

## **HIGH SCHOOL TECHNICAL TRAINING PROGRAM (HSTTP) SYLLABUS/CURRICULUM**

**This program is based on the International Residential Code (IRC) and covers the following disciplines: building, electrical, mechanical (HVAC), plumbing, masonry and energy.**

### **Required Materials**

1. International Residential Code *for one and two-family dwellings*
2. International Residential Code Study Companion
3. Knowledge of local build code adoption (contact local building department for current building code adopted in your area)

### **Familiarize Yourself with the IRC**

1. Review the section titled “Effective Use of the International Residential Code” to familiarize yourself and the students with the codebook’s layout.
2. Point out that the first 10 chapters of the IRC fall in the order a dwelling is constructed.
3. Review the table of contents and index in the back of the book. It will be easy to see the table of contents is a broad search tool and the index is a specific search tool.

### **Layout of the IRC**

1. Chapters 1, 2 and 3 are vital to all disciplines and are covered on every exam:
  - a. Chapter 1 explains permitting requirements.
  - b. Chapter 2 covers the importance of terminology.
  - c. Chapter 3 establishes the IRC as the model code of residential construction nationally.
2. Each discipline will then continue to the specific chapters associated with their trade.
  - a. Building, masonry and energy - Chapters 4 thru 11
  - b. Mechanical (HVAC) - Chapters 12 thru 24
  - c. Plumbing - Chapters 25 thru 33
  - d. Electrical - Chapters 34 thru 43

### **Navigating the codebook**

To work through the codebook, you can use two methods:

1. The sessions in the study companion serve as a workbook to guide students thru the chapters in the IRC. The study companion provides drawings, explanations and commentary to clarify the codebook. At the end of each study companion session, a practice exam is available to assist in preparing the student for the final exam.
2. As students learn the codes, it is important to relate the text to the work students are doing in the classroom or at the work site. Challenge students to review the code to determine if the work being completed complies or meets the intent of the code.
3. The instructor has the flexibility to navigate thru the codebook as it relates to the students’ projects at the pace best suited for the students’ abilities. Completion of a

chapter every three weeks will prepare students for testing in a single discipline within the school year.

4. Upon request, instructors can receive an exam associated with each discipline offered to their students. Instructors can obtain firsthand knowledge concerning the material related to the exam by taking each exam themselves.

### **When should the student take the final exam?**

1. The instructor will determine when the students are prepared to take the final exam based on the student's ability to complete the practice exams in the study companion.
2. There are two exams available for each discipline, providing students two opportunities to pass final exams. Upon passing an exam, students will receive a Certificate of Completion (COC).
3. Students can take exams in various disciplines in a single year and earn multiple COC's at no additional cost.

### **Testing Requirements**

1. All exams are open book and include thirty randomly selected questions from the study companion based on the requested discipline.
2. Students have 60 minutes to complete the final exam and must pass with a score of 70% or better to receive the Certificate of Completion.
3. ICC acknowledges school districts have modified testing for students with special needs and honors each school's policy on testing.
4. Instructors must collect all final exams and submit all scores with the correct spelling of each student's name, as it should appear on the Certificate of Completion.

### **Course Objectives**

Upon completion of the program, students will:

- be able to navigate the codebook
- understand code requirements associated with their discipline
- ensure code compliance as they work on residential construction projects
- be better prepared to take the inspectors exam or licensing exams for their profession

ICC certificates and certifications enhance career opportunities in all aspects of the construction profession and open doors to viable construction careers. With code knowledge, students can advance in their careers at an accelerated pace.

To obtain the exams and receive the Certificates of Completion, **please contact Jim Ellwood at [jellwood@iccsafe.org](mailto:jellwood@iccsafe.org).**