

University of Texas at Tyler
University Charter School Application

Statement of Need

a) Discuss why members of the sponsoring entity believe that the proposed school is needed and why they believe that sufficient demand exists to make the school viable.

The University of Texas at Tyler's College of Education and Psychology, and the Ingenuity Center are currently involved in significant projects in area school districts. We have observed the issues facing public schools and have analyzed population data to determine that over 3,000 public school-aged children have already opted out of public education and chosen private and home school alternatives. The pattern of these data is repeated in surrounding counties as well. In conversations with community and parent representatives, we have determined that families are seeking schools that provide more flexibility within the educational structure. The proposed structure of the UT Tyler School of Innovation Charter School will deploy a hybrid approach to curriculum deployment. Under this structure, students will receive a significant (at least 60% 30%) of the curriculum on-line in students' homes. In addition, students will receive face-to-face instruction in interdisciplinary project based learning, fine arts and physical education. The online component of the school allows for the flexibility that parents are seeking, and the project based learning component has been shown to improve student achievement by increasing opportunities for application and "real-world" learning.

b) Explain how the charter school model will enhance the academic outcomes for students.

We believe that there exists a direct correlation between the level of parental involvement in a student's education and the success of that student. By implementing a hybrid model, we provide more flexibility, individualized instruction, current technologies, and increased parental involvement through online learning. In the face-to-face portion, we are able to focus on high level application of concepts, as well as improved pro-social interactions between adults and children. The project based learning approach has been well documented in research to increase both academic outcomes and "soft" skills of students.

Vision of the School

a) In succinct terms, describe the educational philosophy and pedagogy of the proposed school.

The UT Tyler School of Innovation is guided by the beliefs that increasing parental involvement, increasing high level application of concepts, increasing flexibility, and increase cross-disciplinary interactions of content all lead to increased student achievement. Furthermore, we believe that the knowledge and skills acquired through project based learning are critical to success in post-secondary endeavors. Finally, we believe that online learning allows for student choice, flexibility in scheduling and more individualized instruction for each student, all of which are critical factors to student success. We believe that these approaches more closely match the training and expectations of the work place.

b) Discuss the educational innovations that will distinguish this school from other schools.

As noted above, the School of Innovation will employ a hybrid model of curriculum deployment. This model will include virtual learning through an online system and face-to-face interactions geared around project based learning. This hybrid model will allow for significant innovations in flexibility of scheduling and individualized educational plans for each student. The online system that the school will employ will assess a student's ability in each curricular area and allow for individualized instruction. All of this will be done in the proven framework of the TSTEM Academy Blueprint. The Ingenuity Center at the University of Texas at Tyler is one of seven TEA funded STEM Centers involved in innovations in STEM education and support or TSTEM Academies.

Community Support

a) Describe the community where the school will be located and explain why this location was selected. Include the types of resources available in the community.

The proposed **UT** Tyler School of Innovation will be housed in Tyler at the University of Texas Tyler. The University's main campus is located here, and there are a number of facilities that will be utilized for the school's main functions. In addition, the University has satellite campuses in Longview and Palestine. These campuses are empty during the day as almost all of the University's existing programs there are conducted after 5pm. These facilities will also be used to allow the school to draw from a larger geographic area. Students will be allowed to attend face-to-face classes at the campus of their choice. The University has existing programming throughout these areas. The School of Education and the Ingenuity Center are involved in numerous teacher professional development programs in the region and are well connected to existing educational entities.

Tyler was chosen as the main hub for the proposed charter school due to existing infrastructure. The main campus of the University is located in Tyler giving the school ready access to school administration, Human Resource offices, and Accounting offices. Additionally, the University has existing partnerships with informal educational entities such as the Discovery Science Center, Camp Tyler, and the East Texas State Fair. The University intends to partner with these entities in the development and implementation of the project-based learning.

Tyler is a city of approximately 97,000 as of the 2010 census. Tyler is the capital of Smith County, a county of approximately 209,000. Almost 38,000 of these individuals are school aged children, and 35,000 of these children are enrolled in one of the 10 school districts in the county. Over 3,000 students have left the public schools opting for Home Schooling or one of the counties private or charter schools. Smith County is composed of 62.1% white, 17.9% black and 17.2% Hispanic, and 2.8% other persons. This stands in stark contrast to the largest school district: Tyler ISO which is 37.1% white, 31.6% black, 28.3% Hispanic and 3% other. Palestine and Longview are in Anderson and Gregg counties, respectively. These counties as well as the surrounding counties have similar demographic patterns.

b) Provide information on the manner in which community groups have been involved and will continue to be involved in the charter school planning process. Include the type of community groups and the type of services they will provide.

UT Tyler has consulted with parents, informal educational entities, school districts, and business partners. UT will include 2 parents and 1 business member of the charter board. UT Tyler will

partner with informal educational entities to develop projects as part of the project base learning portion of the school.

d) Provide the number of community members, not affiliated in any way with the sponsoring entity or the proposed charter school, who attended the public hearing.

Tyler: 14

Longview: 3

Palestine: 3

Student Goals

a) Other than the indicators of the state accountability rating and accreditation systems, outline and discuss specific measurable student goals in each of the following areas:

Student progress over time ;

- 100% of students will reach mastery on 70% of the TEKS in every subject area for their respective grade levels
- 100% of students will reach mastery on 85% of the TEKS in every curricular unit before continuing to the next unit.
- 100% of students will reach mastery in application of knowledge as indicated by products of the Project-based Learning (PBL) matrix.

Student engagement (i.e., attendance, continuous enrollment in school); and

- 100% of students will be engaged in online learning as measured by login records
- 100% of students will be engaged in PBL learning as measured by on site attendance and completion of projects

Readiness for postsecondary success

- Students will be academically prepared for the next grade level as evidenced by performance on future curricular units.
- Students will be tested annually for progress towards college ready at the appropriate grade levels.

b) Describe methods used to measure success toward each goal.

Student academic performance will be tracked in the following ways:

- Daily progress reports will be generated by the online system
- 9-week Academic Report Cards will be compiled by teachers
- Curriculum based assessments will be used with each unit to determine mastery and assign interventions and remediation
- Teachers will evaluate students' performance on the Cross-Disciplinary
- Standards of the College and Career Readiness Standards associated with each PBL unit
- Each project associated with the PBL units will require student presentations and be monitored using PBL rubrics

c) Describe the ways in which the school and community members will work together to ensure continuous academic growth for all students.

- Per the T-STEM academy model, a Design Team will be put together to ensure continuous academic growth.

- Community members will participate in a clear process for data driven program review and evaluation that is measured against a continuum of development to determine what is and is not effective for improving teaching and learning.
- The community will have the opportunity to participate in an ongoing formative evaluation process for the purpose of monitoring the implementation and the effectiveness of improvement strategies. This may include evaluative site visits by individuals outside of the organization.
- The local T-STEM Center (the Ingenuity Center) will support the transformation of teaching methods, teacher preparation, and instruction in the science, technology, engineering, and math fields.
- In later years as the high school grades come online, the community will assist in providing internship opportunities for students to provide a real-world experience.

Educational Plan

a) Describe the educational program to be offered, including special education and bilingual education/English as a second language (BE/ESL). Clearly state that each grade level will incorporate the Texas Essential Knowledge and Skills (TEKS). Describe the connection between the TEKS, classroom instruction, and assessment of student progress and provide three specific examples of the ways that the TEKS and the assessment of the TEKS will be incorporated into classroom instruction.

The School will adopt the T-STEM Academy Blueprint Benchmarks 5: Curriculum and 6: Instruction. Each grade level will incorporate the TEKS in every class. The school will follow all applicable state and federal laws for Special Education and ESL/Bilingual students to ensure a meaningful education in an inclusive environment.

BENCHMARK 5: Curriculum

Program Requirement 5.1: Rigor

- a. Curriculum, instruction and assessment are aligned.
- b. The Academy develops a detailed curriculum scope and sequence for the core disciplines.
- c. The scope and sequence demonstrates vertical alignment of content areas to the state standards.
- d. Assessment, aligned to the state standards and the curriculum, provides timely feedback on gaps in student comprehension.
- e. The Academy supports the success of all students to take and pass four years of high school math and four years of high school science.

Program Requirement 5.2: STEM curriculum

- a. The delivery of innovative curricular programs related to science, technology, engineering and math are well defined and aligned to state standards.
- b. Performance assessments are aligned to state standards.
- c. The Academy develops a plan for accelerating student achievement, particularly for low income and underserved students in math and science.
- d. The Academy develops a plan for bringing together math and science teachers, higher education faculty and private business employees together for continued discussion on expanding the T-STEM work.
- e. The Academy incorporates work-based, contextual learning with a global perspective into the curriculum.
- f. The Academy participates in extra-curricular academic activities centered on math, science, and technology, such as UIL, robotics and math competitions or science fairs.

g. The Academy requires all students to complete an internship primarily focused in the state's economic development clusters and/or a senior project or capstone project, presentation, and defense.

BENCHMARK 6: Instruction

Program Requirement 6.1: Shared practices

- a. Instruction is data driven.
- b. Teachers understand and effectively utilize tools and strategies to examine assessment results and refine instruction.
- c. The Academy has a structure for shared teacher responsibility and accountability for student learning across programs, content areas and classroom.
- d. Instruction is organized around clear expectations and state performance standards students and teachers know what is expected of them.
- e. Teachers use an aligned scope and sequence that coordinates the integration of content areas and aligned resources.
- f. Teachers use high quality curricular materials that are aligned with state standards.

Program Requirement 6.2: STEM education integration

- a. The Academy promotes instructional strategies that integrate the teaching of STEM in a way that challenges students to innovate and invent.
- b. T-STEM coursework requires students to demonstrate their understanding of these disciplines in an environment that models real world contexts for learning and work.
- c. The Academy uses problem-based and project-based learning with a set of specific learning outcomes to support student learning.
- d. The Academy offers innovative programs that are aligned with state and/or national standards, related to science, technology, engineering and math, and employed as instructional tools.
- e. Work-based, contextual learning is delivered using applied and collaborative learning.

Program Requirement 6.3: Literacy plan

- a. School staff is committed to the belief that all students must become competent readers, writers and speakers. Instructional tasks are focused to accomplish this goal.
- b. Teachers connect content material to student lives and students share these connections through written and spoken communication.
- c. The Academy explicitly fosters widespread use of literacy strategies.
- d. The Academy selects appropriate curriculum and instructional materials for STEM education and core content discipline-based teaching and learning to meet the literacy needs of the students.

Program Requirement 6.4: Technology integration

- a. Technology is integrated into the Academy culture, curriculum, teaching strategies and daily operations for students and staff.
- b. All students have access to technology and media resources that support and enhance learning.

Program Requirement 6.5: Assessment

- a. Diagnostic, ongoing and end of semester assessments for all students drive instructional decisions.
- b. State standards are used to develop common benchmark assessments.

- c. Student readiness assessments to determine and address gaps in learning are employed.
- d. Student information systems track progress.

In addition, specifically address each of the following:

- Describe the manner in which the science curriculum will meet the 40% laboratory and field investigation requirement for middle and high school courses.

Students will be involved in interdisciplinary project based learning where STEM is a central component. These components will be delivered in a face-to-face setting, and the science portion of the project will be laboratory and field-based and meet or exceed the 40% requirement.

- Describe the educational program and the setting that will be used to offer courses to meet the requirements for physical education.

The school will employ a physical education teacher for every 250 students. The teacher(s) will implement the TEKS for physical education as appropriate to each grade level. The school will have access to the University's facilities including fields and gym facilities and will partner with the Health and Kinesiology Department.

- Describe the educational program and the setting that will be used to offer courses to meet the requirements in fine arts.

The school will employ a fine arts teacher for every 125 students. The teacher(s) will implement the TEKS for fine arts as appropriate to each grade level. The school will have access to the University's facilities and will partner with the Fine Arts department.

b) Describe how the teaching methods to be used will provide a rigorous and relevant academic program and state the reasons for choosing them, explaining how the methods enhance student learning and promote high expectations for all students. Include information about materials, strategies, techniques, and procedures to be used to meet the needs of the student population, including students with disabilities and those requiring BE/ESL services, and clearly state the number of instructional hours per day that will be afforded to students.

The UT-Tyler School of Innovation will utilize a proven framework for the academic program of the proposed charter school. The framework we have chosen is the T-STEM Academy Blueprint. The T-STEM Academies Design Blueprint serves as a road map for benchmarks, program requirements, and indicators to facilitate school growth along the Blueprint Rubric Continuum of Developing, Implementing, Mature, and Role Model schools. Each Academy may differ in their areas of strength as evidenced by their self-evaluation and resulting Annual Action Plan; however, the following is a list of core program requirements that are non-negotiable.

UT Tyler and the Ingenuity Center at UT-Tyler are very engaged in helping schools implement the blueprint as part of their work with the Texas High School Project. The blueprint is very flexible to allow for innovations while maintaining high expectations. The seven benchmarks of the Blueprint include:

Benchmark 1: Mission---Driven Leadership

- Annual Action Plan
- Design Team, Leadership Team, Advisory Board
- Benchmark 2: T---STEM Culture
 - Small school
 - Individual Growth Plan with Texas Higher Education Coordinating Board

(THECB) College and Career Readiness Standards

- Distinguished Graduation Plan
- Dual Credit and/or AP and/or IB
- MOU
- Benchmark 3: Student Outreach, Recruitment, and Retention
 - Marketing plan
 - Open access/lottery
 - Distinguished Graduation Plan
- Benchmark 4: Teacher Selection, Development, and Retention
 - Collaborative recruiting process for selecting highly qualified teachers
 - Professional development model with continuous learning
 - Teacher externships
 - o Common planning time within the structure of the school day
 - Benchmark 5: Curriculum, Instruction, and Assessment
 - o Develops integrated STEM curriculum, assessment and instruction for the Academy
 - o Internship and/or capstone
 - o Project---based and problem---based curriculum, instruction, and assessment
 - Benchmark 6: Strategic Alliances
 - o Family/school partnership plan
 - o Community/business advisory board
 - o MOUs with higher education
 - Benchmark 7: Academy Advancement and Sustainability
 - o Budget/business plan
 - o Five year strategic plan
 - o STEM professional development

As evidenced from the preceding benchmarks the academic program will focus on preparing students to be college ready.

The Hybrid Teaching Model

NOTE TO READER: For the Charter to be approved there 4 significant changes that were made to the following text.

- 1. Parents cannot be required to participate in their children's education**
- 2. Plato was replaced with Odyssey Ware**
- 3. TEA required 4 hours a day of "live" instruction/**
- 4. The School Name was modified to avoid duplication with another entity.**

Keep these in mind as you read the "original" text below.

Within the framework of the T-STEM Academy Blueprint, the UT Tyler School of Innovation will utilize a hybrid instructional approach in order to take advantage of technological advancements and provide a school experience more in line with how the world of work provides education and professional development. In a traditional school setting we typically think of a teacher standing in front of the class lecturing, and students sitting at desks taking notes and completing assignments. Students typically all move through the curriculum at the same pace and on the same time line. This form of education is traditional, going back to the 19th century and quite frankly has become antiquated. Current and emerging technologies are opening up new options and opportunities for learning that is individualized while attending to group work. One option, now available because of current information technologies, is "flipping the classroom". This concept is occurring in higher education and is also making its way into K-12 education. Flipping

is an instructional model in which students view the lecture components of the class at home, then work with the teacher in class on projects and what previously would have been called homework. In other words the advanced levels of Bloom's taxonomy become the focus of teacher directed instruction rather than the lower levels.

The School of Innovation Instructional model will "flip" the classroom even more by creating an enhanced role for parents in the education of their children. Instruction will occur online at home and in the classroom at one of the UT-Tyler campuses.

The School of Innovation will utilize an online learning system such as the PLATO Learning systems for the online portion of the curriculum. We have reviewed a number of online curriculum providers, and have found PLATO to be superior to others because it meets several critical needs. PLATO is dynamic in that it allows students to move at their own pace across multiple curricular areas. It also allows for significant customization within the curriculum framework. The content developers have assembled a large library of content, but PLATO recognizes that each implementation will have its own needs. This will allow us to not only ensure that all of the content is consistent with state standards, but it will allow us to ensure that the content also aligns to the face-to-face project curricula. Finally, PLATO allows for pre and post testing with dynamic assignments. When a student takes a pretest, the system determines what the student needs to work on and what the student has already mastered. Following each unit the system then assigns a post test that assesses not only the elements that the student covered but those that the student "placed" out of as well. In this way, we can ensure that each student masters all of the content in the most efficient manner possible and with the utmost individualization.

In addition to the PLATO Learning System the UT Tyler School of Innovation will utilize PBL modules to design the live portions of the learning experience. We will utilize a modified approach of the PBL model developed in collaboration with the other 6 STEM centers in the state that are supporting the T-STEM Academies and TEA STEM designated Schools.

The PBL model is a framework that allows for the development of PBL projects. Teachers with assistance from curriculum designers from UT-Tyler Ingenuity Center identify the TEKS to be addressed in each grading period. Projects are developed by teams of teachers with expertise in each content area. Unlike traditional self-contained elementary classrooms, students in the School for Innovation will be taught by teachers with content expertise in addition to their general certification training. During PBL time, the curriculum will focus on the hands-on elements of the education process where students in addition to performing well on academic tests will have to perform and create products that demonstrate their understanding of the TEKS and how the content and skills can be applied.

As we add grade levels students will be prepared to enroll in dual enrollment courses. The School of Innovation will foster a college-going culture. The School of innovation will design and provide student support in meeting our goal that all students will graduate with 12 to 30 college credits. In addition by having a STEM focus students will have access to college credits that map to the Texas economic workforce clusters.

To assure rigor the curriculum, instruction and assessment will be aligned. We will develop a detailed curriculum scope and sequence for the core disciplines. The scope and sequence will demonstrate vertical alignment of content areas to the state standards. Assessment, aligned to the state standards and the curriculum, will provide timely feedback on gaps in student comprehension. The School of Innovation will support the success of all students to take and pass four years of high school math and four years of high school science at a high level.

As described earlier the delivery of innovative curricular programs related to science, technology, engineering and math will be well defined and aligned to state standards. The performance assessments will be also aligned to state standards (TEKS and CCRS). The School of Innovation will utilize the PLATO system and the live portion of the curriculum to accelerate student achievement so they will be able to gain high school credits in middle school and college credits in high school.

The School of innovation will bring together teachers, higher education faculty and private business employees together for continued discussion on expanding the work of the charter and assuring high standards. Through PBL we will incorporate work-based, contextual learning with a global perspective into the curriculum. We will also have students participate in extracurricular academic activities centered on math, science, and technology, such as UIL, robotics and math competitions or science fairs. In the Junior or Senior years we will require all students to complete an internship primarily focused in the state's economic development clusters and/or a senior project or capstone project, presentation, and defense. These internships will occur at the university and in local businesses.

Another strategy for assuring high quality and rigor is requiring teachers to use a set of shared practices. In too many schools students are exposed to a disconnected set of instructional approaches that do not meet students need. At the School of Innovation Instruction will be data driven. Teachers will train and plan together to understand and effectively utilize tools and strategies to examine assessment results and refine instruction. The School of Innovation has a structure for shared teacher responsibility and accountability for student learning across programs, content areas and classroom. Instruction is organized around clear expectations and state performance standards- students and teachers know what is expected of them. Teachers will use an aligned scope and sequence that coordinates the integration of content areas and aligned resources. Teachers will use high quality curricular materials that are aligned with state standards. These include PLATO, textbooks, online supplemental resources, Project Share resources, and locally developed materials as appropriate. Because we live in a highly competitive global economy and ever shrinking world STEM will be integrated into all areas of the curriculum. The School of Innovation through PBL promotes instructional strategies that integrate the teaching of STEM in a way that challenges students to innovate and invent. Our coursework will require students to demonstrate their understanding of these disciplines in an environment that models real world contexts for learning and work.

Our problem-based and project-based learning includes a set of specific learning outcomes to support student learning. The PBL model provides a work-based, contextual learning model that is delivered using applied and collaborative learning similar to that found in the workplace.

The School of Innovation also has a literacy plan. The school staff is committed to the belief that all students must become competent readers, writers and speakers. Instructional tasks are focused to accomplish this goal. Teachers connect content material to student lives and students share these connections through written and spoken communication. The School for Innovation explicitly fosters widespread use of literacy strategies that include those recommended by the National Reading Panel and have an extensive research-base. We will select appropriate curriculum and instructional materials for STEM education and core content discipline-based teaching and learning to meet the literacy needs of the students. If students are struggling with reading we will utilize approaches such as those in Reading Recovery and Accelerated Reader to help students achieve grade level or higher. We also anticipate that parents will be involved in assisting children with reading. We will also provide training to parents in the area of reading. These strategies will be utilized for all students, including those with disabilities or those requiring BE/ESL services.

The School of Innovation will take advantage of advances in technology to support learning. Technology will be integrated into the culture, curriculum, teaching strategies and daily operations for students and staff. All students will have access to technology and media resources that support and enhance learning.

Due to the Hybrid nature of the program, and the need to create flexibility within programming, students will have multiple opportunities throughout the week to meet face-to-face with a teacher. We envision that this portion of the curriculum will constitute of at least 40% of the student's week. The online portion will create even more flexibility, as the student will be able to access the system anywhere there is internet access, including dedicated workstations at our locations. This system will be available 24 hours per day, seven days per week. In addition to the online system, we will make available online teachers/tutors that can be accessed through an online system or via phone, from 7:00 am to 6:00 pm, Monday through Friday. Each student will be allowed to move at his or her own pace and could potentially take advantage of this entire time. Realistically, we anticipate that students will spend on average about 6 hours per day in instructional activities.

c) Describe the planned academic assessment program, including the process to be used to determine baseline achievement levels of students and the methods of measurement to be used. The School of Innovation will employ the Assessment benchmark of the T-STEM Academy Blueprint:

Program Requirement 6.5: Assessment

- a. Diagnostic, ongoing and end of semester assessments for all students drive instructional decisions.
- b. State standards are used to develop common benchmark assessments.
- c. Student readiness assessments to determine and address gaps in learning are employed.
- d. Student information systems track progress.

In order to implement this blueprint, the school will utilize several assessment tools. As part of the online learning system, each student will take a pre-assessment associated with each content unit. This assessment will determine the placement and appropriate content that the student needs to encounter in each unit. The system will then administer a post-assessment to ensure that the student is able to master all elements in the unit, including those that the student "placed" out of. In addition, each student will regularly encounter curriculum assessments in the same format and at the same level of rigor as the grade level STAAR test. Finally, each student will be assessed as part of the project-based learning units using performance rubrics and portfolios. These tools will capture the long-term growth of the student in areas not usually tested using standardized tests. These include communication, collaboration, and the use of technology, just to name a few.

d) Describe strategies to ensure that the educational program will effectively prepare students to enter kindergarten on or above grade level and ensure a successful transition from prekindergarten into grade school.

The UT Tyler School of Innovation proposes to only serve students beginning in grade 3. It is assumed that students entering the school will have successfully transitioned to grade school.

Even though the school will only enroll students beginning with grade 3, the school recognizes that some students will enroll without the sub-skills needed to be successful with third grade material. The school will have measures in place to provide accelerated instruction to ensure that students reach and exceed grade level standards.

e) Describe strategies to be used to prepare all students to meet state graduation requirements, including students with disabilities and those requiring BE/ESL services.

The founders of the School of Innovation believe that the key to ensuring students meet state graduation requirements is collective support. We will ensure that all of the adults connected to the students' education take an active role in this preparation. We will ensure that all parents and teachers are educated about graduation requirements and are regularly informed of changes. These adults, including parents, teachers, counselors, and administrators will all take part in the annual creation and evaluation of individual education/graduation plans for all students, including those with disabilities and those requiring BE/ESL services. Our experience in T-STEM Academies has shown us that the more adults that a child has participating in and supporting the graduation plans of, the more likely that student is to be prepared and graduate on time.

f) Discuss the academic and enrichment support that will be provided to engage or reengage students in school.

According to the National Council on School Engagement (NCSE) there are a number of research-based strategies to promote school engagement. UT-Tyler currently manages after school programs and will incorporate a number of strategies to keep students engaged in school. As a STEM focused school we will host a number of family engagement activities. The School of Innovation will work with parents to develop a strategy to encourage persistence. This will include parent/family outreach, early intervention strategies, mentoring, tutoring, counseling, and other supports for academic and socio-emotional growth. This will include a process to provide on-staff content coaches to be available and accessible to support both teachers and students.

These include but are not limited to the following:

1. Family Math and Science Programs: Family math and science events will be sponsored to help parents and students have fun in difficult subjects. Family math and science programs also help parents learn to help their children.
2. Celebrate Pi Day on 3/14: We will celebrate STEM related days.
3. Promote "Paired Reading": reading is crucial to the success of students. We will promote paired reading between students and parents; students and students; students and preservice teachers, etc.
4. Promote Family-School-Community Events: This will help build relations with the school, university, and the community
5. Collaborate with Higher Education: Collaboration with higher education is a hallmark of the School of Innovation.
6. Expand Family and Community Involvement: As part of PBL, families will have opportunities to assist students. Several projects each year will involve community involvement.
7. Host Family Dinner Nights: At the end of each grading period will host a family dinner. As part of these program teachers, parents and children will discuss projects and accomplishments.
8. Offer Programs to Support Children and Parents: Due to the hybrid model, parents will need to participate at a much greater level than found in most schools. Parents will need to be trained in how to best assist their children.
9. Create Student-Generated Classroom Rules: As part of PBL, students have some say in the development of norms of behavior.
13. Develop Leadership Skills
14. Organize Interest Clubs
15. Facilitate Positive Student-Teacher Connections
16. Competitions such as Robotics.

g) Discuss the instructional strategies to be used to target college and/or career readiness. As a University Charter housed on the campuses of a university, our students will be constantly exposed to the college culture and the expectations of ready students. We will regularly partner with university faculty to participate in the PBL portion of the curriculum. University faculty will participate as guest lecturers, expert contacts and project review board members. The charter school students will also be regularly exposed to university student role models. We will partner with university faculty to incorporate university course work into the charter school. All of these are examples of the implementation of elements of the T-STEM Academy Blueprint as shown:

a. Students participating in T-STEM education will graduate prepared to pursue postsecondary level coursework and careers in science, technology, engineering, and math.

b. The Academy includes grades 6-12 or actively works with feeder middle schools to develop interest in STEM education.

c. The Academy develops a plan for student success on college entrance exams.

d. The Academy provides high-quality, college-preparatory tools for students and families.

a. The Academy creates university or college partnerships for mentoring, fostering a college going culture, and the provision of college level courses/dual credit, teacher training, etc.

b. The Academy designs and provides student support in meeting the requirement that all students graduate with 12 to 30 college credits through multiple educational pathways such as dual credit, International Baccalaureate (IB) concurrent enrollment, articulated credit and/or

Advanced Placement (AP).

c. Students have access to college credits that map to the economic workforce clusters: semiconductor industry, information and computer technology, microelectromechanical systems, manufactured energy systems, nanotechnology, and/or biotechnology, etc.

h) State the maximum teacher-to-student ratio to be maintained by the proposed school and the rationale for maintaining this ratio.

Due to the unique nature of the school and the Hybrid teaching model, the school will be able to ensure lower class sizes while employing less overall staff than a traditional school. This will allow the School of Innovation to invest more money in other elements critical to the success of the school in its current design. These include technologies and supplies, materials, and equipment necessary to support project based learning. The school will ensure that a teacher to-student ratio of 1 to 20 or less be maintained in all face-to-face settings of core curricular classes associated with PBL. The nature of project based learning tends more toward individualized instruction, and smaller class sizes are imperative. Also, the hybrid nature of the school will allow students to come to the face-to-face sessions on rotating time schedules ensuring that ratios are always maintained. Classes such as PE and some fine arts classes will be allowed to exceed this number to support team activities such as soccer or performances such as large plays and concerts; however safety will always be the primary concern and ratios will never exceed tolerances of safety.

i) Describe any unique curricular experiences to be offered by the proposed school. In all grade levels we plan to implement a robotics program. In the early grades these will be the

Lego type robots. Students will learn basic programming as well as engineering skills. Older students will mentor younger students as the school develops. In middle and high school students will participate in Vex Robotics. Robotics provide students with real design challenges and a performance to test what they know. UT Tyler is a VEX Competition Site hub and we already own over 20 robots.

As part of PBL, we also want to engage students to how arts and literature help support a STEM education. We will also develop a program that involves technical writing and new media. Today's computers provide a platform for creativity that has never existed before. Students will assist in the creation of an online presence that will provide students the opportunity to learn marketing, journalism, web design, and media production. Each UT-Tyler site will have a creativity lab that will allow students to learn many skills that build upon language and the fine arts.

j) Describe plans to provide personal attention and guidance to all students.

Personalization: The School of Innovation will maintain small class sizes to allow for small collaborative learning communities among students. This will be easy to accomplish due to our unique hybrid approach to instruction. In addition once per week we will provide a design and implementation plan for an advisory period, a time during the school day that is non-graded and focuses on personalizing the student experience, building relationships with students and parents, and character-development. It is in this time that we will focus on college readiness and helping students achieve at the highest level. Parents will also be trained on how to support their students at home so that they can maintain high standards. In addition, the PBL approach is a process for hearing and responding to student voice. The school day is flexibly scheduled with blocks of time that support student learning. The School of Innovation will celebrate high quality student work through student exhibits both on-site and/or then in Texas forums. In addition, every student will have and use an individual graduation plan that includes planning for post-secondary education.

k) If the proposed school will offer a gifted and talented program, describe it.

We have no plans to offer a GT program. The STEM Model we are using focuses on individualizing curriculum and maximizing all students learning. In many ways a GT program would be redundant.

l) Describe the extracurricular activities (e.g., athletics, clubs, and organizations), that will be offered.

As previously discussed, we intend to offer several academically focused extracurricular activities such as robotics, science fairs and mathematics competitions. In addition to this, we intend to work with parents to ensure that students are engaged in a number of activities to ensure development of the whole child. We will work with community organizations such as the Tyler Children's Theater to ensure that students have opportunities to develop cultural interests and talents. As the school develops and grows, and as we add high school grade levels, we will investigate offering some individual sports such as golf, cross country, or tennis.

m) Describe any plans to partner with other public or private agencies for the provision of student activities.

The School of Innovation will partner with a number of The University of Texas at Tyler departments. These will include the department of Health and Kinesiology, Fine and Performing Arts, Arts and Sciences, Engineering, and the School of Education. In addition, the School of Innovation will forge partnerships with local informal education entities such as the Discovery Science Place, Camp Tyler, and the East Texas State Fair. Through the Ingenuity Center, partnerships already exist with these entities and they are very engaged in the educational activities of the center.

n) Describe any strategies to be used that will enhance parental or community involvement in the educational opportunities of the students.

The Hybrid model of on-line and face-to-face curriculum delivery will significantly enhance and increase parental involvement. Because a considerable amount of the curriculum will be delivered to students in the home via distance learning, the parent role will be integral for every student. The administration of the School of Innovation will conduct meetings with parents prior to enrollment to ensure that the parents recognize the level of commitment required on their behalf.

In addition to the increased parental involvement associated with the distance learning, the School of Innovation will implement face-to-face *Project Based Learning* (PBL) with the students. UT Tyler has considerable experience with PBL. The U-Teach Math and Science Teacher preparation program is based on PBL, and the Ingenuity Center provides PBL training for in-service teachers throughout the state. Through PBL, the School of Innovation will engage the community in several ways. First, the projects will often be based in real world settings, tackling real problems in the community. These problems might range for service oriented projects to solving operations management problems at local manufacturers. Second, all PBL experiences culminate with product and presentation. The School of Innovation will seek community members to participate on project/presentation review boards that will evaluate each student's projects and provide real-world feedback.

o) Describe plans for program evaluation and explain the ways in which results will be used to improve instructional programs for all students.

The School of Innovation will work to become a TEA STEM Designated school once high school grades are included. The STEM Academy Rubric will be modified to include elementary and middle grades. This will assure we have the appropriate feeder system for the eventual high school grades. The T-STEM Academy Blueprint and Rubric can be found in the attachments. In addition to utilizing the blueprint, the School of Innovation will examine its programming in the following areas.

To monitor student Achievement the School of Innovation will assure:

- a. Data-driven decision-making is integrated into the daily work of the Academy.
- b. There is a clear process for program review and evaluation that is measured against a continuum of development to determine what is and is not effective for improving teaching and learning.
- c. Feedback mechanisms are created and in place to monitor all structural and managerial innovations.
- d. The school participates in an ongoing formative evaluation process for the purpose of monitoring the implementation and the effectiveness of improvement strategies. This will include evaluative site visits by individuals outside of the organization.
- e. The school leadership participates with the T-STEM Center in their geographic area to support the transformation of teaching methods, teacher preparation, and instruction in the science, technology, engineering, and math fields.
- f. School leadership participates in the T-STEM Academy Leadership Coaching program. Leadership Coaches provide ongoing support to the academies for continuous development and the achievement of long-term T-STEM goals through site visits, e-contacts, and phone contacts.
- g. The School participates in the T-STEM Network, a statewide best practices network for science, technology, engineering, and math education to promote broad dissemination and adoption of promising practices from the initiative and to improve math and science performance for students across Texas.

p) Discuss whether or not the charter holder will seek annual state accountability ratings through traditional procedures or alternative education accountability (AEA) procedures for the proposed school.

UT Tyler will seek annual state accountability ratings through the traditional procedures.
Specials Needs Students and Programs

The University of Texas at Tyler will comply with state and federal requirements regarding special needs students and programs. Please see the *Special Education Assurances*

Development of Policies and Procedures Statement in the Assurances section of this application.
Geographic Boundary

a) State whether the proposed charter school will be operated on a campus of the college or university or in the county in which the campus of the college or university is located. In addition, provide the physical address (if identified) of the proposed charter school. See TEC, §12.152. The UT Tyler School of Innovation will be operated on the Campus of The University of Texas at Tyler and its satellite campuses in Longview and Palestine.

Tyler Location:
The University of Texas at Tyler
3900 University Blvd.
Tyler, TX. 75799

Longview campus:
The University of Texas at Tyler- Longview University Center
3201 North Eastman Road
Longview, TX 75605

Palestine campus:
The University of Texas at Tyler- Palestine Campus
1820 West Spring Street
Palestine, TX 75803

The Complete Charter can be found on the TEA Website.

http://www.tea.state.tx.us/index4_wide.aspx?id=2147507674