

Carpentry

Recommended High School Courses/Levels

- Reading level 9.3
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- Math Courses
 - Algebra I – First year
 - Geometry – Second year
 - Algebra II – Third year
- Science Courses
 - Chemistry - Second year
 - Biology - Third year

**relates to student's years in program at ICTC and expectations during that year*

**detailed list of math skills noted in academic skills*

Recommendations for Success

- Basic skills to handle materials accurately, efficiently, and safely
- Read and interpret blueprints & other technical documents
- Physical fitness
- Manual dexterity
- Focus on detail
- Discrimination by touch
- Physical stamina/able to lift 20 pounds
- Good sense of balance/no fear of heights
- Ability to solve arithmetic problems quickly and accurately
- Excellent eye-hand coordination
- Able to follow written and oral directions
- Able to retain mechanical and structural detail
- Good attendance/homework completion



**This document is strictly intended to provide an overview of the program and to be used as an informative tool.*

Essentials skills is a tool to assist districts, parents, and students in the decision making process for program decisions, transition planning, and possible placement here at ICTC.

**This document is not intended to and should not be used as a screening tool for student placement.*

Indiana County Career and Technology Center	Program Area Carpentry
Objective of field	Carpentry-related theory and skills are taught using a competency-based instructional framework requiring students to demonstrate their ability to safely perform specific job-related tasks in order to prepare for the carpentry job market
Classroom Tests	*CEP students – 16 for one semester First Year – 35 for the year Second Year – 25 for the year Third Year –15 for the year *Career Exploration Program offered in 9 th grade
Certification Tests	NOCTI* PA Skills
Books	2 text - <u>Residential Construction Academy/Carpentry</u> - <u>Carpentry 4th edition</u>
Lecture Time	First Year and CEP students – 1 hour, 3 times a week Second year – 1 hour, 3 times a week Third year – 1 hour, 3 times a week
Co-op/Clinical	Instructors recommendation ICTC requirements
Homework	- Chapter reviews - Completion of any assignments given
Task Lists	CEP students – 12 per semester First Year– 44 for the year Second Year – 56 for the year Third Year – 29 for the year
Planned Courses	- Hand and Power Tool Operation (First year) - Building Layout (First year) - Floor Framing (First year) - Wall and Ceiling Framing (First year) - Roof Framing (First year) - Exterior Finish (First year) - Interior finish (Second year) - Math (First, second, and third year) - Concrete Footing, Foundations and Forms (Third year)
Prerequisites	- Hand/eye coordination - Basic math skills - Tool knowledge
Academic Skills	<u>Reading Level 9.3</u> <u>*Math Skills</u> - Fractions (add/subtract, multiply/divide) - Decimals - Area of rectangles, triangles, circles, and trapezoids - Order of operations - Decimal/fractions/percent conversions - Basic trigonometry (sin, cos, tan) - Pythagorean Theorem - Volume - Solve equations - Linear measure in Standard and Metric units - Working backwards with area and volume
Soft Skills	- Communication - Problem-solving - Writing/reading - Interpersonal skills
Computer Skills	Basic (Internet, email, and Word)
Physical Requirements	- Lift 20 pounds - No fear of heights - Physical fitness - Manual dexterity - Discrimination by touch - Excellent eye-hand coordination
Vocational Testing	- Structural mechanical visualization/reasoning - Discrimination by size/shape

Essential Aptitudes for lab recommended levels	<ul style="list-style-type: none"> - Gross/fine motor skills - Discrimination by touch/color - Manual dexterity - Retention of mechanical and structural detail
Job Duties	Students receive instruction in all phases of residential carpentry. Beginning with design and layout, students continue their course work up through the final stages of interior and exterior finishing and trim installations.
Training	Students gain the entry-level foundation skills for them to enter either immediate employment or post-secondary training which allows them to choose from a variety of other carpentry-related fields
Uniform Requirements	<ul style="list-style-type: none"> - Boots - Long pants - T-shirt
Articulation/Agreements (refer to course catalog for more)	<p>Penn College Full Year – 3 credits per class Advanced Standing – Pennsylvania College of Technology – up to 15 credits</p>
Employment/Job Outlook	<p>Job opportunities for carpenters are expected to be excellent over the 2004-14 period, particularly for those with the most skills. Employment of carpenters is expected to increase about as fast as average for all occupations through 2014, and turnover also creates a large number of openings each year. http://www.careerprospects.org/briefs/EJ/Electricians.sht</p> <p>Salary can range from 36,000-45,000 or more. Hourly rate varies depending on type of job from \$13.00-\$19.00</p> <p>Career Opportunities</p> <ul style="list-style-type: none"> - Carpenter* - Carpenter, Construction* - Carpenter, Finish Specialist - Carpenter Maintenance - Drywall Installer - Roofing or Siding Specialist - Home Center Service Personnel - Construction Management* - Building Construction Technician* <p>*Post-secondary education required</p>
How to find out more?	<p>http://www.ictc.ws/Secondary/eo/p_home.htm US Department of Labor http://www.bls.gov/oco/ocos202.htm www.carpenters.org/ http://www.edinformatics.com/careers/carpenter.htm</p>

* National Occupational Competency Testing Institute