

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 (IRC) 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)

Getting Started 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: Chapter 1 explains permitting requirements, Chapter 2 covers the importance of terminology, and Chapter 3 establishes the IRC as the model code of residential construction nationally. Exams for each discipline covers these three chapters.
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 COC 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 ability and flexibility to navigate thru the codebook as it relates to the students’ projects and at the pace best suited for the student’s ability to

comprehend and navigate the codebook. Completion of a chapter every three (3) 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. Taking the exam allows the instructor to obtain firsthand knowledge concerning the material related to the exam.

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 COC exams available for each discipline, and students have two opportunities to take each discipline exam to receive a COC.
3. Students also have the opportunity to take multiple COC exams in the various disciplines in a single year and earn multiple COC's at no additional cost.
4. Upon passing the exam, students will receive the Certificate of Completion.

Testing regulations

1. All exams are open book.
2. Thirty random questions are selected from the study companion based on the requested discipline from the instructor.
3. The students have 60 minutes to complete the final exam and are required to pass with a score of 70% or better to receive the Certificate of Completion (The ICC acknowledges school districts have modified testing for students with special needs and the ICC will recognize and accept the school's policy on this type of testing)
4. Collect all final exams, return to the ICC along with the student's score and correct spelling of the student's name, as should appear on the Certificate of Completion.

Course Objectives

Upon completion of the program, students should:

- be able to navigate the codebook
- understand code requirements associated with their discipline
- be able to evaluate 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 will enhance career opportunities in all aspects of the construction profession and open doors to viable construction careers. With code knowledge, students can advance into supervisor, superintendents, project manager or business owner positions at an accelerated pace. To obtain the exams and receive the Certificates of Completion, please contact Madi Dominescy at mdominescy@iccsafe.org.