

BUILDING & ELECTRICAL TRADES



This program provides an overview of residential construction and installation practices for sheet metal, electrical, and structured framing. The above practices are applied to classroom, lab exercises, and jobsite installation. Upon completion of this program, students could pursue a career as one of the following: carpenter, electrician, heating/air conditioning technician/installer, or electrical utility lineworker. During the process of working at a building site, students will be expected to work both individually and as a member of work teams. This class requires lifting, climbing, and working outside in inclement weather. If college level work is attained, student may earn up to 13 LCC credits.

Program Location:

LCC West Campus

Session Offered: AM

Average Lecture Days/Week: 0-1 day

Average Lab Days/Week: 4-5 days

Homework: Rarely

Required reading:

College level textbook

Less than 25 pages/week

LCC Credits Available: 13

(If college level work is attained)

Student learning outcomes include but are not limited to:

- Safe work practices
- Sheet metal layout/installation
- Electrical meter use
- Electrical theory
- Electrical circuits
- Residential electrical wiring installation
- Framing structure
- Wall construction
- Stairway layout
- Proper use of tools

HIGH SCHOOL/COLLEGE CREDIT

The primary focus of the Eaton Intermediate School District Career Preparation Center is to enhance a student's high school curriculum by providing an opportunity to learn a technical trade and/or to obtain a head start on a post-secondary education.

All students completing an Eaton Intermediate School District's Career Center program at Lansing Community College **have the opportunity** to earn either direct or articulated college credit while completing their high school program if specific criteria are met.

LCC credit is awarded to a student who: a) completes the high school career and technical education course with a minimum of a "C" average; b) meets the performance objectives for a specific Lansing Community College course; and, c) passes the college course final examinations, if one is required. These credits are shown as numerical grades on the student's LCC transcript. Transcripts may be requested through Lansing Community College Enrollment Services Department by August following course completion.

The courses listed below show the possible LCC college credits that may be available to high school students taking an EISD Career Preparation Program.

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Credits listed below could be subject to change based on the project identified for the program.

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| BLDT 121 | Residential Framing & Foundations | 4 LCC Credits |
| Students will learn to frame residential buildings using accepted framing techniques such as framing member spacing, framing floor systems, interior and exterior walls, ceilings, roofs, and stairs. Various types of foundations and the advantages and disadvantages of each are covered. Hands-on methods are used. | | |
| ELTE 112 | Basic Wiring Installation | 2 LCC Credits |
| This course covers installation of a variety of wiring systems in wood frame construction. Students will practice installing nonmetallic sheathed cable, electrical metallic tubing and residential services. | | |
| HVAC 102 | Industrial/Construction Safety | 2 LCC Credits |
| This course covers safety in the industrial workplace and on construction worksites. Included are local, state and federal safety regulations. The focus will be on the prevention of accidents but will teach the correct response if an accident should occur. First aid, CPR/AED certificates will be issued upon successful completion. | | |
| HVAC 105 | Sheet Metal Fabrication & Installation | 2 LCC Credits |
| Designed to aid the installer in the skills and techniques for installation of residential heating and cooling systems. Topics covered include sheet metal layout, identification of sheet metal fittings, and general furnace installation procedures. | | |
| HVAC 110 | Applied Electricity | 3 LCC Credits |
| An introduction to basic electricity (AC and DC) using both theory and applied study methods. Topics will include electrical components, symbols, basic schematic diagrams, Ohm's Law applied to series and parallel circuits and motor types and usages. In conjunction with lab exercises, meters and their proper usage will be covered. | | |

For additional information concerning this program, go to: <http://www.lcc.edu/catalog/syllabus/>
Choose to search: by "Keyword" - Type in : e.i.s.d - then select current year