CONNECTIONS

“WE’RE MENTORING THESE STUDENTS, AND THEY mentor US BACK”  P. 8

THE HISTORY AND IMPACT OF AGRICULTURAL HIGH SCHOOLS .......  P. 4
SHIPBUILDING COURSE PILOTED ON THE COAST.................................P. 18
CTE students learn skills and build relationships that will last long after they leave the classroom. In Tupelo’s career pathways mentoring program (p. 8), this is proving true. The career pathways experience class is mentoring special education students and building friendships. As the students work together, they provide academic support and so much more. Students at Walthall County’s construction technology class (p. 22) will likely not soon forget framing an entire house in their classroom. The class is working with Habitat for Humanity to provide the frame of the home that will be built for a deserving family. These students, along with so many others, are reaching out to their communities and schools to make an impact.

This issue, we are also looking back at the history of CTE and forward to one of our new programs in the state. The Smith-Hughes Act (p. 4), passed 100 years ago, made it possible for some Mississippi students to attend high school and learn skills that were not available to them before. From a century ago to today, CTE has certainly grown and continues to expand to meet the needs of the present-day workforce, as we see in the pilot year of the maritime academy (p. 18). This program is a great addition to the Coast for an industry that has many openings and opportunities for our future workforce. We are excited to continue to develop partnerships like this one across the state. Students are also taking initiative in their classrooms to create products and videos. This resourcefulness and entrepreneurial spirit (p. 14) are skills that will benefit them in any profession, and the featured students in Hattiesburg and Jackson show a snapshot of our students’ creativity.

Additionally, you’ll find stories of how students are progressing in engineering (p. 7) and computer science (p. 13) and teaching their skills to other students. Also, there are highlights from health science (p. 31) and early childhood education students (p. 12) aiding preschools with wellness checks and lesson-plan preparation. As we look toward graduation, there’s also a piece in this issue to help students prepare a résumé (p. 26).

To continue our work of promoting what CTE is doing, please share this issue with friends, colleagues, local economic developers, and elected officials. Remember to follow Connections on Facebook (ConnectionsMS) and Twitter (@ConnectionsMS), and bookmark the Connections website (rcu.msstate.edu/connections), where we share stories throughout the year. And while you’re there, share news from your school, so we can feature your students, teachers, and programs across our platforms.

Sincerely.

Mike Mulvihill
Director, Office of Career and Technical Education
Mississippi Department of Education
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Spring 2017 CONNECTIONS
A little more than 100 years ago, U.S. lawmakers followed through on a vision of creating an educational system to prepare youth for vocational careers in the industrial trades, agriculture, and home economics. Through many debates and discussions, landmark legislation was finally crafted and introduced to Congress by Senator Hoke Smith and Representative Dudley Hughes, both of Georgia. Their bill, the Smith-Hughes Act of 1917, created the foundation for what we know today as career and technical education, beginning with a vocational education system focused on agriculture and home economics.

**Before Smith-Hughes**

Although the Smith-Hughes Act of 1917 is an important piece of agricultural-education history, Mississippi’s work to educate rural youth began even earlier, in the early 1900s. Challenges facing the rural parts of the state, such as poor roads, few automobiles, and insufficient schools, led to the development of agricultural high schools.

In 1908, the Mississippi Legislature passed laws that permitted counties to establish agricultural high schools in order to provide better educational opportunities for the state’s rural students. The legislation allowed county school boards to establish boarding agricultural high schools, offering agriculture for boys and home economics as a component of the agriculture program.

**Forrest County Agricultural High School** has a working farm that includes cattle, goats, sheep, hogs, and horses.
economics for girls, in addition to a full academic curriculum. While the original law only included schools for White students, the law was revised in 1910 to include schools for Black students as well.

Bolivar County Agriculture High School and Forrest County Agriculture High School were among the first agriculture boarding schools to open in Mississippi in 1911, and within a decade 51 agricultural high schools were in operation across the state. Coahoma Agricultural High School, the first agriculture school for Black students, opened in 1924.

The boarding schools were unique in that they had dormitories on campus, allowing students to remain on campus during the week. The schools did not charge tuition and only a small fee for room and board (for example, $10 per month in 1918 at Hinds County Agricultural High School). Students could earn money to pay their boarding fee by working on the school farm or other locations on campus.

**Transition Time**

The golden era for agricultural high schools in Mississippi did not last long. By the early 1920s, the total number of public schools in Mississippi exceeded 750. The state legislature began to consolidate schools as early as 1916, and by the 1920s many agricultural high schools were no longer open. However, the Smith-Hughes Act of 1917 allowed many of the consolidated high schools to continue offering vocational agriculture courses.

As use of automobiles increased, students were able travel longer distances, and options for rural students increased. As a result, the establishment of new agricultural high schools stalled, two programs closed before 1923, and many schools shuttered their on-campus living facilities.
To avoid closure or consolidation, some agricultural high schools began offering one or two years of college courses to their students, all while still providing affordable access to a quality education for rural students. Hinds County Agricultural High School and Pearl River County Agricultural High School were the first to start offering both high school and college classes as early as 1921. These programs were able to maintain their enrollment while offering college classes to a population that would not normally have access to higher education. As a result, Mississippi's agricultural high schools contributed to the establishment of a robust community college system.

In 1922, the Mississippi Legislature enacted a law that allowed qualified agricultural high schools to extend their curricula and offer college courses. Participating schools had to meet certain criteria, including geographic distance from the existing senior colleges in the state, highly qualified teachers, and admissions standards for students. While the number of agricultural high schools decreased, Mississippi's new junior colleges rose to meet the challenge of providing affordable, high-quality advanced education that is easily accessible to all students. These community colleges continue to educate youth and adults in the rural parts of the state.

By 1928, college courses were being offered in 10 of the agricultural high schools, and two other high schools planned to join the effort in the same year. In an effort to limit the number of junior colleges in Mississippi, the state was divided into 13 districts, with only one junior college in each. Mississippi became the first state to establish a system of junior colleges. Today there are 15 community colleges in Mississippi, 14 of which began as an agricultural high school.

The Last of Its Kind

Currently, Mississippi has 144 school districts and 117 high school agriculture programs. Only one of the original agricultural high schools remains active today. Open for 105 years, Forrest County Agricultural High School (FCAHS) in Brooklyn still works to meet its original mission.

FCAHS was established in 1911 when four local families each set aside 80 acres to provide the land for the school. Community members saw a need for students to learn hands-on skills and trades in addition to more traditional academic opportunities. That mission continues to this day, and FCAHS has proven to be one of the most diverse and successful districts in the state. FCAHS recently received the highest possible rating from the Mississippi Department of Education and was named the third highest ranking school district in Mississippi.

While FCAHS no longer operates as a boarding school, this option was allowed until 1989. Students from all across the state, as well as hundreds of international students, have graduated from FCAHS. Each spring, hundreds of alumni return to campus for the annual homecoming celebration, where old classmates and roommates reminisce about their time at FCAHS. Many of these alumni tell stories of working in the school's dairy barn and describe practical jokes played in the school dormitories. While much has changed over the past century, one thing remains the same: Students still receive a quality education with opportunities for real-life experiences and hands-on learning.

As the only remaining independent agricultural high school with an active FFA chapter in Mississippi, students learn in a variety of ways at FCAHS. The school's 320-acre campus boasts an extensive livestock program consisting of a commercial cow-calf herd, meat goats, hair sheep, horses, and hogs. Many of the students use school-raised	

Left: Bolivar County Agricultural High School diploma dated May 21, 1918 purchased by Dr. Hock at an auction for $6.

Bottom: Forrest County Agricultural High School began in 1911 when four families each donated 80-acres to establish the 320-acre campus.
animals to compete in local and regional livestock shows. The horticulture program has two greenhouses, a high tunnel house, and more than 100 blueberry bushes. About 600 students attend FCAHS, and each year 160-170 of them take an agriculture class in one of the three agriculture tracks (introduction to agriscience, horticulture, and agriculture and natural resources), all of which offer science credits.

Students are involved in every aspect of the day-to-day operation of the farm and play a large role in its success. Whether it is vaccinating animals, building fences, planting gardens, or cutting hay, students experience what a typical producer might go through on a daily basis. Students even help palpate cows and manage the greenhouse when it is time for the annual plant sale. These unique resources allow the three agriculture teachers at FCAHS to provide students with hands-on instruction that fulfills the intent of the Smith-Hughes Act.

Leaving a Legacy

The Smith-Hughes Act is a milestone piece of legislation in agricultural education history. In some states it helped create secondary vocational education, while in others it provided additional funding to support existing efforts. Over the past 100 years, Mississippi agricultural education has adjusted and is still working to provide training and education to future agriculturalists. The 100th anniversary of the Smith-Hughes Act provides a perfect opportunity to reflect on Mississippi’s accomplishments and prepare for the next century of agricultural education.

Robotics Class Shares Coding, Robots With Elementary Students

In December, Tishomingo County Career and Technical Center’s engineering class worked with Iuka Elementary School’s third and fourth graders during the national Hour of Code week sponsored by Computer Science Education Week and Code.org. The engineering students built a robot using a kit and programmed it using iPads. As part of the Hour of Code week, they delivered multiple robots to Iuka Elementary School and shared tips and tricks for programming with the students there. The elementary school students will continue programming their robot, Edison, in their classes.

Hour of Code is a world-wide initiative promoting computer science education that takes place every December.
Above: Students at Tupelo High School display 3D moving fish made during Transitional Skills Training.
Alexis Nordin

In the Tupelo Career-Technical Center on the Tupelo High School campus, a visitor observing Kim Boyer’s career pathway experience (CPE) classes on any given Friday is likely to see high school seniors passing basketballs, competing in a dance-off, pouring over fashion magazines, or applying makeup and nail polish.

Boyer would not have it any other way.

Boyer’s students are fully engaged in the school’s new Transitional Skills Training (TST) program, which Boyer formally began during the 2016-2017 school year. She envisioned the class as a way to reinforce valuable life lessons for not only her 10 seniors, but also the 21 students with special needs who share their CTE facility and participate in the peer-mentoring initiative.

“We’re mentoring these students, and they mentor us back”

A Tupelo native, Boyer began teaching five years ago after earning a degree in technology teacher education with a concentration in business. She taught business and technology for two years before jumping at an opportunity to teach CPE.

CPE courses are centered on work-based learning opportunities. Restricted to juniors and seniors who are at least 16 years old, each academic or CTE student enrolled in CPE has a job, internship, or apprenticeship that aligns with his or her specific career objective. In Boyer’s classes, those career objectives are across the board, ranging from some students who plan to enter the military to others who aspire to enter the fields of healthcare, digital media, marketing, and early childhood education. Working on average at least 15 hours per week, CPE students are supervised not only by an external employer, but also by the CPE teacher, who customizes training criteria and evaluation plans for each student based on employer feedback. Students are evaluated on how they handle assigned job responsibilities, as well as interpersonal skills, such as disposition, cooperation, dependability, perseverance, and communication.

Boyer’s CPE students particularly relish Fridays, not because of the upcoming weekend, but because they get to do their favorite activity of all: peer-mentor and tutor the school’s students with special needs.

Boyer was first struck by the idea after years of observing students with special needs walk by her classroom every day, often stopping in at lunch time to say hello.

“I knew I wanted to do something with these students, whether it was just me or with my CPE students,” explained Boyer. “I personally started working with them [in previous years], but this year I talked to my [CPE] students at the beginning of the year. I told them, ‘I’ve really gotten to love these [students]. Are you interested [in working with them as an extra course component]?’ And they were like, ‘Yes, yes, yes, yes!’”

“There had to be a goal attached”

Boyer approached CTE director Evet Topp for guidance. Both Topp and the school’s special education teachers embraced the idea.

“As director,” explained Topp, “I really wanted an objective to go with [the program]. I needed it to not just be a day where kids come and do activities. I wanted it to be a day where both groups of students were getting something out of it.”

The program’s goal and name crystallized when Topp saw the phrase scrawled across Boyer’s board one day.

“The program ended up with the
name ‘Transitional Skills Training’ because we’re training our CPE students to help individuals with disabilities transition, whether it’s from high school to home, workforce, or to come back next year to learn different things,” said Topp. “It gives the CPE students the opportunity to interact with students who may not necessarily be on the general diploma track. They gain skills like working with others and being able to communicate on different levels.”

During 90-minute blocks on Fridays, the CPE students tutor students with wide-ranging learning, mental, emotional, and physical disabilities.

Boyer notes that her students keep the others focused on the task at hand, explain activities, and play card or computer games related to subjects, such as math or reading, based on each student’s individualized education program. While some activities are academically focused (such as helping students appropriately punctuate a sentence), others target the development of fine or gross motor skills.

The weekly activities, which may include science-themed nature walks or physical education events, take place under the close supervision of Boyer, along with special education teachers Bert Martin and Kim Noe.

Martin, who has taught special education at Tupelo High School for 17 years, says while most of his and Noe’s students will receive certificates of completion rather than diplomas, the CPE students can help instill valuable job and life skills in the students with special needs.

While Martin and Noe try to enroll their students in general education courses whenever possible, the teachers gain another insight into their students by watching them interact with the CPE students. “We ask ourselves, ‘Can they function in a workplace?’ This kind of gives us an idea,” stated Martin.

“All of our students just thrive [in this program],” added Martin. “You can see it
on their faces. They ask, ‘Hey! What are we going to do this Friday? What are we going to do with Ms. Boyer’s class?’ They look forward to seeing and working with those students.”

“It’s like they’ve become this little family”

Both Boyer and Topp have noticed changes throughout the year in both sets of students’ confidence and self-esteem as they come out of their shells.

“I think that the CPE students are developing very patient skills and actually becoming very humble,” said Topp. “Those [qualities] are very important. When you work in industry, or even in the mall, you’ve got to have that patience.”

Boyer points to an example of one student with special needs who used to avoid eye contact altogether but has started to come around. “It’s hard to get her to even look at you, but she loves fashion,” explained Boyer. The CPE students brought fashion magazines as a conversation starter. “She loves for them to get out a magazine, and they’ll sit there and talk. She’ll give you that eye contact now a little bit.”

One of Boyer’s CPE students has begun considering a career as a special education teacher. “It was something that she never thought about,” said Boyer. “After working with the TST program, she came up to me and said, ‘It is as clear as day to me. I know what I want to do.’”

“It’s awesome—we come to school on Fridays!”

Boyer’s students have glowing reviews of the TST program and their peers with special needs. Their class attendance on Fridays has actually improved, said Boyer.

“Everyone loves being together,” said CPE student Tyler Randle, who hopes to become a chiropractor.

Some of Boyer’s students recall special memories.

“I enjoy getting to go outside with [the students with special needs] and getting to throw the basketballs with everyone,” said Krissy Hall. Hall says the program has taught her to “be kind to everyone.”

Demario Dixon remembers having a dance-off one day. “[The students with special needs] felt great, and I was happy to help them reach their goal,” said Dixon, who plans to pursue a career as an automotive service technician. “I didn’t want to go to second block.”

Jakeeza Reed and Jatavia Jacobs agree that their favorite day so far has been helping their fellow students get ready for the Tim Tebow special needs prom. “The girls were so happy that we could help them with their hair, nails, and makeup,” said Reed, who will pursue a degree in social work or special education after graduating.

Rather than a single moment, CPE student Caleb Lovern says he has most enjoyed watching the students get more comfortable around him over time. Lovern and several of his classmates say they have learned never to judge a book by its cover.

“The special-needs students may look or act different from us, but they’re exactly the same,” said Takeyah Taylor.

Boyer is proud of her students’ growth. Best of all, “they love this program,” said Boyer. “We just have the best time.”

For more information about the TST program, contact Boyer at kdboyer@tupeloschools.com or Topp at setopp@tupeloschools.com.

West Point Healthcare Students Assist With Fall Festival

Students in the healthcare and clinical services class at West Point Career and Technology Center had a fun-filled day volunteering with the residents of Dugan Memorial Nursing Home in October at their annual fall festival. The 24 students visit Dugan twice each month with their instructor, Larisa Ziegelmann, and 2016 marked the second year in which they participated in the fall festival.

The students provided support for the festival in the days leading up to the event by decorating, making signs, and preparing games. On the day of the festival, the students were on hand throughout the morning, directing games, preparing lunch plates, and helping residents with transportation around the festival. They also assisted with cleanup.

“Every time we help out at Dugan’s, it’s an overwhelming sense of fulfillment and selflessness to be able to help others and put a smile on someone else’s face,” noted Ziegelmann. “It’s nice to get the residents out of their daily routine and enjoy the day with them.”

Ziegelmann hopes to make working with Dugan Memorial on the fall festival a yearly tradition for her healthcare and clinical services class.
New Albany Students Share Classroom Lessons Through Technology

Second-year students in New Albany School of Career & Technical Education’s early childhood education (ECE) class had the unique experience of creating a training video for local daycare center employees. Kimberly Langley, ECE instructor at New Albany, partnered with Locust Grove Christian Academy in Union County and with Kids Kampus in Sumrall to provide site visits and interviews with childcare directors for her students.

The students made this partnership a valuable experience for the daycare centers, too, by providing them with a 15-minute video training on lesson plans and fall activities. To produce the video, students used iPads for research, recording, and editing.

Owner and director Kelly Hawkins said she used the video during a staff meeting at Kids Kampus. After the video, staff members discussed how they could implement better planning techniques for more involved lessons with students.

“The videos are great and very helpful in giving our staff ideas to go along with our lesson plans,” said Christy Grant, owner of Locust Grove Christian Academy. “I’m so thankful that the high school offers this class to help these students be better prepared for their future in education.”

Juanita Gomez, a junior ECE student, did most of the recording for the videos. She noted that it was great to work on a project that had a real-world purpose: “I liked that this project will help others understand and help to make daycare centers better.”

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Forest-Scott County Students Become Certified Microsoft Specialists

Teacher Debbie Burnham has created and implemented a pilot technology program, digital technology applications for business, at Forest-Scott County Career and Technology Center. As a result, her students have earned over 50 certifications through Microsoft Imagine Academy.

The program stemmed from a need for a new technology program at Forest-Scott, and it includes training for Microsoft applications, such as Word, Excel, PowerPoint, and Access. As part of the class, students have the opportunity to become certified specialists in each of these programs.

“Our students can leave our program with a global certification that they can use to market themselves to businesses and in career paths they may not have considered without these skills,” Burnham said.

This year, four additional schools are also implementing the program, and Burnham hopes they achieve the success that she and her students have found.

“I have been really pleased with our results thus far,” Burnham said. “I’m thankful for the opportunity to write the pilot curriculum. I believe in this program and what it offers our students.”
OPEN FOR CREATIVITY

{ Joshua Bingham, Shena Dent, and Micheal Wallace display their application. }

OPEN FOR Business

Entrepreneurship Encourages Students to Think Outside the Box
How can students learn to be the innovators, the doers, and the cutting-edge thinkers that the future demands? Teach them to think like entrepreneurs. Entrepreneurship is not only about starting a business; it’s also having the capacity to think creatively and ambitiously. Because entrepreneurship is considered an elective course, many students may miss the opportunity to learn skills that could empower them to take charge of their economic destiny.

Fortunately, entrepreneurship does not have to be limited to its own separate class. By including entrepreneurial lessons in any course, educators can give students space to explore their potential in any field.

**Pitching Business Plans in Hattiesburg**

Akiah Gipson, marketing instructor at Hattiesburg High School, believes the best way to bring the marketing curriculum to life is to go beyond the textbook and immerse her students in the everyday challenges of building a business. Last November, she arranged for her students to attend a statewide entrepreneurship kickoff event hosted by the University of Southern Mississippi’s Southern Entrepreneurship Program. According to the program’s director, James Wilcox, the event was designed to help students identify business opportunities in their own backyards.

To prepare for the competition, Gipson’s students worked in teams to develop a product to present at the event.

“Even though each team was trying to come with their own idea, they understood that the ultimate goal was to determine which team had the best product to present at the event, and they were very supportive of each other,” said Gipson.

Eventually the class agreed on the best product idea to take to the competition: Kustom Kicks, a

**“These students are increasingly more perceptive of unique opportunities in their own backyards and more confident in pitching original, creative ideas.”**

- James Wilcox, University of Southern Mississippi Southern Entrepreneurship Program director
business to customize sneakers with unique designs. According to Gipson, customized sneakers are popular among the students, but most cannot afford the shoes. Kustom Kicks addresses this problem by customizing sneakers with unique designs for $30 to $40—a lot less than what most retailers charge. The team achieves cost savings by using old sneakers, cleaning the shoes, and then repurposing them by adding airbrushed designs. The group has even reached out into their community to offer the service to individuals whose shoes are stained and worn out.

In addition to preparing for their next competition, Gipson and her students are starting a store, The Tiger Den, at the high school using grant funding. The Tiger Den is more than a school store; it’s an incubator for students to nurture their business ventures. Kustom Kicks will have a booth, and another student is working on a smoothie business that will also operate out of the store. Gipson is currently working on another grant to purchase additional inventory.

As part of the competition, students were required to create a commercial. “Students collaborated with the digital media class to create the commercial,” explained Gipson. Students also had to create a business plan. “Being able to apply the business plan to their own business made the exercise much more relevant to the students,” added Gipson.

At the competition, Hattiesburg’s team competed against 30 other teams, placing in the top 10. Their success at the event allowed the students to realize what they can accomplish. Gipson believes the experience had a major impact on at least one of her students.

“It changed his whole mindset on what he can do,” said Gipson. “He sees that starting a business is possible.”

**Budding Technology Entrepreneurs in Jackson**

Ask Myesha Wallace, simulation and animation design instructor at Jackson Public Schools’ Career Development Center, why she has her students develop and market a product as their senior project, and she quickly replies, “Because it engages them!” Like Gipson, Wallace has tapped into the power of entrepreneurship as an effective teaching and learning strategy.

Seniors in Wallace’s simulation and animation design program spend the whole semester developing apps or writing programs that they will market to consumers, and the students work diligently because they know these projects can be added to their résumés as they begin looking at colleges and careers.

“Students apply all the tools they learn in class to their projects, like creating a marketing plan and conducting quality assurance checks,” explained Wallace. “They enjoy working on the projects so much that they get notes from their home schools for permission to stay at the career development center and work on their projects. Students take their projects seriously. They assign roles to each team member and hold each other accountable.”

Her students have developed projects ranging from food-trivia apps to handheld games. This year one simulation and animation design team is working on an interactive book called STEM’s Adventures that is designed to teach third- through fifth-grade students about science, technology, engineering, and mathematics (STEM) occupations. The interactive book resembles a comic book, and the inspiration for the main character, STEM, came from one student’s favorite cartoons. Each adventure introduces an area of STEM.

“The students have started doing integrated lessons with teacher academy
Second-year students in the Choctaw County culinary arts program had their day on the chopping block in an activity designed to mimic the Food Network’s *Chopped* competition. Students competed in a three-day contest called “Choctaw County Chopped” that required them to use their culinary knowledge and skills to prepare a delicious entrée and dessert in a limited amount of time using only the mystery ingredients given to them. To complete the challenge, students used skills learned in culinary arts class, including knife skills, cooking methods, attractive plating, and time management.

Students’ completed dishes were judged by the Choctaw County superintendent of education, the assistant superintendent of education, and a retired CTE instructor. The group judged on taste, appearance, and creativity. Each day students were eliminated until only three remained for the championship round.

Glen Beard, superintendent of Choctaw County School District, commented, “I believe we have one of the top [culinary arts] programs and instructors in the state, and this [competition] was an opportunity to show that. The kids really enjoyed it and got a glimpse of what a pressure cooker this industry can be but also how rewarding it can be. [Instructor] Sharon James has done a fantastic job motivating and opening the eyes of her students to the many possibilities that can be taken advantage of through culinary arts.”

Selected ingredients for the championship-round entrée were fish sticks, puffed corn, strawberries, and spinach, while the dessert round included zebra cakes and chocolate moon pies, white chocolate pudding mix, navel oranges, and pretzel twists.

Abigail McNutt was the overall winner of the Choctaw County Chopped competition and received a $25 check for her first-place finish. After winning, McNutt noted, “This was a big challenge for me, but it was an enjoyable learning experience.”
One of Mississippi’s largest employers is now offering an academy to train CTE students from across coastal districts in shipbuilding.

The new maritime academy, sponsored by the Gulf States Shipbuilding Consortium (GSSC), is one of only two programs on the Gulf Coast that teaches CTE students about the shipbuilding trade. The initial idea for the pilot program arose from a brainstorming session between Jeff Allman and Mark Scott of Ingalls Shipbuilding; Durand Payton, the director of Moss Point Career and Technical Center (CTC); and members of the GSSC.

“The program is needed for several reasons,” explained Allman, manager of workforce and training strategy for Ingalls in Pascagoula. “We want to educate high school students regarding the career paths that are available to them in the shipbuilding industry, provide a conduit for industry to have greater access and influence regarding opportunities that are available, and create a partnership between education and industry.”

The maritime academy at the shipyard continues the CTE tradition of giving students hands-on experience in a workplace. The students practice welding, pipefitting, painting, working with sheet metal, and several other trades on-site at the shipyard. To enter the academy, students must be a junior or senior and have completed a two-year program at their CTE center.

Around 30 high school students enrolled in the program in its pilot year, hailing from three school districts: Moss Point CTC, Pascagoula-Gautier CTC, and Jackson County CTC. The curriculum for the pilot program heavily relies on the National Center for Construction Education and Research (NCCER) curriculum. NCCER, a nonprofit organization, develops and publishes standardized construction and maintenance curriculum, safety programs, management education, industry image materials, and craft skills assessment.

The curriculum includes assignments and hands-on work that cover an introduction to maritime, marine pipefitting, structural fitting, marine electrical, machining, and shipyard safety. Students are grouped with peers from their school for many projects, but also gain the benefit of interacting with students from other campuses.

“One of the greatest parts of this group has been that we have no competition between districts. We are all working together with Ingalls to create the best program possible for all of our students,” said Jerry Morgan, the director of Jackson County CTC.

Students spend almost two hours each day at the academy and rotate to different modules of the 10 craft skills. Students are taught the correct form for operating machinery or how to check that a job is well done.

Victoria Hunt, the Ingalls training representative for the academy, believes that the program gives students an opportunity to determine where their interests lie and to begin developing skills: “Before rotating to a new lesson, the students in painting will know how
Welding instructor Hattie Johnson assists Joseph Mullins of Moss Point CTC in filet welding.
to inspect the thickness of the paint, and students in the welding module will know how to visually inspect their work.”

Another benefit of the academy is that completers can receive three hours of credit from Gulf Coast Community College and NCCRC certifications. Both of these credentials add to students’ résumés and prepare them for their next step, whether that is college or a career. Hunt said that 14 of the students will leave this year with community college credit, and many with accreditations.

“An essential element to the success of the program is that students who participate are credentialed upon completion,” Allman explained. “The industry will benefit from the ability to validate the experience and skill level of a job candidate that has completed this program and will save on basic training cost. The student will benefit from an industry-recognized credential and be much more valuable...
to employers, thereby giving the student a competitive advantage when seeking employment."

Students at the academy are expected to build on skills they previously learned at their CTE centers. Additionally, many of the students take on responsibilities that mimic those that they will have in the workplace, such as being in charge of their own transportation and arriving on time.

“Many of our students enjoy being in an adult environment, and it’s teaching them valuable life lessons,” Morgan said. “We also hope this program is teaching the students, many of whom have family members who have worked at Ingalls, to look to the shipyard for their future instead of running away from career opportunities.”

Payton echoed this sentiment, saying that Moss Point’s students have benefited from being exposed to the industry and having the opportunity to obtain college credit.

“When we looked at the curriculum and format for this first year we wanted it to be rigorous and hold the students responsible, but we also have the understanding that this is a 17-year-old and not someone who has held a full-time job before,” said Payton. “I’m very pleased with how our group has done at Ingalls and with students from other districts. We have a great group of kids.”

During their time in the academy, students are exposed to more than just the curriculum. They also visit different departments within Ingalls, like nursing, design, or engineering. These visits allow the students to see the diverse fields contained within a large company like Ingalls.

“We want to have the best people working at our company,” noted Scott. “There’s a stereotype that shipbuilding isn’t for high performers, but that simply isn’t true. We want to break the stereotype.”

The program’s pilot year has been successful for Ingalls, school districts, and students, and interest is growing already for next year, when the academy will be open to eight schools across five districts, including one in Mobile, AL.

Pascagoula-Gautier, which sent nine students to the academy last year, saw almost 30 students at their first interest meeting for the current year. Derek Reed, a Pascagoula-Gautier counselor, said that he believes this increased interest has been driven by the pilot-year students sharing their experiences with other students.

When recruiting future participants, the academy’s current students can point to their own bright futures.

“A number of this year’s participants will be offered jobs with us when they graduate, and we will organize a job fair with the Gulf States Shipbuilding Consortium for all the students to meet with potential employers,” explained Scott. "

**Moss Point Instructor Nominated for LifeChanger Award**

Billy J. Carroll, robotics engineering instructor at the Moss Point Career and Technical Education Center, has been nominated for the 2016-2017 national LifeChanger of the Year award, given by the National Life Group Foundation. This award recognizes K-12 educators and employees across the United States who are making a difference in the lives of students by exemplifying excellence, positive influence, and leadership.

In addition to teaching robotics engineering, Carroll is the founder and coach of the Moss Point STEM team. He proudly reports that his students had a 100% pass rate on the state test in engineering. In 2016, Carroll received the Leo W. Seal Innovative Teacher Award for teaching excellence in south Mississippi.
BUILDING FOR A Cause

Walthall County CTE Constructs House for Community Member
Peek into any CTE construction classroom in Mississippi, and through the flying sawdust and knocking hammers you will see the students building something like a birdhouse or a picnic table. Imagine looking into one of those classrooms and through the haze and noise seeing an entire house taking shape. At Walthall County Career and Technology Center, that is exactly the case, as students take the idea of service learning to the next level by building a house piece by piece.

The program partnered with Habitat for Humanity, a nonprofit organization, to build a home for someone in their community. This is the first time Walthall CTC is completing a project of this scale and the second time their instructor, Bill Goldman, is leading such a project. He previously taught at McComb Career and Technical Center and worked with the same nonprofit to build a home there. During this project, students are charged with framing sections of the home, and county businesses aided in the project by donating materials like 2x4 boards and other lumber.

“We’ve had very minimal costs, thanks to the donations,” said Goldman. “One trucking company even offered to transport the sections to the building site.”

The project in Walthall County began in the fall when Goldman worked out the plan with local Habitat for Humanity officials, and students have worked on it throughout the school year. Students are framing the home in eight-, 12-, or 16-foot sections, labeling where the sections will need to be connected. To complete the sections, students work with predrawn plans from Habitat for Humanity. They are responsible for cutting and measuring boards and then nailing or screwing them together. They then combine the walls in their CTE classroom.
center to ensure everything connects properly. Additionally, students are responsible for cutting and combining the trusses for the roof of the home.

“Many times, Habitat for Humanity has to pay a company from Memphis to provide the frame of the house and have it shipped to the site before volunteers can begin work, so we are able to save money and give the students hands-on experience,” Goldman said.

Once Habitat for Humanity officials select and purchase the home site, the foundation is poured, and groups of students set up and secure the walls at the site by bolting the sections into the cement foundation and nailing them together. After the frame is in place, volunteers will wire, plumb, and paint the house, and add the finishing touches. Students will have the opportunity to continue working on the house by volunteering with Habitat for Humanity on the weekends or during their summer break.

“Since Habitat for Humanity is still looking for the right home site, we were able to spread the project over several months. This not only gave our students more time to learn, but also allowed us to have community members tour our center and see the students at work,” explained Goldman. “We even used two of the sides as part of a Christmas parade float and won first prize in the parade.”

Theresa Anderson, the immediate past president of Pike County’s Habitat for Humanity chapter said the partnership with the CTE center has been mutually beneficial.

“I am delighted that we could help students gain experience and thankful to have them aiding in building this home,” said Anderson.

Although this is the largest project the class has taken on, it is not the only way they give back to their community. Goldman’s class also works with a local hospice center to build wheelchair
ramps for patients who are in need of a more accessible way into their home. They build the ramps in specialized measurements at their CTE center and then install them at the recipient’s home.

“When we helped build the home in McComb, that was the first time a CTE center had worked with Habitat for Humanity in Mississippi,” explained Goldman. “I’m glad we are able to complete the project here [in Walthall County], and I hope this is something that can spread to other schools.”

Goldman, center, goes over drawings with Quazarion Conerly and Alex McIntire.

Internships Set Union High School Students on Career Paths

Students at Union High School got the opportunity to pursue their career interests through on-the-job training with local businesses. Senior Noah Winstead completed an internship in engineering that surprised him with its outcome.

“Through my school’s internship program, I was able to intern with Allied Locke for the first semester of my senior year,” Winstead said. “I was able to shadow mechanical engineers who produce chains for machines in the paper industry. Through the internship, I realized that I would not enjoy a career in engineering. But thankfully, I did learn that I absolutely love business.”

Though the internship experience did not turn out as Winstead had planned, he gained important career insight and now has a new direction to pursue in college.

Senior Parker Rigby had a positive internship experience, as well: “I didn’t know what to expect when I first stepped foot into the ER as an intern. It amazed me how much I could learn about the job by observing the doctors and nurses working there.”

During his internship in the medical field, Rigby was able to observe different procedures and scans that use new technologies and procedures. His experience helped him solidify his plans for the future: “This internship helped me plan my career pathway….I definitely gained more knowledge than I ever expected.”

Winstead also credits his internship as a key influence for some of the big decisions he must make as a high school senior: “This internship and my other extracurricular activities have shown me what I am passionate about, and I look forward to what the future holds.”

GOT MISSISSIPPI CTE NEWS?

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John Smith
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662.123.4321
johnsmith12@gmail.com

Education
Hometown High School
Jackson, MS
GPA: 3.50

Experience
Landscaper
Private Homes, May 2012-Present
• Operated lawn management equipment
• Interacted with customers professionally

Customer Service Representative
Napa Auto Parts, November 2014-April 2015
• Maintained and restocked inventory
• Provided friendly, efficient customer service
• Managed check-out system including bagging purchases and operating cash register

Volunteer Work
Middle School Football Camp, June 2015 and 2016
• Mentored group of fifteen 11-13-year-old boys
• Taught drills to group

Activities
• Varsity football team, August 2014-May 2016
• Key club chapter vice-president, August 2015-May 2016
• Skills USA, August 2014-May 2016

Honors
• A&B Honor Roll
• NCCER welding certification
• All-region football team

Skills
• Proficient in several types of welding, including shielded metal arc, carbon arc cutting and gouging, gas metal arc welding, and flux core arc.
North Panola Teacher Academy Students Commit to Community Service

Teacher academy students in North Panola High School’s CTE program are getting hands-on experience each week as interns at Como Elementary School, where they gain field experience as they work with teachers. The student interns interact with the elementary students and assist as much as possible in the classroom, including teaching minilessons in their second year of training.

As a part of their internship, students also learn the value of volunteering. Last semester, teacher academy students followed the examples of their teacher mentors at Como Elementary and created a holiday-inspired project to benefit others. Their community service project included donating holiday baskets to local senior citizens, a project that they can continue to support, and have future students support, when they themselves are teachers.
How did you become interested in engineering?
When I was in fifth grade, I was bullied at school. I discovered a First Lego League robotics team, and I joined the team to try something new and meet new people. After a while, I realized that I was great at it and decided to make robotics part of my life.

How has CTE changed your educational experience or influenced your future path?
CTE has taught me how to solve challenging problems with the experience that I have gained. It gave me the opportunity to see if [engineering] is what I want to pursue in the future.

What is your favorite experience in your CTE class?
My favorite experience in my class was when we had a bridge-design competition. After everybody completed their assignment, we added weights to the bridges to see whose bridge was the strongest. As I added weights to my bridge, it collapsed instantly. This showed me how I can learn from my mistakes and go on to create a better design.

What do you like to do in your spare time?
I like to build my competition robot for Vex Robotics because it helps me learn how to solve robotics problems.

What would you say to another student who is considering taking a CTE class?
I would encourage students to take a CTE class that they are interested in because it can help them find out if that is what they want to do in the future. Many of the CTE classes include hands-on assignments that are fun to do and build experience for your future.

What accomplishment are you most proud of as a student?
Recently our robotics team won first place at the state championship in Vicksburg and qualified for the world championship that is held in Louisville, KY.

What are your future goals/plans?
My goal is to become a robotics engineer. I want to pursue robotics to help people with everyday situations.
How did you begin teaching law and public safety (LPS)?

After learning about the program, school leaders and I researched the projected growth of employment opportunities within LPS for our area. We took into consideration the four nearby correctional facilities. The facilities ranged from a 45-minute commute to Fayette or a short five-minute commute to our local facilities. Also in our local economy, corrections, law enforcement, public safety, medical and educational careers ranked highest of employment opportunities offered, so I decided to enter the LPS cluster.

What prepared and led you to teaching in this field?

My past work experiences. I worked as a vocational education administrative assistant for five years and taught an adult education course. I also hold certifications in corrections, emergency medical service, and fire service.

What motivates you most as a CTE instructor?

The LPS cluster has afforded me the opportunity to have fun while getting paid. I am able to combine my passion for children, CTE, and corrections in the classroom. Seeing the smiles on the students’ faces when they learn different course-related materials and the outpouring of parental involvement is very motivating. I have also received overwhelming support from my correctional family for my students and myself, which is empowering.

What impact do you hope to have on your students?

It is my prayer to impact my students with firmness and fairness. I want my students to learn and have fun. I really want to be the teacher that when my children look back on their education they feel love in their hearts, have a smile on their face, and can truly say they knew that I cared. I want my students to have lasting impressions of LPS.

What advice would you give new CTE instructors?

My best advice is to attend the New Teacher Induction provided by the Research and Curriculum Unit. This training provides participants with a wealth of resources and professional networks. Additionally, establishing a meaningful contact with Tonya Gipson [at the MDE] would be a great asset. She provides guidance through the licensure process with genuine patience and understanding. It is critical that a new teacher establish a strong professional relationship with their program supervisor. Tim Bradford [at the MDE] has been my go-to person for curriculum and SkillsUSA-related matters.

My final advice to a new teacher is to establish a close professional relationship with other teachers in the same program area. My fellow LPS teachers are nothing short of extraordinary when it comes to sharing teaching strategies and course materials and resources. LPS teachers are definitely a unique group of diversified individuals.
Tippah Construction Students Use Grant Funds to Benefit Community

Tippah County Career and Technology Center offered construction students a new opportunity this year: building picnic tables for South Tippah School District pre-K students. This project was made possible through funds provided by a grant from Donors Choose.

Prior to the 2016 school year, Tony Elliott, director of the career and technology center, and Art Flaherty, construction instructor, met to discuss how Flaherty’s 35 construction students could assist with the need to provide an outdoor space for pre-K students to use at snack and lunch times. Elliott and Flaherty decided that the construction students could build picnic tables for the pre-K students, and all would benefit. Flaherty applied for a grant from Donors Choose to pay for the supplies needed for the nine-week construction project.

"It was the teamwork of the students that made this a successful project," said Flaherty. “It’s amazing to see the pride of the students when they see their work benefiting the community. The project allowed the students to witness firsthand what it’s like to invest in their community and give back.”

Additional tables constructed by the students were donated to the city park.

“This construction grant provided supplies that could not be bought with our existing funds,” noted Elliott. “It was great to see this grant benefit our students and benefit the community. Students can see these tables every time they drive by the pre-K [building] or go to the city park.”
Last fall, for the second year in a row, students in Monroe County Career and Technical Center’s health sciences program offered health screenings to children enrolled in the Monroe Early Learning Collaborative. Both first- and second-year health science students participated in the screening process, which included testing the four-year-olds for weight, blood pressure, vision, and hearing.

During the screenings, each of the 21 participating pre-K students rotated through stations managed by health science students. At the last station, a health science student calculated the pre-K students’ body mass index.

“Doing health screenings for the preschool kids really helped me learn how to use my skills faster and get accurate results,” explained second-year health science student Kala Lettieri. “The experience helped me see how nursing would really work if I were to ever work with children. I really enjoyed it. It was such a great hands-on learning experience.”

Leaders of Monroe County Career and Technical Center’s health science program hope to grow their relationship with the local early learning collaborative and continue working with the preschoolers in future years.
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