

| DRAFTING & DESIGN TECHNOLOGY CIP 15.1301 | |
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| Objective of Technical Education- <ul style="list-style-type: none"> ➤ Upon successful completion of this program, students will be prepared for an entry level technician position or to advance their technical education. Employment opportunities include Architectural, Mechanical, Electrical or Civil Drafter, CAD Designer, CADD Technician, and CADD Operator. ➤ Students will be expected to apply technical skills and advanced computer software and hardware to create working drawings, graphic representations, and computer simulations for mechanical and industrial designs. ➤ Students are offered the opportunity to learn the essential tasks involved in the field such as, translating data or specifications including basic aspects of planning, preparing, and interpreting drawings and sketches used in various engineering fields. ➤ Projects may include but are not limited to, Architectural Floor Plans, Rapid Prototyping, Mechanical Part Design, Interior Design Layouts, Town Planning, and Assembly Drawings. ➤ Students learn required industry related safety practices and procedures. ➤ Students will learn how to read blueprints & structural dimensions in order to determine material requirements. | |
| PROGRAM SAFETY REQUIREMENTS | <ul style="list-style-type: none"> • FOLLOW CCTI'S ACCEPTABLE USE COMPUTER POLICY • FOLLOW INDUSTRY REGULATIONS AND STANDARDS • COMPLETE 10 HOUR OSHA TRAINING/CERTIFICATION |
| APTITUDES, ABILITIES/SKILLS | <ul style="list-style-type: none"> • WORK INDEPENDENTLY • WORK WITH OTHERS • LISTEN AND UNDERSTAND WHAT PEOPLE SAY • LISTEN WITHOUT INTERRUPTING AND ASK GOOD QUESTIONS • NEAR VISION • CRITICAL THINKING • PROBLEM SOLVING SKILLS-identify a problem and work to solve it. • READ AND UNDERSTAND WHAT IS WRITTEN • TIME MANAGEMENT- MEET DEADLINES • SELF-MOTIVATION • REMAIN ON TASK AND FOCUSED • SELF-READING/TEACHING AT TIMES • DEPENDABILITY, FLEXIBILITY, ADAPTABILITY • DRAFT DETAILED DIMENSIONAL DRAWINGS & DESIGN LAYOUTS FOR PROJECTS, WHILE CONFORMING TO SPECIFICATIONS • READ AND REVIEW PROJECT BLUEPRINTS & STRUCTURAL SPECIFICATIONS |
| ACADEMIC SKILLS READING | <ul style="list-style-type: none"> • TEXT BOOK READING LEVEL 12th GRADE • TEACHER-MADE PRESENTATIONS, ONLINE MATERIALS AND RESOURCES ARE USED |

CCTI
 Essential Skills Chart
 DRAFTING & DESIGN TECHNOLOGY

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| MATH SCIENCE | <ul style="list-style-type: none"> • HIGH SCHOOL LEVEL MATHEMATICS- ex's- CALCULATE AND MEASURE DIMENSIONS & SQUARE FOOTAGE; ADD, SUBTRACT, MULTIPLY, DIVIDE; GEOMETRY; CALCULUS OR STATISTICS; PHYSICS • HIGH SCHOOL LEVEL SCIENCE • HIGH SCHOOL LEVEL COMPUTER TECHNOLOGY SKILLS • DEMONSTRATE PROBLEM SOLVING SKILLS • DEMONSTRATE CRITICAL THINKING SKILLS • DEMONSTRATE PROBLEM SOLVING SKILLS |
| PHYSICAL REQUIREMENTS | <ul style="list-style-type: none"> • ABILITY TO SIT FOR LONG PERIODS OF TIME • ABILITY TO LOOK AT A COMPUTER SCREEN FOR LONG PERIODS OF TIME |
| SOFT SKILLS | <ul style="list-style-type: none"> • SPEAKING PUBLICLY AT TIMES • MUST BE COMFORTABLE DEALING WITH CUSTOMERS • COOPERATE & COMMUNICATE WITH OTHERS • ABILITY TO WORK WITH OTHERS TO SHARE IDEAS AND SOLVE PROBLEMS TOGETHER • USE TIME WISELY/TIME MANAGEMENT • ACCEPT DIRECTIVES & CONSTRUCTIVE CRITICISM FROM INSTRUCTOR/CUSTOMERS/EMPLOYERS • DEPENDABILITY |
| CLASSROOM ASSIGNMENTS, ASSESSMENTS & TASKS | <ul style="list-style-type: none"> • TEXTBOOK READING & APPLICATION • GOOGLE CLASSROOM ASSIGNMENTS • INDUSTRY STANDARD QUIZZES/TESTS • CLASSWORK • WORKSHEETS • TEACHER MADE TESTS AND QUIZZES • PROJECTS • NOCTI (END OF 12TH GRADE) • BENCHMARK ASSESSMENTS (PRE-NOCTI) • TASK LIST- PROGRAM OF STUDY |
| INDUSTRY CERTIFICATIONS | <ul style="list-style-type: none"> • OSHA Certification • NOCTI • AUTODESK CERTIFIED USER |
| PROGRAM UNIFORM/COSTS/MATERIAL S | <ul style="list-style-type: none"> • PROFESSIONAL ATTIRE SUCH AS WORK PANTS, BUTTON DOWN SHIRTS, POLOS, BLOUSES |
| ARTICULATION AGREEMENTS | <ul style="list-style-type: none"> • LCCC |
| COOPERATIVE OPPORTUNITIES | <ul style="list-style-type: none"> • BASED ON JOB AVAILABILITY, TEACHER RECOMMENDATION, GRADES OF 77% AND HIGHER, GOOD ATTENDANCE, GOOD |

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 DRAFTING & DESIGN TECHNOLOGY

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| | BEHAVIOR, DRIVER'S LICENSE AND OWN TRANSPORTATION |
| EMPLOYMENT OUTLOOK & PROJECTED SALARY | <ul style="list-style-type: none"> • CCTI'S DRAFTING & DESIGN TECHNOLOGY STUDENTS ARE ENCOURAGED TO ATTAIN A BACHELOR OR ASSOCIATE DEGREE IN ARCHITECTURE, DESIGN DRAFTING TECHNOLOGY, AND ARCHITECTECTURAL, MECHANICAL, ELECTRICAL OR CIVIL ENGINEERING, CONSTRUCTION MANAGEMENT/TECHNOLOGY OR A CERTIFICATE FROM A TRAINING SCHOOL • MEDIAN ANNUAL SALARY FOLLOWING ADDITIONAL TRAINING/EDUCATION- \$58, 320 • HIGH SALARY (with experience and secondary education)- \$79,650 |
| How to find out more? | <ul style="list-style-type: none"> • https://www.onetonline.org • www.carboncti.org |