Comprehensive CTE Program for Serving Special Populations

Produced By: Career and Technical Special Populations Training and Resource Center

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Foreword

The Career and Technical Special Populations Training and Resource Education Center (CTSP Center) is a collaborative effort between the Family Development and Resource Management (FDRM) unit of Texas A&M AgriLife Extension Service and the Texas Education Agency (TEA). The CTSP Center received a one-year grant from TEA to provide CTE teachers and other educators with access to resources for improving their knowledge regarding the education of students with special needs enrolled in CTE programs. CTSP Center’s Role The primary role of the CTSP Center is to help CTE, general education, and special education teachers, educators, paraprofessionals, administrators, and parents who are concerned with serving students with special needs in Texas. The CTSP Center disseminates resources such as books, videos, curriculum guides, multimedia learning modules, and educational opportunities to the target groups. The CTSP Center staff answers questions or solicits the responses of external experts regarding several critical issues related to serving students with special needs. The current funding from TEA envisions the center as a special populations clearing house. One of the main requirements of the grant for the year 2014-2015 was to create multimedia training modules and support materials addressing principles and strategies of accommodating a broad range of special population student learning needs in CTE. This website, training manual, toolbox and this website are the resulting products. The modules are developed by the Career and Technical Special Populations Training and Education Resource Center (CTSP Center) in cooperation with Texas A&M AgriLife Extension Service and an expert consultant from Texas A&M University. We hope that our audiences find that the information enhances the services that they provide to their students with special needs.

In order to maximize learning of students from special populations, CTE programs need to be comprehensive, creative, and include components that aid student’s successful attainment of postsecondary goals. In this module, we will introduce to you examples of such practices and components.
Tips for Trainers and Users

1. As users peruse the material they might find certain topics are more relevant to new teachers versus more experienced teachers, for e.g. the Definitions or just the Examples instead of the other chapters.

2. To aid in this regard the modules are organized into chapters and users can choose to view only relevant topics.

3. We recommend the following guidelines for each module to be used at workshops.
   a. The entire site does not have to be viewed in one day.
   b. Again, consider your target audience and choose to show relevant topics.
   c. Include a pre and post test to examine level of learning (refer to pre-post tests included with the module).
   d. Use evaluation surveys to provide feedback to the CTSP Center (refer to evaluation surveys provided with the module).
   e. Refer to the FAQs provided to answer participant questions. In the case of further clarification forward questions or concerns to the CTSP Center along with participant contact information so that we may address them in a timely manner.
   f. The CTSP Center will not provide professional development credits from in-service workshops. This will be the responsibility of the organizing entity.
   g. The organizing entity is responsible for all print costs associated with material distribution.

4. The online materials are available for distribution free of charge. TEA Copyright restrictions apply.

5. Direct learners to the toolbox for additional references, handouts and resources: http://ctsp.tamu.edu/instructional-videos/comprehensive/toolbox/

6. Click here to download the training manual in PDF Format
Hello. My name is Dr. Lakshmi Mahadevan and I am program coordinator for the Career and Technical Special Populations Training and Education Resource Center at Texas A&M AgriLife Extension Services. Welcome to this instructional module on Characteristics of a Comprehensive Career and Education Program Serving Special Populations. In order to maximize learning of students from special populations, CTE programs need to be comprehensive, creative, and include components that aid student’s successful attainment of postsecondary goals. In this module, we will introduce to you examples of such practices and components.

There are many critical components that would create a successful CTE program for general students, as well as special populations and needs. Of course having that real world experience is important for our students. Advisory boards are something that we’ve had in place in Round Rock for several years, but every year you try to improve on those and bring in more cooperation as available. Making sure that those industry partners and higher education are represented all to bring in the best opportunities for our kids. Our teachers may come from industry, but others may just be career teachers, which is a wonderful experience also for our students. However, our students sometimes don’t always see there is a connection between our teachers and the outside world. When we can bring in any guest speakers or industry professionals that can showcase that our teachers are giving the students everything that’s out there (the most updated equipment, the industry standards) that’s just really important for our students to see that connection. We’ve also discussed our advisory boards and committees with our VAC program. The transition of special needs students, and having those opportunities also we have a great talent pool of professionals out in our local community. Why not share that with our transition coordinators and the VAC students to be able to use as partnerships rather than knocking on that door twice….One door has been opened, so let’s use that in lots of different avenues.

In addition to those programs we also have the program for our pregnant students or our students who have children. We allow them on their maternity leave, and we send teachers to their home and provide the opportunity for them to still keep up with their work by doing it in the setting of their own home where they can care for themselves and their new baby. Our CTE programs, in addition to their core programs, work seamlessly with those homebound teachers. We provide those opportunities so they don’t miss any instruction and so they don’t get behind…Things like that.

So, whether that’s continuing instruction as needed, or making those minor or even major adjustments, but to make sure that all students find their place in CTE because it is truly for all kids by making sure that we can help them be successful. Teachers understanding their programs well and being able to communicate that with parents, ARD facilitators, special ed. staffing, and counselors really understanding what a classroom setting looks like…what the next step of postsecondary looks like for the kids. Just giving all of the information there so people can make informed decisions about what programs are best for students where they can be most successful, meet their IEP goals, or whatever else they need to be supported in the classroom.
Utilize an organized sequence of Programs of Study

Overview of Academies

Dr. Lakshmi Mahadevan: Comprehensive and creative career and technical education instruction is characterized by allowing students to enroll in a carefully organized sequence of programs of study. In the following example you will see that our featured ISD is utilizing an academy approach to implementing curriculum. Academies allow students to plan ahead and make informed choices. Additionally, academies demonstrate the rigor and relevance of coursework, and are especially advantageous for special populations.

Sheri Bonds: I think our particular strengths for CTE here in Round Rock ISD would definitely be our academies, and our focus of giving the students a coherent sequence of courses that they can follow. They may find something that they absolutely love and what want to pursue after high school. But they also find out that being a surgeon and blood doesn’t really work for them. They get that opportunity in high school to make those explorations. Find out what it is they’re interested in or not, but if they do find something they can really pursue it to depth. It gives them that opportunity to get deeper into the subject area, understand something, get a head start on it before they go off to college or trade school to study that particular item.

We give students the opportunity for certifications. Jessica is really great about tracking our certifications for our students, and supporting our teachers. That’s something we were very proud of to offer certifications and licensures in lots of different areas. Just giving students that success that they need that they’ve demonstrated before they get out, but also something they may actually be able to use beyond high school. Anytime you can give them that feeling of accomplishment besides a diploma gives them that real-world confidence that they need to be successful after high school.

Jessica Ozuna: A lot of our teachers come from industry so they have ‘been there and done that.’ It’s not just book knowledge that they’ve learned. They have actually been through the process, so they can bring that information to the students and tell the students first-hand what those careers are like, and they can tell the students how they really will use those things that they learned in the classroom after school when they graduate and move into a career. So I think the fact that those teachers have come here as a second career because they love the kids and because they love the industry in that field, that really helps I think.

Academy leader: Welcome to Cedar Ridge High School. We have an academy showcase today for the next couple of hours we will be showcasing all five of our academies. Each academy lead has put together a different presentation based on their academy information, and what they would like to show to you to highlight their successes, and some of what they do, and the impact of the academies on their students. Because we have 5 academies, they will have about 20 minutes each to rotate through this progress, so they will be coming in and out. Before we get started I would like to introduce our PTSA officers that are with us.

We have Ron Buffum, the President, as well as two of our Vice Presidents, Don Watson has stepped out and Karen Buffum is also here. There comes Don Watson now, and Ron said he would say just a few words about the academies and relationship to his own child as well as the PTSA.
Speaker 1: Thank you very much. Well, it’s a pleasure to take this opportunity to really highlight the whole process in the academies. We came in this program when our son was a freshman, and we were just kind of bewildered trying to sort out this whole process and how it works and as it has evolved over the course of four years our son is now a senior. I’m really impressed by how it functions, and the functionality here at Cedar Ridge High School. Being president of the PTSA means I get actively involved, not just with staff, but with students, and watching the inter-working relationships that we enjoy here at Cedar Ridge. I want to praise Cindy on her work, she has been actively involved with this whole academy process. It’s really a unique philosophical approach. Having watched it move forward and our son has been involved in the fine arts aspect of it, and watching the evolution of the plays and productions, I’m really impressed by the overall good work that it’s accomplished. So, Cindy, again thanks a lot for your work, appreciate the opportunity.

Speaker 2: The way that I see the academy is nothing more than a small learning community. It’s a way for us to house students by common interest, and by theme more than anything else. Within that academy’s house or team, that’s where the student can seek a variety of benefits, program of study options, or different kinds of parts to that academy, and it allows the academy to actually develop an identity in its own unique set of interests, and that is kind of the way that I have defined it, and I think our district has a lot of the similar or same terminology.

Speaker 3: I think it feeds off of the university idea that we’re a university has colleges within a university, so each school will have academies within the school, so if you are studying engineering at a university in the engineering college, you would have math, science, that would be taught through the lens of that program, and that is the goal of the model academy.

Speaker 4: Well, I believe that the academy’s programs are windows to everything beyond high school. It gives them an opportunity to think beyond high school and what’s in store for them for college and career. It gives them a chance to experience their options while they are in high school decide what’s a good fit for them, understand the relevance of all their learning for their course subjects, as well as their academic electives that are in the academy programs, and really have a better idea of what they want to pursue beyond high school. I think it helps them see the end of high school as the beginning and not the end.

Speaker 5: It also helps them decide what they don’t want to do. Some of them come in, and have to choose their 8th grade or 9th grade year. They think they want to do health science, and then they realize ‘maybe business is for me.’ So, at the same time it shows them what they want to do and maybe shows them what they don’t want to do.

**Choosing Academic Tracks**

(Group discussion): Early, it’s early.

Dr. Lakshmi Mahadevan: “So as early as elementary school. I see, ok and… “

Guest Speaker 1: “You don’t chose but we go talk to them about it”
Lakshmi Mahadevan: “Well fantastic, so as early as elementary school level they learn that this is something that they are going to be exposed to when they get higher up. So when do they actually choose then?

Speaker 2: “They can choose beginning their 8th grade year.”

Mahadevan: “I see.”

Speaker 2: “They have through their 9th grade year to finalize their choice, but really a lot of them choose the 8th grade year.”

Mahadevan: “Ok, Is there anything specific that you have in place to help a student, beside what they need to pick? A career assessment tool, or anything like that that is use..?”

Speaker 3: “There are several, but the program that the district purchased recently, in the last few years is Career Cruising and in that there is a career assessment. It asks questions like ‘Do you like to work with children? Do you like to work with your hands?’ and you choose ‘very much, not at all, or anything in-between. Based on those answers it comes up with a list of careers that they might be interested in pursuing. They can click on that career, and it explains the tasks, education needed, the potential earnings — those type of thing, and similar careers. So if it says a nurse, it may have a nurse practitioner as a similar career or a technician as a similar career. That’s one tool that we know of. I know you’ve used several other tools with your students.”

Speaker 4: “There’s been a variety of things you can find online that people do with activities with kids. When we were talking about going into elementary school, we’ve all increased that where we have high school academy ambassadors that will go out onto the feeder pattern campuses. We do activities with 5th graders and activities with 8th graders. I know each of these ladies do a variety of things with younger kids. The whole goal is for the student to match up their skills and interests to an occupational idea in the workforce instead of it being a disconnect, like you said….classes. It really encourages kids to hang in there with maybe one subject if they know it’s going to get them to where they really want to be. Just linking it together for them.”

**Sustaining Academies**

Speaker 1: We have academy ambassador program students. The students are the ones that provide the role models. They provide the testimony, they provide the examples. The more these examples are there to speak to parents, to business, to community, to teachers then it starts to embed its culture into the way we do things. I see students that are gaining certifications, the statistics, numbers, using those things. We watch those so that we can celebrate them. Then, hopefully, that continues to add fuel to it.

Speaker 2: I think like he said earlier, having the realistic conversations. If something isn’t working, having whoever’s part that is or everyone that is involved being able to say ‘Okay, this piece isn’t working, how can we fix it?’ We identify it, we admit ‘that piece needs to be adjusted,’ and then adjusting it and building on it.
Speaker 1: So, our community support I think is instrumental. So, being good stewards for what we’ve started and making sure that our partners are taken care of, and feel like they are contributing. Because as long as they are happy, I think it is going to keep going.

Speaker 3: Involving more of the core teachers becoming part of the academy is something we’ve done more in the last year or two. Every teacher on campus is part of that learning community, that small learning community. If they take more ownership of that, they participate more. My philosophy has always been what happens in the classroom with that teacher and their 30 students, that’s where it happens. We can talk the talk and hang the banners and do all this wonderful marketing, but until the teacher in the classroom is doing that with those students it’s not really happening. That’s the growth, to continue to talk to those teachers, and listen to those teachers. Those teachers talk to each other in their group, and develop this further.

Speaker 4: I was just going to say that the continued support at the top level of administration is definitely the key. To continue to keep the drive going, and keep everything gelled together. We brought up the situation with the small community situation, but that is what we do. We come together, we’ve been able to try having conversations about that, and attacking that particular situation head on, and working towards trying to find ways to fix that. It may take a while, but I think that is very important with the administration.

Speaker 5: As a district, I think that Round Rock ISD is always looking to progress and improve all their systems. So, whether it’s the academy programs, or any other set we have, that is just a continual effort.

Advantages for Special Populations

Speaker 1: I think that with this model, it allows core teachers to see how CTE will help in their courses and it’s not just the CTE classes off to the side, the ‘old vocational.’ Now they see them as … they help bridge what the students want to learn. They will do better in their courses when they can connect with an academy.

Speaker 2: Our current teacher made an amazing remark that since we started the academy model, and students see this pathway, and linkage to what they really want to do. She’s seeing her classes become much more focused and interested groups. Because instead she felt like a lot of times class was used as an extra space on somebody’s schedule, or whatever. The kids would take it for whatever random reason. So, they didn’t have that vested interest. Now that we have it linked together, not just in a sequence, but in a community, and we’re rallying our business partners around it. Suddenly, the students as a whole, there are real serious students in there and it affects the entire atmosphere of the whole class.

Speaker 3: It personalizes their high school experiences for them.

Speaker 2: I think it increases the number of students in student organizations, too. Now they’re with a common group, and then these kids say “oh we’re competing and we’re doing this,” then they want to do it as well. So, on my campus we’ve seen an increase. That’s fantastic.
Speaker 4: I think so, too. I think as far as an advantage that one of the great things that the district is trying to do on a widespread basis, is the project-based learning model. I am seeing a lot more teachers involved on our campus with cross-curricular ideas. I am excited to showcase some of those in the next few weeks on our campus. There’s great things going on with that, and I think that helps the kids. One of the things sometimes we see modifications for special ed. students that may be for math or whatever their struggle is. I think that the academy programs and the teachers help them to see the practical use for the skills in those classes — maybe it entices them to take the learning a little bit more seriously when they see how that applies to what they think they want to do for their future.

Speaker 5: I think that applies to every kid.

Speaker 1: I’m going to go off on a limb and make an observation and maybe get some feedback here. It seems to me that the academy models and bringing in these programs and these occupational ideas, and talking about these at the high school level has balanced things out from this ‘pure academia college bound track.’ I think can be kind of intimidating and discouraging maybe to an average kid or special needs kid that doesn’t feel they can compete on that super high academic plane. Maybe they can maybe they can’t. But, if that’s the only conversation — “academics, academics” — then where do they see themselves fitting in? Whereas, when we turned it and tried to balance it out, and say that we have to fit it to an occupational match, let’s talk about industry partners. Let’s go do some job shadowing. Let’s bring in some guest speakers. Let’s do some hands on project based learning that is relevant to what our industry and community need. I think that encourages a lot of the special populations to realize that they do have a fit in school. That it doesn’t always have to be pure academia, whether it’s math or writing. Which, yes, it’s important; but if it’s not your strength, rather than feel like a failure or a loser, or they can’t compete, that that’s ok. I’m going to find areas that I can be a productive citizen where I fit in. That customized encouragement, I think is good for all kids.

Speaker 5: I agree. I think too with the amount of industry support and business partners that we have….They come on campus and talk to the students. I’ve had some ask me “well I didn’t go to college, so is it ok for me to tell them that?” I say, “Yes, yes! As much as we would like to think that every student is college bound, they’re not. Some aren’t going to go to college.” That’s ok. They need to know that they can still be successful. So I think that a great point to make.

Speaker 6: When we talk about careers and every student has the expectation that they will be in a career, whether they go straight from high school, or they go through 8 or 12 years of college before they get there… They are career bound. We incorporate that thinking into our academy model. It’s not reducing that discussion down to just the college bound versus the vocational bound. We all are headed towards a career.

Speaker 3: With them able to have exposure to those skill sets in whatever direction they want to go in, and then find out what they feel would be best for them and find out what that pathway is that I would have to take in order to be that particular person, and have that particular occupation. I think it is not just for special populations. Obviously it works for all in my mind. For at risk or whatever it may be.
Speaker 6: It identifies what areas they need to learn, but if they are talking to an industry professional in that career area they say “well why do I need to learn to write if I’m going to be a construction technician. Why do I have to do that?” Then they talk to them and say, “Well, you have to communicate, reports, when you do billing you have to explain to the customer what they want. You start, and they start to understand why grammar might be important, or building the supporting paragraphs of your thesis statement, or whatever words that we use in the English class, and how that relevancy ties. Whatever level, if they are gifted and talented, special ed., or anywhere in-between – they can work on those skills and have a purpose for improving.

Speaker 7: I think that our ELLs thrive in an environment like that because it is hands-on and they’re interested. I think by the time our students or ELLs get to that level, they’re getting bored. They don’t really feel like this is for them. Maybe they’ve been overly intervened… hugely overly intervened. If you think about some of the CTE courses, and you think about the content that they’re learning, and you think about interventions….if you could match those two wow, you are going to see a lot of growth in our students I’m excited by it.

What makes academies work?

Speaker 1: I think what’s making it work really well is that everybody talks the talk at all levels. It comes from the counselors, it comes from the teachers. They work together. The counselors recently sent out an email saying “please review with your students the program of study, and the sequence of courses.” We’re all working it to try to help kids understand the sequential electives, and the benefit to completing a series of courses that will lead to certifications, college credits, and all those kind of things.

Speaker 2: I think some of what is making this work is the kids. The kids are bonding to it, and they talk to their teachers “Well, I’m in this academy, and I’m doing this.” So, I think the teachers now…. I know that they connected more with CTE teachers because of that. “I have Johnny, who likes this, and he says he’s in this academy. What can I do to help?” So, I think it’s the kids.

Speaker 3: I agree that the administrative commitment to this at the highest level all the way. I think a lot of the growing pains have probably been felt more in this building here at the central office than at the campus. Because it’s the decisions that they make here, and the work they do with our campus leadership that has made a huge difference in the last couple of years. All of us on the ground at the school, the teachers, we can do whatever we do but without our administrative support….. Not just support, vision. It wouldn’t have gone anywhere. Kudos to them.

Speaker 4: Industry partners are a big part of the successes as well. They see the importance of coming to our school or having our students go to their place of work. Asking them to help us understand what they need in their future employees. So, that has been major. We have our advisory committees that we have set up and growing all across our campuses. They feel value in that I think. Speaker 3: Our partners are really cute because when they see what we’re doing they’ll say “Oh, I wish they had this when I was in High School.” How many times have we heard that from our business partners? Because they see the relevancy they have more buy in. So, it’s not just the core teachers, or the counselors, or the students or parents… but our partners, too.
Speaker 5: Community is very important. I think in the community aspect, parents as well, they are learning more from their students. This is a big year; we have a lot of new parents that actually have their first oldest child come to high school. This is all new to them, but when they come to our academy nights, or our freshman orientation nights, and then they get to walk in the building and see all the things that we’re providing for their student to be able to have all these wonderful skills and opportunities for work later on. I think that whole community onset is really a key to part of buy in as well.

Advice for Schools

(Group): “Don’t give up. Teaching what’s best for kids…”

Speaker 1: Take it in small steps; you can’t do the whole model in one year. You take a piece of it and you build it. I think Becky has the experience of helping to do this as Rachel did being with the district since its conception. And, you guys can probably speak to that third one, too.

Speaker 2: One of the things that I think was helpful even though we all disliked it a great deal was our academy refinement plan because it gave us a structure and goals. We reassessed periodically, and so whether we liked it or didn’t, it still helped. As we refined our mission and goals, then that evolved over the years. It gave us a foundation to take the steps that were necessary to even get to where we are today.

Speaker 3: We did use the National Career Academy Coalition Standards of Practice, and we incorporated those national standards of practice for career academies into our own internal strategic plan, and this took probably the first three years to get our plan down for us to really start communicating out.

Speaker 4: Going back to what Becky just mentioned with strategic planning — don’t let that be set in stone. It has got to be fluid. You’ve got to be flexible as the needs change the industry changes in your community. Plus the kid’s needs — their interest changes. You have to be able to change with it.

Speaker 1: To identify your goals, you write what that looks like when the goal is accomplished, and what personnel is involved in achieving that goal. There is a lot more to the strategic planning than that, but it’s a process. It just doesn’t happen overnight. The board of director on down to the classroom teacher needs to be involved, and to continue to educate and talk about it to the community, the parents. They were very resistant. “Why does my 8th grader have to decide what they’re going to do the rest of their life? This is difficult they don’t know that.” Well we understand that, so that is the advice we give them. Keep talking the talk, and expand, putting it out there and they’ll get it, they’ll understand.

Ensure that classrooms provides Universally Designed Curriculum

Dr. Lakshmi Mahadevan: Providing a universally designed curriculum ensures that the CTE program is accessible to all students regardless of their special need or background. By universal
design, we mean that instruction should include multiple means of representing content, allow students multiple opportunities for action and expression, as well as engage them. Following are examples of such instruction.

CTE Teacher: Ok, while we’re waiting on everybody else, guys go ahead and go grab your laptops. Go grab your laptops. You’re going to need them.

CTE Teacher: Alright, hey everybody. Good morning. Good morning. If you’ve got a computer open and phones and all that kind of stuff, let’s get those put away for a few moments here. A couple things, a couple targets we’re looking for is number one, we are still looking into the different varieties of treatments and different ways we can diagnose diabetes. Remember this is kind of our capstone project. We’re bringing it all together with a lot of the work we’ve been doing over the last seven to eight weeks. And then the last part here, you should’ve completed last time. You should be all good with this, but that was going back through and analyzing that weird, kind of kooky presentation on the medicines that back fire. So that should all be done at this point. And you should have a pretty good idea of what it’s going to take in being successful in preparing your presentation and/or model, as well as how to be successful on the day of your presentation, and how you might put together your presentation in PowerPoint or Prezi to look very professional and to be able to use it as a business pitch for your product that you’re developing.

CTE Teacher: Ok, so what’s its purpose? Why even storyboard? Who cares? Again, I can just go out there and create. Well maybe not. So the first thing is what are your goals? What is your specific story? What content are you trying to communicate? What is your presentation for? We have six different categories here. Is your video to educate somebody? Maybe raise awareness about some educational issue. Or maybe it’s to sell a product. How many of you saw the Super Bowl commercials or some of them? Ok. So in essence, those commercials, all of them I guarantee you, were storyboarded at some point. Maybe to convince somebody to buy my product, buy the new next great and latest thing. Maybe it’s to inform, to entertain, or maybe a combination of all this. Usually the most effective commercials that you see out there are the ones that grab your attention within the first five seconds.

CTE Teacher: Those are some of your job sheets: diagnosis, common tire problems. What is causing that tire to wear…? That would be job sheet one, lesson one, unit thirteen. Second one; describe tire inflation and rotation procedures. That’s number two: job sheet two, lesson one, unit thirteen.

CTE Teacher: Like I said, I can pull up the age if you want. Want to do teenagers? Do that. What do you think? Ok, want to do that? That one up there is ok. You mean change it to that? So think about it this way though. Keep it to where it’s like business because people in that age range usually have a good job, a corporate America kind of thing. Maybe you can do some dress shoes or something like that. Ok, does that make sense? Want to do that? CTE Teacher: Remember, a couple things I’m really looking for in those presentations to be successful is to make sure you have short bulleted points with your information. You do not need to read from your presentation, you need come up here and tell us about it. Remember, you are pitching an idea. Alright? I’m looking for enthusiasm. How can you get us to want to buy your product and put it
on the market? There’s a lot of money in healthcare and there’s a lot of money in the fact that we can create new treatments and new ideas.

CTE Teacher: You want to use your plan to design your presentation and decide what pictures or diagrams you will need and have a teammate create them. So here’s my disclaimer on storyboards. We’re not all artist in here. So I don’t expect for your storyboard to be something immaculate, something that would be like in an art display in an art gallery. I’m not going for that. I’ve had very effective storyboards, where it was just a bunch of stick figures and a bunch of stick drawings. That’s fine. As long as you get the point across, then we’re good. Again, I’ll talk about how to do that in a little bit. Again, like I told you, you don’t have to be a drawing person to be able to make a storyboard. Really, as long as you can draw lines, and draw some squares and some circles, we’ll be ok, I promise. So I’ve had some really good ones that almost could pass for cartoons, and then I have others that are just completely stick drawn and that’s fine. As long as get the point. And then someone should be able to look at your storyboard and put together the same site you would have done. So we’ll talk about that with the template in a second. But basically is that if I took his storyboard and I gave it to her, she should be able to take his storyboard, go out into the hallway, and film his complete project. That’s how detailed, that’s how precise it should be.

CTE Teacher: I know Cody, Abbey, Emily, and Bianca, you had started making a model here of kind of your chemical that you’re going to use, so that’s a good start there. A couple of the ideas that were proposed, first one here is a model that was made with kind of a clay around one of my student’s teeth and then casted in some type of casting. I’m not sure what it is. But basically, they would take an Invisalign, almost kind of like the braces, and you would take that, put it in your mouth, and it would measure all of the molecules coming into the body. So that people could actually get an idea of how much fat they eat during the day, carbohydrates, and proteins. The next one here is a chip that would actually be inserted, it would be much smaller than this, and it’s inserted into the wrists. And this little part at the end here actually is into the bloodstream. So it goes into the blood vessels and blood stream, and it constantly monitors blood sugar levels instead of having diabetics prick their finger all the time. That’s one there. This one is kind of an idea about taking a sort of mock cell and putting it into the pancreas, so that it can actually produce insulin on its own and create a situation in which Type I’s can produce insulin again. And inside the cell would have non-pathogenic bacteria, E. coli, that produces the insulin for us. And then as the body needs it, there would be some type of microchip that tells it to secrete into the blood stream and constantly be removing sugar as needed there. So it’s a way for Type I diabetics to potentially get cured there. So that’s one there. And then another one here is called Syntheskin to help treat some of the complications of diabetic ulcers and cuts. Diabetics have a hard time healing wounds. And this would actually incorporate a patient’s own stem cells into it. It’s almost like a skin graft. It would go over the top of their skin, and eventually it would start to hopefully build up those skin layers and help them cure their complications with some of the ulcers a little bit better.
Support English Language Learners

Helping Ells in CTE

Karon Henderson: In general, linguistic accommodations are really taking the student from where their language proficiency is at that moment and looking at listening, speaking, reading, and writing, and where is that student, and understanding how to take a beginning English learner or an intermediate English learner in listening, speaking, reading, and writing and scaffolding learning for that student. For instance, some of the accommodations that I share with high school teachers are using sentence stems and frames. At first, high school teachers are a little reticent to do that because they think it’s babyish. But when I show them how we infuse academic language, and we have our students actually producing that academic language, and they have an anchor for that, that it eventually becomes default. And then we can scaffold from there and build academic language with our ELL’s. That’s one of the linguistic accommodations that I share with teachers. Also, look at the language load because a lot of the courses are very text driven, so one of the things that I’ve worked with CTE teachers is how to take text and how to accommodate it for language difference. And so we actually did this this summer with most of the CTE teachers. It was like the light bulb went off. One of the teachers teaches law, and she was like, “There’s no way I can do this.” Then once she figured out how she could chunk the material that she gives to her ELL’s, how she can bold print some of the academic language that the students might need to focus in on, how she could also work to provide native language support, how she could reconfigure her classroom to do that, but also having students share texts, and do a lot more pairing, and that kind of thing.

Incorporating Research-Based Strategies for English Language Learners

Dr. Lakshmi Mahadevan: Comprehensive CTE instruction is inclusive of English Language Learners. It provides for research-based strategies that enhance their learning and allows for the use of linguistic accommodations. Here are some examples of these provisions in our featured ISD.

Karon Henderson: I think the first thing that you need to do is you need to find your ELLs. You can look at the data all day long, but you have to find those kids who match that data. And you’ve got to get into the CTE classes, find the teachers, and help the teachers with linguistic accommodations because they want to do the best by those kids, but they don’t know how. Sometimes they don’t know what they don’t know. So you let them know who the students are. I mean, that’s that first line of defense is you’ve got to find the kids; you’ve got to find where they are. The other thing is let’s open up the CTE classrooms to our ELLs, our long-term ELLs especially. I worry about them the most because they sometimes have the attitude that the system is not working for them. So that’s, I guess, another piece of it. But we’ve got to find the kids, and then we’ve got to provide that professional development for the CTE teachers, so that they can accommodate. So that what they do in the CTE classroom spills over to those core content subjects. And so, I would align with curriculum, I would align with the Department of Secondary, the instructional coaches because we really need to do wraparound services for our kids. What I’ve noticed when I work with CTE teachers is a lot of times our ELLs are doing
great in their classroom. And it’s not necessarily their class that our students are failing; it is their core content courses. Sometimes the CTE teachers aren’t aware that they’re not doing well in the core content areas. So this summer when I was working with the CTE teachers when I was doing professional development, they brainstormed ideas to support the ELLs, so that they do better in their math courses and in their language arts courses. But that’s sort of the disconnect I’m seeing. And I’ve learned a lot about CTE this year and how hands-on it is, and how engaging for our students it is, and how our ELLs love going to their CTE classes. So when I talk about gaps, that’s what I’m talking about. You know, sometimes our students feel like the system isn’t working for them, but the CTE has really given them hope. When I work with CTE teachers, I do talk about ways to accelerate language proficiency because that’s what our students, our ELLs, are really needing. I give them some practical tools that will then maybe trickle down and help in their core content classes.

Teach Using Resources, Examples and Visuals

CTE Teacher: Remember, on my website, I’ve got lots of great resources for you to use, but one of the big things on there is under my handouts tab. If you go over and we scroll just a little bit here to the ‘Future of Diabetes Treatment Project’, I’ve got your rubric here, which is going to kind of give you the step-by-step directions of what you are going to want to have in the presentation.

CTE Teacher: So the benefits of storyboarding, here is where your notes start. The benefit, first and foremost, is it reduces the time spent on unfocused and undirected discussion. In other words, it gives you the planning process of storyboarding. But why it is so important to actually have a plan because what will happen is you’ll try to go out there and you’ll try to just wing it. You’ll probably say to yourself, “I can just worry about the script and figure out what I’m shooting when I get out in the hallway.” Well that’s not necessarily the way it works in the real world. So that’s what we’re going to talk about, today. Alright? So here we go. Alright, so a couple of examples here. How many of you have ever seen a storyboard before or done a storyboard? What class? You’ve seen them, okay. What about you? Okay. Alright, cool. So this is going to be a little bit different because that’s really what storyboarding is. It’s a way to visually see your story. So here’s another example. It almost looks like what you would think of as comic strip or comic book.

CTE Teacher: We ran into a vehicle that we checked the air pressure in all the tires. Every single one of them was fine. Let the customer know that maybe the problem was internal. The spare tire was the same exact size as the rest of the tires. It was a small SUV. The problem was in the spare. The spare was low. But they didn’t tell us that they had swapped tires. So as far as the computer knew, that tire was still low. Well technically, it was because all they did was take it off, remounted it underneath the vehicle, and went on their merry way. Problem was the machine or computer was going, “Ah sorry guys, we still have a problem. It hasn’t been fixed.” Technically, no it hadn’t been fixed. When you’re doing a front end alignment… Now, those are her tires. Do me a favor and remove one of the shoes. Now walk. We have a tire that’s inflated. We have a tire that’s under inflated. Is that going to be an accurate alignment?

Students: No.
CTE Teacher: Exactly. Thank you. One of the things you guys have to get into the bad habit, and it is a ‘bad habit’, is to develop that critical eye. Meaning, you come up to the vehicle and go, “Oh it needs a front end alignment.” Today’s vehicles are little more sophisticated. They’re pretty much making them idiot proof. Meaning, that now they have this little sensor, which we have to calibrate every once in a while.

Strategies for Students Pursuing Non-Traditional Careers/Access to Industry-Standard Equipment

Dr. Lakshmi Mahadevan: The Carl D. Perkins Career and Technical Education Improvement Act recognizes students who pursue non-traditional careers as a special population. Incorporating strategies that effectively encourage non-traditional students is a critical component of comprehensive CTE instruction.

In order for CTE programs to be rigorous, relevant, and train students to be college and career ready, it is necessary that students have access to advanced technology and industry-based standardized equipment or classroom activities. We came across instances of such access at our featured ISD.

Provide innovative practices that allow students to attain post-secondary goals

Dr. Lakshmi Mahadevan: Helping students to envision a future, and setting them on a pathway with a goal in sight goes a long way in improving outcomes for special populations. At our featured ISD we came across several innovative practices that aid the students’ successful attainment of post-secondary goals. Some of these practices include:

Providing opportunities for student entrepreneurship:

Student 1: I am in a class right now called business management, and we run the student store. So, it gives you an overview from everything you need to know about the store from ordering tee-shirts, to counting merchandise, to just setting up the store so that people will want to come in and buy things. We actually have a video that the AV department and the kids in the student store did…

Dr. Lakshmi Mahadevan: Allowing for site visits.

Speaker 1: This campus is a clinical campus, so that our students are getting hands on training, and learning to become doctors, and nurses, and pharmacists. The medical students are rotating with medical physicians out in the community, so they get one-on-one direct experience in taking care of patients with those physicians. Training physicians in Texas is a long process. It includes four years of medical school, and at least three years of residency. Today we want to try give you just a glimpse of what goes on in medical school, so that you can get some kind of idea of really whether it’s for you. We’re going to do three or four things. So there is commitment in becoming a physician. We try to put all of those things into a package so that we get the very
best of the best. Ms. Diaz is going to tell you about those things this morning. We also want to
give you just a little look into the first part of training for a medical student, and that’s basic
science. So, some of you may be taking your science classes – anatomy, physiology, or histology –
we do those same kind of things at a little higher level in medical school. You guys are going
to have a treat this morning. Dr. Greg Allen, one of our assistant professors is going to bring
some human specimens for dissection for you all today. So, you’ll have a chance to see some
human specimens. We’ve also assembled a student panel for you all, with third and fourth year
medical students. We’re going to give you a glimpse into the life of what a medical student sees
every single day. It’s really very different from undergraduate school, and the didactic training
that you all are getting, so I want you all to hear that from the third and fourth year medical
students.

Dr. Lakshmi Mahadevan: Participating in CTSOs, or Career and Technical Student
Organizations.

Speaker 2: Just seeing two to three thousand students from around the state that were just excited
about forensics medicine, about CPR, about First Aid; it was amazing, it really was. The only
thing I could think at that point was ‘okay, I need to go and find out as much as I can about each
of these topics because I know someone that would be interested in that.’ From that first year you
build, I was really trying to feel the entire program out, like feeling out ‘what did HOSA offer?’
At first, I will be honest I felt like it was a responsibility… ‘Oh this is something more I have to
do.’ But after I saw the excitement and the actual level of rigor that it builds within those
students… As it translates to HOSA, HOSA is just a combination of those things. You’re able to
take a student and say ‘Hey, there are other students around the state’… well let’s start with area.
‘There are other students in your area, and we are talking from San Antonio to Temple, there are
other students that you might not have known that are just as excited about this topic as you are.’
It’s magical, it’s magical. For example, there was a student this year that we basically had to
track down to get to go to the conference, and she actually went to compete. She didn’t place, but
the student went and competed and came back and lit up. It was ‘I am glad you brought me, this
was wonderful, and this was exciting. I’ve never met so many students that are serious about
education, and so excited about education.’ This was just from the opening ceremony. Then the
competition themselves at the opening ceremony you hear kids screaming about health
education. It was honestly my first time going to the conference. I know exactly what they’re
feeling because I was sitting there at that conference. These kids are excited about learning, and
they truly are in passion with that topic, that subject. It’s amazing to see.

Dr. Lakshmi Mahadevan: Allowing for practical experiences in the classroom.

Speaker 3: I’m the academy lead for the academy of health sciences here at Cedar Ridge. We had
a couple of other students that were coming, I guess they’re running a little bit late. I don’t see
them. *Crashing Noise* ‘Oh, he fell!! Help! What happened?*

Student 2: Help! *To man on floor* Hello, can you hear me? Are you okay? Speaker 4: What is
your name? Do you feel any pain? Patient: Ryan. Yeah my leg hurts really badly.

Speaker 4: Someone page Ortho immediately.
Speaker 5: Ryan, can you hear me? Where does it hurt specifically?

Patient: My lower leg.

Speaker 5: Your lateral or medial side? Can you feel this? Patient: Lateral, Ow… yeah that hurts.

Speaker 6: Do you feel bad here? Patient: My throat hurts.

Speaker 6: Can I look in it? It’s really puffy and inflamed.

Speaker 7: There is a lot of white stuff in there, so I am going to take a throat culture from you. I’m going to take this off to the lab.

Speaker 5: Can you move your leg? I’m going to need a splint! Speaker 3: Later that afternoon a disposition has been made, and so we will let Ryan get his prescriptions.

Speaker 8: Hi, how are you doing? Is your name Ryan? Okay, can I have your date of birth?

Patient: Yes I am Ryan. *gives date of birth*

Speaker 3: Well I have Cephalexin for you, this is an antibiotic. I want you to take all of these, don’t miss any, and it’s twice a day until the bottle is completely empty. Also, I am going to also prescribe you Tylenol 3 for pain. Take it as needed, and if you have any troubles you can contact the doctor for any information. Here are your prescriptions.

Speaker 1: Well, we do have four programs of study here in the academy of health science. We thought we would demonstrate to you how those all come together in a health career.

**Provide Interdisciplinary or STEM learning opportunities for all students**

Dr. Lakshmi Mahadevan: Our featured ISD has implemented several innovative projects that provide interdisciplinary and STEM related learning opportunities. Following are some that for a particular note.

Graphic Design Teacher: With what we’re doing with these collaborative projects is… It’s a big school, a lot of times the classes are totally different sizes, they’re meeting at different times; they’re meeting in different parts of the building. It’s very difficult to connect people in the same room at the same time. So in most of these things there’s a hand off. Again, every project you’re seeing there’s a, “We do this thing. We hand it off to some other group and sometimes it gets handed back.” But it’s more that than people sitting in the same room doing the same thing. There’s collaboration going on in the classrooms, but not so much between the two different classrooms.

Dance Teacher: In our dance program, Ballet and English 1 created a PBL in the fall based on their study of Romeo and Juliet. Karen Searles is our Academy dance teacher, and she actually
went into some English 1 courses. I believe she even worked with the ELL students to try and give them a visual example of Romeo and Juliet performed as a ballet, so it wasn’t just something in a textbook. They actually brought it to life for the students. And she went in and kind of talked them through the ballet. She said it was really rewarding to see students identifying what was going on in the story through movement, even though they hadn’t taken ballet and that wasn’t maybe something that they were passionate about, but that they could still watch and learn from the process. Our musical theater program combined with the entire Visual and Performing Arts Academy and presented the 2014 musical production Ragtime at the PAC this past January. This was a wonderful experience for our students to study the early 20th century and the evolving times of just the different social classes, the social economics that we were faced with, people moving to America from all over the world and trying to find a way to assimilate and coexist in this world full of opportunity. The TEKS taught Musical Theater. Which Musical Theater, alone to me, is one of the most collaborative forms of art because you have the technical theater side, and scenic painting, and make up design, costume design, and then you also have the music element, and the dance element, and the theater element, and the storytelling from English, and building a set. You’ll see in that picture building that set took so many mathematical problems and problem solving. And that set was completely built by our students, 100% by our students and our technical director. So theater just in general is a collaboration of all those skills that the students learn in their core classes in addition to what they learn in their performing arts classes. I’ve asked Mariel to come; she played Evelyn Nesbit in the musical and is a senior this year. I wanted her to share a little bit about the experience of playing a historical character.

Student: Hi. Evelyn Nesbit lived from 1884 until 1967, so she was 82 when she died. And being able to play her was just phenomenal. Just the historical factor of it, she lived through the Ragtime Era and long enough to see the Civil Rights Movement. So it was so amazing. This is to keep me on track. Evelyn was so educational historically and I learned so much. As a performer, of course you’re always interested in your character, hopefully. It was all on Google for me. She was a real person. So I got to go and I looked her up, and I read two books about her. And every morning I would come in with a new fact for Ms. Copeland, like Evelyn never knew just how old she was because of her early Vaudeville career. Her mother lied about her age so often to avoid child labor laws. So even then, she lived from approximately 1884 to 1967. I’m no history geek in any way, so the fact that a musical like Ragtime, so beautiful and so amazing, could get me immersed in the history of a time and an era was really impactful for me as a student.

Graphic Design Teacher: We’re going to look at a project that’s going on within the Graphic Design and Illustration program of study. This is one; we’re calling it Animating Atomic Theory. The main goal of the project is for students to create an animation that will sort of teach people how we came to our current understanding of the atom. It is a joint project between the AP Chemistry students and the Advanced Graphic Design students, which is an interesting mix. It’s been a lot of fun. The AP Chemistry students started off when they found out about the project. Some of them are visually savvy and like to draw; some of them aren’t. But what we asked them to do was basically do a bunch of research on different phases of atomic theory and history of atomic theory and come up with a storyboard and ideas to describe to the Advanced Graphic Design students that would go on to do the illustrations and make the animations. A lot of the research and basic information came from the AP Chemistry students and there was a hand off to
the Graphic Design students. First thing we did was, the Chemistry students were doing the research, and they were trying to give us as much as possible and were looking for as many images as possible of the different periods of atomic theory history. And these were some of the storyboards that a student created. You’ll meet her in just a second. And then it got handed off to the Advanced Graphic Design class. Students that are really facile in images and maybe not so much in the science, so they’re trying to communicate with each other and connect that way. This is an early illustration that a Graphic Design student did. I’m going to have an AP Chemistry student, this is Kalea, come up, and we’re going to talk about this. And this is Ryan Hicks, who’s been involved in the animation. He was just working on this, I think, 30 minutes ago. Kalea, what did you think when your teacher first described this project to you?

Student: I honestly had no idea what to do because I do like to draw, but the fact that we actually had to draw a storyboard, I had no previous experience with that. So I was a little concerned.

Graphic Design Teacher: Did that get any better over the course of it?

Student: It did. We actually got to go and speak with Mr. Foster before working on the project. And he explained exactly how he wanted the project to be done.

Graphic Design Teacher: So Ryan, when you go the information from the AP Chemistry students what was your first thought about it?

Student: Well, when you first presented the project to us, I think it was really confusing and overwhelming, but the information that all the AP Chemistry students provided us with made it a lot easier. We got a lot of ideas about how to format it, and a lot of information, and pictures that we could use. They provided resources, which is really nice, so it made it easier.

Jessica Ozuna: Another aspect that I think is a strength for the Round Rock ISD Career and Technical Education program is our three day professional development conference that we host in August before the teachers return full time. In this, we bring in not only people from content areas, but we also bring in people from our Special Education department or people from our ESL department. So that they can provide training that is specific to CTE teachers on how they can best work with those special population students in their classrooms because our classrooms can function a little differently than a regular core classroom sometimes. So that way the teachers get the training and the knowledge to support those kids in a way that will work in their classroom, but also in a way that will help those students be successful.

Sheri Bonds: In conjunction with the three day professional development conference, we also do two days of curriculum writing at the end of the year. We bring in all of our teachers to be able to collaborate horizontally across all of the high schools to make sure that their curriculum is aligned. When you’ve got 15 teachers that might be teaching the same subject, it’s important to make sure that everybody’s on the same page, so that all of the students are served in the same ways. But also they can share ideas on how they’ve supported students with special needs, maybe done word walls in a way that worked really well for them, or different items to support students and making sure that they’re given all of the tools that they need. So we do that curriculum writing with all of our teachers for two days, but we also can bring in content experts.
We have courses that count for math and science credit, fine arts credit, and so bringing in those folks from those curriculum areas to be able to support our teachers in lesson planning. Putting all of our lessons up on our ARRC, the Aligned Round Rock Curriculum is something that’s important for us, so getting as much updated there as possible. Then also doing any project based learning that they can do to start to plan for the next year. The end of the school year, folks are tired, but that also a time to get re-energized and be recuperated over the summer, but having that goal in mind of what you want to implement for the next year.

**Provide enriching Student Experiences**

Male Student: PreCal students and teachers, they’re all pretty excited about doing this project. They were really thankful for having some kind of program to actually do this for them very easily, instead of having them go to Excel or go to whatever program, go find one, input data themselves, try to graph it, and all that. Instead, this one just fast processes it, so you just put the input data. We run it once, and you have the output for every single city.

Teacher: And it sounds like after you did this, you discovered another shortcut in the process? Male Student: I got pretty excited about this. So after this project, I went a step ahead. And instead of having input data provided in the program, we just happened to name the city and the era number you want, and it’ll go fetch the data and graph it by itself for anywhere.

Female Student: I was really excited. I’ve taken engineering classes in the past in middle school, even though they were not as advanced and most of it is just you’re hearing about all this stuff you’re going to do, but not actually hands on doing it. This project let us do that. So it was really cool because it’s more in the field experience, getting hands on work rather than just hearing what you’re going to do eventually. It’s been really cool because it gives you a professional opinion on things. People, who have been doing this as their job for a while and are more used to it, obviously see things differently than just freshmen like us. So it’s cool to get different opinions different styles of doing things, and like sharing their experience with us.

Teacher: That’s a great opportunity.

**Hire Key personnel and Maintain Communication**

**Key Personnel**

Dr. Lakshmi Mahadevan: Strategically hired personnel enable a CTE program to be effective, particularly when serving special populations. Our featured ISD is equipped with an interdisciplinary team of leaders and is highly encouraging of collaborative relationships among them. The examples we showcase here include two CTE administrators and an ESL coordinator.

Sheri Bonds: So our roles here at Round Rock ISD… My name is Sheri Bonds and I’m the CTE Director, which entails a lot of support for the teachers, making sure that they have all of the curriculum that they need, any extra additional supports, giving them transportation and different items for their career and tech student organizations. So managing the things outside of their classroom that make their lives more manageable within the classroom, helping them set up
certifications, whatever it is to help them make their students be successful in any avenue that they choose after they leave the classroom. We have five high schools here in the district as well as ten middle schools that are all implementing career and tech at some different level. Within the high schools and middle schools we have about 14,000 students and around 150 teachers or a little bit more. At any given year, it’s a little bit different depending on how many sections teachers teach. We also have a school of choice, which is our Success High School, where our students can apply to the program. They give alternate schedules and different things, provide some different programs. Enrollment shifts throughout the year, so there’s not a real good accountability of that. But they have some programs like family and consumer sciences, they have DIM, multimedia and some different things to give students their career and tech experience before they end up graduating earlier or whatever the case may be.

Jessica Ozuna: And I am Jessica Ozuna, the Assistant Director for Career and Technical Education here in Round Rock. And this position really supplements the things that the director does. I’m in charge of the articulation agreements, so our agreements with local universities or community colleges are so that our students can get credit for our courses, but also at that campus. I’m in charge of professional development for our teachers. We do a three day professional development conference in the summer before the teachers come back, so that they have the opportunity to get that training on site and at a time that they’re being paid for. I’m also in charge of a career fair for all of our freshmen, so all of our freshmen in the district have the opportunity to attend this. Each high school will bus the kids over to the Texas State University campus and visit with professionals. In addition to the regular career fair set up, we also have panel rooms, so that they kids can come in and actually get to interact with professionals and see what careers are out there that they maybe never thought about before. So those are some of the things that are on-going each year that this position takes care of, but also just additional projects that come up. It’s nice to have another person, so that, you know, the director is busy all the time managing those things that happen, but if something else comes up this position can take on those activities or projects. So that the director can continue on with what she has to do and we can still provide those opportunities to the kids.

**Support from Bilingual/ ESL coordinator**

Karon Henderson: As the coordinator or bilingual ESL programs, it’s my charge to work with other programs to coordinate our efforts to make the curriculum accessible to ELLs. So, what that means is I have to network quite a bit. I’m working with the Department of Elementary Education, and Department of Secondary Education. I start there so that I can see where the needs are, and the gaps that need to be filled.

**Managing Communication**

Sheri Bonds: So working with our teachers is important to us. That communication and having open is always important. The first line of defense is really going through department chairs. And it’s not because we don’t have time or don’t want to speak with all of the teachers, but sometimes when they’re available, we’re not. And so department chairs are really great about bringing in that information and conveying it to us, but also being able to give them information and really tailor it to what their campus needs are. You know, there might be topics that go out to the department chairs that wouldn’t affect one high school. So they can do that filtering and
really emphasize things for us that we can’t always. A lot of times if we’re talking about budgeting issues or anything like that, the department chairs can assist with that. We’ll also go to campuses, make presentations, and those kinds of things to meet with the teachers. Academy specialists are also key in working with our students, especially when it comes to orchestrating events that are academy related. Jessica hosts the ninth grade career fair for all of our freshmen. And that’s a great piece for them to be involved. They get to meet those students one-on-one. They collect all their transportation field trip requests forms and those kinds of things, but it’s just a good time for them to get to know the students, but they also get to know the teachers and work with them on different projects. And so we try to assist them whenever we can, but those folks really get to do a lot of communicating directly with our teachers. Wish we could do more, there’s just not always enough time when you have so many teachers, but it’s a great for everybody to be involved.

Provide Opportunities for forming Professional Learning Communities

Dr. Lakshmi Mahadevan: While one-shot professional development series can be helpful, for them to be truly effective they need to be more ongoing, help the teachers process the information they’ve learned, and especially give them a change to apply what they have learned. To help address these PD concerns we propose that you form a professional learning community, or PLC. A PLC is composed of a group of teachers who wish to help students improve their learning. The members help each other by sharing ideas, brainstorming, and trouble-shooting. We provided the staff at our featured ISD an opportunity to participate in such a PLC, particularly emphasizing the value of bringing ESL and special education personnel to the table. The mission of this PLC was to determine ways in which CTE could help the special education ESL personnel understand CTE curriculum, and also seek their advice on how it can be made more accessible. Several ideas were generated some of which are highlighted here. Also, to access the tools that were used please visit the toolbox that accompanies this module.

Dr. Lakshmi Mahadevan: So that is why I recommend consulting on all of the sheets, but at the end of the day make sure that it is individual enough so anyone speaking for you, or you speaking for yourself, it is representing your version of your classroom. Rules change when they come into your classroom, and that is what we need our ARD committees to know. But, that’s a very valid question. I am envisioning each teacher taking this and doing it on their own and then using this kind of community of practice session, talking to each other, asking for help…

Speaker 2: “Putting it on a google drive works. What happen with me are schedules changes come up and I need to make a schedule change, and I need a seventh period. Graphic Design may work because I just need something. Then I get a call back from the teacher saying they don’t have the prerequisites, but I don’t know what graphic design is… I don’t have time. This kid needs a class… I have a million other things I need to do, there is an opening, let’s put him in it.

Dr. Lakshmi Mahadevan: Absolutely, however, if you had it on a google drive you could search for graphic design, pull it up and read there sheet and say ‘Oh yes, or of course it’s still going to work. He has the interest, the skill set. He’s going to do great and is not set up for failure. That’s why it’s important. The other thing I really like on Google Drive you can arrange things in
folders, but I also recommend color coding the stuff. So you can color code by academy or program of study, however makes sense to your school district. So then in the ARD committee when they are making a decision they can just flip straight to graphic design and decide if it can work or cannot work. That is what is very helpful for something like this. Worst case is the student is in graphic design for six weeks and it can still inform them about what is wrong and what we can fix, and that’s another way we could use something like Google Drive.

Speaker 2: So that would be another thing that we could put on the sheets would be the pre-requisites, so if they needed to have had principles class before they take something else. That’s the kind of thing.

Speaker 3: If you’re not in it every day and don’t deal with it you’re not going to know. We know that.

Dr. Lakshmi Mahadevan: It is completely reasonable not to know and ask, that’s the other thing. Who to ask, now we know who to ask.

Speaker 4: So, you’re talking a lot about ARD, but I am thinking of the LPAC Committee (Language Proficiency Assessment Committee). How valuable would this information be for the LPAC committee?

Dr. Lakshmi Mahadevan: See, I don’t even think about the LPAC committee, but rather just the individual ESL coordinators. However, I can see this being very beneficial. Speaker 4: There is only one coordinator for 55 schools, but then the LPAC chair is at each campus. If they had access to a google drive with the appropriate information

Dr. Lakshmi Mahadevan: I loved the word that you used “the linguistic accommodation, and that’s very important for parents, students and teachers to know about.

Speaker 2: That’s a career, then we have our training — so in order to get there they have to go through ACC or Waco, TSTI. What I have found when I’ve been in ARDs in Cedar Woods, CTE is really good that when we talk they can jump in and say ‘Oh. We’ve got this plan. We’ve got a great culinary program,’ and that sort of thing…

Dr. Lakshmi Mahadevan: That’s exactly what I envisioned you being able to do in your role. However, if they ever said the words indicator 13 or 14, now you’ll know what they’re talking about. Thirteen is where the goal is written in, and whether it’s measurable.

Develop External and Internal Partnerships

Fostering Partnerships and Effective Relationships

Sheri Bonds: When it comes to managing partnerships within a district as large as Round Rock ISD with five high schools, ten middle schools, and alternative campus of choice, there are two keys that are really important. First is communication, and then the second is relationships. Making sure that our teachers talk with each other across campuses, you know, horizontally as
well as vertically. We’ve got middle school programs that lead into the high school, but then we also have students that may transition from one high school campus to another, and making sure that there’s not a missed step. Whether that’s a BIM class where students are learning about Microsoft and making sure that they’re on the same page in PowerPoint when they leave one high school and go to another or if it’s transitioning into a different campus and just having that connection to know that there’s another teacher that students can connect with. So making sure that there’s communication between all of the campuses and the teachers of like-content areas, but then also on a campus itself. You know one high school and making sure that all of those teachers understand that they’re part of a team and that team is to support the students in all ways possible, academically, extracurricular, whatever the case might be. Those relationships are important between the teachers to make sure that they understand, like we said, that they’re part of a team, but also that they build relationships with the students. When students know that you care, then they care. And so building that within them is just really important. We mentioned that and tried to really focus on those team building aspects during our professional development conference. We have sessions where they get to know each other. They don’t always get chances to walk outside of their classroom or visit another high school. But it’s that time to build camaraderie and understand that they really are all there for the students and that that’s what their end goal is to make sure students are supported and prepared for after high school opportunities.

Jessica Ozuna: And I think too, the relationships between our office and the campuses, both of us have been CTE teachers for a number of years, so we’ve been there. We’ve been in the classroom. We’ve done it. We know the frustrations. We know the rewards from it. Also being present on campuses, so it gets crazy, but any time that we can get out onto the campuses and see what the kids are doing, or judge projects, or anything. Any time they invite us in just to see what they’re doing, I think it means a lot whenever we can do that, so that they know we really are there to support them and to help them. It’s not us over here and them over there. We’re all here to work together.

Sheri Bonds: As Jessica said that partnership piece and Round Rock being so large, it is important. It’s not always easy for us to get out as much as we’d like to, but knowing that the teachers can contact us at any time. They’ve got leadership on their campus. They all have their department chairs and academy specialists, as well as an administrator over CTE. And so making sure that we’re not only communicating with the teachers, but then also those points of leadership, as well, just to convey any leadership aspects that we may have, any new initiatives coming in, or just making sure that everybody is on the same page to know that we’re supporting the students.

Jessica Ozuna: One of the things that we try to do to keep the lines of communication open is that we really try to get to the advisory meetings whenever we can. Each high school has on average about seven advisory boards. And then we also try to get our middle schools involved with those. So that’s on average 100 meetings per year, so we can’t make all of them unfortunately, but we do try to be at those whenever possible. Having our high school teachers at those, our middle school teachers be involved in those, a campus administrator, one of us, as well as business partners that come in and visit those, that’s really a great place. A lot of good work happens at those meetings. We’re able to talk about the good things that have happen, new things
that we’d like to happen, and what the industry would like to see happen. So those are really great places and a lot of effective communication happens at those meeting, as well.

**Fostering Growth through the Teaching Community**

Sheri Bonds: So, as our programs continue to grow and develop, it is really important to find those new ideas – best practices that we can implement within our classrooms – and really prepare our students. Whenever there is a new project or a new idea that has come up it’s finding that right key person on campus or maybe the district level to try to implement those. It’s kind of a grassroots feel: getting teachers that might be the most passionate about something, or that might not always be the most passionate, but they found an interest in a particular project. Those voices that those teachers really respond to, bringing those people on board. Making sure they understand, and they’ll be your best advocate for any plan you try to implement down the road.

Jessica Ozuna: I think it is important too that we don’t change things every year because every teacher has heard or been through ‘Well what’s the new thing this year.’ They do it for a month, and then it fades away and the next thing comes along. Really keeping the consistency and letting the teachers know that whatever the new project may be that it is something that has been thought through, and is going to be there to stay. That is a really important factor, I think.

**Employ a CTE Advisory Committee to help better serve special populations**

Dr. Lakshmi Mahadevan: Advisory committees provide distinct advantages to CTE programs when it comes to serving special populations.

Jessica Ozuna: I think some essential partners for a CTE program are local schools. And what I mean by that is local community colleges, universities, technical schools, things like that, so that the students can earn credit as they’re in high school. Once the kids see that they already have earned credit that makes the vision going to school, going to college, going to technical school that much closer, that much more of a reality. So that would be a very important first place to start, I think, with partnerships. In Round Rock, we have agreements with Austin Community College, Texas State University, as well as Southern Career Institute. So we have a variety of places that the students can go as well as statewide articulated programs. Which means if the teachers have the credentials, the students can take that to over different junior community colleges throughout the state. So that really makes it seem a lot more feasible to those students who otherwise might not think that they can go to college as well as as saving the parents or students money in the long run, too. So that’s where I would really begin.

Sheri Bonds: So when we talk about essential partners, you know, we’ve got our institutes of higher ed that we’re looking at. We use our local community for advisory boards. But then also finding that one business that might be the right fit, even if it’s just for one or two students. Some of the local area hospitals, we’re not yet partnering the program. But it’s something that I would like to explore is finding ways and avenues for our students maybe that have graduated in like an 18 plus program, but helping them transition and giving them an internship that can eventually lead to a skilled position that they can fill. Doing rotations in a hospital, looking at data entry,
looking at sterilizing of tools, but finding that niche. That repetitive, very routine position that someone may not appreciate would be perfect for a student that has autism. And so finding those avenues for them to be successful, but creating that partnership with a hospital that would allow us to rotate our students in. You know, there are all kinds of jobs in a hospital setting. Most people think of RN or a doctor, and that’s just not the case. That’s a small percentage of what really it takes to run a hospital and make sure that healthcare is delivered to patients. So giving our students those opportunities that may not be on the forefront or that everyone thinks of when they think of a certain career field, but making those available to our students. So those partnerships are really key. However, it is important to determine how an advisory committee can be efficiently established and the ways in which they can meet those goals of your program.

Dr. Lakshmi Mahadevan: At our featured ISD, the health sciences teacher presided over the first meeting of her advisory committee. Here are some highlights of the meeting and a follow-up interview that we conducted with her.

Kelly Tingle: Currently, I am in the Health Science Academy, and I am teaching the Health Science Certified Nurse Aid course as well as the Practicum in Health Sciences, which is our pharmacy technician course. And as far as the role for the advisory committee, they really help us to make sure what we’re teaching is relevant. They also provide us with insight as to places we can get internships for our students, field trip opportunities, provide guest speakers for us, and they also just let us know about different opportunities in the community. Texas A&M Health Science Center just had 20 of our students go over for a Pre-medical Symposium. So our students really benefited from that. As well as they talk to us about a Nursing Academy that will be next week with St. David’s downtown. We have some students that will be going to that as well. So really it just kind of provides a connection between the school and the community and how we can best benefit our students in that manner.

(At advisory committee meeting) I think we kind of already established what the purpose is. It’s to get the input from you guys, for you to kind of evaluate us, and to help us decide what path we should take here in the classroom setting. Also, we would hope you would invite us into your establishments to provide the students an inside look. It provides them that real world connection, so they can see what we’re teaching in the classroom actually applied in the setting. So you know, whether it’s field trips, or internships, or job shadowing, whatever that may be, we would hope that we would be able to engage the students in that manner.

Advisory Committee Member: Do you guys need donations? Because I can get back to my leadership team and go, “Hey Stoney Point needs this, this, and this. What can we do?”

Teacher: That was one of the things that we were discussing because it would be great if anybody has any old microscopes you would be willing to donate because the new ones are not what the old ones were. We can always use them because I have 31 in my micro classes. And I don’t even have enough microscopes for them to pair up. So I can buy new ones, but the old ones are so far superior, unbelievably so. So if you have any old Swift, those are great. That’s just personally, but yes we can use donations if possible. If you just know of anyone or any lab that might have some that would be a really nice thing.
Kelly Tingle: So currently this year, we have four advisory meetings scheduled. Our first one was in October. We just held one this past week, which was our follow up to the initial meeting. Since that time, we have established our by-laws. Myself, and our chairperson, and some of the other members met and established the by-laws, and then we voted on those in the last meeting to get those in place. We’ve selected the leaders, or the officers. We did have someone step up to be the chairperson, and we decided that I would be the co-chairperson to kind of have a good link between the school and the community. Then, we also had someone step up to be secretary. So we were a little worried that those roles might not be filled, but we did have people that stepped up to the plate and took that action on. So going forward, what we’re looking for are just their input as to different opportunities that they may know of for our practicum students, which are senior level classes. They have a time in the spring where they can choose their own internship. So just look for those opportunities in the community, keep their ears open, and check with people they know if maybe they can find places for those students to go. So that and also field trips, anything that they might know. Again, look for different opportunities like I spoke about the Nursing Academy and the Pre-medical Symposium. There are several summer camps that are available. We just want to learn about those opportunities, so we can present those to the students, so that they can benefit from all of those.

Utilizing Community Partnerships

Dr. Lakshmi Mahadevan: In addition, it is important to employ the help of business partners and institutions of higher education to solicit opportunities for practicums, internships, and articulation agreements. Note how the teachers at our featured ISD employ the help of advisory committee members to provide such opportunities for students.

Speaker 1: We have business management and administration, we have finance, marketing, and culinary. Each strand is similar across the districts, so I am not going to go into any of the details of those. We’ve been really lucky with our business partners and our advisory board. It has grown phenomenally over the last two years. This last meeting we had about twenty people including students, teachers, and partners. Those business partners are coming in and telling us exactly what they need from us as teachers to be providing them as workers. I had one lady from RBFCU come in and say that the basics that they need is that someone who will show up on time. On time meaning that they’re in the workplace ready to go at their start time, and not leaving their house, not pulling into the parking lot, not being in the restroom. Actually ready to go on time. Our business partners are also more than happy to come in and help us with whatever it is that I need. So, I am not a specialist in any area when it comes to finance. What I do is call my business partners, ‘Come in and share what you do as a CPA.’ I have a lady that comes in and talks about how she works in her pajamas because she can and still makes well over six figures a year. When it comes to the stock market, I have some financial advisors that come in and talk about that. Then, I have insurance partners that come in and talk about the ins and outs of insurance, and why they’re important and many other things. Several of our business partners have also offered our students internships, which is really cool. Most of them have been paid at this point. So we are always trying to build those relationships with our business partners.

Speaker 2: That was probably the greatest piece of information that we got from the advisory committee. One of the gentlemen stood up last year and said ‘Hey are you teaching students about diversity?’ That was shocking to me, because I know it’s discussed. We’re a very diverse
high school. Their question was ‘are you teaching it to them because they really don’t display that they’re used to dealing with different customs, or different cultures.’ So, we discussed that, and for the first year we had students bring in something that represented their culture.

Speaker 3: Possible internships for senior level students. This year we only have seven students in our practicum class. However, Mr. Johnson and myself started about.. well this is our third year. So, coming up the junior level class we feel like is the class we kind of “grew” so to speak. So the juniors this year — we’ve got almost 50 in our CNA class, and then we also have the EMR class which has about 20 or so. Those will all feed into the practicum class next year, so were going to see an increased number of locations for our internships next year, which are typically hard to come by. We will have guest speakers for our classes and for HOSA. I don’t know if you guys are aware but we do have Health Occupations Students of America. It’s a student led organization for our students who are interested in going into health occupations. So, we will be looking for guest speakers to come in and talk about those different careers and things.

**Essential Internal Partners**

Jessica Ozuna: I think, too, some partnerships within the district would be for the CTE teachers and the ARD facilitators. That’s really important because as much as the ARD facilitators may try to learn about the programs, they don’t know what’s really going on in the classroom a lot of times. So really having that communication open, so that the teachers, and the facilitator, and the parents, the parents are a very important part as well, they can all discuss what’s really going to be best and help that student be the most successful that they can be. Another internal, essential partnership would be between our academy specialists, and our campuses, and our parents. So we like to do academy showcases, so that each campus can really highlight what it is that the academies are doing. This would be maybe some project based learning, where we have our technical classes, our CTE classes that are working hand-in-hand with the core classes so that they can really work together to support each other. So that the CTE teachers can bring in those core TEKS, so that the kids can see the real life use of that information and then also kind of maybe put it more in a way that the students can relate to. Maybe they don’t understand while they’re sitting in their core class, but when they are actually building something and talking about the construction in the 18th century that is being highlighted in what they’re building today, then maybe that connection will stick a little bit better.

Sheri Bonds: And that’s a great partnership having both of us, we can really take a team approach on things. Jessica might be more creative in one area, where I might be more of the follow the guidelines and really understand all of those kinds of things. And not that she doesn’t, but she can kind of be more open to exploring different items, where I might be a little more constrained by ideas in my own head. So it’s really great to be able to work with her and partner up on different projects and just know that we both have the best interests at heart of all of our students and then of course our teachers and supporting them at all times.
Conclusion

Dr. Lakshmi Mahadevan: Over the years that CTSP has been creating these instructional modules, we have seen best practices in many different school districts. This prompted us to create a checklist of the essential components of a comprehensive career and technical education program that specifically works to the advantage of special populations. We are very excited to find several items on our checklist at a large school district, such as Round Rock ISD near Austin, Texas.

Sheri Bonds: So when we talk about best practices, any recommendations that I would have for a program that’s looking at complying with law or just making sure that they’re following all of the guidelines, and policies, and procedures, the first step is really just to get to know your programs and your teachers. Understand everything that’s going on within your CTE department or departments if you’ve got multiple campuses, but just making sure that you know what the program areas really look like and then figure out what their needs are. Once you know that, then you can effectively communicate with parents, with special education staff, or any other stakeholders that may need to know more about your programs of study. When we’re talking about ARD meetings and making sure that we’re meeting all of the requirements for those, the best thing is to know any information you have about your program that you can share with everybody in the room. And so that’s really the first step is making informed decisions for those parents and students. Everyone understands the program. Once you understand your programs, then you can improve upon your programs. So as the advent of House Bill 5 and endorsements come in with our current freshmen really trying to make sure that they meet their four credits to earn their endorsement before they graduate. As long as you understand your programs, you can do that needs assessment. Figure out where the program needs to go down the road, so that it meets all of the needs for House Bill 5 compliance, but also that it’s just what’s right for students and for their families, making sure that we do all of the decisions to be kid-centric.

Jessica Ozuna: One piece of advice that I would have for other people who are trying to build a strong CTE program is to really hire people, when possible, who have a passion for CTE and who have a passion for the kids. That’s the most important thing is that everyone has the best interest of the kids at mind. I think that whatever struggles that a district may be dealing with can really be overcome if everyone is on the same page and working together. Keep that positive attitude because every district is going to encounter some problems and some hiccups. And staying on the same page, keeping the program and the kids in mind, that’s going to keep you propelling forward. So those are the two things that I would suggest is just hire people who have a passion for CTE and for the kids, and keep them in mind, and keep moving forward.

Dr. Lakshmi Mahadevan: Our hope is that this module will help you, the viewer, see the strengths in your own program as well as areas that can be improved upon, so that its effectiveness can be further enhanced when serving special populations.
Frequently Asked Questions

1. Many of these initiatives require additional funding. Where can we get those funds? The Carl D Perkins Career and Technical Education Improvement Act have built-in requirements and permissible use of funds - https://doe.sd.gov/octe/documents/PERKINS_AllowableCosts.pdf. Your CTE director can give you more information about how funds can be channeled towards any of these initiatives.

2. What are the National Standards of Practice for establishing academies? The National Standards of Practice provide quality control guidelines for establishing and implanting academies. Consult the http://www.ncacinc.com/nsop for more information.


4. What is the Department of Assistive and Rehabilitative Services? The Department of Assistive and Rehabilitative Services, or DARS, administers programs that ensure Texas is a state where people with disabilities, and children who have developmental delays, enjoy the same opportunities as other Texans to live independent and productive lives. Find out more at http://ctsp.tamu.edu/webcasts-2/dars/.


7. How can our school develop articulation agreements? Articulation agreements are developed between secondary and postsecondary institutions in order to provide non-duplicative, sequential programs of study for students that link high school and college instruction. Consult the https://www.atctexas.org/ website to learn more.
8. Where do I access the tools to inform IEP/ARD committees about my program?

All the CTSP recommended tools are available below:

1. **Program Inventory:** Using a program inventory, CTE teachers can inform the ARD committee about the tools, instructional methods and evaluation strategies used in their course.

2. **Basic Skills Inventory:** CTE teachers can use this form to list the basic skills necessary for students to succeed in their classes. Additional Reference for Determining Basic Skills.

3. **Comprehensive Skills Inventory:** This inventory enables CTE teachers to establish the skills that they would like their students to acquire at the end of their course.

4. **Progress Form**

5. **Example of a PowerPoint presentation** describing your program

6. **Present Levels of Academic Achievement and Functional Performance**

7. **Updated/Proposed IEP Form:** Can be used by CTE teachers to update IEP goals and objectives or propose new objectives based on the student’s performance in their classroom.

8. **Student Profile:** Can be used to take notes about a student during an IEP meeting.
Evaluation

CTSP Center Workshop

Please indicate your level of agreement/disagreement with the following statements. (1=strongly disagree, 2=disagree 3=undecided, 4=agree, 5=strongly agree)

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>The module was informative and easy to follow.</td>
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<td>The information was relevant to career and technical teachers.</td>
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<tr>
<td>My time attending this workshop was well spent.</td>
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<td>The handouts from each session are useful.</td>
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<td>Activities were appropriate and aided in knowledge gain.</td>
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<tr>
<td>I feel that this workshop answered at least some of questions regarding CTE and special education.</td>
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<tr>
<td>I feel that I will be able to apply what I have learned in this workshop in my daily educational activities.</td>
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<tr>
<td>In the future I would like to take the online courses based on the sessions I heard today.</td>
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</table>

The best thing about this workshop was:

This workshop could be improved by:
Pre/Post Test

1. All but which of the following components make a CTE program comprehensive for serving special populations:
   a. External partnerships
   b. Internal Partnerships
   c. Advisory Committees
   d. Maintaining minimal communication*

2. Innovative practices such as CTSOs encourage:
   a. Student motivation
   b. Improved Interest
   c. Feelings of post-secondary achievement
   d. All of the above

3. Providing student enriching experiences include which of the following:
   a. Entrepreneurial experiences
   b. Practicums
   c. Opportunities for STEM/interdisciplinary experiences
   d. All of the above

4. Advisory Committees can be utilized for all but which of the following:
   a. ARD participation*
   b. Procuring donations
   c. Procuring internship sites
   d. Procuring practicum opportunities

5. Essential internal partners include:
   a. Counselors
   b. Other teachers
   c. All of the above*
   d. None of the above

6. Maintaining communication at all levels is essential for the success of your program:
   a. True
   b. False

7. Professional learning communities are limited to partnerships between special education and Career and Technical Education:
   a. True
   b. False

8. Personnel key to serving special populations include:
   a. ESL coordinator
   b. CTE directors
   c. Academy Leaders
   d. All of the above

9. Offering a choice for a sequence of courses must begin at the age of:
a. 10
b. 12
c. 14*
d. None of the above

10. To teach English Language Learners it is necessary to consider:
   a. Modifications
   b. Curriculum Adaptations
   c. Linguistic Accommodations
   d. None of the above
CTSP Comprehensive Program Checklist

Characteristics of a Comprehensive Career and Technical Education Program Serving Special Populations:
In order to maximize the learning of students from special populations, CTE programs need to be comprehensive, creative, and include components that aid students’ successful attainment of post-secondary goals. The following checklist serves as a guide for CTSP program development that allows for achievable success. We recommend rating the following components of your program based on the scale provided. If an item is something that your school is working on circle the GOAL option as a rating.

<table>
<thead>
<tr>
<th>Component</th>
<th>Strongly Disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
<th>GOAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE Instruction is available through enrollment in an organized sequence of programs of study</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>The classroom successfully includes universally designed curriculum</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Research-based strategies are incorporated for English Language Learners</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Strategies and materials are available for students seeking non-traditional careers</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Technology &amp; industry-based standardized equipment are available for use</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Interdisciplinary or STEM learning opportunities are provided for all students</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Key personnel is hired for effective CTE programs serving Special Populations</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Actively Participate in Professional Development by forming a “Professional Learning Community”</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Provide innovative practices that allow students to learn including entrepreneurship, site visits, CTSOs, and practical experience</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
</tr>
<tr>
<td>Employ a CTE Advisory Committee to help better serve special populations</td>
<td>Strongly Disagree</td>
<td>Somewhat disagree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Somewhat Agree</td>
<td>Strongly Agree</td>
<td>GOAL</td>
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