## 

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Okaloosa Technical College

## Syllabus

## Program Title: Building Trades and Construction Design Technology

## Program Type: Career Preparatory

## Career Cluster: Architecture & Construction

**Instructor: Mr. Royal Preston**

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**Program Description:** The purpose of this program is to prepare students for employment or advanced training in the building construction industry.

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Architecture and Construction career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Architecture and Construction career cluster.

The content includes but is not limited to applying construction techniques; reading plans and specifications; and developing trade skills in carpentry, masonry, electricity, plumbing and air conditioning.

### Program Structure:

| OCP | Course Number | Course Title | Length | SOC Code |
| --- | --- | --- | --- | --- |
| A | BCV 0080 | Building Construction Assistant | 300 Hours | 49-9071 |
| B | BCV 0081 | Carpentry and Masonry Technician | 300 Hours | 49-9071 |
| C | BCV 0082 | Electrical and Plumbing Technician | 450 Hours | 49-9071 |
| D | BCV 0083 | Building Maintenance Technician | 150 Hours | 49-9071 |

**Standards:**

**After successfully completing this program, the student will be able to perform the following:**

1. Demonstrate safety practices and follow disaster plans.
2. Identify and use basic hand tools.
3. Identify power tools and describe their proper operation.
4. Research, identify, classify and present construction components, materials, hardware and characteristics.
5. Demonstrate an understanding of the construction industry and related occupations.
6. Explain the importance of employability and entrepreneurship skills.
7. Demonstrate rough and finish carpentry skills.
8. Demonstrate masonry skills.
9. Demonstrate painting and decorating skills.
10. Demonstrate science knowledge and skills.
11. Demonstrate mathematics knowledge and skills.
12. Explain all that the built environment encompasses.
13. Demonstrate an understanding of the natural environment, built environment and green built environment.
14. Research laws applicable to the construction industry.
15. Develop a basic understanding of construction contracts and how they apply to the construction process
16. Demonstrate electrical rough in skills.
17. Demonstrate finish electrical skills.
18. Demonstrate plumbing rough in skills.
19. Demonstrate finish plumbing skills.
20. Demonstrate heating, ventilation and air conditioning (HVAC) rough in skills.
21. Demonstrate finish heating, ventilation and air conditioning (HVAC) skills.
22. Demonstrate design technology.

**Required Textbooks:**

Text books required for this program: National Center for Construction Education and Research (NCCER) NCCER Core Trainee Guide, 4th Edition, ISBN 978-0-13-608636-9.

NCCER Construction Technology Trainee Guide, 4th Edition, ISBN 13: 978-0-13-413039-2

The student must be prepared to participate in activities (hands on) to gain the aforementioned skills.

**Required Tools /Supplies:** Safety Glasses, Cloth or Leather Tool Belt, 16 or 20 oz. Claw Hammer, Screwdriver Set, Measuring Tape, ¾” Wood Chisel, Speed Square, Utility Knife, Nail Sets, Chalk Box, Cat Claw, Notebook, Calculator, #2 lead pencils.

**Grading Criteria and Requirements:**

**Participation / Performance-------50%**

Each student will earn weekly Participation, and Performance grades based upon;

1. **Quality** of performance (as observed by the instructor).
2. Student’s willingness to exhibit personal **effort**.
3. Overall **attitude** toward the training program

In order to exercise good employability skills the following is expected daily:

1. Come to school every day, and on-time.

1. Bring a pencil and notebook to class
2. Participate with team
3. Wear tool belt
4. Use personal protection equipment; hard hats, safety glasses and shoes.

Flip flops and open toe sandals are strictly prohibited.

1. Everyone helps clean-up and gather tools at the end of class.

**Written assessments------25%**

1. **Written Tests** on classroom instruction covering construction of the houses.
2. **Review Questions**. In order to help prepare for the NCCER online tests, students will complete review questions for each module. (open book)
3. **Practice Tests** for each module (Not open book – but you can use your notes)
4. **NCCER Online Tests** for each module. (no notes, aids, or texts allowed) 70% is passing All written grades hold equal weight.

**NCCER Performance------25%**

1. NCCER Performance Tests
2. Each student must successfully complete a minimum of 5 NCCER modules every 9 week grading period

**Grading Scale:**

90% and above = **A** - Superior

80% - 89.9% = **B** – Excellent/Good

70% - 79.9% = **C** - Satisfactory

60% - 69.9% = **D** – Needs Improvement

59.9% and below = **F** - Failing

**Performance Skill Rubric**

|  |  |  |
| --- | --- | --- |
| **Grade** | **Characteristics / Work Habits** | **Title/Wage** |
| **95/A**  **Superior** | Demonstrates leadership and initiative.  Thinks ahead and is focused on job at hand.  Pays attention to instruction, then is ready to perform.  Completes 5 to 6 NCCER chapters each 9 week quarter. | **Lead Carpenter**  **$20-$25/hr.** |
| **85/B**  **Excellent** | Ready and willing to help. Strives to do quality work  Looks for any opportunity to participate  Not content “waiting for…” Is able to keep busy.  Completes 4 to 5 NCCER chapters each 9 week quarter. | **Carpenter**  **$15-$20/hr.** |
| **75/C**  **Satisfactory** | Has to be told to participate  Is a follower, available to help when asked.  Focused on things other than the job at hand  Completes 3 to 4 NCCER chapters each 9 week quarter. | **Carpenter’s**  **Helper**  **$10-$15/hr.** |
| **65/D**  **Needs**  **Improvement** | Likes to sit – very little participation  Often is not working because they are “waiting for…”  Doesn’t help clean-up because “I didn’t make that mess”  Completes 3 or less NCCER chapters each 9 week quarter.  Probably should find another career field. | **Laborer**  **$8-$10/hr.** |

**Make-up Policy:**

All testing and assessments will be scheduled per course syllabus. Make-up work in not allowed unless instructor gives prior approval. The instructor may assign additional outside work to be completed for each absence.

**Attendance:**

See Student handbook for attendance policies. Attendance is vital to a student’s success.

**Shop Rules:**

**SAFETY FIRST!**

1. Please inform the instructor if you need to leave class for any reason during scheduled hours.
2. Employability Skills are strongly encouraged. Loafing will result in a poor daily grade. This class is designed to prepare you for employment in the construction industry.
3. Appropriate attire will be worn in the shop at all times. Shoes will be worn at all times. **No flip flops or sandals**. No loose or baggy clothing.
4. Safety glasses will be worn at all times when using any tools or equipment.
5. It is the responsibility of students to warn fellow students of unsafe practices when observed, and inform instructor if practices persist.
6. **Students will not be allowed to use any machinery or equipment until they have been instructed on correct use and proper safety for each piece of equipment**.
7. Safety pledge forms will be signed by the student and parent, and returned before the student can use any equipment.
8. Tools will be returned to the tool room at the end of every workday. No tools will be left out in the shop area or on the job-site. All students will participate in clean up at the end of the workday.
9. The classroom is for lessons and studying, not for sleeping or playing on your phone.
10. All projects must be approved by the instructor.
11. All visitors must be cleared through the front office and the instructor.
12. Profanity and foul language is not permitted!
13. This is a no smoking campus. Tobacco products of any kind are not permitted.
14. Treat instructor, staff, and fellow classmates with respect. A positive attitude is helpful.