Walker Career Center

Architectural Drafting & Design II

DOE# 5652

Course Description and Outline

Presents a history and survey of architecture and focuses on the creative design of buildings in a studio environment. This course covers problems of site analysis, facilities programming, space planning, conceptual design, proper use of materials, and selection of structure and construction techniques. Students develop presentation drawings, and give oral presentations and critiques. Generation of form and space is addressed through basic architectural theory, related architectural styles, design strategies, and a visual representation of the student's design process. This course will focus on advanced Computer Aided Design (CAD) techniques, including fundamentals of three-dimensional modeling for design. It includes an overview of modeling, graphical manipulation, part structuring, coordinate system, and developing strategies of modeling. Advanced CAD will enable the student to make the transition from 2D drafting to 3D modeling. Various Architectural software packages and applications may be used.

Teacher Information and Student Supports

Name: Kevin Gogel
Email: kgogel@warren.k12.in.us
Phone: 317-532-6187

Course Supplies

- Classroom Textbook Set
- PC Desktop provided

Additional Supports

- Individual help by appointment when necessary

Journey of a Graduate Skills

Critical Thinking

- Students apply and adapt the design process to challenges found in architectural drafting scenarios
- Students integrate architectural concepts to produce industry standard drawings.
- Students synthesize architectural knowledge to design and create solutions.
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Communication

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- Identify and utilize the design process
- Recognize that budget constraints and customer needs are part of the design process
- Interpret demographics in an given area and relate it to the design process
- Interpret roof framing and calculations
- Identify and demonstrate proper use of drafting equipment
- Identify pictorial, isometric, and orthographic drawing types
- Identify and utilize drafting symbols
- Read an architectural scale
- Interpret and apply required codes, standards, specifications, and cross-referencing
- Identify and use multiple input methods to select commands on the CAD system
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Resilience

- Use various architectural and construction terminology correctly
- Show familiarity with conventional drafting standards
- Sketch proportionately and recognizably a given object
- Demonstrate advanced design sketching
- Demonstrate vertical Gothic lettering to quality standards
- Demonstrate acceptable line work and construction techniques

- Use and interpret sectioning techniques involving numerous line types
- Interpret residential planning and bubble diagrams
- Understand how to make a drawing to-scale

Collaboration

- Students select specific commands to develop drawings to meet industry standards.
- Demonstrate competence in the use of CAD software through assignments
- Correctly use word processing and CAD file exporting commands when completing assignments
- Retrieve and use help commands
- Navigate through and identify various parts of the CAD environment
- Complete assignments using specific software commands and processes
- Explain coordinate systems

Content Knowledge

- Find architectural drafting opportunities offered by a technical school or college
- Determine architectural drafting occupation wages/salaries
- Develop elevations
- Modify drawing elements using editing commands
- Draw wall sections
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Citizenship

- Students evaluate architectural careers to prepare for future training and employment opportunities
- Develop and draw a floor plan, foundation plan, and site plan.
- Read construction documents
- Research architectural drafting careers
- Research architectural drafting job outlook information

Grade Calculation

MSD Warren Township Scale

Grade	Percentage
A	92.5 - 100
A-	89.5 - 92.4
B+	86.5 - 89.4
B	82.5 - 86.4
B-	79.5 - 82.4
C+	76.5 - 79.4
C	72.5 - 76.4
C-	69.5 - 72.4
D+	66.5 - 69.4
D	62.5 - 66.4
D-	59.5 - 62.4
F	Below 59.5

Credits/Pathways

CORE 40 Diploma

Course fulfills two credits of the elective requirement for the Core 40 diploma.

Academic/Technical Honors Diploma

Has potential to fulfill academic/technical honors diploma. - see counselor

CTE Graduation Pathway

CTE Concentrator A: Civil Construction Fundamentals
CTE Concentrator B: Advanced Civil Construction
Pathway Capstone: Civil Construction Capstone

Grading Policies

Semester Grade

Your semester grade will be calculated in the following way:

90% Assessments (Tests & Quizzes) Projects, Labs, Homework and other assignments
10% Final Project

Warren Central Grading Policy

The high school grading policies will be explained here

Warren Central Homework Policy

The high school homework policies will be explained here.

Synergy Grades

Grades posted in Synergy reflect the students' academic performance in the course.

Types of Assignments and Assessments

Assignments

Assignments will include classwork, homework, lab projects. These items are the opportunities for students to practice the concepts learned in class.

Labs

Each unit will have one or more laboratory experiments. Labs are designed to demonstrate "real world" applications of the class concepts and help students develop a deeper understanding of the learning objectives.

Assessments

Tests/projects cover Indiana State Standards, and there will be one test per module.

Quizzes may be given throughout a unit. There may or may not be a quiz for each unit.