AET

Perspectives

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Welding Technology
Program is available at Main Campus, North Campus, and Vernon Malone College & Career Academy. Day and evening classes available.

Architectural Technology
Program available at Main Campus. Day and evening classes available.

Heavy Equipment Operator
Program available at Main Campus. Day and evening classes available.

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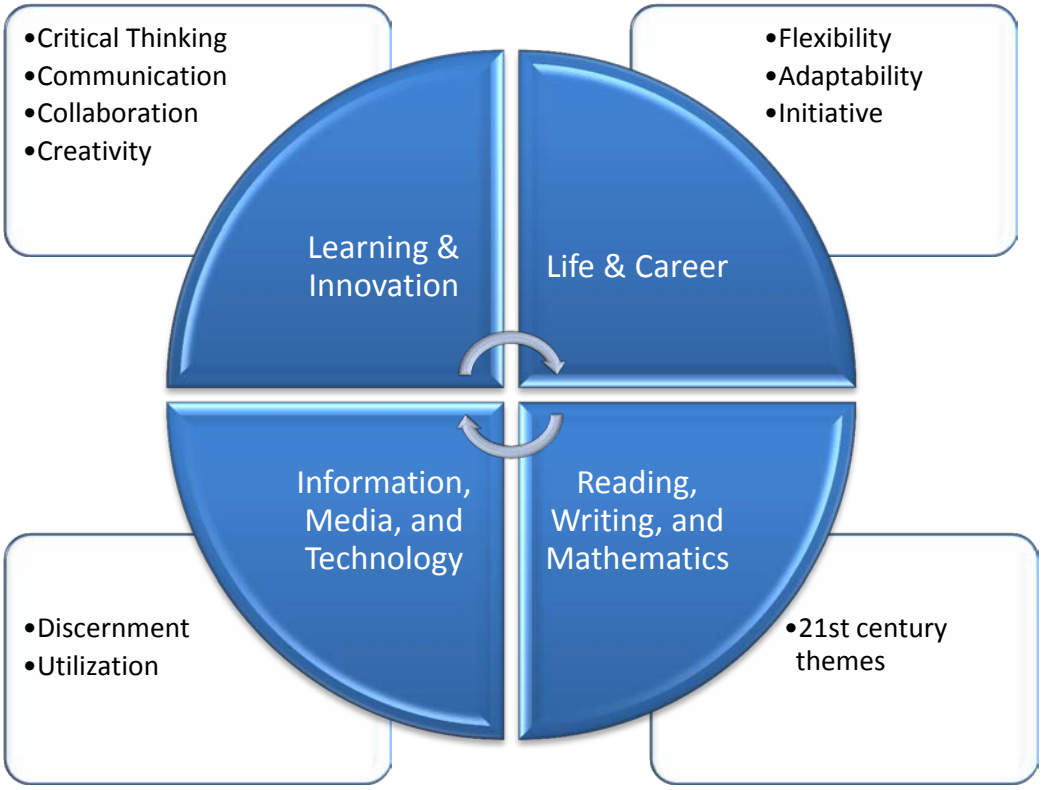
What is P21?

P21 is an educational framework that seeks to align learning with the skills, knowledge, and aptitudes necessary to compete in the modern, global, connected economy. How does your program address 21st century competencies?



Three Faculty from the Applied Engineering & Technologies Division discuss P21, 21st century competencies, and how they relate to their respective programs.

Welding Technology

Chris Gitthens, Program Director

I see products of a broken public education system every semester. Students that find little to no joy in learning and no initiative to start now. They have been taught the requirements to pass standardized test with no substance provided in their education. I know this is a broad blanketing statement, I am

aware there are exceptional teachers in the public school system, but the educational system is not set-up to develop a love of learning.

P21 appears to be a framework that not only brings in the “digital and connected age” but could also reform what is now the “norm” in public school. In my opinion learning experiences are far better teachers than concepts expounded upon from the front of the classroom. This reformation, a blend of classical education and digital connectivity (my label, or better yet “my wish”– not supported in the P21 literature) would require not only a structural change in the public education framework but also an acceptance of new or old “tried and true” standards.

One concern I have is how balanced the skill sets introduced by P21 are (will be). I believe in many cases social, environmental, and global agendas over shadow what education should be: critical thinking, communication, problem solving, and creativity supported by (or supporting) core subjects. The public school system should not be indoctrinating students. What is the purpose of having required skill sets, outside of “core education” at this level? Early on students should be given the tools necessary to develop their understanding and thought processes, their opinions and beliefs will develop as they mature. Again I know this is an easier said than done blanket statement, but our public school system has been in decline for many years. Minus any possible social agenda P21 could be a great framework to reform public education.

Architectural Technology

Phillip Jefferson, Program Director

Architectural education to many sounds intriguing. Architecture itself to many sounds interesting. You may hear from those that had a desire to become an architect at one point, but then realized how much mathematics was involved and completely disregarded it as an option. As architectural faculty and professionals, we hear that a lot. Others find that they may not have a creative bone in their body and cannot fathom being taught to be creative. These are merely opinions however. It is even fair to say that “those” architecture students don’t sleep; as they remain awake at night working on detailed drawings or three dimensional models for a design or project critique the next day. Some feel that way of working is ludicrous and definitely decide to stay away. Does the intense long days of work, late night work and pots of coffee represent a level of procrastination? It may merely represent an institutional way of learning that has been generated over centuries of time. This may be a true statement and it very well may not be a true statement.

The truth is that the history of the profession of Architecture education has been vetted in the notion that all preparation necessary to study was based on the understanding of true classicism of art, or more specifically the study of the art of Greece and Rome. The Ecole Des Beaux-Arts (School of Fine Arts) was the basic form of the Architectural Education that was introduced in 1648. Merriam Webster’s describes Beaux-Arts as, “characterized by the use of historic forms, rich decorative detail, and a tendency toward monumental conception in architecture.” In most architecture schools where the theory behind their teaching rests on the Ecole Des Beaux-Arts, there is much expression behind the idea of history and theory of the classics and studying

drawings and sculpture, art, perspective and true expression as learned from history to shape the education of the architecture student. Schools that follow this curriculum of teaching ranges from Massachusetts Institute of Technology (MIT), Columbia University, University of Pennsylvania, the University of Florida, University of Virginia and a host of others. The Ecole Des Beaux-Arts also used what we call the Charrette. It is an intensive short design process of which the student or designer solves a problem and must submit final work in a short design period. The image below represents the collection of the work of the Charrette where a carte was pulled down the streets as students are shown to continue to work until placed in the carte. Unfortunately, this has been the history of the profession and of our architectural education. A level of rigor in our education is a theory of our practice of architecture that must be taught, in which all time can and must be spent in full study of the criticism of the work to be completed. We test theories and assumptions for all possible solutions that can be applied through a rigorous drawing process. The Ecole Des Beaux-Arts practices on the professor-student relationship where the professor serves as a master of his/her field of study and the student learns from their background and research.

Heavy Equipment Operator

Jared McDonough, Instructor

1. How does the HEO program help critical thinking?

- Helps the student learn time management skills for job and task deadlines
- Throughout the program, students are challenged to "think outside the box"; to analyze and evaluate issues as they arise and be able to come up with solutions that challenge their current ways of thinking. Students learn the ability to "see" the finished product from the start.

2. How does HEO program help with problem solving?

- Teaches the student how to prioritize job tasks to achieve the best final product, and to determine multiple ways to accomplish similar tasks in different scenarios, and with different available equipment.

3. How are the students more adaptable in the work force after completing the program?

- With the level of technical training and certifications achieved; the ability to operate a wide variety of machinery; the increase in critical thinking and problem solving skills; and the confidence that they are competent in their learned skills, sets the graduate student on the path for success in the workforce.

4. How does HEO program make you a better employee?

- Due to the small class to instructor ratio, each student is given the 1:1 attention each needs to reach their individual potential, not only do students learn to identify and operate equipment they also acquire the skills to identify maintenance issues and how to locate and initiate repairs.