

Governor's Institute For Construction Technology Careers Action Plan for Developing Standards-Based Curriculum

Integrated Curriculum Plan – Construction Technology Franklin County Career & Technology Center

Presented
By

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1. Gaining administrative support for integrated curriculum plan.

- Do research of successful graduates from schools that have integrated curriculum, making sure there are statistics to support information gathered from the educational and industrial realms.
- Receive support from Joint Operating Committee (school board), local employers, local government officials, Builder's Associations, Occupational Advisory Committees and post-secondary technical schools. Have supporting documentation as to the needs of the employers and success ratios of post-secondary completers involved with integrated curriculums.
- Review the goals and mission of the administration and make sure the plan fits into the total plan.

2. Mission Statement

To develop an integrated curriculum of academic, technical, and career skills education, that will allow students to reach their maximum potential in school and prepare them to be able to compete for careers in tomorrows world class workforce.

3. List of “enduring understandings” for all students’ success in work, college and/or in community.

- Safety
- Trade Math
- Hand Tools
- Power Tools
- Terminology
- Blueprint Reading
- Electrical Test Equipment
- Electrical Cable Identification
- Electrical Box Identification
- Material Identification
- Residential Wiring
- Trouble Shooting
- Panel Boxes
- Career/Survival Skills
 - Job Applications
 - Resume
 - Job Interview
 - Team Building
 - Communications (Reading, Writing, Speaking, Listening)

4. Crosswalk of “Academic Standards” and “Technical Competencies.”

Each of the instructors within the Construction Technology Department will review and select the “Academic Standards,” that are relevant to their specific programs, units and lessons.

Programs within the Construction Technology Department include: Building Trades Maintenance, Carpentry, Drafting Design, Electrical Occupations, Heating/Ventilating/Air Conditioning, Masonry and Plumbing.

The “Academic Standards” areas include: Reading, Writing, Speaking and Listening; Mathematics; Science & Technology; Environment & Ecology; Social Studies; Arts & Humanities; Career Education & Work; Health, Safety and Physical Education; Family & Consumer Science.

A few “Academic Standards/Objectives” as they are related to three of the Construction Technology programs, Building Trades Maintenance, Electrical

Occupations, and Heating/Ventilating & Air Conditioning are listed below. If you would like to get more information on the Franklin County Career & Technology Center's correlation of "Academic Standards" to vocational/technical programs, contact Dr. Duane Beidel, Assistant Director at the Franklin County Career & Technology Center, 2463 Loop Road, Chambersburg, PA 17201-8895.

Reading, Writing, Speaking and Listening

- 1.1A Locate various texts, media and traditional resources for assigned and independent projects for reading.
- 1.1F Understand the meaning of and apply key vocabulary across the various subject areas.
- 1.4D Maintain a written record of activities, course work, experience, honors and interests
- 1.4E Write a personal resume.
- 1.6A Listen to others.
 - 1. Ask clarifying questions.
 - 2. Synthesize information, ideas and opinions to determine relevancy.
 - 3. Take notes.
- 1.6E Participate in small and large group discussions and presentations.
 - 1. Initiate everyday conversation.

Mathematics

- 2.1A Use operations (e.g., opposite, reciprocal, absolute value raising to a power, and finding roots, finding logarithms).
- 2.2A Develop and use computation concepts, operations and procedures with real numbers in problem solving situations
- 2.2B Use estimation to solve problems for which exact answer is not needed.
- 2.2F Demonstrate skills for using computer spreadsheets and scientific and graphic calculators.
- 2.3A Select and use appropriate units and tools to measure the degree of accuracy required in particular situations.

- 2.5A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.

Science & Technology

1. Explain scientific principles of chemical, physical, biological phenomena.
2. Demonstrate knowledge of concepts & principles of physical, chemical, biological & earth sciences.

Environment & Ecology

3. Think critically & generate potential solutions to environmental issues.

Social Studies

4. Examine and evaluate problems facing citizens in their communities.
7. Demonstrate skills of communication, negotiating, cooperating with others
8. Demonstrate that they can work effectively with others.

Arts & Humanities

1. Describe meaning they find in various works from visual & performing arts & literature.

Career Education & Work

1. Explore purposes of work & range of career options
2. Assess how changes in society, technology, government, economy affect individuals, careers, learning.
3. Understand & demonstrate importance of relating academic & vocational skills to jobs.

4. Vo-tech students complete required skills to succeed in a particular occupation.

Health, Safety and Physical Education

1. Develop knowledge of injury prevention & treatment & ability to respond in emergency situations.
4. Identify advantages of avoiding tobacco, alcohol & substance abuse.
6. Demonstrate leadership skills & ability to work cooperatively in team sports & activities.

Family and Consumer Science

1. Demonstrate knowledge of principles of consumer behavior.

5. Integration Model that best meets the standards effectively.

After taking into consideration our school's needs, existing programs, teacher availability, local labor markets, project goals, resource availability and classroom availability, the team has selected the following integrated model: ***More Academic Content in Vocational Courses.***

Following is some of the criteria used in selecting this model:

Benefits

- ✓ Student academic benefits
- ✓ Ease of adoption
- ✓ Commercial materials available
- ✓ Limited expense
- ✓ Remediation skills only

Limitations

- ✓ Segregation of courses
- ✓ Segregation of teachers
- ✓ Segregation of students

Resource Commitments

- ✓ People – low
- ✓ Time – low
- ✓ Money – low
- ✓ Facilities – low

Appropriate Class Scheduling

- ✓ Any type

Appropriate Student Populations

- ✓ Vocational

Appropriate Discipline Included

- ✓ All technical areas