

**Building Construction Occupations (BCO)  
2018-2019 Program Syllabus  
Instructor: Mr. Frank**

**Program Overview**

The Building Construction Occupations (BCO) course concentrates on the fields of residential and commercial construction. Students will gain skills, knowledge, and experience needed for entry and advanced level job placement in the construction trades. In addition, students will be introduced to several different career opportunities and choices found within the construction world. Students in the BCO program will also gain a competitive advantage when seeking a career in the construction trades by acquiring knowledge and recommendations from local contractors and business owners.

**Instructional Philosophy Program**

This course requires students to do an extensive amount of hands on activities, and it also requires a great deal of research and theory to develop an educational foundation in construction. Students will learn construction as an interdisciplinary subject by integrating aspects of design and mathematical concepts. BCO students will be required to work in groups to achieve goals and complete projects. Students will also be required to work independently planning and building several construction projects. Students will be assessed on their ability to participate, work safely, and overall project success.

**Course Goals**

Students in the BCO program will be able to:

- Explain the role safety plays in construction
- Identify and follow all basic rules for using hand and power tools
- Demonstrate hand tool and power tool operation
- Read and demonstrate basic plans and blueprints
- Perform site and building layout
- Utilize skills in calculating and placing concrete
- Construct brick and block walls
- Perform basic framing
- Estimate and install roof coverings
- Install insulation
- Install basic plumbing
- Install basic electrical components
- Demonstrate and install interior finishes
- Calculate and cut stair stringers
- Apply technical concepts of design

## **Major Course Projects and Assignments**

1. Technical Project Safety: Students will be tested on the following:
  - Appropriate dress
  - Tool care and maintenance
  - Tool usage
2. Design Projects:
  - Research and design a basic building project (Based upon an assigned design brief)
  - Research and design a functional blueprint
  - Participate in several enhanced CTE projects. (Students will use construction knowledge and skills to evaluate, design, test and build solutions to authentic real world problems.)
3. Academic Projects:
  - Demonstrate a working knowledge of basic math skills related to the Pythagorean Theorem
  - Prepare an essay in coordination with their basic building project design
  - Write estimates and price calculations related to construction projects
4. Technical Performance Projects:
  - Layout walls on 16" centers
  - Solder a working plumbing system
  - Wire several electrical circuits containing numerous electrical components
  - Design and build a functional rafter system

## **Requirements**

Since our objective is to train students for employment, these items are required in the workforce and are necessary for educational and safety purposes at the Greene County Career & Technology Center.

- Steel Toed Boots or Shoes
- Claw Hammer
- Students must purchase a BCO uniform shirt (\$12.00 Each)
- Steel Measuring Tape Rule
- Tool Belt
- SkillsUSA Dues \$13.00

## **Grading Policy**

Students will be given daily points for wearing proper attire, demonstrating shop safety, attendance, and effort while working on shop projects. Students will also be graded on tasks, tests, quizzes, and reading assignments. All seniors are required to take the NOCTI exam, which is both written and performance based, as part of their final grade during their senior year.

**Assessment Plan**

Assessments are designed to evaluate a student’s ability to conduct and demonstrate core construction concepts and procedures. Appropriate accommodations will be made for students with learning and physical disabilities.

**Methods of Evaluation**

The assignments and assessments for this course will be graded using a weighted system of measurement. Students will be evaluated on the following items and they will constitute their final quarter grade:

- Tests (20%)
- Tasks (20%)
- Participation/Attendance (60%)
- (Seniors) NOCTI Test and portfolio-20% of final grade\*  
\*for eligible seniors only
- (Juniors and Sophomores) Career Readiness Grade level requirements-20% of final grade

**NOCTI Assessment**

All eligible seniors completing the program are required by the state of Pennsylvania to take a National Occupational Competency Testing Institute (NOCTI) exam related to their program or study. NOCTI provides occupational competency assessments required by the PA Department of Education (PDE) to measure and evaluate a student’s competency in their technical program. Students must take both the written and performance sections. **This test will be used as a cumulative final exam grade of 10% for tested seniors.**

The final grade will be distributed according to the sending school’s grading scale:

Final Grade	CHS	JMHS	MHS	WCHS	WGHS
A	100-93	100-92	100-90	100-90	100-90
B	92-85	91-82	89-80	89-80	89-80
C	84-75	81-70	79-70	79-70	79-70
D	74-65	69-60	69-60	69-60	69-60
F	64 and below	59 and below	59 and below	59 and below	59 and below

**Discipline and Make-up Work**

Discipline and make-up work will be done according to the Greene County Career and Technology Center student hand book.

**Classroom Discipline**

Students must adhere to the GCCTC Student Handbook Policies and Conduct Expectations. If students violate ANY of the policies the following interventions will be used:

- **First Offense** - Warning (offenses of a serious nature will be handled in cooperation with administration immediately)
- **Second Offense** - Phone Call or Email home and/or a referral to guidance counselor
- **Third and Subsequent Offenses** - Referral to Administration

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**By signing below, you acknowledge having read and understand the Building Construction Occupations Program Syllabus.** Parents/ guardians and students will be notified if any changes need to be made to the course policies. If you have additional questions and/or comments, you may call the school at (724) 627-3106 to speak with the teacher or email Mr. Frank at [frankl@greenectc.org](mailto:frankl@greenectc.org).

**Guardian/ Parent Signature:**

**Date:**

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**Student Signature:**

**Date:**

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