OHIO CAREER FIELD TECHNICAL CONTENT STANDARDS

The Ohio Department of Education's Division of Career and Technical Education has established career field technical content standards (cftcs) for all career technical programs. CFTCS define the knowledge and skills students need in order to be successful in a given career field. These standards have been developed through a collaborative effort of the following professional partners (including but not limited to): the Ohio Department of Education's Office of Career Technical and Adult Education, the Ohio Board of Regents, secondary and postsecondary educators, and business and industry professionals from throughout Ohio. Each local career technical school district may modify the standards for its programs based on recommendations from local advisory committees in order to reflect local employment needs, trends, and specialties. The list of career field technical content standards compiled below contains units (with and without subunits), that identifies only the occupational, academic, and employability skills that the student named has mastered.

TRI STAR Career Compact

BIOMEDICAL & ELECTRONICS TECHNOLOGY

Instructor: Jerry Kohnen

2013-2014 **CFTCS** list for Nathan Huber

UNIT 1: ORIENTATION

Orient self to laboratory facility
Demonstrate procedures for locating and using emergency equipment and techniques
Demonstrate knowledge of the procedures for working with hazardous materials
Follow safety rules and regulations
Demonstrate procedures for the selection, use, and care of tools

UNIT 2: BASIC ELECTRONIC THEORY

Apply knowledge of values in direct current (DC) circuits
Apply knowledge of values in alternating current (AC) circuits
Apply knowledge of the characteristics of diodes and basic power supplies
Apply knowledge of transistor circuits
Apply knowledge of field effect transistor (FET) circuits
Apply knowledge of control and power circuits
Apply knowledge of linear integrated circuits
Apply knowledge of power supply and amplifier circuits
Apply knowledge of oscillators
Apply knowledge of receivers and transmitters
Apply knowledge of digital circuits
Apply knowledge of microprocessors
Apply knowledge of electromechanical devices and controllers

UNIT 3: BASIC ELECTRONIC SKILLS

Communicate electronics information using drawings
Work with data

UNIT 4: TROUBLESHOOTING AND REPAIR

Apply established troubleshooting steps
Demonstrate use and maintenance of tools used in making repairs
Use testing equipment to isolate cause
Repair circuit
Repair surface-mounted devices (SMDs)

UNIT 5: CONSUMER PRODUCTS APPLICATIONS AND SERVICING

Service audio systems (analog and digital)
Service personal telephones

UNIT 6: COMPUTER APPLICATIONS AND SERVICING

Apply knowledge of computer system architecture
Apply computer programming fundamentals
Service data communication systems
Service peripheral equipment
Build a computer

UNIT 7: INDUSTRIAL ELECTRONICS APPLICATIONS AND SERVICING

Interpret electronic, electrical, and mechanical blueprints
Apply knowledge of PLC programming
Service motors and motor control circuits

2013-2014 **CFTCS** list for Nathan Huber

UNIT 8: ELECTRO-OPTIC TECHNOLOGY APPLICATIONS AND SERVICING

Demonstrate knowledge of the principles of light

UNIT 9: EMPLOYABILITY SKILLS

SUBUNIT 1: EXPLORE CAREER PATHWAYS

Identify and investigate current and future career options including traditional and nontraditional
Define and explain apprenticeships
Identify education and training needed for specific careers
Explore professional development opportunities
Analyze potential barriers to employment
Observation/job shadowing/early placement experience

SUBUNIT 2: PROBLEM -SOLVING

Identify steps to effective problem-solving
Identify and state the problem
Brainstorm potential solutions
Interpret consequences to each possible solution
Identify the best solution based on risks, costs, ethics, laws and benefits
Apply the best solution to the problem

SUBUNIT 3: PREPARE FOR EMPLOYMENT

Locate and identify leads to job openings
Write a cover letter
Design and write a resume
Secure and create a list of references
Explain critical importance of personal appearance, hygiene, and demeanor
Complete and process job application forms
Demonstrate interviewing skills
Secure employment
Interpret job description

SUBUNIT 4: JOB RETENTION SKILLS AND PROFESSIONALISM

Identify employer expectations regarding job performance, work habits, attitudes, personal appearance and hygiene
Analyze the organizational structure of the workplace
List consequences of being absent frequently from job
List consequences of frequently arriving late for work
Exhibit appropriate work habits and attitude
Define work ethic
Demonstrate appropriate work ethic
Exhibit appropriate job dedication
Cooperate with others in the workplace
Identify behaviors to establish successful working relationships
Demonstrate interpersonal relation skills
Demonstrate active listening techniques
Utilize effective communication skills
Maintain positive relations with others
Demonstrate positive attitude
Demonstrate appropriate reaction to constructive criticism
Adapt to changing situations and technology
Demonstrate initiative
Perform quality work
Demonstrate ability to set priorities
Project professional attitude

SUBUNIT 5: TEAMWORK

Explain the roles and responsibilities of the individual as part of the team
Identify attitudes and behaviors that promote teamwork
Demonstrate effective teamwork skills

SUBUNIT 6: LEADERSHIP

Evaluate leadership styles appropriate for the workplace
Identify ways to build employee morale and cooperation
Apply decision-making techniques
Give constructive criticism to enhance productivity and cooperation
Demonstrate effective delegation skills

SUBUNIT 7: JOB ADVANCEMENT

Analyze opportunities for personal and career growth
Identify opportunities for advancement
Exhibit characteristics needed for advancement

SUBUNIT 8: TECHNOLOGY IN THE WORKPLACE

Assess the impact of technology in the workplace
Use a variety of technological applications

BIOMEDICAL & ELECTRONICS TECHNOLOGY

2013-2014 **CFTCS** list for Nathan Huber

SUBUNIT 9: ECONOMIC EDUCATION

Evaluate personal money management
Create a personal budget

SUBUNIT 10: CITIZENSHIP IN THE WORKPLACE

Exercise the rights and responsibilities of citizenship in the workplace
Demonstrate respect for the contributions made by all people
Work effectively with people irrespective of their race, gender, religion, ethnicity, disability, age, or cultural background

SUBUNIT 11: ENTREPRENEURSHIP

Evaluate the role of small business in the economy
Examine considerations of starting a business

OCAP

OHIO'S COMPETENCY ANALYSIS PROFILE

The Division of Career Technical Education of the State of Ohio has developed OCAP lists for all career technical programs. An OCAP list contains units (with and without subunits), that identify the occupational, academic, and employability skills needed to enter a given occupation/occupational field.

SCHOOL ENDORSEMENT

THE FOLLOWING INDIVIDUALS VERIFY THE ACCURACY OF THE INFORMATION CONTAINED IN THE SKILL ASSESSMENT (OCAP) SECTION OF THE CAREER TECHNICAL CAREER PASSPORT AS OF THE DATE SIGNED.

Signature of Student

Jerry M Kohnen

Tri Star Instructor
Jerry Kohnen

Electronics

Program

Julie Schosker

School Representative
Julie Schosker

Recruitment/Placement Coordinator

Title

May 12, 2014

Date Signed

TRI STAR
Career Compact

Tim Buschur, Director
585 E. Livingston St., Celina, OH 45822
419-586-7060
www.tristarcareercompact.com

TRI STAR CAREER COMPACT
Career Technical Planning District 121

Certificate of Program Completion

This certifies that

Nathan Huber

has satisfactorily completed 930 hours of Career Technical instruction in

Bio Medical / Electronics Technology

in testimony thereto, this certificate is issued by Tri Star Career Compact, following the prescribed course of study recognized by the State of Ohio

St. Marys City Schools
Tri Star

CTPD Superintendent

Tim Bruecher
Tri Star Director

Jeryn Kohnen
Program Instructor

SkillsUSA
OHIO

Participation

This is to commend

NATHAN HUBER

Tri Star / Saint Marys, Saint Marys, OH

---

whose performance has exemplified the finest qualities of the Ohio Association of SkillsUSA as a participant in the 2014 SkillsUSA Ohio Championships.

FIRST PLACE
GOLD METAL WINNER
STATE OF OHIO

Michael D. Cowles, State Director

St. Marys City Schools

Administrative Offices:
100 West Spring Street
St. Marys, OH 45885-2312
Phone: 419-394-4312
FAX: 419-394-5638
http://www.smriders.net

RESOLUTION OF COMMENDATION

WHEREAS, Nathan Huber competed in the SKILLS USA State Competition , competing with many of the most talented high school students in Electrical Technology; and

WHEREAS, Nathan distinguished himself and his school by being named as a first place winner in the Electrical Technology competition;

WHEREAS, Nathan will continue to strive to meet high standards of academic achievement:

THEREFORE, the Board of Education of the St. Marys City School District hereby commends Nathan Huber on his first place finish, and offers our best wishes for his continued success in academic endeavors.

President, Board of Education

Superintendent of Schools

Memorial High School Principal

May 14, 2014

Superintendent
Shawn Brown
419-394-4312

Treasurer
Thomas S. Sommer
419-394-4312

Director of Special Education/Student Services
Cary Roehm
419-300-1458

Board of Education
Brian Little, President
Ronda Shelby, Vice President
Karl Dammeyer
Travis Kuenning
Robert Valentine

THE INTERNATIONAL SOCIETY OF CERTIFIED ELECTRONICS TECHNICIANS

Associate Certified Electronics Technician - ESA

Expires 4 years from certification date below

5/9/2014

Associate CET No.:

AC 43511

Be it known by these present that

NATHAN M. HUBER

has successfully completed the Technical Tests and Continuing Education Requirements giving universal recognition for competence, ability and knowledge as an Associate Certified Electronics Technician - ESA.

ISCET President

ISCET Executive Director

Expiration Date
LifeTime

Certified
Customer Service Specialist

ELECTRONICS TECHNICIANS ASSOCIATION
ETA® INTERNATIONAL

CSS

Customer Service Specialist

Nathan Huber , CSS158003
Saint Marys, Ohio

has successfully completed the technical examinations and requirements to be universally recognized for competency, ability, and knowledge as a Certified Customer Service Specialist. To be recognized for this honor, practicing technical personnel must pass examinations in product technology understanding and customer-relations decision-making skills with at least a 75% score. They also must accept the CSS Code of Conduct. Only well trained technicians with 'people skills' are able to accomplish this feat. The Electronics Technicians Association takes great pride in presenting this official recognition to the above named expert Customer Service Specialist. His/her name has been published in the High-Tech News journal, embedded in the CSS permanent database, and is available for recognition by officials of the industry. This individual may display the CSS identification items or advertise his level of accomplishment as a technical specialist. Congratulations from ETA officers and members and the electronics industry.

Electronics Technicians Association Int'l
SEAL
founded
1978
INDIANA

Teresa J. Maher
Teresa J. Maher, CSS - President

ETA® International
Greencastle, Indiana
www.eta-i.org

Accredited By
ICAC

CERTIFICATE OF RECOGNITION

Nathan Huber

is being recognized as Tri Star Career Compact's

Senior Student of the Year

in

Electronics

this 12th day of May 2014

Tim Buschur, Director

Jerry Kohnen, Instructor

Ohio **C**areer **T**echnical **C**omptency **A**ssessment

Certificate of Completion

is hereby granted to:

NATHAN HUBER

to certify the successful completion of the

28MA - Electronics

program assessment sequence

webxam

granted by:

Signature	(Name)	(Title)	(Date)
Julie Schosker	Julie Schosker	OCTCA Coordinator	April 10, 2014