



December 2014

FDCSD

Volume 2, Issue 2

Upcoming Events

- Robotics Club Match, December 9
- Robotics Club Match, January 10
- DECA District II Career Dvp. Conf, Jan. 20

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Iowa Employment Projections

In 2012, Iowa Workforce Development released its employment projections through 2020. Below is a chart of its findings.

Iowa Industry Employment Projections, 2010-2020				
Major Industry	2010	2020	Growth	%Change
Self-Employed & Unpaid Family Workers	141,000	150,980	9,980	7.1%
Natural Resources & Mining	5,740	7,105	1,365	-1.5%
Trade, Transportation & Utilities	308,245	346,875	38,630	12.5%
Construction	61,565	79,290	17,725	28.8%
Manufacturing	200,630	223,080	22,450	11.2%
Information	28,685	32,280	3,595	12.5%
Financial Activities	101,225	120,170	18,945	18.7%
Professional & Business Services	121,685	155,125	33,440	27.5%
Educational Services	169,090	183,905	14,815	8.8%
Health Care & Social Assistance	197,495	246,910	49,415	25.0%
Leisure & Hospitality	129,470	144,480	15,010	11.6%
Other Services	60,555	69,690	9,135	15.1%
Government	87,335	87,540	205	.2%

Source: Labor Force and Occupational Analysis Bureau, Iowa Workforce Development

According to Iowa Workforce Development's projections, the three major industries that are expected to account for over 50 percent of the state's job growth are: Health Care and Social Assistance; Trade, Transportation and Utilities; and Professional and Business Services.

In October 2014, Iowa Workforce Development named the following occupations the top high-demand, high-salary occupations in Region 5, which includes Calhoun, Hamilton, Humboldt, Pocahontas, Webster, and Wright counties: Registered Nurses, Heavy & Tractor-Trailer Truck Drivers, Industrial Machinery Mechanics, Mix/Blend Machine Setters & Operators, Electricians, Carpenters, Licensed Practical/Vocational Nurses, General Maintenance & Repair Workers, First-Line Supervisors of Food Prep/Serving Workers, Team Assemblers, and Medical Secretaries.



FDSH CTE Instructors



Industrial Technology Insights

Two sections of Carpentry students were very busy during 1st Trimester. One of their major projects was the construction of a new building for storage and to house the game announcer for Patterson Field. The students were responsible for designing the structure and researched the cost of materials to create an estimate. Once the students were at Patterson Field, they tore down three old buildings, poured concrete, laid cinder blocks, and constructed the building.

The Building and Trades students are currently laying flooring, installing trim, and touching up paint in a home on 4th Avenue North. At a home

on 3rd Avenue North, the students are preparing to pour the flooring foundation.

The Advanced Welding Independent Study students built a Frisbee golf basket and are working on the manufacturing of a CNC Plasma table to used in the welding classroom.

During the first trimester, the FDSH auto shop mounted and balanced 32 tires, performed 12 oil changes, fixed 5 flat tires, repaired windows on 3 cars, installed 3 O2 sensors, and did 3 brake jobs. The students also completed tasks that involved intake gaskets, ball joints, CV shafts, lights, water pumps, and more.

The Fort Dodge Senior High has seen many changes in the area of equipment that allow students to fabricate items much like they would do in today's manufacturing. Some of the equipment that we have includes:

A CNC Mill/Router that allows students to use Computer Aided Drawings and then machine the part using a variety of tool paths. Classes that use this machine include

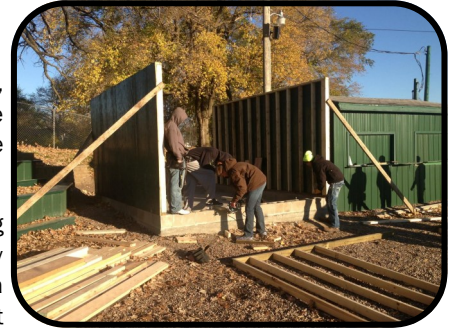
FDSH Robotics Club

The Fort Dodge Senior High robotics club participated in a scrimmage on November 8th in Humboldt.

On Saturday, November 22, the Robotics Club traveled to Ida Grove to compete. The points received at each league match continue throughout the competition season.

The next competitions will be December 9 in Ralston and then January 10 at FDSH.

Between matches, the students continually strive to improve the robot.



Intro to CAD, Advanced Modeling/Manufacturing, and Independent Study.

The CNC Lathe, much like the CNC Mill, can take items drawn in CAD but the only difference is that this machine deals primarily with Cylinder Stock. The Advanced Modeling/Manufacturing and Independent Study course students can learn to use this machine.

The 3D Digitizer is a new piece of technology this school year. A student can take any 3D object and have it scanned into our CAD software as a 3D image. It could then be changed/manipulated using our CAD software and then machined out on the mill or remanufactured using the school's 3D printer. Students can use this in Advanced Modeling/Manufacturing, Intro To Engineering, and Independent Study.

3D Printer is also a new piece of technology this school year. Students can design items in CAD and then print prototypes out to see if they assemble together. Students use this technology in Advanced modeling/Manufacturing, Intro to Engineering and Independent Study.



Robotics Club Members

FDSH Career & Technical Education

Family & Consumer Sciences Facts

Congratulations to the members of the FDSH Culinary Competition squads on their finishes at the Iowa Central Food and Beverage Expo Culinary Competition which took place November 8th. Squad members include: Riley Helmers, Brock Weber, Talis Harrison, Cal Solverson, Kierra Fraser, Jasey Brieghtol, Sam Brown, Dray Mosley, Draven Ferry, Alexis Lessmeier and Tristan Earnest. The highest finish for the Dodgers went to the team of Mosley, Ferry, Lessmeier and Earnest, who finished second. Way to Go Dodgers!

ICCC Food Prep students prepared the food for the

Rotary Club's Christmas Social held at the Vincent House. Students prepared 3 appetizers including spicy roasted carrot and potato soup, a honey and orange ricotta flat bread with pomegranate and cranberry chutney as well as three original sauces for shrimp cocktail. The students also made an Andes' mint chocolate mousse for dessert.

Highlights from 1st Trimester Clothing class were: creating and donating pillowcases to the pediatric wing at the hospital; touring the pediatric wing; and creating pencil pouches, card/cash holders, bags and IPAD holders for Ms. Russell's Kindergarten class. As 2nd trimester begins, the students are looking at the World of Fashion and what all goes into it. They will soon start repurposing cell phone holders or shoes while studying the elements of design.

The Child Development students just finished studying parenting and the cost of



Clothing students donate pillowcases to Unity Point's Pediatric Wing

raising an infant during their first year of life. The students were surprised to learn that the average cost of raising an infant is close to \$12,000. Students are now studying prenatal development. After Winter Break, the students will start the Baby Think It Over Project.

Child Development II has been busy creating lesson plans to implement at the Riverside after preschool care. This gives students a taste of what it is like to be a preschool teacher.

Early Childhood Education students have just started working in the elementary classrooms. They are learning what makes a quality classroom and an effective teacher.

gave an informative presentation. The students and Officer Webb pointed out that when driving 55 mph, if you look at a text message, you will travel over the length of a football field without looking at the road, SCARY!!!



FCCLA District Meeting Attendees

50% of the fastest growing CTE programs are related to Early Childhood and Culinary Arts. Both programs are associated with higher-than-average employment growth.



FDSH 2014 ICCF Culinary Competition Squad 2nd Place Winners

FCCLA

The Fort Dodge FCCLA has been busy with many different activities. They have sold a couple fundraisers to help pay for different leadership activities and state competition. The students have been working on their STAR events. Some students have helped with texting and driving presentations, World Aids Days and even helping with a can drive. They will present their projects at the District Competition in January and the State Competition at the end of March.

The Fort Dodge FCCLA Chapter just held the District 2 meeting

at the Webster County Fairgrounds on December 3rd. Fort Dodge's Alex Hays finished her term as District Treasurer and Meka Mosley was elected to the Vice President of STAR Events position. The students were able to attend sessions either on Team Building, Texting and Driving or touring the ICCF Culinary Arts Facilities. The Fort Dodge students led the Texting and Driving presentation. They played a game to show the difficulties of texting and driving and Officer Webb





Approximately 28% of all new jobs will be created in the healthcare industry through the year 2018, which translates to 3.2 million new healthcare positions nationwide.



Health Occupations Headlines

The Medical Procedures class is currently learning how to take vitals and how to be first responders to a scene.

Fort Dodge firefighters came to speak to the Health Care Careers class. They were able to share their experience in Emergency Medical Services. The class just finished learning about EMS services and now looks to learn about nursing.

Basic Athletic Training students are studying sports medicine careers, legal issues in sports medicine, sports nutrition, strength and conditioning, basic evaluation of injuries,

basic taping, rehabilitation, and pharmacology. They will be observing sports medicine professionals at a home wrestling meet this winter. This class is one of four courses that meet the requirements for the coaching authorization issued by the Iowa Department of Education.

Medical Terminology students are learning the necessary terminology needed to understand the human body systems, with emphasis on recognizing functional vocabulary related to medical science. Students will learn definitions, abbreviations,

pronunciation, and correct spelling of anatomy and physiology, pathology, diseases, conditions, surgical and diagnostic procedures, and pharmacology.



Medical Procedure's students practice checking blood pressure

In Career and Technical Student Organizations (CTSOs) such as DECA, FCCLA, FFA, FBLA, HOSA, SkillsUSA, TSA and BPA, two million young people work regularly with an adult advisor. A 2007 study by the National Research Center for Career and Technical Education found that CTSO activities positively affect students' academic engagement; and the stronger the student's involvement, the better the results.

Health Occupations

Health Occupations Education has many benefits for students. Some of the benefits include:

- Enabling students to make career decisions consistent with their aptitudes, interests, abilities, and academic achievement.
- Providing a program of instruction that prepares students for postsecondary education and for employment.
- Enabling more students to achieve higher levels of academic and career preparation.
- Providing added relevancy and meaning to the students' educational learning from kindergarten through career.
- Eliminating the need for remediation for students in the health careers program who wish to enter postsecondary education or employment.



Fort Dodge Firefighters speak to the Health Care Careers class

Business, Computer & Marketing Briefs

The Personal Finance class ended the trimester by competing in the DECA Knowledge Matters Personal Finance Virtual Business Challenge. The simulation was a test of the students' money management skills. The students were required to manage their time and health, find a job, budget and save money, find an apartment, buy a car, perform shopping trips, open and manage a checking and savings account, open a credit card account, improve their credit score, finish their education, advance at a job, and perform online banking activities. During the competition, the students could see how well their money

management skills matched up against those of their classmates and others in the Central Region. Myles Alcazar was the leader in the class and for the state of Iowa in the event.

Accounting Essentials students are being introduced to the accounting equation and T-charts. In Intro to Business, the students spend the trimester working on a business plan. They are currently creating a logo and slogan for their business. Money Management students just wrapped up learning how to take charge of their spending.

Technology Applications has taken on a new look this year.



FDSH MOC Student at Jimmy John's

The students are currently creating tutorials on the operation of a variety of apps and programs. These include research tools, social media, creation software/programs, web design, and presentation software/programs.

DECA

FDSH DECA students are preparing for the DECA District II Career Development Conference. This will take place at Southern Hills Mall in Sioux City on January 20th.

At the conference, the students will take a written 50 question multiple-choice exam and complete one role-playing event. The role-playing case will pertain to the business related

event the participant is participating in, which will be presented in front of a judge. In this role-play event, the participant must accomplish his/her task by translating what they learned into an effective spontaneous action. During the role-play, the judge will evaluate the participant's performance on five specific tasks depending on the

tasks tailored to the scenario of the case.

The DECA students just wrapped up a fundraiser selling items from That's My Pan company. The profits from the fundraiser will help defray the costs of attending the District, State, and National Career Development Conferences.

Work-based learning activities can help young people to:

- Strengthen academic skills
- Realize the relevance of a rigorous education and understand the need for academic success
- Gain real workplace experience and an understanding of career and educational options
- Become motivated to expand their learning through the hands-on approach of applying knowledge and gaining skills
- Work with positive adult role models

Work-Based Learning Wares

The two Multi-Occupations Cooperative Education (MOC) classes are currently covering Human Relations in the workplace.

The employers currently supporting our Coop students are Tom Thumb Drive Inn & DQ, Pizza Ranch, Jimmy Johns, Friendship Haven, Menards, Clean All, Pancheros, Walmart,

Fareway, Payless Shoesource, Fort Frenzy, Burger King, Rabiner BINGO, Kohl's and Subway.

The World of Work class has just began completing a 3-day job shadow at a local business. Those businesses include: La James, Applebee's, Taco Tico, and the Hy-Vee Bakery.



FDSH MOC Student at Subway

FDSH Career & Technical Education

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Career & Technical Education Student Organizations Websites

FCCLA-http://www.fort-dodge.k12.ia.us/en/activities__clubs/fccla/

http://www.fdschools.org/en/students/activities__clubs/deca/

SkillsUSA-http://www.fort-dodge.k12.ia.us/en/activities__clubs/skills_usa/

CTE Courses Offered

Business & Marketing

Courses Offered: Intro to Business, Business Law, Marketing, Technology Applications Lab, ICCC Web Graphics, Video Productions, Entrepreneurship, Accounting I, Accounting II, ICCC Intro to Accounting, ICCC Computerized Accounting, World of Work, Advertising & Sales, Money Management, Personal Finance, Multi-Occupations Cooperative Ed Program and Sports Marketing.

Family & Consumer Sciences

Courses Offered: Cooking Essentials, Intro to Culinary, ICCC Intro to Hospitality and

ICCC Food Prep. Clothing I, Child Development, Child Development II, Early Childhood Education, Adult Living, Housing & Home Interiors, and Teen Living.

Health Occupations

Courses Offered: Health Care Foundations, Exploring Health Careers, Medical Assistant Procedures, ICCC Nurse Aide, ICCC Intro to Health Care, ICCC Medical Terminology, ICCC Body Structure & Function and ICCC Basic Athletic Training.

Industrial Technology

Courses Offered: Intro to Computer Aided Drafting, Intro to Woods, Applied

Woods Technology, Advanced 3D Modeling/Manufacturing, ICCC Architectural Modeling, ICCC Principles of Cad I, Advanced Technical Research, Welding, Welding Fabrication, ICCC Beginning Welding, Home Maintenance & Repair, Residential Wiring, Masonry Concrete, Carpentry, Capstone: Building & Trades, Power Technology, Consumer Automotive, Capstone: MPG, ICCC Intro to Transportation Technology, ICCC Intro to Engine Repair, ICCC Intro to Auto Body Repair and Metals.

The following link is to the 2014-15 Course Catalog. A description of the courses can be found there. http://www.fort-dodge.k12.ia.us/documents/filelibrary/seniorhigh/counseling_dept/Course_Catalog_1415_60B9E52D46CF0.pdf

