

CTE

INNOVATION
EDUCATION
OPPORTUNITY

BUILDING TRADES

2020-21

COURSE SYLLABUS

CAREER AND TECHNICAL EDUCATION

FRANKLIN-ESSEX-HAMILTON BOCES • ADIRONDACK EDUCATIONAL CENTER

CTE IS A DIVISION OF THE FEH BOCES
711 NY-3 • SARANAC LAKE, NEW YORK 12983 • 518-891-1330
WWW.FEHB.ORG



BUILDING TRADES



Building Trades

Course description	Building Trades is a two-year program offered to students at FEH BOCES in Malone. We currently use the trade curriculum developed by the Residential Construction Academy, which was created by the construction industry across the country. The program provides students with basic knowledge of tools, methods, and materials used in the construction industry. Emphasis is placed on construction theory as well as related math, science, and ELA. Students will be educated about the tools, materials, technologies, and techniques currently used in the field. Practical experiences make a difference with employers and colleges. Students will be working on-site constructing either a modular home or a tiny house, performing community service, and working on a variety of small construction projects each year.	
Prerequisites	Building Trades students may be out in the environment (weather) and on their feet for long periods of the time. This course also involves intense physical activity; therefore, students should be in good physical condition. Students should also have a good working knowledge of math, science, and English 10.	
Program length	2-year, half-day program	
Location	North Franklin Educational Center (NFEC)	
Course objective	Students will be prepared for employment in the construction field through the application of workplace skills such as teamwork, problem solving, decision making, and time management. Students will acquire the skills and knowledge required to work safely in the construction field. Students are also prepared for and encouraged to pursue further education at community colleges, apprenticeship programs, and industry-sponsored training programs.	
Course topic outline	<ul style="list-style-type: none">• Introduction and orientation• Construction math• Introduction to blueprints• Floor systems• Wall (wood/steel) and ceiling framing• Windows and exterior doors• Exterior finishing• Thermal and moisture protection• Basic safety• Introduction to hand tools• Power hand and stationary tools (lab and theory)• Building plans and codes• Wood building materials, fasteners, and adhesives• Roof framing/roofing applications• Site Layout One (distance measuring and leveling)• Interior finishing• Basic stair layout• Basic employability skills	
Student course requirements	In order for the student to gain national recognition he/she must obtain at least 85% or better for six marking periods. (No more than thirteen absences in six marking periods.)	
Textbooks & resources	Vogt, Floyd, Residential Construction Academy: Carpentry, 4 th ed. Cengage Learning, 2015. Core Curriculum: Introductory Craft Skills Trainee Guide, 4 th ed. Pearson, 2009. MacLaughlin, Nina. Hammer Head: The Making of a Carpenter. W.W. Norton, 2016. Williams, Dee. The Big Tiny: A Built-It-Myself Memoir. Plume, 2014. Various industry-based articles and literature	
Assessments	The students are assessed daily on laboratory work, exams and quizzes. The technical assessment exam (both written and performance) is based on the NOCTI exam core. Students will also produce a professional portfolio.	

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Grading system	Skill 67% (attendance, participation, employability skills, work ethic) Theory 33% (tests, quizzes, class projects, portfolio and industry-based literature)
Attendance & class participation	The FEH BOCES attendance policy requires students to conform to their component district's policy. For those times when it is necessary to be absent, a written note from the parent/guardian will be expected the next class day.
Activities/labs/projects/clinics	All activities and labs are focused on the construction of either a modular home or a tiny house. The students will be involved in fund raising projects throughout the year. Students will also be building their work portfolio throughout the year to use towards obtaining gainful employment.
Required materials	Students are required to wear long work pants, closed-toed shoes (both to be provided by the student), and safety glasses (which will be provided) in the laboratory, as well as hard hats (which are provided) whenever any project or task is being performed overhead.
Industry certification	One- or two-year completion certificate in Building Trades OSHA 10-Hour Occupational Safety certificate Hilti powder actuated tool certification Manlift operator certification HBI/NAHB certifications following successful completion and achieving at least 70% on the technical assessment NOCTI (National Occupational Competency Testing Institute)
Articulation agreements	<p>Each Career and Technical Education (CTE) program prepares students for the world of work and for the rigors of post-secondary coursework. Each program partners with area colleges to obtain articulation agreements that allow for advanced standing or the issuance of credit to those CTE students meeting all program requirements and articulation agreement standards. FEH BOCES has an articulation agreement in Building Trades with the following:</p> <ul style="list-style-type: none">• SUNY Canton• International Brotherhood of Carpenters Joint Apprenticeship
Related careers/ Post-secondary training	Career opportunities include construction business owner, construction manager, site supervisor, site foreman, construction site laborer, cost estimator, brick mason, stonemason, carpenter, carpenters' helper, flooring installer and finisher, cement mason, construction and building inspector, construction equipment operator, crane operator, laborer, drywall installer and finisher, hazardous waste and materials removal worker, insulation worker, painter and paper hanger, plumber, plasterer, roofer, sheet metal worker, and structural and reinforcing iron worker.
ELA/math/science credit integrated academic overview	Each CTE program offered at FEH BOCES includes four major curriculum elements for students to receive credits: CTE, math, science, and English Language Arts (ELA). CTE instructors collaborate with certified science and math instructors. The ELA curriculum element uses a co-teaching model between the CTE subject experts and a certified English instructor. Topics in English, science, and math are tied to specific business and industry course content to show students how academic material relates to real-world business knowledge and skill. English, science, and math elements are taught at the commencement level and meet Next Generation Standards for students to obtain one (1) credit for each over a two-year period.

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ELA/math/science credit integrated academic overview	Curriculum Elements	11th Grade Credits	12th Grade Credits
	Career and Technical Education (CTE)	2.5	2.0
	Commencement Level Math	0.5	0.5
	Commencement Level Science	0.5	0.5
	English Language Arts	0.5	0.5
Career & financial management credit overview	Each CTE program offered at FEH BOCES offers a career & financial management credit to all students who successfully complete a CTE program. This curriculum element is composed of two major parts: (A) Introduction to Occupations and (B) Nature of Industry. Part A is delivered through integrated class assignments, while Part B is automatically delivered due to the nature of CTE.		
Student-affiliated organizations	There are different student-affiliated organizations that the students have the opportunity to be involved with, including Student Council and National Technical Honor Society.		
National Technical Honor Society nomination requirements	<ul style="list-style-type: none">• Maintain a cumulative CTE average of 85% or higher based upon the first six quarter grades.• Maintain a record of excellent attendance in CTE (13 days over the first six quarters).• Plan to pursue a career in their field of training.• Maintain an outstanding record of employability skills as judged by the CTE instructor.• Nomination by the CTE instructor with no reservations.• Instructor nomination must include a "yes" answer to the following characteristics established by the national office: follows instructions, safety conscious, dependable, trustworthy, responsible, honest, works well with others, takes pride in work, exhibits a good attitude, exhibits leadership, and exhibits good citizenship.		
WBL experiences & requirements	Each CTE program has a Work-Based Learning experience. This means that all students prior to the end of the second year are given the opportunity to be exposed to the operation of a business and specific job duties related to careers in their CTE area. This internship is designed to connect the skills and knowledge learned in the CTE classroom with the real world requirements of a business. Students must demonstrate good attendance, attitude, internship records, and work ethics, as well as respect for others and property.		



CTE

MISSION:

Provide high-quality educational programs and shared services for our students, schools and communities.

VISION:

Maximize the potential of each individual so today's learners become tomorrow's skilled professionals.

CORE BELIEFS:

- Everyone can learn and grow.
- We place students at the forefront of all decisions.
- We model integrity, positivity, hard work and professionalism.
- We value creativity and innovation.
- We embrace diversity and treat each other with respect, compassion and dignity.
- We offer multiple pathways to success.
- We build effective partnerships through collaboration and shared decision-making
- Safety is everyone's responsibility.



NOTES:



The Franklin Essex Hamilton BOCES does not discriminate on the basis of an individual's actual or perceived race, color, religion, creed, ethnicity, national origin, citizenship status, age, marital status, partnership status, disability, predisposing genetic characteristics, sexual orientation, gender (sex), military status, veteran status, domestic violence victim status or political affiliation, and additionally does not discriminate against students on the basis of weight, gender identity, gender expression, and religious practices or any other basis prohibited by New York State and/or federal non-discrimination laws in employment or its programs and activities.

The District provides equal access to community and youth organizations. Inquiries regarding the District's non-discrimination policies should be directed to:

Civil Rights Compliance Officer, 23 Husky Lane, Malone, NY 12953
(518) 483-6420
civilrightscompliance@fehbm.org

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