ Excelco Newbrook (Custom fabrication including titanium)
- ▶ Trucklite (Automotive lighting)
- ▶ Rand Machine (CAD, CAM, CNC, Mill work)



Questions and Comments

