Wichita Falls Independent School District
Computer Technology Advisory Committee Meeting
Tuesday, May 10, 2016
3:15 p.m., WFISD Education Center, Room 301

CALL TO ORDER

Michelle Wood, WFISD's CTE specialist, called the Computer Technology Advisory Committee Meeting to order at 3:20 p.m.

PARTICIPANTS

Michelle Wood, CTE specialist
Joe Guidy, WFISD instructor at WFHS
Jason Shawn, WFISD
Frank Murray, WFISD technology
Shad McGaha, WFISD technology director
Catherine Stringfellow, Midwestern State University
Jamie Faust, WFISD instructor at Hirschi
David White, WFISD instructor at Rider High School
Synthia Kirby, Carrigan principal
Terry McAdams, MacTech Solutions
Ripley Tate, Web Fire
Ann Work Goodrich, WFISD communication specialist

BUSINESS

The group elected a chair (Catherine Stringfellow) and a secretary (Terry McAdams) to direct the meeting. A WFISD employee may not hold these positions, according to rules put forth by the Perkins grant, which sponsored the meetings.

OVERVIEW

Michelle Wood explained the meeting's purpose as a guide to planning for the Career and Technical Education Center. She explained that she sought their input so that the district would make decisions that will meet student needs and needs of the

businesses in Wichita Falls. “We want to be intentional and create partnerships,” said Mrs. Wood.

COURSE SEQUENCES

Mrs. Wood explained that Principles of Information Technology is one of several endorsement tracks, or career pathways, that a student can choose. This one is for students who are interested in computers or the IT realm. It includes a Computer Programming class, which is new for WFISD. The Computer Programming class is followed by a class called Telecommunications & Networking.

All four levels of programs will be held at the CTE Center when it opens, she said.

Terry McAdams asked what happens if a freshman selects one track, doesn’t like it and wants to change his mind. Mrs. Wood explained that a student is free to choose another track for his sophomore year.

The state requires that a student complete four courses in one endorsement area, she said. But switches are expected and can be made.

David White said a student “could have severe issues” if he were to change tracks and somehow miss the Principles of Information Technology foundation class.

Mr. McAdams said that a sampling of programming should be included in the foundation class. “They need SOME early exposure to it,” he said. “You can do telecommunications and networking and not do anything with programming.”

The class sequence in the Information Technology Track is ordered the way it is because Telecommunications and Networking, the class for 11th grade, requires a lab, which can't be created at all three campuses for this final year before the CTE Center opens. Because of that, it will be introduced at the CTE Center when students come in as juniors.

Mr. McAdams warned that, "You can be great at computer technology and not program a line of code."

Jamie Faust asked if students could take animation or graphic design or illustration instead of computer programming – is it allowed?

Mrs. Wood said no, the state has laid out the basic courses a student in this track must take. A basic computer science course will include project management, 100 days of coding, and career exploration.

Mr. McAdams said that Google has an introductory programming language called, "Go."

Mrs. Wood said that the district has previously offered a course called, "Principles of Information Technology" but it "never went anywhere." It was not aligned to any other part of the curriculum; students took the stand-alone course, which had no follow-up.

Mr. McAdams said Google CS 1st is a curriculum laid out for schools to adopt as an introduction to programming for grades 4-8, though it could be used for any age. It has 10 hours of lessons and activities. "You don't have to be a programmer to teach the class. It's all free curriculum," he said. "They have it laid out."

All WFISD students already have their own Google accounts, said Frank Murray.

To program, students need math and problem-solving skills, said Catherine Stringfellow.

The TEKS list includes information ABOUT programming, said one participant.

Mrs. Wood said that now there is no advanced track for Information Technology. “This is our first shot,” and it will be driven by the number of students and the interest they show in the field. Next year’s computer programming class has drawn good numbers, she said. “All of our curriculum is driven by student interest,” she said. “Eventually we may provide another, more advanced computer programming (class).”

Dr. Stringfellow added that students who want advanced training can hook up with Midwestern State University. “They can come to our campus to do that.”

Right now, WFISD has agreements set in place with Vernon College, said Mrs. Wood. WFISD students can take classes at VC at no cost to the student. A WFISD student is eligible to earn eight hours of free college credit from Vernon College. “We hope as we grow to do a similar agreement with MSU eventually,” said Mrs. Wood.

Vernon College will give WFISD students credit for five classes at Vernon College toward their two-year degree. It’s a state articulated agreement. The college must honor it, said Mrs. Wood. “We must tell students they can do it.” Teachers will get a one-day training for Advanced Technical Credit.

ENROLLMENT
Enrollment for next year has been surprisingly high in this track, said Mrs. Wood.
Hirschi High School:
Principles class: 60 students
Computer Programming: 46 students.

Rider High School
Principles class: 50 students
Computer Programming: 45 to 50 students

Wichita Falls High School
Principles class: 43 students
Computer programming: 25 students

WFISD will offer one section of Telecommunications & Networking at Carrigan: 7 students have enrolled.

Until now, teachers have taught the principles courses by simply following their interpretations of the state's TEKS guidelines. WFISD will now work to unify the instruction in these courses.

"We will ask teachers to develop a WFISD curriculum. All are invited to participate," said Mrs. Wood. WFISD will fund the project. The plan is that the first semester of the class will be developed by July 2016; the second semester class will be completed by October 2016. "We want to get (all teachers) on the same page," said Mrs. Wood.

Mr. McAdams recommended that WFISD switch the order of 11th and 12th grade classes.

CERTIFICATIONS

"Mr. McAdams recommended students be offered the Macintosh Integration Basics (MIB), Apple Certified Macintosh Technician (ACMT), and/or Apple Certified iOS Technician (ACiT) certifications. "

Macintosh Integration Basics - software related certification on best practices to setup Apple Macintosh computers into a Windows networked environment.

Apple Certified Macintosh Technician (ACMT) - Apple's hardware certification for repairing Macintosh computers.

Apple Certified iOS Technician (ACiT)- Apple's hardware certification for repairing iPhone, iPads, and iPod Touch devices.

The ACMT certification and the certification called A-Plus are hardware-related

For computer technology, a student could get A-Plus certified. The Apple certifications have two components: software and hardware

Synthia Kirby said the TEKS for this track will change for the 2017-2018 school year.

Mr. McAdams asked if there are Apple computers in the labs.

WFISD will pay $200 per student per test, said Mrs. Wood. “We pay for failures,” she said. But students can take for free an unlimited number of practice exams, and WFISD requires the students to pass those practice exams first before they take the pricey certification exam.

If students pass the Adobe certification, they earn three credits for college, said Mrs. Kirby.

WFISD may get more ideas for certifications from the Workforce Commission, according to Ms. Stringfellow.

“Where is customer service” in the coursework? Asked Mr. McAdams.

“That’s big,” said Mrs. Kirby. She said students will be repairing machines for the community and will get hands-on experience in dealing with customers that way.

Ripley Tate said he believes a well-trained technician needs the BICSI.org cabling certification.

STUDENT ORGANIZATIONS

There are no student IT organizations, said Mrs. Wood. However, students can compete in Skills USA contests.

Students will be able to join the National Technical Honor Society if they earn a 3.0 grade point average overall, not just in their endorsement classes, said Mrs. Kirby. Recently, members traveled to Medieval Times restaurant and Branson.

UIL competitions are in the Java computer language, said Ms. Stringfellow.

Mrs. Wood explained that students will be more engaged in school if they participate in outside activities and use their skills to compete with peers.

David White said that starting an organization is a very involved process at the high school level. There must be a charter, then a one-year observation period, and other requirements. It’s not the same at the middle school grades, where a teacher can simply decide to start an organization and then do it.

He worked with high school students this year for UIL computer programming contests but saw participants only twice because they were so busy with other activities.

Mrs. Wood said she'd love every pathway to have a student organization. To do it, the schools will need community support. "Teachers are amazing, but we need community help," she said.

Dr. Stringfellow said a school could start by doing something easy, like inviting in a community member to speak once a month on Fridays. "Even my MSU students could come and speak," she said. They are already participating in amazing projects and research, she said.

Mrs. Wood said she wants students to compete. "They won't push themselves," she said. "Competition breeds excellence." WFISD must find a competition that works for us.

Mr. Faust said he finds that a lot of kids don't want to compete. As a former band director, he saw some students who like to compete and some who don't. "I hope you don't push too much into competition," he said.

The group discussed the pros and cons of students learning to hack cell phones or repair them.

Mr. McAdams said when a third party works on a computer, it voids the warranty. "It puts the customer in a weird position," he said.

"They can pop up a shop anywhere and make a ton of money," said Frank Murray.

Mrs. Wood asked the participants what computer skills they actually want students to have when they graduate from this program.

“We’d like to post a job and have more than two applicants,” said Mr. Murray.

Ripley Tate said that 80 percent of network problems are infrastructure. “No one is doing anything about cabling.”

Mr. McAdams added that he has observed that electricians don’t know much about networking even though they do most of the wiring.

Mr. Tate said many technicians are missing the basics. Even architects don’t understand how long cables need to be.

David White said “networking needs to be the LAST thing that students learn.”

Mr. Tate said, “It’s definitely a different track and mindset.”

Mr. McAdams said a Cisco certification is “less desirable now.” He asked how many of the Cisco CCNAs are needed here. (The certification covers the knowledge and skills required to install, operate and troubleshoot a small- to medium-sized enterprise branch network.)

Mrs. Wood assured the group that WFISD will have to “grow our own workforce.” She repeated Mr. Murray’s request that he would like to have two qualified applicants when he posts a job.

Mr. Murray corrected her. “I didn’t say qualified…I said just two.”

Mrs. Wood said it is also difficult to find the computer knowledge within teaching pools, too. “We want to equip our community first,” she said. “We know we have people…what do they need?”

She asked who needs a CCNA-certified employee. Mr. Tate listed several: WFISD, the local hospital, Region 9, and “every bank in town.”

“I’d like to have five,” said Shad McGaha.

Terry McAdams said he’d like to have a computer technician with both Network Plus and A-Plus.

The district needs to give students several exit points: a plan to go straight into the workforce after graduation, a plan to go to Vernon College for two years, and a plan for those who want to go to college for four years. “We need to give all three options,” said Mrs. Wood. “Exit where it’s right for you.” The district does not want to pigeonhole students but let them decide what’s right for them.

SUPPLIES

Currently, there are computer labs at each high school campus.

The plan has been that next year the Information Technology Track would share a computer lab at Carrigan with the Architecture program, which requires the beefier computers at Carrigan.

Mr. Murray said the school district is ready to surplus 600 machines. “Most are still working,” he said. They could be given to students to work on, he said.

“I’ll take 30,” said Mr. Faust. “I wanted to do PC hardware forever.”

Mrs. Wood said the district plans to “utilize what we have.”

The CTE Center will have a computer maintenance room, so the district won’t be spending money on that now.

“We have to find old antiquated hubs,” said Mr. Tate. “There’s a huge void.” Technicians don’t know how to analyze the data once it’s there, he said. This is a problem on the networking side.

Students will need tools, the group said.

“Don’t cheap out on tools,” said Mr. McAdams.

The group agreed that $15 per set would be about right.

“They’ll lose them,” said Mr. McGaha.

Mr. McAdams said it would be easy to come up with a Student Technician Kit that students or parents could buy.

“And don’t give (the tools) to them until they pay for them,” said Mrs. Kirby.

SPECIAL POPULATIONS

Mrs. Wood explained that the school district serves all students, including those who are learning and visibly disabled.

Every course is open equally to males and females, though this track is heavily male (75 percent male at WFHS, 80 to 85 percent male at Hirschi). “We need to see how to recruit ladies,” said Mrs. Wood.

Dr. Stringfellow said MSU offers a camp in the fall for 7th and 8th grade girls with a computer science workshop on hardware maintenance.

Mrs. Wood told the group about the Career Expo set for Sept. 27 at the MPEC that is expected to draw 3,000 8th graders from around the area with short, hands-on activities.

Mr. McAdams suggested that a simple activity to let students try would be to do a software restore with iPads. But he said it was hard to do anything in just five minutes.

Mrs. Wood said the activities will include demonstrations that cement the importance of career planning in students’ minds. An example: She’ll ask them to shoot baskets from a far distance, then from a short distance. She’ll compare that to making long-term goals and short-term goals.

Dr. Stringfellow suggested an easy activity for students: Put in RAM.

Mrs. Wood said they will be looking for presenters from the community.

Mrs. Kirby said at the CTE Center they will eventually need at least one special education aide to rotate to different projects. “We manage without any assistance,” she said, but it would be very beneficial.

Mrs. Wood said the next group meeting will be in September 2016.

The group ended at 5 p.m.