Online and Regional Education at Texas Tech University

A Report to the President

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Prepared by
Special Committee on Online Learning and Distance Education

Committee Chairs
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Executive Summary

Following the Guiding Principles endorsed by the Provost's Special Committee on Online Instruction and Distance Education, it is recommended that Texas Tech University move rapidly to:

1. Have the President and Provost publicly and clearly articulate their value for and support of online and regional education as a significant part of Texas Tech's mission. A public commitment to the enterprise is essential in establishing the importance and priority of this initiative and promoting university wide support of online and regional education.

2. Establish, under the Office of the Provost, a central organizational unit for the coordination and development of expanded learning opportunities that would include online and regional education. The "Office of Online and Regional Education" should provide staff support for students and faculty members, including instructional design and development personnel, and marketing resources. It should provide the best available teaching tools and training for those who require such. It should serve students enthusiastically and effectively through recruitment, advising, academic support, and community building. The office should also be responsible for staying up to date, monitoring, and distributing information about compliance with state and federal regulations, certifications, accreditation standards, and professional standards, while working closely with other offices and divisions – Registrar for FERPA, IT for assessment compliance, etc. – in these matters.

3. Implement a system of incentives for faculty who develop and provide online or regional site instruction, This would include overload compensation or teaching load reductions, competitive awards for instructional innovation, paid summers for instructional development, equipment allocations, and other incentives. Appropriately weight faculty participation in online and regional site instruction as equivalent to face-to-face teaching in Lubbock, giving proper credit in faculty evaluation for merit, promotion, and tenure consideration.

4. Establish a revenue model that appropriately rewards the Colleges and teaching units, while incentivizing growth, so that Texas Tech's online and regional education are fiscally sound, rewarded, and sustainable. Careful analysis of enrollment and revenue requirements relative to demand and costs must be conducted to ascertain affordability and sustainability.

5. Incorporate clearly into OPs the recommendations for validation, compliance with federal and state regulations, SACSCOC accreditation, and the THECB Principles of Good Practice and instructional quality, and assign responsibility for them.

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1. Introduction

Online education has increased dramatically in the United States. The study, "Going the Distance: Online Education in the United States," reported that more than 6.1 million students took at least one online class during fall 2010 – a 10.1% increase over the year before. An online class was defined in the survey as a course in which more than 80% of all content is delivered online, and there are typically no face-to-face meetings with instructors. Texas Tech has attempted to be a player in this approach to higher education and developed a number of distinctive, successful online programs. Examples of the variety include: the nationally respected Ph.D. in Technical Communication and Rhetoric and the joint Ed.D. in Agricultural Education between TTU and Texas A&M; a minor in Wind Energy; a program in Personal Financial Planning; and an Ed.D. in Higher Education with an emphasis in Community College Administration. Texas Tech offerings have been recognized for their quality in national rankings, including being listed in the *U.S. News & World Report* 2013 Top 50 Ranking of the online Engineering Master's degrees, and the university was ranked 11th best eLearning institution in the 2013 *Guide to Online Schools*. With the assistance of the TTU Office of Online Compliance and Regulation, faculty are assisted in meeting the THECB Principles of Good Practice for Online Learning, SACSCOC accreditation, and all ADA, state, and other regulatory and compliance requirements for their courses and degrees.

In Fall 2012, there were 10,635 enrollments in Texas Tech courses designated as "fully online" and regional. This compares to only 4,813 "50% or more online" and regional enrollments in Fall 2008, an increase of 121%. In addition, SCH classified as "fully online" and regional increased by 109% over this period. These data are difficult to compare due to the change in THECB definitions and resulting change in Texas Tech coding definitions in Banner, beginning in the Fall 2010. Still, online and regional education will be an increasingly important component of TTU's 21st Century curricular portfolio. Well designed, high-quality online courses are known to attract and retain students. Texas Tech's research on place-bound students documents that they are attracted to academic programs delivered in online formats, and students prefer institutions that award appropriate credit for learning from various academic, work, and personal development experiences (see http://www.depts.ttu.edu/opa/assessment/dl_landing.php).

Texas Tech has been a leader in distributed learning (extended and regional education) for more than 50 years and has significant capacity in approved degree and certificate programs to expand student enrollment through these assets. The University has amassed documentation that students value the opportunity to complete courses, certificates, and degree programs in online learning environments. However, Texas Tech needs to develop a strategic, coherent plan and institutional structure to support and give unified direction to its colleges, departments, programs, staff, and faculty who are engaged in the development and delivery of online instruction and regional education. This is especially true given the competition from established, for-profit and non-profit online and regional education providers such as Southern New Hampshire University, the University of Phoenix, and Western Governors University, all with growing reach into Texas and the region.

A primary objective of the Special Committee on Online and Distance Learning at Texas Tech is to recommend strategies to enhance and expand the development of online and regional educational opportunities to better meet the needs of our students according to the university's mission. To this end, and for the purpose of the remainder of this paper, certain definitions need to be stated.

> *Online instruction* occurs through electronic delivery of courses to students in residence and to students at a distance from the main campus. Online instruction may be *synchronous* – with the students and instructor interacting in real-time; or *asynchronous* – where students respond to instructional/learning tasks outside of real time with and apart from the instructor. Online instruction can potentially impact all Texas Tech students and faculty. It includes the use of technology-mediated pedagogy to enhance traditional face-to-face courses (i.e., electronically supplemented courses) or to enable hybrid courses (those combining equivalent amounts of face-to-face and mediated contact). It also provides a means to fully deliver courses, certificates, and degrees to students at a distance. To ensure optimal regional education opportunities for students, Texas Tech University will provide a structured process for promoting, developing, and maintaining effective, high-quality online instruction.
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> *Distance education* is defined by the Texas Higher Education Coordinating Board as "The formal educational process that occurs when students and instructors are not in the same physical setting for the majority (more than 50%) of instruction. Distance education can include courses and programs offered online, off-campus face-to-face, and electronic-to-groups." (http://www.depts.ttu.edu/distancelearning/pdf/Principles%20of%20Good%20Practice%20THECB%20Spring%202012.pdf).
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> At Texas Tech, online and regional education is intended to provide courses, certificates, and programs that are relevant (e.g., they align with occupational outlooks to attract new students), practical (e.g., they encourage re-enrollment by former, non-completed students), and timely (e.g., they address bottleneck issues with current students to decrease time to graduation) to the circumstances and locations of students. Texas Tech ensures an optimal experience for all online and regional students by providing a student-centered environment that is conducive to their unique educational needs and challenges.
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> *Regional site education* enables students and faculty access to TTU teaching and research opportunities by a variety of modalities – online, hybrid, and face-to-face –at recognized higher education teaching sites in Junction, El Paso, Fredericksburg, Highland Lakes, and Waco. Additionally, some TTU colleges deliver programs in Austin, the Dallas/Fort Worth Metroplex and in Houston.

Texas Tech University's approach to online and regional education will be guided by the following Vision and Mission Statements.

> **Vision**
> Expand higher education participation and success through excellent online and regional education opportunities.

Mission
Texas Tech University offers strategic, high-quality online and regional education programs designed to increase opportunities for access and program completion in accordance with Texas Tech University's mission statement.

2. Guiding Principles

The following principles are central to the recommendations of the Special Committee:

1. Excellence, integrity, and accountability are fundamental in all teaching and learning, and academic oversight of the curriculum and faculty resides with Texas Tech University. Quality expectations for online and regional education should be equivalent to those for face-to-face instruction. Whether residential, online, or at a regional site, all TTU students are expected to meet the same performance requirements and be afforded the same support from faculty and staff. These standards apply to the curriculum and to faculty members who teach online and at regional sites. The selection of faculty members to provide online instruction and regional education should follow an established policy and set of procedures yet to be fully established.

2. Online instruction and regional education should offer advantages of ready accessibility. Delivering courses and programs online and at regional sites should complement on-campus education, and thereby grow enrollment, facilitate timely progress to degree completion and enhance retention.

3. Appropriate reward systems need to be available to colleges, departmental faculty, and staff who teach and support online and regional education. The support should be designed to encourage innovation and access to a greater student population in both newly initiated and established courses and programs.

4. Effective support services must be provided for student and faculty success in online instruction and regional education. Online instruction and regional education should combine the best features of face-to-face instruction with the most advanced technological capabilities that enhance the learning experience. Texas Tech needs to devote resources to enhance “back-end” technology infrastructure to augment instructional design support that meets the learning needs of online and regional students and teaching requirements of instructors of online and regional courses. For example, faculty as content experts should have timely and responsive access to professional support staff to provide these functions.

5. Online instruction and regional education must be fiscally sound, rewarded, and sustainable. A revenue model is needed that appropriately rewards Colleges and teaching units, while incentivizing growth. Careful analysis of enrollment and revenue requirements relative to demand and costs must be conducted to ascertain affordability and sustainability.

Undergraduate Programs	Master's Degrees	Doctoral Degrees	Graduate Certificates
Undergraduate Minors	Master of Agriculture (to be phased out in May 2014; no new student being admitted	Doctor of Education in Agricultural Education	Applied Behavior Analysis
Nuclear Engineering	Master of Arts in Technical Communication	Doctor of Philosophy in Systems and Engineering Management	Autism
Wind Energy	Master of Education in Instructional Technology	Doctor of Philosophy in Technical Communication & Rhetoric	Crop Protection
Studies in Personal Finance	Master of Education in Special Education	Doctor of Education in Higher Education	Charitable Financial Planning
Bachelor's Degrees	Master of Engineering		Dual Sensory Impairment
Bachelor of Science in Plant and Soil Science (formerly B.S. in Horticultural and Turfgrass Sciences	Master of Engineering (Healthcare Engineering)		Fibers and Biopolymers
Bachelor of Science in Multidisciplinary Studies	Master of Science in Agricultural Education		Gerontology
Bachelor of Arts in University Studies	Master of Science in Plant and Soil Sciences		Horticultural Landscape Management
Bachelor of Science in University Studies	Master of Science in Family and Consumer Sciences Education		Software Engineering
Bachelor of General Studies	Master of Science in Horticulture		Soil Management
	Master of Science in Human Development and Family Studies		Special Education Transition
	Master of Science in Multidisciplinary Science		Wind Energy
	Master of Science in Software Engineering		**Graduate Certification Preparation Programs**
	Master of Science in Systems and Engineering Management		Deaf and Hard of Hearing
			Educational Diagnostician
			Family and Consumer Sciences Education – Teacher Education
			Generic Special Education
			Orientation and Mobility
			Visual Impairment

Programs Offered in Hybrid Modalities			
Undergraduate Programs	**Master's Degrees**	**Doctoral Degrees**	**Graduate Certificates**
		Doctor of Philosophy in Curriculum and Instruction (concentration in Curriculum Studies and Teacher Education)	
		Doctor of Philosophy in Curriculum and Instruction (specialization in Science Education)	

Programs Offered at the Regional Sites			
Undergraduate Programs	**Master's Degrees**	**Doctoral Degrees**	**Graduate Certificates**
Bachelor of General Studies	Master of Agriculture (to be phased out in May 2014; no new student being admitted	Doctor of Education in Educational Leadership	Superintendent Professional Certification Preparation Program
Bachelor of Science in Architecture	Master of Art Education		
Bachelor of Science in Multidisciplinary Studies	Master of Education in Educational Leadership & Professional Certification Preparation		
Bachelor of Arts in University Studies	Master of Science in Multidisciplinary Science		
Bachelor of Science in University Studies			

Table 1. List of Texas Tech degree programs offered online, in hybrid format, and at regional sites

3. Current Status of Online and Regional Education at Texas Tech University

A. Existing Programs and Courses

Texas Tech already offers a significant number of options for students who elect to enroll in online and/or regional curricula. Most of these options (see Table 1) are primarily delivered online – 5 bachelor's programs, 14 master's, and 4 doctoral programs are offered fully online. This total of 23 online degree programs puts TTU in second place among state universities in Texas, behind only Texas A&M with 27 online programs (see Figure 1).

Two Texas Tech doctoral programs, referred to as hybrid or blended programs, are available via a combination of online delivery and on-site instruction at a location away from Lubbock. Ten bachelors, masters, and doctoral programs are offered fully on-site at one of the university's regional sites at Waco, Highland Lakes, Fredericksburg, Junction, or El Paso.

In total, there were 10,635 enrollments in online and regional courses at TTU in Fall 2012, and over 1,500 more than that (12,200) in spring 2013. These enrollments produced 32,904 and 38,336 student credit hours, respectively.

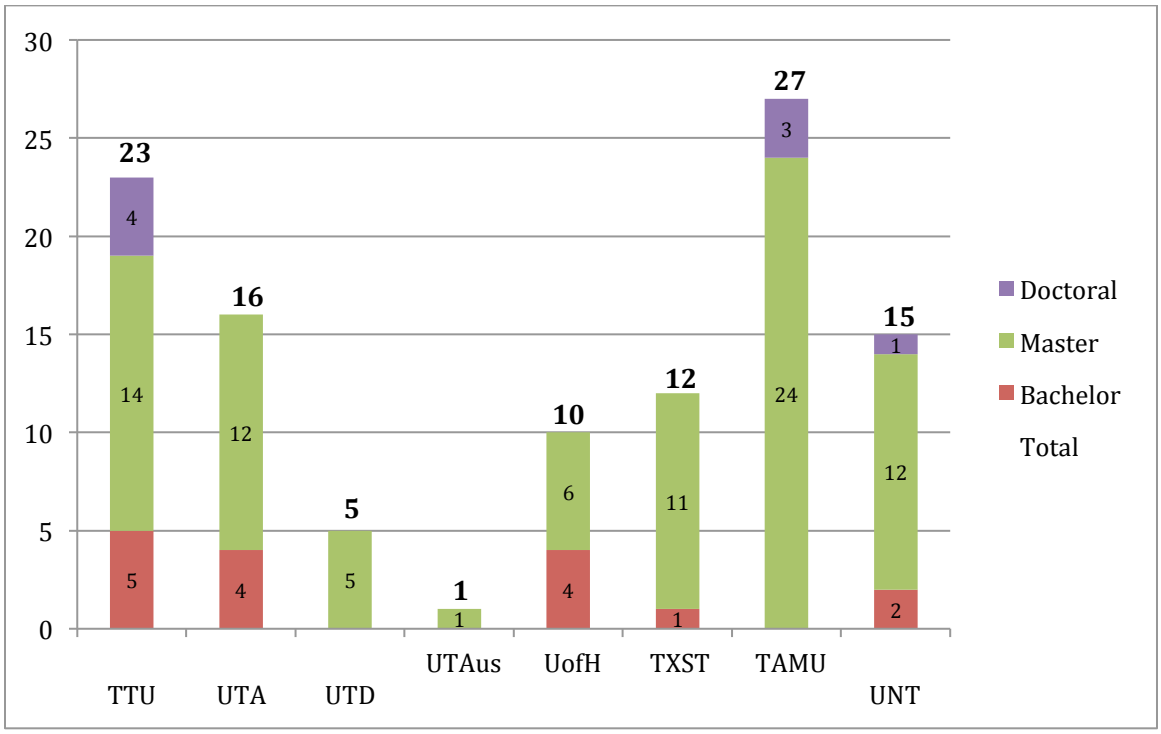

Figure 1. Number of degree programs offered online by selected Texas universities.

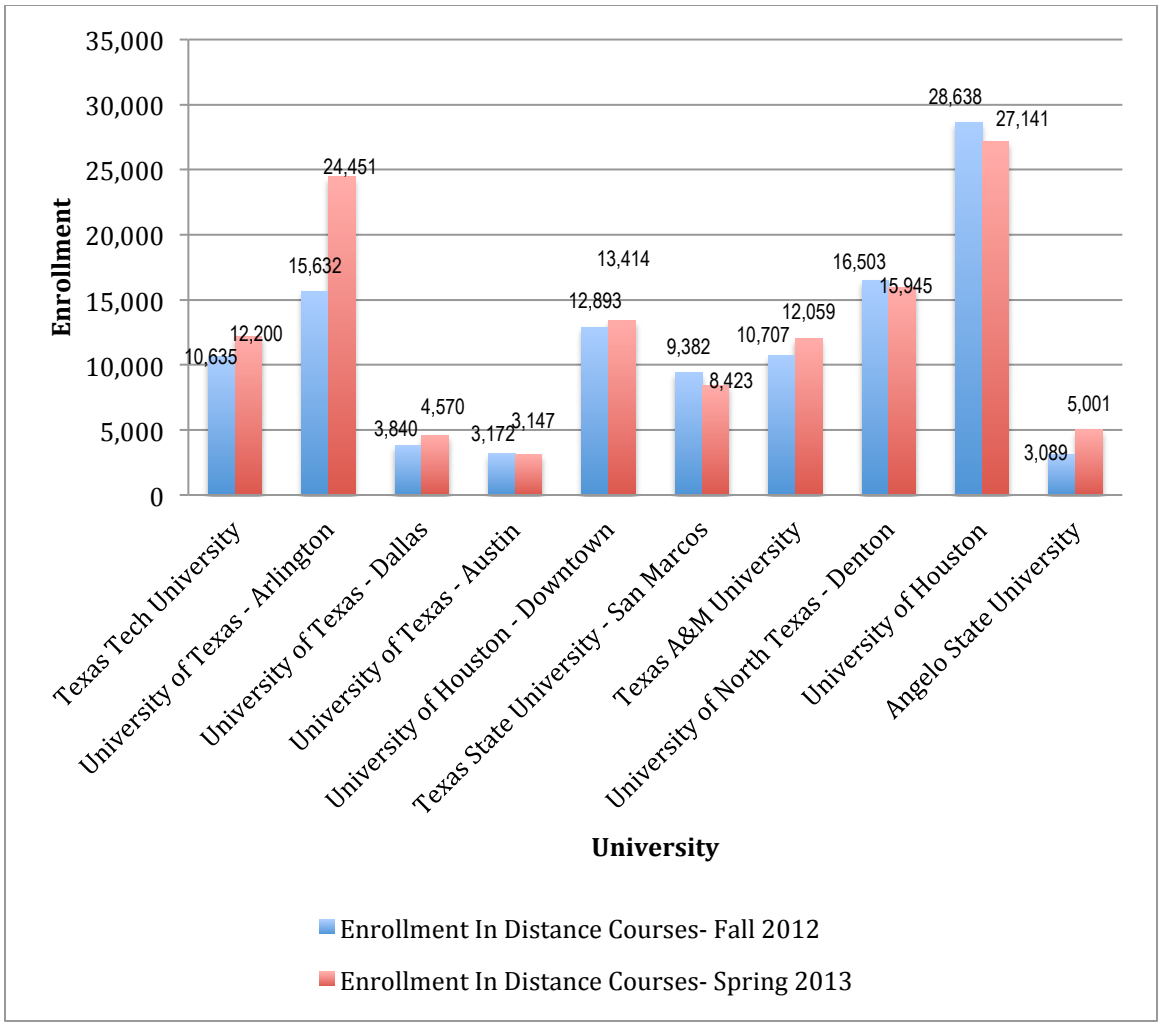

Figure 2. Enrollment in distance courses at selected Texas universities.

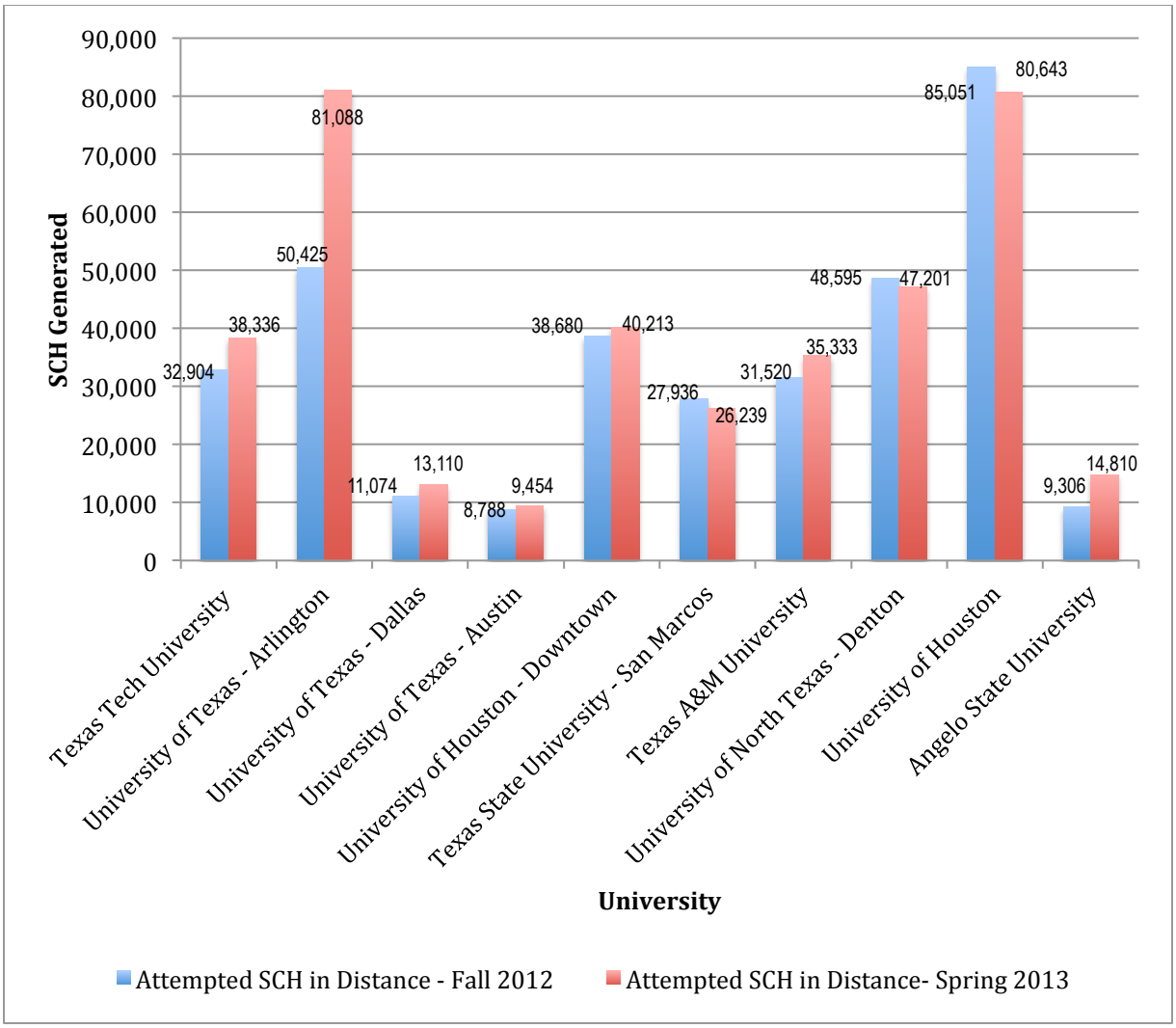

Figure 3. Attempted student credit hours in distance courses offered online by selected Texas universities.

About the Regional Sites

Increasingly, students in Lubbock take advantage of the convenience and variety of online classes and May-term and summer offerings at regional sites. TTU Center at Junction is a regional educational co-located with the Llano River Field Station. The LRFS supports doctoral and post-doctoral students and also operates the Outdoor School for large numbers of middle and high school students. TTU Center at Junction provides classes for local and Texas Tech Lubbock students in the May-term and summer sessions and supports a variety of programs and courses during the year.

TTU El Paso offers the upper division coursework leading to a B.S. in Architecture, which serves a regional need and attracts an underserved population of Hispanic students. The architecture program at TTU El Paso is currently housed in the historic El Paso Union Depot Station, with library holdings in the nearby El Paso Museum of Modern Art. The program

partners with El Paso Community College where students complete the first two years of their coursework toward the TTU architecture degree.

Marble Falls, Fredericksburg, and Waco are regional sites that work in collaboration with Central Texas College, Austin Community College, and McClennan College, respectively, to provide upper-level Texas Tech courses and degrees. There are also specialized courses and certificates, accommodated to their respective regions, such as viticulture in the Hill Country wine region.

Given availability of online and hybrid courses along with local face-to-face courses, these sites afford considerable potential for growth in their own enrollment as well as support for recruitment and transfer of students to TTU Lubbock.

Core Curriculum

Sufficient Core Curriculum courses are available to satisfy the Texas Tech University Core Curriculum requirements, as well as the multicultural graduation requirement. This will also be true for the new core curriculum that will be implemented in Fall 2014. A 2-credit-hour online science laboratory course will also be available when that graduation requirement is implemented, also in Fall 2014, making it possible for online and transfer students to complete this requirement online. The TTU science lab requirement will replace the laboratory science requirement that is part of the current Core Curriculum. An internal assessment indicates that as much as 80% of the enrollments in online Core Curriculum courses are by on-campus students. As more students turn to online instruction to obtain their Core Curriculum courses, it will be important to implement policies ensuring that ample space is available to accommodate enrollment demand.

It should be noted here that Texas Tech was an early adopter of a hybrid approach to delivering Core courses. Faculty in English, Psychology, Spanish, and other departments have employed the best pedagogical knowledge and technology to increase student learning and limit the use of facility space and faculty resources. In particular, English 1301 and 1302 are national models for hybrid curricula, now often known as “flipped” classes.

B. A Survey of Faculty and Students

A twenty-question survey concerning various aspects of online education was provided to the student base at Texas Tech during the first two weeks of September 2013. A similar survey of 28 questions was sent to the faculty. While 861 students responded to the survey, 332 faculty members responded. A full report of the survey results is available from the Provost’s Office.

The major findings of the student survey:

- 70% of the respondents have taken college-level online courses, and 52% took more than four online courses.
- 68% of the respondents have been satisfied with their online experience.

- The principal reason cited for not taking online classes was the preference for face-to face interaction in a classroom setting.
- 79% of the respondents indicated that they do not feel less connected to Texas Tech University by taking online courses.
- 63% of the respondents said that they would NOT take their degree entirely online, given the option.

The major findings of the faculty survey:

- 46% of the responding population has taught an online course, whereas 53% have taught online for more than three years, and 40% have taught more than six courses.

- 85% of the responding faculty indicated that they would consider teaching an online course, and 84% said that they would consider teaching a hybrid course.

- 69% of the responding population indicated that the major benefit of teaching online is the flexibility with regard to scheduling, time and space.

- The largest cited reason (23%) for not teaching online was that the faculty members preferred face-to-face pedagogical modalities.

- 45% indicated that they would teach online if they had technological support.

In summary, results of the survey suggest that our current students want the flexibility afforded by online classes. They would like the option, where possible, to take classes either online or face-to-face. Face-to-face students want the advantages of online resources afforded to the totally online student (e.g., ability to watch recorded lectures, etc.), whereas online students want some kind of face-to-face or quasi face-to-face experiences, particularly at the program level. An important caveat to the student survey is that these respondents are almost entirely campus-based students; they have the option to choose between online instruction and face-to-faces courses on-campus. Among the responding faculty, there is interest in teaching in the online environment, at least as a hybrid course, and especially if there is technology support. More can be done with the data from this survey – content analyzing written comments, for example – to better ascertain students' and faculty interests, needs, and expectations, and follow-up surveys should be planned.

Previous surveys of students enrolled in Texas Tech's online and hybrid degree programs have produced similar findings as those cited above. Although mostly graduate students responded to the 2005-2009 administrations of the "Texas Tech University Distance Learning Survey" (see http://www.depts.ttu.edu/opa/assessment/dl_landing.php), in the five years of administration, between 55 and 60% of the student respondents said they were "very satisfied" with their experience in a TTU online or regional site degree program. From 2006 to 2009, more than 90% of the student respondents said that they would recommend their degree program to another student. In 2009, undergraduate students in hybrid courses were added to the survey sample, and their perspectives differed significantly from the previous graduate student

responses, indicating that there is more investigation to pursue on the effect of enrollment status (undergraduate and graduate) and satisfaction with learning environments.

4. Prerequisites for Growth

A. Organizational Structure

Available resources for online and regional education at Texas Tech are relatively modest. The Teaching, Learning, and Professional Development Center (TLPDC) supports technology applications for on-campus, face-to-face instruction, and online learning. Support is offered in the form of scheduled short courses and individual and group consultations for guidance in teaching with technology, including a variety of instructional and learning software, such as Adobe Presenter, Microsoft Lync, Mediasite, Blackboard, and others. The TLPDC has two instructional designers on staff and one Blackboard support staff member.

The Information Technology Division provides a robust infrastructure for campus computing that must be maintained and bolstered to continue quality technology services for students (see 4.E. and Appendix B for detailed information). The IT Division provides instructional technology services such as lecture capture training and recording; Lync training; SharePoint courses; WIKI custom development; online technology professional development; Web design consultation; and accessibility technology training and support. The IT Division manages the learning management system infrastructure and Banner integration (Blackboard and SumTotal) for all online course delivery. The IT Division also manages software site license agreements for all learners, including select application "virtualization" where permissible. Lastly, the IT Division provides technical support for online and regional students through an in-depth self-help resource (Askit.ttu.edu), call center operations with extended hours, and email support.

The Office of Online Compliance and Regulation (formerly eLearning) assists in the review and certification of online and regional courses and programs, and coordinates university compliance with federal, state, and SACSCOC regulations pertaining to online and regional education. For example, the office prepares reports related to online and regional educational activities for the Texas Higher Education Coordinating Board and assures that Texas Tech University is in compliance with federal regulation related to online and regional delivery of coursework including State Authorization registration for courses offered outside of the state of Texas.

The Texas Tech University Library has a long history of providing significant support to online and regional students and faculty. The Texas Tech Library provides on-line access to resource librarians as well as general information and digital collections. All Colleges and disciplines are assigned a resource librarian, and students may communicate with him/her via e-mail. Information is available at http://library.ttu.edu/services/subject_librarians/subject_librarians.php.

Online and regional site students have excellent access to materials through the following services:

- E-Reserve – a service that makes paper journal articles available
- Online, full-text journals from providers like Emerald and Project Muse
- Online databases; 181 databases from providers like Lexis-Nexis, First Search, & EBSCO
- Online reference materials
- Interlibrary Loan Services

The TLPDC, IT Division, TTU Library, and Office of Compliance and Regulation provide helpful and even essential services and their personnel work well together, but without a uniform, strategically driven direction, staff, or infrastructure. Texas Tech University lacks a clearly defined, coherently structured, centralized entity to oversee, coordinate, and support online learning regional education. Some of the colleges have arguably more efficiently organized and functioning support structures for online instructional delivery than does the university as a whole. Avoidance of costly duplicative services, as well as provision of needed support services not otherwise available, would be important functions of a more efficiently organized central online regional education entity. For example, a centralized entity would assure a suitable cadre of instructional designers who would format faculty members' or departments' course content for online delivery. Likewise, a centralized entity could better address the development and maintenance of support for ADA accessibility requirements for all online instruction. Quality online courses that attract and retain students and meet the unique requirements of online courses would be best developed when the faculty provides content and guides the designers with what they desire in a course, letting the design experts build the course.

Recommendations for Organizational Structure

1. A review of online or regional education units at a number of institutions (see Appendix A) revealed that most are organized within divisions of academic affairs or divisions of outreach and engagement. Online education unit leaders at most profiled universities report directly to the Provost. Accordingly, the primary leadership and structure for online and regional education at Texas Tech should be housed in the Office of the Provost under the direction of an Associate Provost. The primary duties of the Office of Online and Regional Education would include strategic oversight of TTU's regional education support and activities and serving as the central point of contact for all matters related to online instruction and regional education. This entity could be organized according to three general functions:
    a. Student Experience – this function strives to assure that every student feels a sense of belonging, community, and pride with Texas Tech regardless of learning modality and location. Allegiance to the alma mater is a goal of this function. It also covers planning of academic programs – degrees, certificates, even minors – and approaches to decreasing bottlenecks to degree completion and assisting non-completed students to finish their degrees. This functional area also coordinates the recruitment of online and regional students, advisement related to support services, resolution of their non-academic concerns and complaints, assessing and resourcing students' readiness for online learning, and engaging their participation in the life of the university.
    b. Regulation and Compliance – this function coordinates faculty and program compliance with state, federal, and accreditation requirements for online regional

education, working with primary offices on-campus for ADA, FERPA, IT, Institutional Research, etc.

c. Instructional Design – this function provides the content-to-delivery build out of online curricula, incorporating faculty-provided course content and pedagogical choices with the most appropriate and effective course technology to meet course and program objectives and achieve student learning outcomes This area could also be the provider of student and faculty "coaching" for community building and academic success in online and regional environments, including ensuring available and responsive communication with students.

For the Office of Online and Regional Education to be effective, TTU must commit to sufficient staffing for the centralized unit. Estimates of instructional technology demands based on online and regional enrollment growth suggest the following additional staff resources: six (6) instructional design professionals, four (4) senior editors (production posting, editing), and a pool of four (4) graduate students to facilitate workflow, contact faculty, assist with technical work, and assist with development. In addition, central IT services must be adequately staffed to provide support services to the growing online and regional population, with estimates of one (1) server support professional and two (2) IT Help Desk staff members.

2. Additional responsibilities of the Office of Online and Regional Education would include working with colleges, departments, and off-campus sites to encourage exploration and implementation of programs that are consistent with TTU's online and regional initiatives; determining overall university resource needs to support online and regional education, and ways to meet these needs including a pricing policy for TTU online and regional education; monitoring criteria that should be used to assess new online degrees and programs; and working with the offices at TTU and TTUS to improve the ease and efficiency of supporting courses and regional site programs.

B. Instructional Quality

Another critical function of a centralized structure for online and regional education would be to assure quality control of online and regional courses and programs, similar to that utilized for all face-to-face curricula offered in Lubbock. Currently at Texas Tech University, quality control is the same as it is for face-to-face courses. However, course content delivered online is more accessible for review than that delivered in a face-to-face lecture section. This creates an opportunity to support faculty to ensure that best practices are utilized to enhance student learning. In addition, support of online instruction is subject to the influence of the mediating technology infrastructure. As a case in point, during the summer 2013 issues involving Blackboard 8, it was discovered that some classes were being offered online without the appropriate section designation (D0X) being placed on the class section, an oversight with implications for student billing, enrollment reporting, and classroom usability metrics. Therefore, it is recommended that the on-going discussion about instructional quality be expanded to include curricula that are delivered via hybrid and online modalities and at regional sites.

An issue arising from federal regulation is to ensure that online courses include regular and significant interaction between the faculty member and students. Without such interaction, recent federal law defines such courses as "correspondence" (http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&sid=0900b7322acc5a5a10c558b8fe15ad7b&rgn=div8&view=text&node=34:3.1.3.1.1.1.23.2&idno=34).

> *Correspondence course:* (1) …. Interaction between the instructor and student is limited, is not regular and substantive, and is primarily initiated by the student. Correspondence courses are typically self-paced….A correspondence course is not regional education.
>
> *Distance education* means education that uses one or more of the technologies listed in paragraphs (1) through (4) of this definition to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor, either synchronously or asynchronously.

Failure to deliver courses consistently with these definitions can result in federal fines levied against a university. Offering as regional education course that in actuality is a correspondence course is thus a serious matter of quality control. Currently, some online courses at Texas Tech accommodate enrollments of more than 200 in a section, raising possible questions about the adequacy of interaction between students and instructors, a key differentiating element in the definitions above.

One opportunity to promote greater instructional quality would be to revive a program like one initiated at Texas Tech several years ago but offered only once. The Cohort Online Educators Seeking Excellence training program was designed to assist faculty in the development and delivery of high-quality online courses. Because the program was offered only once, its full potential to affect quality online instruction was not realized. Similar programs at, for example, the University of Alabama, engage instructional design specialists with faculty mentors and review committees to ensure that all courses meet quality and compliance standards. The University of Minnesota makes extensive use of the *Quality Matters* paradigm for reviewing and assuring quality of online courses – another program that Texas Tech used for several years but jettisoned for lack of sufficient participation and resource support.

Requiring all faculty who teach online to complete professional development for online pedagogy would require more support personnel in the Teaching Learning and Professional Development Center. This step may also support the overall quality of instruction at Texas Tech in addition to increasing quality in online courses.

Recommendations to Increase Instructional Quality:

1. Repurpose a segment of the TLPDC to provide a sufficient corps of instructional designers and other resources readily available to support development and delivery of online instruction.
2. Provide requisite training programs to any faculty member assigned to provide online instruction.

3. Establish faculty-led and university-wide procedures to review all online courses for quality design and development, including assurance of appropriate and sufficient student-instructor interaction consistent with federal definitions of regional education, and thereby avoiding delivery of "correspondence" courses.
4. Formally recognize quality design, development, and delivery of online instruction and regional education in the faculty evaluation process.

C. Accessibility Compliance

The Texas Tech Accessibility Compliance Task Force was appointed in 2012 to develop policies and resources for faculty to make their online/hybrid/web-supported courses compliant with ADA accessibility standards. This task force recently sent to the Texas Tech University faculty an email emphasizing the importance of providing accessible materials to students enrolled in online courses. Expectations stated in the email were that:

> "Materials included in any course components (either self-paced, lecture, group, etc.), such as video clips, audio files, web materials, interactive exercises, PowerPoint presentations, and other such multimedia, including lecture capture (i.e., MediaSite), must be available in an accessible format or an acceptable alternative provided. Federal guidelines mandate that all materials in all courses must be accessible regardless whether a student has requested them or not."

Texas Tech faculty members are glad to comply with these federally stipulated provisions – faculty want to do the right thing. But most are at a loss, as are department chairs' and deans' offices, about how to acquire and incorporate the necessary accommodations into their instructional delivery. Course designers could effectively accomplish this without faculty members having to become experts in educational technology. The moderate resources available at Texas Tech for online and regional education generally also constrict efforts to fully resource and implement ADA-related accessibility standards. This could leave the university at risk with the federal government and for legal liability. This problem can be addressed much like the problems of centralized resourcing and instructional quality.

Recommendations:

1. Continue to educate the faculty about the ADA requirements for accessibility compliance.
2. Staff the centralized online and regional education office with one or two designers with expertise to assist faculty to meet the requirements for accessibility compliance (i.e., transcription, captioning).
3. Provide state-of-the-art technology to faculty and staff for developing accessible courses.

D. Authentication and Student Identity

Readily available, state-of-the-art methods for authenticating student identities is another aspect of online education that is resource-limited at Texas Tech. The Higher Education Opportunity Act (HEOA) of 2008 requires that "…institutions establish that the student who registers in a regional education or correspondence education course or program is the same

student who participates in and completes the course or program and receives the academic credit." Consistent with this requirement, Texas Tech currently uses the eRaider ID and password to verify student identity. The HEOA further provides that institutions should consider adopting new, and perhaps less expensive, identification technologies as they come online. However, Texas Tech is not currently positioned to acquire and implement any ID approach other than eRaider. Blackboard learning management system, for example, offers a student identify utility that is not active with TTU's application of Blackboard. Texas Tech should explore ways to enhance eRaider to incorporate multi-factor authentication or other technologies that provide higher levels of identity assurance and decrease the possibility of academic fraud in online courses.

University policy for use of electronic student identification must be clear and prominent. The HEOA 2008 stipulates that all charges associated with the verification of student identity, such as fees associated with proctored exams, be explicitly stated at the time the student registers for a course, and be equivalent across locations and for the same services or resources. Information about these sorts of costs to online students at Texas Tech does not appear to be directly available to them, via, for example, the student information portal, Raiderlink.

Recommendations to enhance authentication:

1. Provide sufficient resources to consider and acquire more secure methods for verifying student identities.
2. Clarify or establish university policy about directly informing regional and online students about additional fees associated with common components of the courses, such as fees for proctoring exams.
3. Provide sufficient resources to consider and acquire alternative proctoring strategies.

E. Technology Infrastructure and Resources

To allow our online courses and program and regional sites to accommodate substantial growth, we recommend that the institution invest in three primary types of information resources. First the institution must invest sufficient online learning technologies to empower faculty and support staff to develop, design, and deploy high-quality online learning materials. Examples include adequate lecture capture MediaSite recorders (mobile and mounted), software tools, and instructional design staff workstations. BlackBoard, TTU's primary (hosted) learning management system, will also have to be extended to reflect student and course growth.

Rapid enrollment growth will negatively affect the capacity, quality, and strength of our current IT infrastructure resulting in poorly delivered online instruction and regional education and support services. Technology that is likely to be most affected includes web conferencing technologies, asynchronous communication technologies (e-mail, some social networking tools), synchronous technologies (Lync, interactive video conferencing), and connectivity (Internet, wireless). Adequate investment in these aspects of IT infrastructure will be required to attain and sustain online and regional education goals.

To assure online and regional students a reliable, high-quality learning environment requires software enhancements and licenses to keep pace with student enrollment growth. The university will also have to plan for additional costs of software that requires product virtualization, rather than media distribution.

Investment in external hosting, cloud technology, and third-party developer solutions offers possible savings from leveraging existing vendor partnerships. Such investment can reduce the variability in costs associated with different consulting and service arrangements by course area, pedagogy, and faculty expertise.

F. Revenue Model

Online instruction and regional education initiatives often rely on entrepreneurial faculty and require additional time and resources to explore new online pedagogies, learn new skills, and develop course materials. Compensating faculty for the work that goes beyond their normal teaching loads to prepare and deliver online regional site instruction is one necessary approach to engaging and rewarding faculty for these efforts. These are part of the reasons that many institutions incentivize online instruction and regional education through tuition sharing that creates incentives for growth of new programs and enrollments. At the College or academic program level, these resources provide a return on the investment to support increased enrollments, and re-investment in additional teaching personnel, educational support personnel, instructional software and equipment, and other support as needed. At the institutional level, resources are needed for investment in infrastructure, to upgrade technology and provide other support for professional development and course development.

Most institutions offering online and regional educational opportunities capture these required investment funds through a per-credit fee ranging from $25 to $125 per student credit hour. This fee provides an important revenue source for financing academic program expansion, instructional personnel, software, infrastructure, compliance and regulatory requirements, and support staff salaries.

Recommendations for a financial model:

1. Eliminate all ADIA fees associated with online courses and implement a $60/SCH Online Education Fee assessed to all online courses. Of this, $30/SCH will be allocated to the new Office of Online and Regional Education, and the other $30/SCH allocated to the instructional college or unit. These funds must be designated for support of online and regional educational initiatives, including technology, software and personnel who do not serve as instructor of record, such as staff and graduate or undergraduate students.

2. From the designated tuition generated from these courses ($136.58/SCH) provide $30 to go directly to the instructional unit for support of its online and regional site instruction, and $30 will be retained by the Provost for use in support of online and regional education. These funds offer the flexibility of supporting instructors of record.

3. It is anticipated that funds collected as fees or designated tuition will support local departmental units as well as central resources represented by the TLPDC or IT. Initial implementation of the recommended model will provide a foundation and allow time to conduct a thorough analysis of expenditures, revenues, and allocations associated with online instruction and regional education. Refinements to the model will be made based on this analysis.

5. Possible New Opportunities

A. MOOCs: A seemingly growing number of institutions (Princeton, Stanford, University of Michigan, etc.) are offering Massive Open Online Courses (MOOCs) as a way to educate the masses; however, these courses typically do not count for college credit. Moreover, the non-completion rate of MOOCs is extraordinarily high (>90%). MOOCs for credit (San Jose State, Georgia Institute of Technology) are very new, and their success is unknown. Texas Tech's strategic priority to provide wider access to quality education and to enhance student success would seem not to align with the MOOC approach. In addition, the current status of course production capability and quality at TTU would not be competitive in developing MOOC-type courses. Furthermore, serving students in "masses" does not foster the type of TTU branding and experience that we envision for all students regardless of modality and locality. Online instruction research shows that smaller (as opposed to "massive") class size (i.e. in the range of 15-25) is best for creating community among students, which is correlated with dynamic and enhanced learning environments that engage students and promote success.

   One possible way for Texas Tech to use MOOCs would be for offering non-credit continuing education courses. Unlike standard MOOCs, however, a fee might need to be assessed to cover the costs of producing and administering these courses.

B. Master of Arts Degree in Media Strategy and Innovation: a 30-hour program to focus on strategic use of social media, new media technology, audience/consumer analysis, data collection techniques, and special topics; targeted at a large baccalaureate alumni base with a strong loyalty to Texas Tech that has repeatedly requested accessibility to MA courses in a non-traditional format; projected enrollment of 25 students to start, 50 students by third year.

C. Ph.D. in Laboratory Safety: Some Texas Tech faculty members are contemplating the viability of offering a fully online doctoral program in laboratory safety. It would be the first such degree program in the country, meeting a need and a growing demand in industry, government, and academic institutions.

Appendix A: Comparison Institutions with Blackboard Support and Instructional Design Support (Student Population in Parentheses)

University of Houston (40K)
http://www.uh.edu/fdis/id/teams/index.php
faculty development and instructional support
2 Directors
9 Instructional Designers

University of North Texas (35K)
http://clear.unt.edu/staff
1 Associate Vice Provost
1 Senior Associate Director
1 Associate Director
1 Assistant Director
1 Instructional Tech Administrator
1 Instructional Tech, Training & Support
1 Senior Instructional Designer
5 Instructional Consultants
1 Full-Time Help Desk
5 Part-Time Faculty Help Desk Staff

Texas State University (34K)
ID and LMS separate
TRACS (Sakai) https://tracs.txstate.edu/portal/site/!gateway/page/!gateway-200
Instructional Design -- http://www.its.txstate.edu/departments/instructional_design.html
http://www.its.txstate.edu/about/contact.html
7 Instructional Designers
3 Instructional Designers Course Developers

UT at Arlington (33K)
ID and LMS separate
Blackboard - http://www.uta.edu/blackboard/faculty/index.php
Center for Distance Education (ID support) http://www.uta.edu/distancedistance/instructional-design.php

UT San Antonio (30K)
http://one.utsa.edu/sites/oit/OITConnect/online_learning/Pages/BB_Faculty_support.aspx
College Design and Development Team
1 Director
6 Designers

UT-Pan American (19K)
http://portal.utpa.edu/utpa_main/daa_home/cltt_home_2011/coltt_about

1 Director
1 Asst. Dir.
4 Instructional Design & Development Staff
2 Immersive Learning & 2nd Life Dev Staff
6 Help Desk Staff
2 System Integration Specialists

UT-Dallas (19K)
1 Director
1 Admin Assistant
1 Manager
1 Instructional Tech Training Specialist
5 Instructional Designers

Sam Houston State University (18K)
http://distance.shsu.edu/home/our-staff.html
1 Assoc VP
1 Asst to Assoc VP
1 Executive Director
3 Directors
4 Training & Tech Support Staff
10 Instructional Design & Development Staff

Other Schools:
New York University (40K)
Center for Innovation in Teaching and Learning
Technology support, but not instructional design?
http://www.stern.nyu.edu/portal-partners/center-innovation-teaching-learning/index.htm

California State University, Chico (17K)
Technology and Learning Program
http://www.csuchico.edu/tlp/index.shtml

University of Cincinnati (40K)
Information Technologies: Instructional Design and Instructional Technologies
http://www.uc.edu/ucit/learningtechnologies.html

University of Nevada – Las Vegas (28K)
Teaching & Learning
http://teaching.unr.edu/IDT/ - Instructional Design Team
http://teaching.unr.edu/idtstaff.html

Michigan State University (48K)
Virtual University Design and Technology (vuDAT)
Instructional design support is separate from LMS support.
http://vudat.msu.edu/services/

http://learndat.tech.msu.edu/
Desire2Learn - http://help.d2l.msu.edu/

Eastern Kentucky University (16K)
Instructional Development Center (IDC) http://www.idc.eku.edu/
Blackboard support - https://learn.eku.edu/webapps/portal/frameset.jsp.

Appendix B: IT Resources to Leverage for Online and Regional Education

Technology	Description & Features	Responsible Area(s) or Unit(s)	Notes	Cost to Area or Unit
Raiderlink Student Portal	**• Central point for online access to registration, grades, billing, financial aid • Internal business portal**	**TTU System IT**		**None**
Blackboard Learning Management System	**• Online course delivery • Published and custom content • Quizzes and Exams • Integrated with Banner Student Information System**	**TTU IT Division**	**• Requires Internet connected computer with standard browser • Supports mobile platforms**	**Blackboard is available at no cost, but optional 3rd party products may have additional costs.**
Dept. and Personal Web Sites	**• University provided hardware and software for departmental, course, or faculty websites • Faculty can design and publish websites for their courses**	**TTU System IT - TOSM and TTU IT Division Web Team**	**TOSM provides the platform and a variety of software tools, but individual departments and users design and publish their own websites; The TTU IT Division provides training and consulting for faculty, staff training, and student authors.**	**None**

Wiki Sites	**• Confluence Wiki product selected by a representative faculty group.** **• Enterprise services available**	**TTU IT Division**		**None**
MediaSite Lecture Capture	**• Hardware and software for recording lectures** **• Support for live streaming** **• Captures instructor and presentation simultaneously** **• Includes searchable repository and playback website**	**TTU IT Division**	**The TLPDC recently designed a recording studio that faculty can use for video lecture development.**	**The TTU IT Division has negotiated a highly competitive hardware contract for the TTU Community that covers recorders (mounted and mobile), as well as peripheral equipment.**
Point-to-Point Interactive Video Conferencing	**• Interactive Video Conferencing (IVC) is available between specifically equipped classrooms at TTU and the TTU Regional sites.** **• IVC rooms can be "bridged" to other locations, depending on availability of communications circuits/pathways and the capabilities of the equipment at the remote site.**	**TTU IT Division, College of Engineering**	**• Point-to-Point IVC requires a dedicated communications link** **• Use of point-to-point IVC is diminishing in favor of Scheduled and Ad-hoc Online meetings and video conferencing**	**Each IVC-enabled classroom must be appropriate equipped, and all classrooms are a part of the general classroom initiative; Communications circuits are typically charged on a monthly basis**

Scheduled and Ad-hoc Online Meetings and Video Conferencing	**• Using Microsoft Lync, online meetings can be pre-scheduled (via Techmail calendars and meeting requests) or conducted ad-hoc • Online meetings can be voice-only, voice and video, and can optionally include desktop/screen sharing, File Sharing, and whiteboarding • Integration with Skype • Online meetings can include external non-TTU members**	**TTU IT Division**	**• Suitable for synchronous online classes, but departments must follow applicable University OP's regarding method of delivery (See OP 36.01 and others) • Online meetings are currently limited to 50 participants and, if needed, can be increased to 100 with current infrastructure; for larger meetings, services such as WebEx or GoToMeeting can be used on a subscription or fee-for-use basis**	**For synchronous meetings over 50 participants, external meeting services run approximately $350/hr for up to 500 participants. Other pricing options and/or volume discounts may be available.**
High Speed Campus Network (TTUnet)	**• Campus backbone connecting all TTU buildings is a redundant 10Gbps core • Building networks connect to the core at 1Gbps or higher • Individual Network ports available at 1Gbps or 100Mbps • Virtual Private Network (VPN) service available to faculty, staff, and students for remote access to TTU Intranet resources**	**TTU IT Division**		**$308.00 one-time fee for each new Network Drop (i.e. port); includes lifetime maintenance and support**
High Speed Internet Connectivity	**• 5Gbps total Internet bandwidth through three separate providers**	**TTU IT Division**		**None**
High Speed Research and Internet2 Networks	**• 13Gbps Internet2 bandwidth for research • Special purpose-built networks can be designed and implemented for high-speed and/or dedicated network links between TTU, TTUHSC, Reese, or other TTU locations**	**TTU IT Division**	**Network traffic is automatically optimized to route through Internet2 if the destination is reachable via Internet2**	**• Internet2 use is free • Special purpose-built networks are funded by the department and supported and maintained by the IT Division**

TTUnet WiFi	**• Standard WiFi available in most indoor public areas on campus**	**TTU IT Division**	**• Standard WiFi coverage is currently limited to approximately 30 simultaneous connections in a given area the size of a typical 30 person classroom**	**• TTUnet Standard WiFi is free • Higher density/capacity WiFi for larger classrooms and high traffic areas are funded by the department, and maintained and supported by the IT Division• The IT Division is working to upgrade infrastructure in high-density areas, pursuant to available funds**
Network-based Storage	**• RaiderDrive (TechDrive) - 2GB of online storage available to each TTU student • TechShare - 100GB of online storage available to each Department**	**TTUS - TOSM**		**• RaiderDrive is free to students • Initial 100GB allocation of TechShare is free**
Online Collaboration - SharePoint Sites	**• SharePoint sites are available to each TTU department • Useful for online collaboration, document storage, and simultaneous document editing • Suitable for FERPA documents with approval from the TTU CIO**	**TTU IT Division**		**None**

Site Licensed Computers, Software, and Tools	**• The University has negotiated a number of contracts to provide hardware, software, and tools useful for Distance Education at significant discounts or in some cases no cost to Faculty, Staff, and Students** **• Current contracts include (not a complete list)** **• Adobe** **• Apple** **• AutoCAD** **• Dell** **• ESRI** **• Maple** **• MATLAB** **• Microsoft** **• SAS** **• Symantec** **• SPSS**	**TTU IT Division**	**• Additional discounts and/or special pricing may be available for other software titles - contact the IT Division for assistance**	**Some products can be down-loaded at no cost, some require a modest media charge, and other packages are sold at highly discounted prices**
Training, Assistance, and Services for Distance Education and Online Teaching	**• The Teaching, Learning, and Professional Development Center (TLPDC) and the TTU IT division provide training, resources, and assistance to faculty in developing online courses**	**TTU IT Division, Teaching, Learning, and Professional Development Center (TLPDC), Office of eLearning**	**The TTU IT Division provides online instructional materials**	
Computer-based Training - Technology	**The TTU IT Division licenses an inventory of over 5,000 online professional development, technology skill, management skill, software skill, and financial skill courses- many are used by faculty in their courses (cbt.ttu.edu).**	**TTU IT Division**		**None**

Extended and Online Learning Resources	**• Several areas provide online training for faculty and students; topics relevant to distance education • Lynda.com video-based training available from the TTU Library website**	**TTU IT Division, Teaching, Learning and Professional Development Center (TLPDC), TTU Library**	**Remote access requires eRaider login and/or VPN connection to TTUnet**	**None**
Virtual Desktops and Applications	**• Various virtualized desktops and applications are available through the University Citrix Storefront • Individual colleges including the Rawls College of Business and The TTU Library offer virtualized apps which are accessible via the Storefront • Symplicity Learning Management System for tracking professional development and required TTU training.**	**Various**	**The TTU IT Division has a strategic plan for virtualizing site licensed software, as needed and feasible**	**None**
Services and Tools for Students with Disabilities	**• TTU online resources are reviewed for accessibility compliance by the TTU Accessibility Coordinator • Student Disability Services provides a number of services, tools, and assistance for students with disabilities**	**TTU IT Division, Student Disability Services**		**None**
Academic Testing and Proctored Exams	**• Academic Testing Services provides proctoring services for distance education students**	**Academic Testing Center**	**TTU is in the process of preparing an RFP to boost services and options**	**Cost associated with protor location**
Plagiarism Detection Software	**• Aids in the detection of plagiarism for student submitted papers/works**	**TTU Library**		**None**
TTU Library Online Resources	**• A variety of online/electronic resources, software, and tools are available to Faculty, Staff, and Students at the TTU Library**	**TTU Library**		**None**

Appendix C: eRaider Account Management Description

Texas Tech University issues a single electronic identity (eRaider ID) to identify each faculty, staff, student, or research/business partner when accessing online services that require user authentication. This electronic identity is used to access services such as eMail, Registration, Academic Records, Grades, Billing Information, Financial Aid, and most online course materials. Other academic, research, and technology resources are also accessed through the eRaider ID. Examples include access to on-campus computing labs, various Library online resources, site license software downloads, TTUnet WiFi, TTUnet remote access, and many others. All University websites and online services that require user authentication are required by policy to utilize eRaider, unless a justification is approved by the CIO. In addition, any University website or online service can be enabled to use eRaider authentication.

Process for eRaider account creation and management:

- **The TTU Admissions office receives and vets information from student applications, including completed applications, accompanying documentation, official transcripts, and other official documents. At the conclusion of this process, either at the time of acceptance (Graduate and Law students) or admission (Undergraduate students), an automated process feeds student data to the TTU IT Division for creation of the student's eRaider ID.**
- **For international students, the completed application, accompanying documentation, official transcripts, and other documents are routed through the International Cultural Center for review and approval before students are accepted for admission.**
- **Students are required by University policy to keep their eRaider pass code secret.**
- **The eRaider pass code is required and enforced to be a strong password, 9 to 15 characters in length that cannot include dictionary words, and must include at least one numeric and one special character. The password must be changed at least every 90 days.**
- **eRaider ID remains active for students 400 days after the student graduates or fails to re-enroll.**

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