

Architecture & Construction

2019-20 Course Guide – Page 1 of 2

Architectural Design 1

Prerequisite: Mechanical Design 1
Grades: 10-12
Credit: 1 unit
Offered: Andrew Jackson, Career Center

You'll explore the world of residential architecture and learn how to layout and plan residential structures.

Architectural Design 2

Prerequisite: Architectural Design 1
Grades: 11-12
Credit: 1 unit
Offered: Andrew Jackson, Career Center

You'll design and construct residential house plans and construct 3-dimensional models to study use and space requirements.

Architecture & Construction Work-Based Credit (see Co-op for details)

Prerequisite: Senior enrolled in final level of an occupational program
Grade: 12
Credit: 1 unit
Offered: Buford, Career Center, Indian Land

You'll put your Architecture & Construction courses in action and get on-the-job training. See your guidance counselor and Page 15 sidebar for details.

Building Construction 1

Prerequisite: None
Grades: 9-11
Credit: 1 unit
Offered: Buford, Career Center, Indian Land

You'll learn basic carpentry skills including using hand and power tools and proper safety procedures.

You'll progress to projects like toolboxes, work stools and end tables.

Building Construction 2

Prerequisite: Building Construction 1
Grades: 10-12
Credit: 1 unit
Offered: Buford, Career Center, Indian Land

You'll learn basic residential carpentry, including how to frame a house and install utilities, as you learn basic steps to complete the rough-in and finish house systems.

You'll also get a brief overview of HVAC, electrical and plumbing.

You'll leave the course with basic framing skills and a thorough knowledge of house construction.

Building Construction 3

Prerequisite: Building Construction 2
Grades: 11-12
Credit: 1 unit
Offered: Buford, Career Center, Indian Land

You'll be provided with an in-depth knowledge of residential construction.

You'll start with a review of safety procedures and cover all home utility systems including electrical and plumbing.

Building Construction 4

Prerequisite: Building Construction 3
Grades: 11-12
Credit: 1 unit
Offered: Buford, Career Center, Indian Land

You'll get an overview of all construction trades and cover job skills and resume building.

You'll begin advanced building construction projects and be prepared to co-op your senior year in a desired construction field.

Carpentry 1 - Introduction

Prerequisite: None
Grades: 9-11
Credit: 1 unit
Offered: Career Center

You'll perform entry-level carpentry tasks supervised by an experienced carpenter.

You'll learn to identify and use construction tools and carpentry techniques to construct walls and floors.

You'll learn to identify construction materials and receive safety training.

Carpentry 2 - Basic

Prerequisite: Carpentry 1
Grades: 10-12
Credit: 1 unit
Offered: Career Center

You'll perform entry-level carpentry tasks supervised by an experienced carpenter as you learn to identify and use construction tools.

You'll use carpentry techniques to construct walls and floors and roof systems, and receive safety training used in the construction field.

Carpentry 3 - Intermediate

Prerequisite: Carpentry 2
Grades: 11-12
Credit: 1 unit
Offered: Career Center

You'll practice carpentry skills learned in Carpentry 1 and 2 as you construct walls, floors and roof systems.

You'll learn about roof coverings and interior and exterior wall finishes.

Carpentry 4 - Advanced

Prerequisite: Carpentry 3
Grades: 11-12
Credit: 1 unit
Offered: Career Center

You'll perform carpentry tasks under minimal super-

vision by an experienced carpenter as you identify and use construction tools.

You'll continue to use carpentry techniques to construct wall, floor, roof and foundation systems. You'll learn about concrete forms, roof coverings, interior and exterior wall finishes, finish carpentry and staircases.

Electricity 3 - Concepts & Applications

Prerequisite: Electricity 2
Grades: 11-12
Credit: 1 unit
Offered: Career Center

If you plan to major in engineering in college, you should take Electricity 3 – Concepts & Applications.

You'll get a basic understanding of electricity through both theory and hands-on experiments. A basic knowledge of math will be helpful.

Electricity 4 - Control Wiring

Prerequisite: Electricity 3
Grades: 11-12
Credit: 1 unit
Offered: Career Center

You'll get practical experience in controlling, repairing and maintaining electrical equipment used in industrial systems.

You'll learn about programming and maintaining industrial processes with computers as you study electrical theory and learn about tools, materials, testing and safety.

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Mechanical Design 1 - Intro to CAD (Entry-level)

Prerequisite: None

Grades: 9-11

Credit: 1 unit

Offered: Andrew Jackson, Career Center

You'll be introduced to the world of computer-aided drafting and design.

You'll construct two- and three-dimensional drawings.

Mechanical Design 2 - Engineering Graphics Design

Prerequisite: Mechanical Design 1

Grades: 10-12

Credit: 1 unit

Offered: Andrew Jackson, Career Center

You'll be challenged with real world design problems and sketch, layout and construct engineering-type drawings.