



COMPUTER AIDED DESIGN AND DRAWING

PROGRAM OVERVIEW



CADD (computer aided design and drawing) is a technical course that addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Individuals use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, and compete in industry. Students gain knowledge

and skills specific to those needed to enter a career in architecture and construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, and landscape architecture. This includes the knowledge of the design, techniques, and tools related to the production of drawings, renderings, and scaled models for commercial or residential architectural purposes.



CAREER OPPORTUNITIES

- **Construction Manager**
- **Landscape Architects**
- **Furniture Designer**
- **Drafter**
- **Interior Designer**
- **Interior Decorator**
- **Retail Designer**
- **Hospitality Designer**
- **Healthcare Designer**
- **Kitchen And Bath Designer**
- **Corporate Designer**



POST-SECONDARY EDUCATION OPPORTUNITIES

- **Alfred State**
- **Monroe Community College**
- **Rochester Institute of Technology**
- **The National Association of Schools of Art and Design**
- **Berkeley College**





PROGRAMS OF STUDY

FOUNDATIONAL COURSES

CTE Foundations: Construction

9th Grade // 1 CTE Credit

Career Research and Exploration
Safety, Tools, and Materials
Basic Construction Skills

Introduction to Construction & Design

10th Grade // 2 CTE Credits

Rotation of Experiences in Carpentry
Masonry, Electrical, and Computer Aided Design & Drawing (CADD)

CAREER MAJOR COURSES

CADD I

11th Grade // 2 CTE Credits

Professional/Employability Documents:
Website, Logo Development
Programming and Planning Residential Space
Math and Measurement
Basics/Review of Hand Drafting/Construction
Documents/Perspective
Architectural and Interior Design History
Hand Drafting and CADD Software
Environmental Concerns and Codes, Energy
Conservation
Budget and Materials
Professional Presentation/Public Speaking

CADD II

12th Grade // 2 CTE Credits

Professional/Employability Documents: Website
Update and Logo
Advanced Architectural and Interior Design History
Advanced Hand Drafting and Technical Drafting
Programming and Planning Commercial Spaces
Lighting and Architectural Systems
Real World Projects, Cooperative Job Opportunities,
and Internships
Furniture, Furnishing, Equipment Specifications
Advanced Portfolio Development



EMPLOYABILITY PROFILE:

The Proficient Computer Aided Design & Drawing Student will...

- Demonstrate employability skills that will help them get a job and meet employer's professional expectations.
- Demonstrate academic knowledge and skills that meet postsecondary requirements.
- Consistently demonstrate safe practices and healthy relationships.
- Properly select, use, store, and maintain all tools and equipment.
- Effectively read a variety of materials and communicate in a variety of situations.
- Accurately solve mathematical calculations, and apply geometric concepts, in context.
- Accurately measure within industry-standard tolerances.
- Demonstrate grit. Persevere through challenges and not give up.
- Identify and utilize the elements and principals of design.
- Remember and recognize information and specifics as communicated with little personal assimilation.
- Correctly interpret drawings, schematics, and other visualizations. such as floor plans, elevations, details, and perspectives.
- Follow logical planning, design, and workflow processes.
- Determine the scope of the project and develop a proposal based on the clients goals, space, considerations, budget, and time frame.
- Explore and master the significant historical developments and styles of architecture through continuous research.
- Identify and describe furnishings and accessories appropriate for the specific architectural design period.
- Evaluate the characteristics of various architectural features and design styles.
- Describe methods to conserve energy in a project, including water conservation, energy conservation, and LEED certification.