Texas Tech University
Academic Council
Meeting of October 19, 2010
1:30 PM, Provost's Conference Room

AGENDA

1. Minutes of September Meeting (attached Word document)
2. Texas Tech University Distributed Learning (Hughes, Moskos; attachments forthcoming)
3. AlchoholEdu Update and Decisions (Phelps, McCauley)
4. Textbook Orders (Elkins)
5. Course Approvals (Jones; attached Word document)
6. VPA Program CIP Consolidations (Henry; attached email message)
7. Report from Ad Hoc Committee on the Academic Calendar* (Jones; attached PDF document)
8. Course Proposal Guidelines and Online Forms (Elbow; attached email message)
9. Replacement of Grade of P (Latham; attached email message)
10. Grade Replacement in Second Bachelor's Degree (Latham; attached email message)
11. Course Fees** (Stewart)
12. Military Credit, 2009 HB 269 (Latham; Munoz)
13. Other Business
14. Announcements and Queries

Adjourn by 3:00

ACADEMIC COUNCIL

Texas Tech University

Meeting of
September 21, 2010

MINUTES

Present: Wendell Aycock, Bruce Bills, Wesley Cochran, Cathy Duran, Gary Elbow, Greg Elkins, Bob Henry, Norm Hopper, Lynn Huffman, Patrick Hughes, Jorge Iber, Peggy Johnson, Sue Jones, Bobbie Latham, Debra Lavrie, Ethan Logan, Tim Mathis, Pat McConnel, Walt Oler, DaNay Phelps, Marjean Purinton, David Roach, Brian Shannon, Brian Steele, Rob Stewart (chair), Kevin Stoker, Janessa Walls, Vicki West

Guests: Kyle Clark**,** Jenny Mayants, Michael Shonrock, Kelley Pitts

Shonrock, Senior Vice President for Student Affairs and Enrollment Management, and Mayants, Internal Affairs Vice President for the Student Government Association, discussed a proposal to allow early registration for all members of the Student Senate. Mayants said nearly one-half of the Student Senate already qualifies for early registration. For members to receive the privilege of early registration, senators would be required to attend all SGA meetings and events. Mayants expressed her intention to write a Senate bill requiring that attendance be monitored. Elkins offered to work with Mayants on development of more criteria for the privilege of early registration and for preparation of a Senate bill to have continuous monitoring. No vote was taken.

Pitts, Development Officer for KTXT-TV, presented plans for a new public television program called Challenge!, which is a high school student academic quiz program that offers South Plains' area students the experience of competing intellectually with their peers. The format is similar to the old GE College Bowl and will involve high school students from nine counties surrounding Lubbock. Questions Unlimited will research and write the questions based on curriculum in math, science, history, literature, and the arts. Winners will receive Texas Tech scholarships as well as gifts and prizes. Pitts discussed opportunities for college and department involvement and invited interested council members to contact her at KTXT-TV.

Clark, Chief Operating Officer and Senior Vice President for Administration and Finance, told council members that the university had the lowest number ever of student enrollment cancellations due to non-payment. The collection process began with more than 3,000 students at risk for non-payment and decreased to only 130 students as payments continued to arrive.

The Academic Council reviewed the minutes from August 17, 2010, and noted three corrections to be made: (1) add Clifton Ellis to the attendance list, (2) note that Elizabeth Massengale was not a guest but attended for Greg Elkins, and (3) change the due date for Faculty Development Leave to October 18. Aycock moved to accept the minutes as amended, Purinton seconded the motion, and the motion passed.

Elbow presented proposals for a Graduate Certificate in Digital Design and Fabrication and a Graduate Certificate in College Student Counseling, both of which are 15-hour programs. Huffman moved to accept the proposals as presented, Hopper seconded the motion, and the motion passed.

Jones presented the September course approval summary. Roach moved the courses be accepted as presented, Oler seconded the motion, and the motion passed.

Elbow presented two recommendations from the university's Core Curriculum Committee: (1) addition of WE 2300 to the Core course offerings in Technology and Applied Science and (2) deletion of MAUP 3205 from Core course offerings in Visual and Performing Arts. Both changes will become effective in fall 2011. Purinton moved to accept as amended, Huffman seconded the motion, and the motion passed.

Elbow proposed new guidelines for course approval requests. The guidelines are patterned after the more in-depth requests of the Graduate School and would eliminate the current undergraduate form in favor of all colleges and departments using the graduate course form. The new guidelines also would be attached to the relevant operating policy for course approval requests. Council members asked that the word "schedule" in item 3f of the guidelines be replaced by the word "projection." Stoker moved to accept the proposal as amended, Huffman seconded the motion, and the motion passed. *(NOTE: New developments after the council meeting resulted in the Office of the Provost placing these changes on hold until further review.)*

Henry reviewed the history of how the Bachelor of General Studies (BGS) was created and initially housed in the College of Arts and Sciences. He said the Academic Council minutes of October 7, 2003, approved the BGS degree to be offered by the newly created College of Visual and Performing Arts as well as the College of Arts and Sciences (BGS was subsequently transferred from Arts and Sciences to University College). This approval was apparently never reported to the Coordinating Board and continues ***not*** to be listed in the official THECB degree inventory for the College of Visual and Performing Arts. Huffman moved that the council reconfirm its decision that the BGS degree is an official degree program of the College of Visual and Performing Arts as well as University College and that this information should be conveyed to THECB by the Provost's Office.

Johnson notified the council that the College of Education will begin offering the Doctor of Education in Educational Leadership by interactive video to a site at Angelo State University.

Phelps updated council on House Bill 1172. The bill sets an annual date for general academic teaching institutions to report timely graduation information to their governing boards. The two major reporting requirements include (1) data on undergraduates completing programs and (2) institutional efforts to promote timely graduation. As coordinator of the university's response, Phelps asked colleges and departments to submit information to her describing their efforts to ensure that students graduate in a timely manner.

Faculty Development Leave submissions are due October 18.

Rob.

I met with Julie McCauley and Delia Tibbs from Student Health Services on October 1 concerning the AlcoholEDU program. Student Health has been working diligently to make this program a success and to reach the goal for student completion for this year. I think we will be ok with the outline Academic Council approved in August. Preliminary numbers from Student Health indicate students are responding well to the email communications they are receiving. By the Academic Council meeting in October they should have a really good idea of the impact of the "Holds on Grades" (i.e. potential numbers of student affected).

Recommendations:

1) Town Hall meeting with advising community (have set for Tuesday, Oct 12 at 3:30 pm)
2) Student Wellness will offer to meet with individual colleges at individual college/depts.' request (they already had a couple of meetings scheduled)
3) October 19 Academic Council Meeting – invite Juli McCauley and Delia Tibbs to update the council on the progress of program.

I think after hearing the preparation Student Health has put into this program that folks will breathe much easier about the grades hold. I will email you again on Wednesday to give you a more detailed consensus from the advising community town hall meeting.

DaNay

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COURSE ADDITION WORKSHEET
FOR NEW COURSES

GENERAL INFORMATION

Course Name:	
Course Description:	
This course will be:	☐ Required ☐ Elective
Prerequisites: Please state prerequisites and reasons for such	
Majors: What majors will be targeted for this course?	

REVIEW PROCESS

Please outline the review process completed at the departmental and college level used to approve this course.

COURSE CONTENT

Indicate why the course is essential or advantageous for the discipline. If the course relates directly to a practiced profession, indicate how the course content will be useful in furthering success in that profession.

List five (5) keywords that characterize the course:

Please provide the results of doing a keyword search of the electronic catalog using your keywords (http://www.depts.ttu.edu/officialpublications/catalog/_viewcat.php). If an existing course has a similar title or description and might be perceived as similar to your proposed course, please a) identify the existing course/s and b) provide an explanation of how your course differs from the existing course/s. **Note**: Instruction in basic analysis with discipline-unique applications will not typically be considered justification for a new course.

PREVIOUS OFFERINGS

Has this course has been offered before (as a current topics course, for example), indicate:	
Semester	**Enrollment**

ANTICIPATED ENROLLMENT

If the course has not been offered before, please provide the anticipated enrollment and the basis for that forecast.

ANTICIPATED OFFERINGS

Indicate the anticipated frequency of offering and the expected enrollment.

The course will be offered:	☐ Twice a year ☐ Once a year ☐ Every two years ☐ Other, specify _____
If applicable, indicate whether the number of students who would take this course is increasing, stable, or decreasing.	

STAFFING

Explain how the proposed course will be staffed.

The course will staffed with:	☐ Existing or replaced faculty ☐ New hire (replacement faculty are not considered as new)
If the course is to be taught by existing faculty, indicate how the faculty member's current work load will be altered to accommodate the new offering. If the proposed course will require additional faculty, indicate how these resources will be made available.	

IMPACT ON EXISTING OFFERINGS

The Committee will evaluate the proposed course both on individual merit and the impact of the proposed course on other courses.

Will an existing course be dropped to accommodate this course? If so, which course?
If the course is an elective, indicate other elective enrollments that will be potentially affected by this offering. (Note that unless program enrollments are increasing, it is likely that offering a new elective will decrease enrollment in other electives.)

DISTANCE DELIVERY

If the proposed course will be offered via a distance modality, please provide documentation of the appropriate approvals for that delivery method.

OTHER

Indicate any other reasons why the course will benefit your graduate programs. **Note**: While the university has set strategic goals of increasing graduate enrollment, simply providing additional courses does not guarantee increased enrollment. Suggestions that the new course offering will increase graduate enrollment should be documented and justified as well as possible.

TEXAS TECH UNIVERSITY
College *of* Visual
& Performing Arts™

DATE: October 14, 2010

TO: Graduate Council
Academic Council

FROM: Robert E. Henry, Associate Dean

RE: VPA program CIP consolidations

This is to inform you of action requested by Dr. Valerie Paton on behalf of the Office of the Provost regarding VPA program CIP consolidations. This action takes place in two phases:

1. THECB low-producing programs – consolidations and phase-out of subordinate programs (Attachment B).
2. CIP consolidations of all VPA programs (a) existing CIPs converted to new (Attachment C); (b) Resultant TTU-IRIM VPA program listings (Attachment D).

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TEXAS TECH UNIVERSITY
College *of* Visual & Performing Arts™

DATE: October 14, 2010

TO: Graduate Council
Academic Council

FROM: Robert E. Henry, Associate Dean

RE: THECB Low-Producing Program Directive

At the request of Dr. Valerie Paton on behalf of the Office of the Provost, this is to inform you of action to be taken to come into compliance with THECB rules regarding low-producing programs.

Consolidations and phase-out of subordinate programs:

Phase-out the following subordinate programs and replace with concentrations in the MFA in Theater Arts (50.0501.00):

50050200	THEATER ARTS-DESIGN
50050400	THEATRE ARTS-PLAYWRITING
50050600	THEATER ARTS-PERFORMANCE AND PEDAGOGY
50050800	THEATER ARTS-THEATRE MANAGEMENT

Phase-out the following subordinate programs and replace with concentrations in the Ph.D. in Fine Arts (50.0101.00):

50050100	FINE ARTS-THEATRE ARTS	4
50070100	FINE ARTS-ART	4
50090100	FINE ARTS-MUSIC	4

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College of Visual & Performing Arts (2936)					
School of Art (0310)					
VP	Art Education	13.1302.00		MAE	
VP	Communication Design	~~50.0409.00~~ 50.0701.00	BFA		
VP	Fine Arts - Art	~~50.0701.00~~ *50.0101.00			PHD
VP	Art	50.0701.00		MFA	
VP	Visual Studies	50.0701.00	BFA		
VP	Studio Art	~~50.0702.00~~ 50.0701.00	BFA		
VP	Art History	~~50.0703.00~~ 50.0701.00	BA		
School of Music (2060)					
VP	Music Education	13.1312.00		MMED	
VP	Music	50.0901.00	BA/BM		
VP	Fine Arts - Music	~~50.0901.00~~ *50.0101.00			PHD
VP	Musicology	~~50.0905.00~~ 50.0901.00		MM	
VP	Performance	~~50.0903.00~~ 50.0901.00	BM	MM	DMA
VP	Composition	~~50.0904.00~~ 50.0901.00		MM	DMA
VP	Music Composition	~~50.0904.00~~ 50.0901.00	BM		
VP	Music Theory	~~50.0904.00~~ 50.0901.00	BM	MM	
VP	Conducting	~~50.0906.00~~ 50.0901.00			DMA
VP	Music Piano Pedagogy	~~50.0907.00~~ 50.0901.00			DMA
VP	Pedagogy	~~50.0912.00~~ 50.0901.00		MM	
Department of Theatre & Dance (2833)					
VP	Dance	50.0301.00	BA		
VP	Fine Arts - Theatre Arts	~~50.0501.00~~ *50.0101.00			PHD
VP	Theatre Arts	50.0501.00	BA/BFA	MA/MFA	
VP	Theatre Arts - Design/Technology	~~50.0502.00~~ 50.0501.00	BFA		
VP	Theatre Arts - Design	~~50.0502.00~~ 50.0501.00		MFA	
VP	Theatre Arts - Playwriting	~~50.0504.00~~ 50.0501.00		MFA	

VP	Theatre Arts - Acting	~~50.0506.00~~ 50.0501.00	BFA		
VP	Theatre Arts - Performance and Pedagogy	~~50.0506.00~~ 50.0501.00		MFA	
VP	Theatre Arts - Theatre Management	~~50.0508.00~~ 50.0501.00		MFA	

*VP Fine Arts *50.0101.00 PHD

THECB CIPs

50 .07 **Fine and Studio Arts**

50 **.0701** .00 03 Art/Art Studies, General

50 .01 **Visual and Performing Arts, General**

50 .0101 .00 03 Visual and Performing Arts, General

50 .09 **Music**

50 **.0901** .00 03 Music, General

50 .05 **Drama/Theatre Arts and Stagecraft**

50 **.0501** .00 03 Drama and Dramatics/Theatre Arts, General

College of Visual & Performing Arts (2936)					
School of Art (0310)					
VP	Art Education	13.1302.00		MAE	
VP	Fine Arts	50.0101.00			PHD
VP	Art	50.0701.00	BA/BFA	MFA	
School of Music (2060)					
VP	Music Education	13.1312.00		MMED	
VP	Fine Arts	50.0101.00			PHD
VP	Music	50.0901.00	BA/BM	MM	DMA
Department of Theatre & Dance (2833)					
VP	Dance	50.0301.00	BA		
VP	Fine Arts	50.0101.00			PHD
VP	Theatre Arts	50.0501.00	BA/BFA	MA/MFA	

GUIDELINES FOR COURSE APPROVAL REQUESTS

(As amended September 23, 2010)

Office of the Provost

Approved by Academic Council 9/21/2010

The following guidelines are intended to orient college and department faculty and staff about the information to be provided for new course requests and requests for a change in title, description, prerequisite, hours, etc. for existing courses. The information requested will provide the various committees that consider course approval requests with the background material they need to properly evaluate such requests. It should be noted that the purpose of review for new course and course change requests is to (1) insure that courses meet standards of rigor and intellectual content consistent with the level of instruction at which they are to be offered, (2) to insure that departments and colleges have the faculty and other resources available to manage effectively the added course load, (3) to avoid proliferation of courses, (4) to resolve any potential conflicts that might develop as a result of course or program duplication

1. All requests for new courses or changes to existing courses must be submitted using the Course Approval Form available on the Institutional Research and Information Management (IRIM) website at: http://www.irim.ttu.edu/CourseInventory.php. The information provided on these forms is used to add a new course to the course inventory and to develop catalog copy. (Requests for graduate courses should also complete the Additional Graduate Course Approval Form.)
2. All new course requests must indicate whether a course fee is to be assigned to the course by checking the appropriate box on the Course Approval Form. If a fee is to be assigned, the request must be accompanied by the Course Fee Request form that is attached to the Course Approval Form..
3. All new course requests should also include the following information:
    a. The proposed Classification of Instructional Programs (CIP) code for the new course. CIP codes are listed on the IRIM website at: http://www.txhighereddata.org/Interactive/CIP/.
    b. A course syllabus that contains sufficient detail so that members of oversight committees will be able to determine the topics covered in the course. The syllabus should include appropriate student learning outcomes and assessments.
    c. An explanation of why the new course is being proposed, including how it fits into existing or proposed degree programs, estimated enrollment, frequency at which the course will be offered and any additional information that will help the committee evaluate the need for the new course. Refer to the program strategic plan, graduate program review, accreditation reports and similar documentation as appropriate to support course approval requests.

d. A statement by the department or college making the request that financial and faculty resources are adequate to support the new or modified course.
e. If the program proposing a new course offers an undergraduate course that covers similar topics, explain how the graduate course will differ: what additional topics will be considered, how will the graduate course probes more deeply into the topic, how will the approach be different (i.e., theoretical rather than descriptive, greater emphasis on problem solving, focus on applications rather than basic information, etc.).
f. Indicate what courses, if any, the proposed course will replace and provide a projection for their deletion from the curriculum.
g. If the course has been taught as a topics course, indicate the semesters and enrollment for the semesters taught.

4. If this course covers material similar to what is offered by other departments such as statistical methods, research techniques, ethics, leadership, or teaching methods, provide an explanation for why students cannot take the existing course to fulfill the requirement the proposed course would satisfy.
5. Any additional information that may help review committees to evaluate the need for the proposed new course.
6. For proposals to make a substantive change in an existing course such as a change in title, description, number of hours, adding non-credit labs or recitations, please provide a clear and complete explanation for why the change is necessary, including how the modification will contribute to the educational program(s) of the area proposing the change. Typically, such explanations would refer to recent developments in the field that require different approaches and/or course content, removing outdated or obsolete material, or incorporating new terminology.

Definitions:

A cross-listed course is one that is taught under two separate numbers (i.e., HIST 4327/WS4327 Gender, Race, and Class in United States Law) with the same instructor(s) in the same classroom at the same time.

A dual-listed class is taught by separate instructors and at different times (which could be in the same semester or not) in different classrooms. I.e., different courses but with enough content duplication that students should not receive credit for taking both courses (i.e., ENGR 1315, Introduction to Engineering/M E 1315, Introduction to Mechanical Engineering). One or the other may be taken for credit, not both.

A piggyback course is a pair of courses, one upper-level undergraduate (3000 or 4000) and the other graduate level (5000) that are taught by the same instructor in the same classroom, but with distinct and significantly more rigorous requirements for the graduate students than for the undergraduate students, including reading assignments, examinations, papers and other written work.

Dr. Stewart,

A “P” grade has no GPA points attached to it. So… if a student takes a course and earns a “D” grade and then subsequently retakes the courses pass/fail and earns a “P” grade, we cannot replace the “D” with the “P” grade. The “D” grade is punitive and counts into GPA. The “P” grade is non-punitive and does not count into GPA.

This is not addressed in the Grade Replacement Policy on page 55 of the 2010-2011 TTU catalog.

Can we make this a discussion/approval item at the next Academic Council? Thank you!

Bobbie Latham
Registrar
Texas Tech University
(806) 742-1183 ext. 247

Dr. Stewart,

Also… another clarification…

We know a student enrolled as Second Degree cannot replace a grade taken in the first degree with a course taken during second degree. The clarification is needed (and perhaps added to the catalog), that a second degree student MAY replace a grade on a course taken during the second degree.

Confusing, right?

Bobbie Latham
Registrar
Texas Tech University
(806) 742-1183 ext. 247

1 September 2010

Proposal: Doctorate in Curriculum and Instruction (PhD): Curriculum Studies/Teacher Education Concentration— Blended Delivery

Department of
Curriculum and Instruction
College of Education
Texas Tech University

Spring 2010

Proposal: PhD in Curriculum & Instruction
Curriculum Studies/Teacher Education Concentration
Web-based Delivery

I. Summary of the Request

A. Degree Program Area

Curriculum & Instruction

B. Degree Title Designation (e.g., PhD, EdD, etc.)

PhD

C. Program Delivery

The program will be a blended format, with a majority of the program delivered online through web-based technologies. New cohorts will attend a 2-day on-campus orientation at TTU in Lubbock. In addition, cohorts will attend an annual on-campus intensive two-week session during the summer the first three years of the program. The orientation will familiarize students with the educational resources of the University, research-oriented philosophy of the program, program requirements, faculty members, and campus-based PhD students. Students' questions will be answered in cohort meetings and individual students will meet with their advisors to complete the paperwork for their programs of study, explore research opportunities with faculty, and develop initial plans for research projects and/or dissertations.

The proposed blended delivered PhD will normally include only those students admitted into the distance cohort. Before an occasional exception is made to this guideline, the program coordinator, department chair, and professor of record for the course will discuss the merits of the request. The proposed program will not impact the current on-campus PhD program, which is a robust graduate program, with 22 students in the Spring 2010.

D. Program Site

The program will be delivered in a blended format, predominantly through web-based technologies. It will not be restricted to delivery at specific site locations, except when cohorts meet briefly each summer in Lubbock. All courses will originate from Texas Tech University's Lubbock campus, the College of Education and, in particular, the Department of Curriculum and Instruction. All summer intensive sessions will occur at the same location.

II. Reason for Request

A. Program Need

The need for and the benefits of the program may be examined from several perspectives and in reference to P-12 school students, aspiring and existing P-12 educators, future and existing education professors, and the University. First, the program is needed because it will provide an invaluable opportunity for education professionals to earn doctorates without having to resign or request leaves from their places of employment. In turn, the program of studies will provide a larger cadre of educators with a depth of understanding that professionals need to address the issues that are facing P-12 schools and teacher education programs in the areas of curriculum planning, analysis, development, design, delivery, assessment, evaluation, and accountability. Second, the program will exhibit to others that the College of Education, Texas Tech University sees itself as a partner in the efforts to provide professional growth for P-12 staff members and, thereby, and to provide a better education for P-12 student populations, including currently underserved and underachieving students. Likewise, it will reflect the interest that the University has in providing opportunities for career changes and advances for both P-12 schools and existing and aspiring higher education faculty members. Third, the program will enable the Department of Curriculum and Instruction to recruit a more diverse doctoral student population from across the state. This advantage is invaluable because it will allow students to pursue the doctorate in preparation for careers as teachers, researchers, and leaders in the field of curriculum and, thereby, to enhance the work of the state's schools, colleges, and universities. Fourth, the program has an emphasis on both qualitative and quantitative research methods and design and will prepare a steady stream of capable researchers who will conduct research on timely issues and in critical subject areas in the field of P-12 schooling and teacher education. In order to accomplish this goal, a rigorous set of research courses is required. In addition, research projects are strategically located in courses throughout the program, culminating in a dissertation. The research that graduates pursue will, in turn, be used to help create new and improve existing interventions and strategies to address the needs of P-12 students, aspiring and existing teachers, and future and practicing teacher educators. Finally, the program will provide the opportunity for the Department of Curriculum and Instruction, the College of Education, and Texas Tech University to reach its goal of an expanded graduate and research presence and influence in the state.

The need for the program may also be seen when current PhD programmatic offerings are examined. For example, there are currently six universities in the state offering the doctorate in Curriculum and Instruction. These institutions are listed below:

Institution	Department	Degree
Texas A&M University College Station	Curriculum and Instruction	EdD

Texas Tech University	Curriculum and Instruction	PhD
University of North Texas	Curriculum and Instruction	PhD and EdD
University of Texas Austin	Curriculum and Instruction	PhD and EdD
Baylor University	Curriculum and Instruction	EdD
University of Houston	Curriculum and Instruction	EdD

Each of these programs is a face-to-face program that requires traditional on-site attendance. Consequently, there are no predominantly web-based programs available within Texas public universities in the program area of Curriculum and Instruction.

The following for-profit institutions, however, do offer a doctorate in Curriculum and Instruction through distance education:

- eLearners.com (EdD in Curriculum and Teaching)
- University of Phoenix (EdD in Curriculum and Instruction)
- Capella University (PhD in Curriculum and Instruction)
- North Central University (PhD and EdD in Curriculum and Teaching)
- Liberty University Online (PhD in Teaching and Learning)

These institutions offer programs that are sometimes fiscally and substantially different from the proposed program. The proposed program will usually be considerably less expensive for Texas residents than are most of the previously identified institutions. In addition, the aforementioned programs differ in philosophy from the proposed program. For instance, the proposed program is designed to develop curriculum specialists who have very strong research skills and who are capable of contributing to the body of original research that will help schools better educated underserved populations and enable teacher preparation programs to better prepare future and practicing teacher to effectively teach underachieving P-12 students. The institutions listed above are primarily preparing their students to be classroom teachers, district curriculum leaders, and university teachers. While the proposed program will have graduates who are involved in these matters, they will have the added strengths of being researchers who will help change the knowledge base of educators and the way they conduct their classes, design their courses, and pursue accountability standards.

B. Program Demand: Statistical Data Related to Job-Demand

Curriculum Studies/Teacher Education (hereinafter referred to as Curriculum Studies) is not a category of "job" identified by either the Bureau of Labor Statistics (Federal) or the Texas Workforce Commission. However, a category relevant to the proposed PhD program is "Postsecondary Teachers." According to projections from the Bureau of Labor Statistics, an overall growth in openings for these positions is likely to exceed 370,000 by 2016. Within this broad category, over 90% will require

workers to hold a PhD in their field. This category represents one of the fastest growing, highest demand fields in the economy. This trend holds true for the State of Texas as well. According to Texas Workforce Commission projections, the demand for postsecondary teachers is likely increase by 6,000 jobs per year, resulting in the need for nearly 40,000 workers in Texas by 2016. Overall projections for this career track, therefore, are good, and present opportunities in both traditional academic roles, as well as other opportunities in the profession.

Focusing on the proportion of these jobs likely to need a worker with a PhD in Curriculum Studies, indirect indicators suggest that this degree will be a valuable commodity both in the education and professional sectors. For example, within the State of Texas, growth in demand for P-12 teachers is also expected to increase by over 24,000 annually resulting in a cumulative demand for P-12 teachers that exceeds 100,000 in 2016. Preparation of teachers for P-12 settings represents one of largest proportion of job-related activities associated with an advanced degree in Curriculum Studies, and therefore suggests that graduates of the proposed online PhD in Curriculum Studies are likely to find positions readily available within the State of Texas alone.

In addition, however, opportunities in the broader professional sector are also likely to be available to graduates of the proposed program. Private companies and government agencies, which also project growth, will be in need of both initial and ongoing training and professional development for workers and customers alike. Many of these training demands will include in-person activities, but a growing number are likely to include instructional design and curriculum development suitable for distance and self-paced training. For example, a stockbrokerage firm that acquires smaller companies and retrains workers will be in need of trainers, developers, and evaluators. The individual with a PhD in Curriculum Studies would be poised to fill this potential need.

In addition to the needs analysis conducted using employment forecasts, P-12 school personnel in two Central Texas locations were contacted about their interesting in completing a course of studies leading to a PhD in Curriculum Studies. The results of this survey are presented below.

Method

Participants

A total of 94 individuals responded to the survey of interest. Of those, 66 (70%) indicated a high to moderate interest in pursuing a PhD in Curriculum Studies. By far, teachers provided the greatest number of responses to the survey. The greatest numbers of respondents (83%) are located in the South Texas Plains (south of San Antonio), followed by a smaller number in the Hill Country (15%).

Approximately 50% reported holding a bachelor's degree, 44% reported holding a master's degree, and 5% reported holding multiple master's degrees. None of the

respondents reported that they had earned an EdD or PhD, though 46% did say that their long-term educational ambitions did include earning a doctorate degree.

Instrument

A needs survey was developed to evaluate educators' interest in an online PhD program in curriculum and instruction. This survey was a three-part, branching questionnaire that included two questions directly about respondents' interest in earning a PhD, five questions about demographic information, and eight questions about their perceptions of program features that would be influential in helping them decide to pursue a terminal degree.

In the first section, participants rated their likelihood of pursuing a PhD in Curriculum and Instruction, and also their likelihood of pursuing this same degree if it were offered online. Participants rated their interest to both questions on a 10-point scale ranging from 0% to 100%. In the second section, participants provided demographic information related to their current work role in education, their level of education, and their geographic location in Texas. Finally, participants were asked if they would like to receive more information about this program should it develop, and were given a space to enter their email address. Over 50% of those indicating interest in the program of study responded affirmatively to receiving additional information.

In the third section, participants responded to eight questions concerning the importance of specific factors in influencing their decision whether or not to pursue the course of study. A preliminary exploratory factor analysis (EFA) was conducted on the 66 available responses, but given the small sample-size, the structure of this solution should be interpreted with caution. Results from the EFA revealed a three-factor solution accounting for 60% of the variance [F1 Upward Professional Mobility = 31.5%; F2 Relevance = 16.01%; F3 Cost & Role = 12.58%] with the first factor representing the most interpretable factor. An examination of the internal consistency of the subscales again suggests that the first factor was most salient to respondents.

Procedure

Two school leaders in regions of Texas and with whom C&I faculty have professional affiliations were contacted and asked to distribute the survey to their faculty and staff. These leaders then distributed an email requesting participation, indicating the purpose of the survey, and emphasizing that participation was completely voluntary. The survey remained "live" for approximately three weeks, during which time 99 participants responded. Respondents who indicated little interest (< 30%) in pursuing a PhD in Curriculum Studies were sent to an "ending" page where they were thanked and exited from the survey. Participants indicating a moderate to high interest (> 30%) were sent to the demographics and perceptions portion of the survey.

Results

Incentive of On-line Program

A paired-sample *t* test was conducted on the first two items of the questionnaire (i.e., interest vs. interest if online) in order to examine the degree to which the online feature of the proposed program affected participants' interest in pursuing a PhD in Curriculum & Instruction. Results from this analysis revealed a statistically significant difference [t (68) = 7.35, $p < .01$; interest = 55% vs. interest if online = 70%). These results suggest that an online version of the PhD program would be of greater interest than a traditionally offered program.

Differences in Interest by School Role

Next, a one-way ANOVA was conducted to examine possible differences in interest based on school role (i.e., teacher, administrator, counselor). Results from this analysis indicated no statistically significant differences [interest = F (2, 65) = .063, p = .93; online = F (2, 65) = .76, p = .46]. This result indicates that no statistically significant differences exist in interest based on role, however an examination of means seems to indicate that having an online option did increase interest for both teachers and administrators, but not of school counselors. As was noted before, the result from comparisons with small sample size should be interpreted with caution.

Discussion

The purpose of this survey of interest was to determine the extent to which offering a PhD program of studies in Curriculum & Instruction would be of greater interest in offered in an online format. The findings from this examination seem to indicate that a fairly sizeable portion of school personnel are interested in pursuing a PhD in Curriculum & Instruction, and that the option of completing these studies in an online format increases their interest in the program. The fact that few differences were found between roles (i.e., teacher vs. administrator) seems to suggest that the program would be of interest to a wide variety of school personnel. The low reliability of the "importance" questionnaire, however, makes it difficult to interpret the reasons why participants are interested.

C. Program's Role

Texas Tech's mission statement reads:

Committed to teaching and the advancement of knowledge, Texas Tech University, a comprehensive public research university, provides the highest standards of excellence in higher education, fosters intellectual and personal development, and stimulates meaningful research and service to humankind.

The proposal for a blended format doctorate in Curriculum Studies continues a long tradition of distributed learning at Texas Tech, which was founded with the purpose of increasing access to higher education opportunities for Texas residents. Texas Tech continues to fulfill this mission through targeted distributed degree program development that meets the needs of adult learners.

Texas Tech University has an opportunity to offer a distinctive program for this region of the United States. A number of distributed programs exist for K-12 administration. However, as noted above, no curriculum studies programs have been approved for distance delivery in Texas.

III. Program Description

A. Program Construction

Texas Tech's Curriculum Studies program faculty members propose to offer a blended format PhD program for P-12 and, occasionally, college or university personnel. The degree program was chosen because it is a program that emphases studies in areas that are crucial to the development of existing school teachers and curriculum leaders as well as those who wish to become or become better prepared college and university professors. The orientation of the coursework in a PhD program is to provide advanced studies for individuals who seek to become leaders in the areas of curriculum planning, analysis, development, design, delivery, assessment, evaluation, and accountability. The program's primary focus is the preparation of curriculum specialists or leaders who are both informed and reflective about the importance of P-12 curricula and teacher preparation programs.

Because participants will enter the PhD program with a master's degree, the minimum curricular requirements will consist of advanced doctoral courses, quantitative and qualitative research methods courses, and foundation courses. Students will take courses over a three-year period followed by a qualifying examination, admission to doctoral candidacy, and the completion and defense of a dissertation. Students who may not have completed the expected master's level courses will need to complete these prerequisites, too. These courses will be identified by the student's advisor and added to the student's program of study.

The PhD is a 96-hour degree and is described, in part, below.

Prerequisites

Prerequisites include a master's degree that may transfer up to 30 semester hours toward the PhD. Of these 30 hours, 15 hours may be counted toward the Electives or Minor in the PhD program, 9 hours must be taken in Core Courses (a course in diversity studies plus two courses in philosophical, historical, cultural, psychological, political, global, or aesthetics studies), and 6 other hours, including 3 hours in curriculum theory or development and 3 hours in elementary statistics. All prerequisite courses must be completed by the end of the second year of study. Students who lack an elementary statistics course must complete the course by the end of the first year of doctoral study.

Research Core (12 semester hours required)

EPSY 5381	Intermediate Educational Statistics
EPSY 5385	Foundations of Educational Research
EDCI 5386	Constructive Inquiry Methodologies
EDCI 6382	Advanced Field Methods

Curriculum Studies Courses (42 semester hours required)

EDCI 5306	Popular Media & Culture: Communicating Curricular Information to the Public
EDCI 5321	Curriculum Theory: Design & Development
EDCI 5330	Ethics & Teaching
EDCI 5333	Improving the Teaching of Thinking
EDCI 5335	Models of Teaching
EDIT 5370	Foundations of Distance Education
EDCI 6320	Curriculum Theory: Inquiry
EDCI 6331	John Dewey's Theory of Education
EDCI 6333	Diversity Ideologies
EDCI 6306	Curriculum Studies Research
EDCI 6306	Curriculum Evaluation for Improvement and Accountability
EDCI 6393	Advanced Practicum I & II (6 hours)
EDCI 7000	Designing the Dissertation

Doctoral Dissertation (12 semester hours required)

EDCI 8000 Dissertation

Total Hours 96 hours (66 hours plus 30 hours of prerequisites)

B. Administrative Oversight

Oversight for this program is the responsibility of the full-time Curriculum Studies program faculty in the College of Education. Institutional oversight and support will be provided as is granted for all academic programs at the university from the College of Education, University College (formerly College of Outreach and Distance Education), Office of the Provost, and the Distributed Learning Council.

All distance courses will be developed in the current technologies available for web-based delivery at Texas Tech. These currently include BlackBoard™, Captivate, Adobe Presenter™, Sonic Foundry ™, and Codian™ IP VCR. The program may also adopt Second Life (provided by the TTU Second Life server) for synchronous instructional interactions. Faculty assigned to specific courses will adopt platforms and tools that fit their pedagogical requirements for course content delivery, student interaction, and faculty-student interaction. Additional multimedia will be added to each course as determined by the respective faculty member, along with recommendations from the TTU Teaching, Learning and Technology Center (TLTC) Instructional Design Team and the University College staff. Technical limitations of broadband access of students enrolled in the program will be a consideration during development of courses. Student-to-student and faculty-to-student interactions will be incorporated both synchronously and asynchronously.

All courses in this program will be peer-reviewed through Quality Matters™ by a trained internal assessor as an ongoing quality assurance process for web-based courses at Texas Tech University. The TLTC at Texas Tech sponsors the Quality Matters™ Program which is a nationally recognized peer-review process designed to provide an inter-institutional quality assurance program for online courses. The Quality Matters™ program provides a method of certifying Texas Tech University web-based courses as meeting nationally held standards for online instruction.

Required on-site intensive sessions will be held each summer on the TTU Lubbock campus for the first three summers of each cohort's studies. The on-site component will consist of a two-week session, including completion of one three credit hour course delivered through face-to-face, web-enhanced modalities. These sessions will provide social interactions to create cohesiveness among the student cohort, as well as provide a focus on the research components of doctoral work, successful dissertation completion, and current topics in Curriculum Studies. These sessions will be conducted in full-day conference context.

Courses in the PhD in program are expected to enroll between 15-18 students per course. The faculty-to-student ratio in the doctoral program is currently approximately one faculty member to two PhD students and this ratio is expected to increase to one faculty member to four PhD students as cohorts are admitted and new faculty members are added to the program. This ratio is conducive to maintaining high expectations for both faculty and students.

Because this program will be a blended delivery of the current PhD program being offered at the Texas Tech Lubbock campus, all administrative measures to ensure program quality of the existing program will remain in place. The Graduate School and Council oversees an academic program review for graduate degree programs, which includes every degree program on a six-year rotation cycle. In accordance with Texas Tech Operating Policy 10.13, the PhD in Curriculum and Instruction program faculty have established course-level and program-level student learning outcomes and assessment plans. Annual documentation of assessment findings and use for improvement is captured in TracDat. This assessment data will be used to improve the program. As the program faculty review assessment data collected from cohorts, appropriate adjustments will be made.

C. Administrative Structure

The PhD in Curriculum and Instruction is already an approved and existing program at Texas Tech University. This proposal is requesting an alternative delivery method through distributed learning to off-campus cohorts of students. All administrative measures to ensure program quality of the existing program, as well as the alternative delivery method, will remain in place. Oversight for this program is the responsibility of the full-time Curriculum Studies program faculty, Department of Curriculum and Instruction, College of Education Graduate Faculty. Support for distance and off-campus programs is provided by the Department of Curriculum and Instruction, College of Education, University College, Office of the Provost, and the Teaching, Learning and Technology Center.

The distance PhD program in Curriculum Studies will have a program coordinator. The individual designated is Margaret Price, PhD, Associate Professor of Curriculum and Instruction. She is a full-time faculty member in the program and she will be released for two courses per semester to oversee the blended program. She reports to Walter Smith, PhD, Chair, Department of Curriculum and Instruction.

IV. Relationship to Existing Authorized Doctoral Programs

A. Relationship between Proposed Distance Education Program and Existing On-campus Program

With the exception of delivery modality, the program will be comparable to the existing face-to-face program. The Curriculum and Instruction program faculty is committed to a rigorous and high quality program regardless of the location of the student.

B. Student Interaction

Curriculum and Instruction program doctoral students in the blended program will interact in a variety of ways, with each other and with on-campus students. Students

will attend three summer sessions on the TTU Lubbock campus as a cohort, and will be provided synchronous and asynchronous communication tools to interact with faculty and students. The integrated use of face-to-face and technology-assisted teaching will enable program faculty to: (1) better serve the needs of students throughout Texas interested in obtaining academic and professional preparation in Curriculum Studies; (2) deliver program course content to the doctoral cohort more efficiently and effectively through web-based technologies; and (3) expand and enhance students' practical knowledge and skill levels regarding applied uses of distance learning technologies in the field of Curriculum and Instruction. When cohorts are on campus for face-to-face studies, they will interact with campus-based students in for two weeks in social settings, formal group discussions, and assigned mentoring sessions. Moreover, student-to-student interaction will occur via a variety of means, for example**,** tools such as Skype, Microsoft Office Communicator, Twitter, Facebook, wikis, listservs, Second Life, threaded discussions, and blogs will be used to enhance interaction. Cohorts will also be a part of the Education Graduate Student Organization which is committed to serving all of its members

Texas Tech conducts an annual survey of distributed students' communication preferences. Entitled the "Distance Learning Communication Survey," the survey addresses preferred communication methods between students and students, faculty and students, and student and content. In its fourth year of administration, students have consistently identified "e-mail" as their preferred communication method for student-to-student interaction. This preference will be honored with regular e-mail correspondence.

Students will also interact on campus during the intensive sessions. In annual reports filed by the program faculty for the PhD in Technical Communication and Rhetoric, students identify the on-campus intensive sessions as the single most valued interaction time in their program. During these intensive sessions, workshops will be held in the morning. During lunch, faculty will present research-in-progress and guest speakers will be featured. During the afternoons, students will focus on coursework, meeting with their committees, and IRB proposal preparation. In the evenings there will be opportunities for informal interactions with other cohort members and on-campus students. Some gatherings will be planned around topics of common interest.

Students will also be provided opportunities to participate in the Education Graduate Student Organization (EGSO). Each fall the program will hold a virtual event for all students (on-campus and distance) during which they will able to interact and share experiences. This may take place in Second Life.

V. Expected Enrollment

A. Anticipated Head Count

In the spring of 2010, there were 22 PhD students who were at varying stages of course work and degree completion in Curriculum Studies. With the approval of the blended program, it is expected that an average of 15-18 new students will comprise the distance cohort. A new distance cohort will be admitted into the blended program on alternating years. Cohorts will be comprised of only distance education students.

B. Impact on Existing Face-to-face Program

The proposed program will increase the enrollment in the Curriculum Studies program considerably. Students will be admitted to the program as a cohort. Each cohort will consist of 15-18 students. It is anticipated that the current PhD students will elect to take some coursework through distributed learning, which has been the case in all of Texas Tech's distributed master's and doctorate programs. These students will be accommodated as capacity allows. Should on-campus students seek face-to-face only courses, they will be accommodated through the existing curricula offered.

It is projected that this program will add an additional 15-18 students to the program every year. This is a significant increase that will require support from Texas Tech University. The College of Education and University College have committed to supporting this program with the following resources:

The College of Education has committed to providing two new full-time tenure track faculty, one appointed in Year 1 of the program and the second in Year 3. A unit administrative coordinator will be hired to administer non-teaching activities. The person in this position will be responsible for coordination of the blended program under the supervision of the program coordinator. This position will provide support to the program coordinator, faculty, and students. Four graduate assistants will also be hired to support the distance program.

In addition, the University College has committed resources to help faculty with course development and marketing of the program.

C. Student Projections

A consistent enrollment of 15 students every year will make it feasible to offer this program. Based on the results of the Needs Assessment, the demand for admittance into the cohort program will exceed the program's ability to provide space given the interest that has been discovered by the program's survey. If the program develops in the planned fashion, resources become available to accept a cohort each year (rather than on alternate years), and programmatic excellence can be ensured,

faculty will examine the possibility of expanding the number of cohorts to one each year.

In addition to the high interest that was manifested in the program's survey results of the needs assessment, the Bureau of Labor Statistics and the Texas Workforce Commission's data indicate that there will be a high need in the area for at least the next 20 years. Given these data, there are good reasons to believe the projection of 15 to 18 students admitted per year will be easily met.

VI. Faculty and Related Resources

A dozen full-time tenured or tenure-track faculty teach in the Curriculum Studies program. The addition of two additional faculty members will enable cohort students to be served well as well as face-to-face students.

A. Full-time Tenure/Tenure-Track Curriculum Studies Faculty

Mary Frances Agnello, PhD, Texas A&M University
Associate Professor

Dr. Agnello teaches courses in the areas of diversity, policy, critical pedagogy, and action research. Her teaching experience includes face-to-face, blended, and online courses. She will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Agnello's regular online instructional responsibilities include
teaching the following courses:

EDCI 6320	Curriculum Theory: Inquiry
EDCI 6331	John Dewey
EDCI 6333	Diversity Ideologies
EDCI 8000	Doctor's Dissertation

Zenaida Aguirre-Muñoz, PhD, University of California, Los Angeles
Associate Professor

Dr. Aguirre-Muñoz teaches courses in the areas of assessment, evaluation and second language learning. Her teaching experience includes face-to-face and hybrid courses. Dr. Aguirre-Muñoz will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Aguirre-Muñoz's regular online instructional responsibilities include teaching the following courses:

EDBL 5334	First and Second Language Acquisition
EDCI 8000	Doctor's Dissertation

Fanni Coward, PhD, University of Texas
Assistant Professor

Dr. Coward teaches courses in the areas of curriculum theory and design. Her teaching experience includes face-to-face and online courses. Dr. Coward will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Coward's regular online instructional responsibilities include teaching the following courses:

EDCI 5310	Instructional Theory & Design
EDCI 8000	Doctor's Dissertation

Doug Hamman, PhD, University of Texas
Associate Professor

Dr. Hamman teaches courses in the areas of instructional design and curriculum evaluation. His areas of scholarship include teachers' professional identity, and factors that impact new teachers' resilience. Dr. Hamman will serve in the role of faculty member, student advisor, and chair/member of dissertation committees. Although other program faculty will sometimes teach the courses listed below, Dr. Hamman's regular online instructional responsibilities include teaching the following courses:

EDCI 5306	Curriculum Evaluation for Improvement and Accountability
EDCI 6306	Research in Teacher Identity: Implications for Induction and Attrition
EDCI 8000	Doctor's Dissertation

Peggy Johnson, PhD, University of Florida
Associate Professor

Dr. Johnson teaches courses in literacy and social studies education. Her research interests are in teacher education, literacy education, and global education. She has taught face-to-face courses, on-line courses, and has conducted faculty led study abroad experiences. She will serve in the roles of faculty member, student advisor, and dissertation committee chair/member.

EDCI 8000	Doctor's Dissertation

Mary Cain Fehr, PhD, Texas Tech University
Assistant Professor

In addition to being Associate Director of the Teaching, Learning, and Technology Center one-half time, Dr. Fehr teaches courses in the areas of curriculum theory and innovation, and pedagogy. Topics of culture and diversity, technology, and the role of creativity and critical thinking are woven throughout her teaching. Dr. Fehr's teaching experience includes face-to-face, hybrid, and online courses. She will serve

in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Fehr's regular online instructional responsibilities include teaching the following courses:

EDCI 5321	Curriculum Theory: Design and Development
EDCI 6320	Curriculum Theory: Inquiry
EDCI 5306	Seminar: Creativity in the Curriculum
EDCI 8000	Doctor's Dissertation

Sally McMillan, PhD, Louisiana State University
Associate Professor

Dr. McMillan's research interests include curriculum theory, research methodologies, and secondary literacy issues. Although the courses listed below will sometimes be taught by other program faculty, Dr. McMillan's regular online instructional responsibilities include teaching the following courses:

EDCI 5386	Constructivist Inquiry Methodologies
EDCI 6320	Curriculum Theory: Inquiry
EDCI 8000	Doctor's Dissertation

Barbara Morgan-Fleming, PhD, University of Arizona
Associate Professor

Dr. Morgan-Fleming's research interests include classroom performance of curriculum and informal aspects of teachers' knowledge. She has taught field based methods courses at Wheatley Elementary School for eight years, and has recent publications in Curriculum Inquiry, the International Journal of Social Education, social Studies, and the Educational Forum. Although the courses listed below will sometimes be taught by other program faculty, Dr. Morgan-Fleming's regular online instructional responsibilities include teaching the following courses:

EDCI 5306	Popular Media & Culture
EDCI 5321	Curriculum Theory: Design and Development
EDCI 6320	Curriculum Theory: Inquiry
EDCI 8000	Doctor's Dissertation

Susan Myers, EdD, University of West Florida
Associate Professor

Dr. Myers teaches courses in the areas of curriculum theory and design. Her teaching experience includes face-to-face, blended, and online courses. She will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Myer's regular online instructional responsibilities include teaching the following courses:

EDCI 5321	Curriculum Theory: Design and Development
EDCI 5333	Improving the Teaching of Thinking
EDCI 5335	Models of Teaching
EDCI 6393	Advanced Practicum
EDCI 8000	Doctor's Dissertation

Margaret A. (Peggie) Price, PhD, Texas A&M University
Associate Professor

Dr. Price teaches courses in the areas of curriculum, teaching, qualitative research foundations, and qualitative field methods. Her teaching experience includes face-to-face and hybrid courses. Dr. Price will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Price's regular online instructional responsibilities include teaching the following courses:

EDCI 5386	Constructivist Inquiry Methodologies in Curriculum and Instruction
EDCI 5380	Action Research
EDCI 5381	Action Research II
EDCI 6382	Advanced Field Methods in Constructivist Inquiry
EDCI 8000	Doctor's Dissertation

Douglas J. Simpson, PhD, University of Oklahoma
Professor

Dr. Simpson teaches courses in the areas of curriculum, teaching, educational theory and ethics and teaching. His areas of scholarship include studying questions that have an immediate and direct bearing on the work of teachers. His teaching experience includes face-to-face, hybrid, and online courses. Dr. Simpson will serve in the role of faculty, student advisor, and chair/member of dissertation committees. Although the courses listed below will sometimes be taught by other program faculty, Dr. Simpson's regular online instructional responsibilities include the following courses:

EDCI 5330	Ethics and Education
EDCI 6320	Curriculum Theory: Inquiry
EDCI 6330	John Dewey's Theory of Education
EDCI 8000	Doctor's Dissertation

Reese H. Todd, PhD, University of Oklahoma
Associate Professor

Dr. Todd teaches courses in the areas of social studies education, curriculum and instruction, and global awareness. Her teaching experience includes face-to-face and hybrid courses with field-experiences and community service-learning components.

Dr. Todd will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Instructional responsibilities include

EDEL 6360 Seminar: Social Studies Education
EDEL 7000 Independent Studies in Community Service-Learning
EDEL 8000 Doctor's Dissertation

Trenia Walker, EdD, University of Houston
Associate Professor

Dr. Walker teaches courses in the areas of social, cultural, and global studies. Her teaching experience includes face-to-face, blended, and online courses. She will serve in the roles of faculty member, student advisor, and dissertation committee chair/member. Although the courses listed below will sometimes be taught by other program faculty, Dr. Walker's regular online instructional responsibilities include teaching the following courses:

EDCI 5306 Seminar: Popular Media & Culture
EDCI 6333 Diversity Ideologies

B. Supporting Faculty

William Lan, PhD, University of Iowa
Professor

EPSY 5380 Introduction to Educational Statistics
EPSY 5385 Foundations of Educational Research

Kamau Siwatu, PhD, University of Nebraska - Lincoln
Assistant Professor

EPSY 5380 Introduction to Educational Statistics
EPSY 5385 Foundations of Educational Research

Tara Stevens, PhD, Texas Tech University
Associate Professor

EPSY 5380 Introduction to Educational Statistics
EPSY 5381 Intermediate Educational Statistics
EPSY 5385 Foundations of Educational Research

Eugene Wang, PhD, Texas A&M University-Commerce
Assistant Professor

EPSY 5380 Introduction to Educational Statistics
EPSY 5381 Intermediate Educational Statistics
EPSY 5385 Foundations of Educational Research

In a few instances, some faculty members in other concentrations in Curriculum and Instruction will deliver coursework and will teach in fields directly related to their professional expertise. The exact number of other faculty cannot be determined at this time. However, the overwhelming majority of coursework will be delivered by full-time Curriculum Studies faculty members in the College of Education at Texas Tech University.

Faculty members who teach in the program participate in on-going training through the College of Education and TTU's Teaching, Learning, and Technology Center on many tools and formats utilized in instructional delivery. Through its Teaching, Learning, and Technology Center, Texas Tech offers numerous workshops and programs to enhance instructional expertise in technology-enhanced course delivery. Training is provided on all areas of technology use in instructional delivery. See http://www.tltc.ttu.edu/content/asp/Distance_Learning/index.asp for a description of the core faculty training program and the Quality Matters initiative at TTU.

Faculty developing online courses will partner with another member of the Curriculum Studies faculty to develop and review each course. Courses will be submitted for Quality Matters review after the second year of instructional delivery. In addition to the programs offered at the TLTC, the College of Education has a fully staffed technology support team well equipped to provide assistance in all aspects of instructional delivery.

The University College also provides training opportunities for faculty. One of these programs, the Distance Learning Community, meets twice a year to bring faculty coordinators together to address issues that are critical to the program coordinators' success, such as marketing, enrollment, library resources, student support services, technology infrastructure and innovation.

C. Equipment, Software and Connectivity Needs for Delivery of Program: Student and Institutional

All full-time program faculty will be provided laptops for course development and instructional purposes. The College of Education and Texas Tech University have invested in numerous software and hardware solutions. Sonic Foundry™ has recently been acquired in order to support video and course archiving in addition to the College's existing Codian archiving system. Blackboard, and other products will be incorporated into the program. Distance students can download Microsoft Office and other software from the TTU website at no cost. Second Life will be an option for holding virtual class meetings or virtual office hours at no cost to the students, whether they are held on the TTU Second Life Enterprise server grid or on the public Second Life grid.

D. Students Access to Library Resources: Print, Electronic, and Human

The Texas Tech Library provides on-line access to resource librarians as well as general information and digital collections. As with all graduate programs, Curriculum and Instruction is assigned a resource librarian, and students may communicate with her via e-

mail. Information is available at http://library.ttu.edu/services/subject_librarians/subject_librarians.php.

The Texas Tech Library has committed to providing services and library materials to students and faculty not physically present on the main University campus. The library resolves any problems faced by students and faculty who are at a distance from the campus and its information resources in an efficient and timely fashion. Distance learners have excellent access to materials through the following services:

- E-Reserve – a service that makes paper journal articles available
- Online, full-text journals from various providers
- Online databases; 181 databases from providers like Lexis-Nexis, First Search, & EBSCO
- Online reference materials
- Interlibrary Loan Services
- ILLYAD services will deliver electronic copies of journal articles to student email addresses.

Texas Tech's University Library's holdings are strong in Curriculum and Instruction and related fields. New publications will be added to the library holdings as they become available. The holdings include major research and scholarly journals in curriculum and instruction. All major research and scholarly publications are available, and the Texas Tech library is committed to providing services and library materials to students and faculty not physically present on the main University campus. See http://library.ttu.edu/index.php. This webpage provides information on all library services.

In addition, students will be encouraged to acquire a TexShare Card, at no cost. The TexShare Card is a statewide library card that allows students to access materials in participating libraries throughout Texas. For more information, visit www.texshare.edu .

VII. Financial Support

A. Anticipated Costs

The program faculty members already offer a number of course in online formats and are currently in the process of transitioning other selected courses into online formats. Most faculty members have previously taught in online formats. Additional support is available through existing resources funded by the College of Education, Teaching, Learning and Technology Center, and University College. Faculty members are allocated workload credit for their additional efforts the term prior to teaching an online course for the first time and during the first term of delivery. At this time, it is not anticipated that online instructional materials will be purchased from publishers or vendors; however, copyright payments will be allocated by the College of Education when needed.

The PhD in Curriculum Studies will be delivered across existing platforms that are supported by the Instructional Technology fee charged to all Texas Tech students.

Texas Tech is an Internet 2 institution and has an established network to support all of the adopted online platforms. The College of Education supports online instructional activity in all of its academic program areas, and delivers curriculum to students across the state, and has dedicated significant hardware and classroom and personnel resources for distance learning.

B. Budget

Any gap between program income and cost will be covered by TTU's College of Education during the first three years of the program. Two new faculty will be hired (one in year 1 and one in year 3) with regular lines assigned by the College of Education and Office of the Provost. Projections of costs and revenues predict that sufficient revenues will be generated by the end of year 3 to cover the costs of the program, as well as provide revenues for additional enhancements and expansion (see Appendices A and B).

C. Financial Support

Any gap between program income and cost will be covered by TTU's College of Education during the first three years of the program. Two new faculty will be hired (one in year 1 and one in year 3) with regular lines assigned by the College of Education and Office of the Provost. Projections of costs and revenues predict that sufficient revenues will be generated by the end of year 3 to cover the costs of the program, as well as provide revenues for additional enhancements and expansion (see Appendices A and B).

VIII. Additional Distance Delivery Considerations

A. Adherence to *Principles of Good Practice*

Texas Tech's Provost annually signs the "Criteria for Institutional Participation in and for Electronically Delivered Courses and Programs Listed on TexasDistanceEducation.com." This signature signifies the importance and commitment that the university, including the College of Education and Curriculum Studies program, places on excellence in teaching.

Moreover, Texas Tech affirms compliance with the standards established by The Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs. Operating Policies 36.01.2.e. and 36.04 specifically require the completion of compliance documentation.

http://www.depts.ttu.edu/opmanual/OP36.01.pdf
http://www.depts.ttu.edu/opmanual/OP36.04.pdf

Texas Tech's off-campus and electronic delivery portal, http://www.de.ttu.edu lists all electronically offered courses each term. Each faculty member is responsible for ensuring that a Principles of Good Practice form is filed for a course if it is to be delivered in 50% or more electronic format. Information about PGP compliance, the electronic PGP process and a list of courses with Principles of Good Practice on file can be found at http://www.depts.ttu.edu/distancelearning/facsupport.aspx . (The course listing is behind secured access for Texas Tech personnel). Course section offerings are reviewed each term to ensure that the Principles of Good Practice form has been filed on all sections identified as electronically delivered.

Courses for distance delivery have been and are being created with the support and consultation of the Instructional Design team at the Teaching, Learning and Technology Center at TTU. This consultation includes guidance on meeting Quality Matters™ criteria, design clarity and consistency, and using appropriate online tools and pedagogical practices.

B. Delivery Modes

The proposed PhD is predominantly a web-based program. Students will have limited face-to-face requirements at the TTU Lubbock campus. In addition to the initial tw0-day orientation, the on-site requirements consist of a 2-week session each summer for three years, and face-to-face dissertation proposal and defense meetings.

C. Collaborative Arrangements

There are no collaborative arrangements proposed with other institutions at this time.

D. Program Differences

The criteria for the PhD in Curriculum Studies will be the same for all students, and advisement will follow the program requirements for all students. Currently, advisement and transaction of paperwork occurs via e-mail to a great extent or students and faculty discuss program requirements, course substitutions, and other advisement issues in phone conversations. At present, students who apply to the program have written application and admission materials screened by program faculty. Those that have the greatest potential for engaging in doctoral study required by the PhD program will meet for face-to-face or video conferenced interviews. After deliberation, a recommendation for admission or denial of admission is then sent by the program faculty to the Department of Curriculum and Instruction and, ultimately, the Texas Tech Graduate School for formal notification of admission.

Following admission, program faculty work individually with each doctoral student to advise, mentor, and complete degree plans and ensure that periodic review is conducted on each student regarding adequate progress in the program.

The program will admit students as members of a cohort. The cohort system of enrollment was chosen for a number of reasons. First, some of the most prestigious and honored programs in education have utilized the cohort approach for many, many years (delivered face-to-face). Second, the cohort process allows students to form bonds with each other. There is also often a healthy competition that arises in cohorts. Students are stimulated to engage more fully and thoughtfully as they share ideas, research, resources and opportunities. Finally, the cohort approach provides the most efficient and effective method of advising students and delivering coursework.

Each cohort will be enrolled in the doctoral program at Texas Tech for approximately five (5) years. Approximately 15 to 18 individuals will be selected for each cohort. Students in the cohort will be required to have full-time employment in a P-12 school, university, or related employment. All applicants must hold master's degrees in an appropriate field (meeting a set of prerequisites noted heretofore) and undertake the standard Texas Tech application process.

Applicants to the cohort must have either been employed by their current institution or by another school district or institution for a minimum of 3 years. Applicants for the cohort will be asked to provide letters of support from their supervisors indicating that the institution supports the applicant's interest in the program for the next 3 years. The final two years of the program will be dissertation research that is conducted independently.

Students who cannot complete the courses in the cohort sequence will enroll in out-of-sequence coursework until they can resume work with their cohort, continue in coursework and add courses in future terms, or start with a future cohort to complete their prescribed courses.

E. Qualifying Exams

There will be no essential difference in the manner in which students both on-campus and at a distance complete the qualifying exam requirement at the end of all course work and prior to admission to doctoral candidacy. Cohort students will be expected to take proctored qualifying exams or take-home exams utilizing computers during the third summer of the program.

F. Independent Study

No significant differences are expected. Barring extenuating circumstances, cohort and on-campus students are not expected to enroll in independent study hours (other than the 12 semester credit hours [minimum] of dissertation research that each student must complete following all coursework and prior to conducting a dissertation defense).

G. Courses and Sequencing

The PhD is a 96-semester hour degree (up to 30 hours may be transferred). The remaining 66 hours will be delivered as follows:

Fall 1—2 courses

EDCI 6333 Diversity Ideologies
EPSY 5385 Foundations of Educational Research

Spring 1—1 course

EDCI 5321 Curriculum Theory: Design and Development

Summer I & II - 1 (first residency component)—3 courses

EDCI 5335 Models of Teaching
EDCI 6331 John Dewey's Theory of Education
EDCI 6320 Curriculum Theory: Inquiry

Total Year 1 = 18 hours

Fall 2—2 courses

EDCI 6306 Curriculum Evaluation for Improvement and Accountability
EDCI 5306 Popular Media & Culture

Spring 2—1 courses

EPSY 5381 Intermediate Educational Statistics

Summer I & II – 2 (second residency component)—3 courses

EDCI 5386 Constructivist Inquiry Methodologies
EDCI 6382 Advanced Field Methods
EDCI 5330 Ethics and Education

Total year 2 = 18 hours

Fall 3—2 courses

EDCI 6393 Advanced Practicum I
EDIT 5370 Foundations of Distance Education

Spring 3-1 courses

EDCI 6393 Advanced Practicum II

Summer I & II - 3 (third residency component)—3 courses

EDCI 6306 Curriculum Studies Research
EDCI 5333 Improving the Teaching of Thinking
EDCI 7000 Designing the Dissertation

Qualifying Exams

Total Year 3 = 18 hours

Fall, Spring & Summers 4 & 5

Doctoral Dissertation (12 semester hours required)

EDCI 8000 Dissertation Research

Total Years 4 & 5 = 12 hours

H. Advanced Practica

Students participating in the distance cohort will be required to complete two advanced practica (EDCI 6393), one a practicum applying curriculum and/or instruction theory to a practical educational problem, requiring analyzing the situation and making recommendations for solving the problem and a second internship in which students work closely with university faculty members to learn how to develop and teach a university course in their specialties. The practica will be composed of two major requirements. The first requirement is to plan together with one of the student's major institutional administrators or faculty (immediate supervisor, principal, curriculum supervisor, associate superintendents among others) a number of curriculum-related tasks for which the student will be held responsible. The time and responsibilities will be partially dependent on the student's full-time responsibility to their institution. As part of the institution's commitment to the student, it will be expected that appropriate "release" time will be given to the student to complete the assigned tasks. The second responsibility for the student in an advanced practicum will be to visit a minimum of two (2) school districts or educational agencies to conduct interviews with curriculum leaders or administrators who oversee curriculum development, delivery, and assessment. Interview protocols will be developed by the student and a supervising faculty member. The purposes of the interviews are to learn from practicing educators which curricular offerings and programs and pedagogical practices they think are most effective in addressing the needs of specific students, particularly underserved or under achieving students. Students will also examine relevant studies to determine the degree of coherency between literature on researchers' findings and district/institutional leaders' experiences.

I. Library

The Texas Tech Library has committed to providing services and library materials to students and faculty not physically present on the main University campus. The library's goal is to help resolve the problems faced by students and faculty who are at a distance from the campus and its information resources. Distance learners 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
- ILLYAD

Texas Tech's University Library's holdings are strong in Curriculum and Instruction and related fields. New publications are continuously being added to library holdings as they become available. The holdings include major research and scholarly journals in curriculum and instruction. All major research and scholarly publications are available, and the Texas Tech Library is committed to providing services and library materials to students and faculty not physically present on the main University campus. See http://library.ttu.edu . This webpage provides information on all library services and electronic resources.

Student Disability Services provides accommodations for students based upon the specific, certified disability. Courses will be developed with the Principles of Good Practice, Quality Matters, and other ADA compliant software standards in mind to aid in access to online materials. Other accommodations will be made in collaboration with the student, Student Disability Services, the faculty member, and all other needed resources. See www.accesstech.dsa.ttu.edu.

J. Student Interactions

In the summer before the first fall courses are offered, a two-day orientation will include giving e-Raider access, an introduction to the library and IT services, an introduction to all faculty, staff and cohort students and the completion of a program of study.

Each summer after the summer of orientation, students will attend a two-week intensive session at the TTU Lubbock campus in each of their summers during their cohort programs. A total of three courses (9 hours) will be completed in a blended format each of the three summer sessions. Each summer thereafter students will have opportunities to interact with one another and on campus students as well as faculty and staff. Selected students of earlier cohorts will be asked to attend parts of summer sessions with first-year cohorts to work in small groups with them and to discuss experiences and plans that will facilitate the studies of new cohort students.

Methods of communicating and student community building activities will be developed through the orientation session, subsequent online activities and on-campus intensives. Students will work on group projects together, using online resources to communicate and will collaborate using tools such as google docs. Interactive online tools such as Skype, Microsoft Office Communicator, Twitter, Facebook, wikis, listservs, Second Life, threaded discussions, and blogs will student interactions.

K. Residency Requirements

CB Rule 5.46 requires that "…proposals to meet residency requirements in other non-traditional ways (e.g. to enable distant delivery of a doctoral program) must provide persuasive and thorough documentation as to how each provision [i-v that follow] would be met and evaluated for the particular program and its students: (i) Significant, sustained, and regular interaction between faculty and students and among students themselves; (ii) Opportunities to access and engage in depth a wide variety of educational resources related to the degree program and associated fields; (iii) Opportunities for significant exchange of knowledge with the academic community; (iv) Opportunities to broaden educational and cultural perspectives; and (v) Opportunities to mentor and evaluate students in depth.)"

Existing doctoral residency options will suffice to meet the needs of distance delivery students. The following describes the College of Education's current doctoral residency requirement:

> The intent of residency is to provide for concentrated study as a full-time student with minimal outside distractions. Students … will engage in in-depth and intensive examination of research, theory, professional problems, and implications in district and school based educators. They will utilize Texas Tech resources, as well as those of other higher education institutions, to conduct doctoral level research. Due to the cohort nature of the program, they will be required to satisfy residency requirements while completing the prescribed program in the established course sequences. Students who cannot complete the courses in the cohort sequence will enroll in out-of-sequence coursework until they can resume work with their cohort, continue in coursework and add courses in future terms, or start with a future cohort to complete their prescribed courses in order to meet residency requirements.

The following is the residency option for the distance PhD. This residency requirement has already been approved by pertinent institutional bodies. Cohort students will adhere to this option:

> Three consecutive full summers (at least 9 weeks each) of at least 9 semester hours of graduate credit during the term.

The on-campus component for each of the three consecutive full summer sessions will consist of a two-week intensive sessions during the summer term. These sessions will be held on the Texas Tech University campus in Lubbock, Texas. The remainder of the course content to meet the nine (9) credit hours requirement will be delivered through web-based delivery methods.

This residency option, combined with other doctoral colloquia, networking, and mentoring experiences, will provide the requisite sustained, in depth, and scholarly interactions that are expected in a quality doctoral program.

L. Advising

Students are assigned a faculty advisor upon admission to the program. The student and faculty advisor establish and file a "Program of Study," which includes identifying any transferrable credits from master's work. Students meet and interact online with their advisors as needed to modify their program, develop research foci, and begin dissertation work.

Students in the distance cohort will be required to complete a doctoral dissertation as do all students who are in the program. All PhD students will enroll in EDCI 7000 –Designing the Dissertation, which will focus on the structure and methodology of dissertation work. Once a student determines an area of interest for dissertation work, he/she will contact faculty members with related research interests. A faculty member will serve as the dissertation chair, and the student and faculty members will determine their preferred communication methods, meeting times, frequency of contact, timelines for completing a dissertation proposal and holding the proposal defense, and related documentation.

Students will be required to defend their dissertations before a committee of faculty (three from her or his concentration, a fourth from another department, and a fifth who represents the Graduate School).

IX. Evaluation

A. Program Quality

Texas Tech Operating Policy 10.13 and SACS-COC Comprehensive Requirement 3.3.1., require that all academic programs have student learning outcomes, assessment plans, and documentation of use of findings for improvement. In 2008, Texas Tech implemented a new online system for documenting this process, called TracDat. In preparation for NCATE reaffirmation, the College of Education was an "early adopter" of TracDat. The program faculty modified student learning outcomes and assessment plans for its programs. Documentation in TracDat of academic program assessment from 2006-07 was uploaded for the degree program for the first time in July 2009.

The student learning outcomes for the PhD on-site and blended programs are:

Learning Outcome 1: Students will demonstrate that they are independent researchers in the field of Curriculum Studies and in at least one research paradigm, e.g., qualitative and quantitative research methods.

Learning Outcome 2: Students will demonstrate the ability to communicate research to a broad range of audiences (e.g., researchers, school board members, general public).

Learning Outcome 3: Students will demonstrate their knowledge, skills and dispositions to teach a diverse range of students and enable others to teach the same range of students.

Learning Outcome 4: Students will demonstrate their ability to use traditional and emerging technology when instructing others and in conducting research.

Learning Outcome 5: Students will demonstrate the ability to apply, synthesize and evaluate curriculum and instruction theory.

Learning Outcome 6: Students will demonstrate mastery of content, pedagogical content knowledge, and instructional practices in the field of Curriculum Studies.

The plan for assessing student learning outcomes is described below:

Appendix C: Mapping of Course Sequence, Student Outcomes, and Level of Complexity shows the relationship of each required course with the student learning outcomes. The plan for direct assessment of the distributed PhD in Curriculum Studies includes: 1) embedded assessment activities within required courses, 2) students' performance on the six student learning outcomes embedded in the Qualifying Examinations (assesses concentration, research goals, and learning outcomes), and 3) student learning outcome assessment at the time of the dissertation proposal and defense. Indirect assessment is conducted utilizing an annual survey.

Embedded assessment for each student learning outcome occurs in the following courses by a course assignment that is evaluated by a program faculty member:

Learning Outcome 1: Students will demonstrate that they are independent researchers in the field of Curriculum Studies and in at least one research paradigm, e.g., qualitative and quantitative research methods. (EPSY 5380, 5381, 5385; EDCI 5386, 6382, 6306, 6382, 7000, 8000)

Learning Outcome 2: Students will demonstrate the ability to communicate research to a broad range of audiences (e.g., researchers, school board members, general public). (EDCI 5306 and other relevant courses in the concentration)

Learning Outcome 3: Students will demonstrate their knowledge, skills and dispositions to teach a diverse range of students and enable others to teach the same range of students. (EDCI 6333, EPSY 5323, and other relevant courses taken in concentration)

Learning Outcome 4: Students will demonstrate their ability to use traditional and emerging technology when instructing others and in conducting research. (EDIT 5370 and other relevant courses taken in concentration)

Learning Outcome 5: Students will demonstrate the ability to apply, synthesize and evaluate curriculum and instruction theory. (EDCI 5320, 5335, 6306, 6331 and other relevant courses taken in concentration)

Learning Outcome 6: Students will demonstrate mastery of content, pedagogical content knowledge, and instructional practices in the field of Curriculum Studies. (EDCI 5321, 5330, 5333, 6306, 6320, 6393, 7000)

As with all academic programs at Texas Tech University, faculty members are responsible for establishing the learning objectives and outcomes for distance learning and off-campus programs. Assessment of learning outcomes is conducted on a course, programmatic, and institutional level. The quality of all academic programs at Texas Tech University resides with the teaching faculty under the oversight of their respective program coordinators, chairpersons, and college deans. The provost's office coordinates assessment with deans, department chairs, and program coordinators to ensure that the development and review of distance and off-campus education programs follow university policy, accreditation standards, THECB Regulations, and SACS-COC standards.

In addition, institutional effectiveness at Texas Tech is documented through the strategic planning process and Annual Assessment Reports and Strategic Plan Updates. The university's strategic plan establishes institutional, academic, and administrative goals and objectives. Colleges, departments, and academic units develop their strategic plans and assessment activities around the institutional goals and objectives. At the end of each planning cycle, assessment reports flow from the unit (departmental) to the area (college) to the provost/vice presidential level and finally to the institutional level. Strategic goals and objectives are reviewed at each level for possible revision on the basis of the assessment reports.

B. Advisory Board

Texas Tech's Curriculum Studies program will identify members for its Advisory Board from P-12 schools and university programs. The purpose of this Board is to assist the online program faculty in a variety of ways, including but not limited to the following: review of and recommendations for programmatic evaluation; review of programmatic goals and policies; review of external funding sources for research and service); identification of potential practica sites; identification of potential employment opportunities for graduates of the program. The Advisory Board will also examine and provide feedback on program appropriateness, impact, and satisfaction.

C. Participant Satisfaction

Student satisfaction will be gauged through course evaluations, doctoral colloquia/seminars, end of program assessments, and formal and informal discussions with students. Texas Tech administers Course and Instructor Evaluations each term and three different instruments are used depending upon course delivery modality: face-to-face, online, and video conferencing. PhD cohort students will participate in the Texas Tech Distance Learning Communication Survey during their first fall of attendance; anonymous survey findings are summarized by degree program and made available to the faculty and College administrators for use for improvement strategies. The annual report prepared at the end of the first year of the cohort will also include student satisfaction information.

Faculty satisfaction with the cohort delivery method will be gauged through formal and informal methods. Program faculty meetings provide an opportunity for informal and timely feedback and immediate resolution of issues. Faculty members have more formalized opportunities to document satisfaction through the annual report process.

D. Assessment Procedures

The program, as part of the College of Education, is involved with ongoing assessment to meet accreditation standards from the National Council on the Accreditation of Teacher Education. This process includes stated learning outcomes for each course and program and appropriate embedded assessment processes. Faculty members meet annually to examine student learning outcomes, assessment activities, findings, and the use of data for programmatic improvement. The resulting documentation is recorded annually in TracDat. Action plans are developed and implemented by faculty if there are to any findings that are below benchmarks for student learning outcomes and other expectations.

In addition, the College of Education (including the Department of Curriculum and Instruction) prepares an "Annual Assessment Report and Strategic Planning Update," where progress toward stated academic program level goals and objectives

is documented and findings are used to improve practices and revise strategic plans and objectives. The Curriculum Studies concentration uses this means of strengthening its face-to-face program and will do the same with its distance PhD program.

Program faculty members are reviewed in several ways, including Texas Tech and College of Education course/instructor evaluations by students, faculty annual review processes, promotion and tenure criteria, and post-tenure review procedures. The Graduate School also conducts a six-year program review of all graduate degree programs. Plus, degree programs offered online prepare an annual report detailing the applications, enrollments, retention, and satisfaction of students. This report is used internally and is presented to the Distributed Learning Council on request.

Annually, the Distance Learning Communication Survey is administered to all students in online programs. Data for the PhD program will be evaluated by program faculty and findings requiring intervention will be further assessed, remediation plans developed, and actions implemented.

E. Use of Assessment

As assessment results are examined and evaluated, faculty members will either refine existing assessment processes or develop additional assessment steps to confirm results. Appropriate action plans will be implemented to address any inefficiencies and inadequacies that are discovered. These action plans and results will be documented in TracDat. Past assessment experience indicates that some kinds of student learning may be impaired by the media of course delivery. When findings indicate that technological upgrades or other resource allocations are required, the College of Education will work with IT to remediate problems or work through the budgeting processes to secure required resources.

Appendices

APPENDIX A
Projected Budget–5 Years
Describe Faculty Resources and Faculty Requirements

APPENDIX B
Projected Revenue Generated (based on 2008-2009 tuition/SCH formula)
Years 1–5

APPENDIX C
Mapping of Course Sequence, Student Outcomes, and Level of Complexity

APPENDIX A
Projected Budget – 5 Years
Describe Faculty Resources and Faculty Requirements

Appendix A: Cost Calculations for Proposed Distance PhD in Curriculum Studies

Cost Category	Cost sub-category	Year 1	Year 2	Year 3	Year 4	Year 5	Total ($)
Faculty salaries	New	1 New FTE Tenure-Track ($55,000 Salary & $16,500 Fringe Benefits; Total = $71,500)	Continuous Appointment Tenure-Track Faculty Hired in Year 1 ($57,200 Salary & $17,160 Fringe Benefits; Total = $74,360)	Continuous Appointment Tenure-Track Faculty Hired in Year 1 ($59,488 Salary & $17,846 Fringe Benefits; Total = $77,334) 1 New FTE Tenure-Track ($55,000 Salary & $16,500 Fringe Benefits; Total = $71,500)	Continuous Appointment Tenure-Track Faculty Hired in Year 1 ($61,868 Salary & $18,560 Fringe Benefits; Total = $80,428) Continuous Appointment Tenure-Track Faculty Hired in Year 3 ($57,200 Salary & $17,160 Fringe Benefits; Total = $74,360)	Continuous Appointment Tenure-Track Faculty Hired in Year 1 ($64,343 Salary & $19,303 Fringe Benefits; Total = $83,646) Continuous Appointment Tenure-Track Faculty Hired in Year 3 ($59,488 Salary & $17,846 Fringe Benefits; Total = $77,334)	$610,462.00
Program Administration	Reallocated	2 Course Release Per Year For One Current Faculty Member *Faculty line will pick up courses	2 Course Release Per Year For One Current Faculty Member *Faculty line will pick up courses	2 Course Release Per Year For One Current Faculty *Faculty line will pick up courses	2 Course Release Per Year For One Current Faculty Member *Faculty line will pick up courses	2 Course Release Per Year For One Current Faculty Member *Faculty line will pick up courses	
Graduate Assistantships	New	2 Graduate Assistantships (1) Instructional Technology Major (1) Curriculum	2 Graduate Assistantships (1) Instructional Technology Major (1) Curriculum	2 Graduate Assistantships (1) Instructional Technology Major (1) Curriculum	2 Graduate Assistantships (1) Instructional Technology Major	2 Graduate Assistantships (1) Instructional Technology Major (1) Higher Ed Major	$216,270.00

		Studies Concentration (2 * $21,627) = $43,254	Studies Concentration (2 * $21,627) = $43,254	Studies Concentration (2 * $21,627) = $43,254	(1) Curriculum Studies Concentration (2 * $21,627) = $43,254	(2 * $21,627) = $43,254	
Unit Coordinator/ Administrative Support	New	20 hrs of Clerical/Staff per Week Full-time Salary = $24,000 Salary & $7,200 Fringe Benefits; total = $31,200/2 = $15,600	20 hrs of Clerical/Staff per Week Full-time Salary = $24,960 Salary & $7,488 Fringe Benefits; total = $32,448/2 = $16,224	20 hrs of Clerical/Staff per Week Full-time Salary = $25,958 Salary & $7,788 Fringe Benefits; total = $33,746/2 = $16,873	20 hrs of Clerical/Staff per Week Full-time Salary = $26,996 Salary & $8,099 Fringe Benefits; total = $35,095/2 = $17,548	20 hrs of Clerical/Staff per Week Full-time Salary = $28,076 Salary & $8,423 Fringe Benefits; total = $36,499/2 = $18,250	$84,495.00
Supplies/materials	New	Miscellaneous postage, office supplies, CDs/ DVDs 100 per year $370	Miscellaneous postage, office supplies, CDs/ DVDs 100 per year $370	Miscellaneous postage, office supplies, CDs/ DVDs 100 per year $370	Miscellaneous postage, office supplies, CDs/ DVDs 100 per year $370	Miscellaneous postage, office supplies, CDs/ DVDs 100 per year $370	$ 1,850.00
Library/IT		Instructional Technology Training for all Faculty on how to use distance education delivery systems - ongoing					
Equipment	New	6 laptops @ $1,500 ea. 6 webcams @ $350 ea. 6 microphones @ $200 ea. 6 scanners $400 ea. 1 fax machine ($400) 1 printer/copier ($1,399.99)					$16,499.00
Software	New	Elluminate™ Software Department License					$10,000.00
Professional Development/Travel	New	Travel to Conferences for Faculty	Travel to Conferences for Faculty	Travel to Conferences for Faculty	Travel to Conferences for Faculty	Travel to Conferences for Faculty	$45,000.00

		$3,000 x 3 faculty	$3,000 x 3 faculty	$3,000 x 3 faculty	$3,000 x 3 faculty	$3,000 x 3 faculty	
Quality Matters™ Peer Review	New	6 Courses x $900 each = $5,400	6 Courses x $900 each = $5,400	6 Courses x $900 each = $5,400			$16,200.00
Facilities	None						
Other (specify)	None						
Totals		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	
		$166,223.00	**$143,208.00**	**$218,331.00**	**$224,960.00**	**$231,854.00**	**$1,000,776.00**

APPENDIX B

Projected Revenue Generated (based on 2009-2010 tuition/SCH formula)

Years 1 - 5

Year	Enrollments Cohort 1	Credit Hours Cohort 1	Enrollments Cohort 2	Credit Hours Cohort 2	Enrollments Cohort 3	Credit Hours Cohort 3	SCH (3 credits per course)	Weighted Formula	Formula Generated	Tuition & Fees	Local Generated	Total Generated
1	18	18					324			$219.33	$71,062.92	$71,062.92
2	18	18					324			$219.33	$71,062.92	$71,062.92
3	18	18	18	18			648	$475.13	$307,884.24	$219.33	$142,125.84	$450,010.08
4	18	12	18	18			540	$475.13	$256,570.20	$219.33	$118,438.20	$375,008.40
5			18	18	18	18	648	$475.13	$307,884.24	$219.33	$142,125.84	$450,010.08
											Total Revenue Generated	$1,417,154.40

APPENDIX C

Mapping of Course Sequence, Student Outcomes 1-6, Level of Complexity (Introductory, Reinforced, or Advanced), and Explicitness

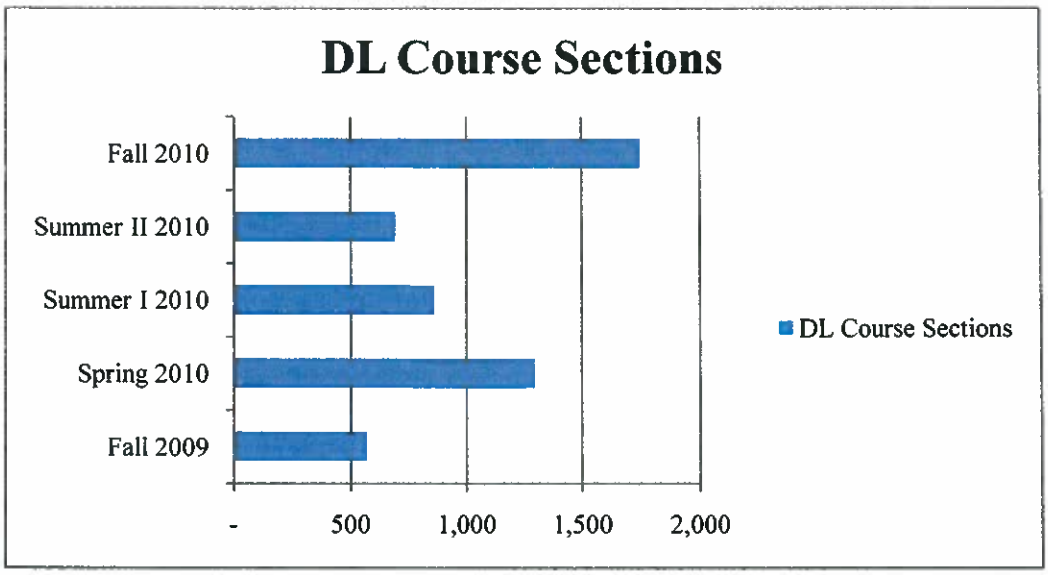
Table
Mapping of Course Sequence, Student Outcomes, and Level of Complexity

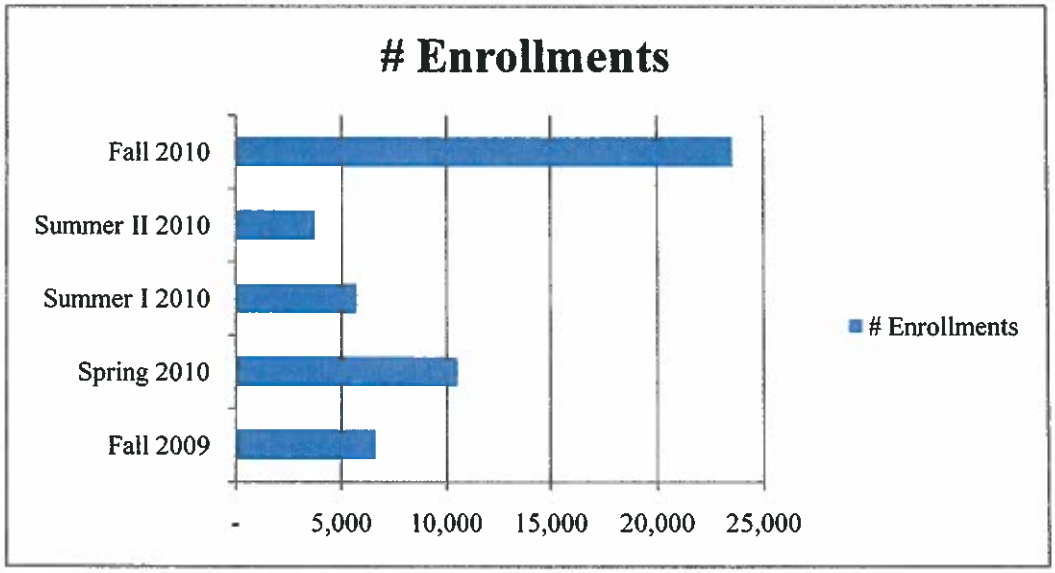
	Outcomes [1]					
Course Sequence	**One**	**Two**	**Three**	**Four**	**Five**	**Six**
Year 1						
EDCI 6333 Diversity		**Explicit**, *Advanced*	**Explicit**, *Advanced*	**Explicit**, *Reinforced*	**Explicit**, *Reinforced*	**Explicit**, *Advanced*
EESY 5385 Ed Research	**Explicit**, *Intro*	**Implicit**, *Intro*		**Implicit**, *Intro*	**Implicit**, *Intro*	
EDCI 5321 CT: Design & Dev		**Implicit**, *Intro*	**Explicit**, *Reinforced*	**Explicit**, *Reinforced*	**Explicit**, *Advanced*	**Explicit**, *Advanced*
EDCI 5335 Models			**Explicit**, *Advanced*	**Implicit**, *Reinforced*	**Explicit**, *Advanced*	**Explicit**, *Advanced*
EDCI 6331 Dewey	**Explicit**, *Intro*	**Implicit**, *Intro*	**Implicit**, *Reinforced*		**Explicit**, *Reinforced*	**Explicit**, *Advanced*
EDCI 6320 CT: Inquiry	**Explicit**, *Intro*	**Implicit**, *Intro*	**Implicit**, *Intro*		**Explicit**, *Reinforced*	**Explicit**, *Advanced*
Year 2						
EDCI 6306 Evaluation	**Implicit**, *Intro*	**Implicit**, *Reinforced*	**Implicit**, *Intro*	**Implicit**, *Intro*	**Explicit**, *Advanced*	**Explicit**, *Advanced*
EDCI 5306 Media		**Explicit**, *Reinforced*		**Explicit**, *Advanced*		**Explicit**, *Advanced*
EPSY 5381 Intermediate Stat	**Explicit**, *Advanced*	**Implicit**, *Reinforced*		**Implicit**, *Reinforced*		
EDCI 5386 Const. Inquiry	**Explicit**, *Reinforced*	**Explicit**, *Reinforced*		**Explicit**, *Advanced*	**Implicit**, *Reinforced*	**Explicit**, *Advanced*
EDCI 6382 Field Methods	**Explicit**, *Advanced*	**Explicit**, *Advanced*		**Explicit**, *Advanced*	**Implicit**, *Intro*	**Explicit**, *Advanced*
EDCI 5330 Ethics	**Implicit**, *Reinforced*	**Explicit**, *Advanced*	**Explicit**, *Reinforced*		**Implicit**, *Advanced*	**Explicit**, *Advanced*
Year 3						
EDCI 6393 Practicum I		**Explicit**, *Intro*	**Explicit**, *Advanced*		**Explicit**, *Advanced*	**Explicit**, *Advanced*
EDIT 5370 Distance Educ		**Explicit**, *Advanced*	**Explicit**, *Reinforced*	**Explicit**, *Advanced*	**Implicit**, *Reinforced*	
EDCI 6393 Practicum II		**Explicit**, *Reinforced*	**Explicit**, *Advanced*	**Implicit**, *Advanced*	**Explicit**, *Advanced*	**Explicit**, *Advanced*
EDCI 6306 CS Research	**Explicit**, *Advanced*	**Explicit**, *Reinforced*			**Explicit**, *Reinforced*	**Explicit**, *Advanced*
EDCI 5333 Thinking	**Implicit**, *Reinforced*	**Explicit**, *Advanced*	**Explicit**, *Advanced*	**Implicit**, *Advanced*	**Explicit**, *Advanced*	**Explicit**, *Advanced*
EDCI 7000 Dissertation Design	**Explicit**, *Advanced*	**Explicit**, *Advanced*	**Explicit**, *Reinforced*	**Explicit**, *Reinforced*	**Implicit**, *Reinforced*	**Explicit**, *Advanced*
Year 4						
EDCI 8000 Dissertation	**Explicit**, *Advanced*	**Explicit**, *Advanced*	**Implicit**, *Reinforced*	**Implicit**, *Reinforced*	**Explicit**, *Advanced*	**Explicit**, *Advanced*

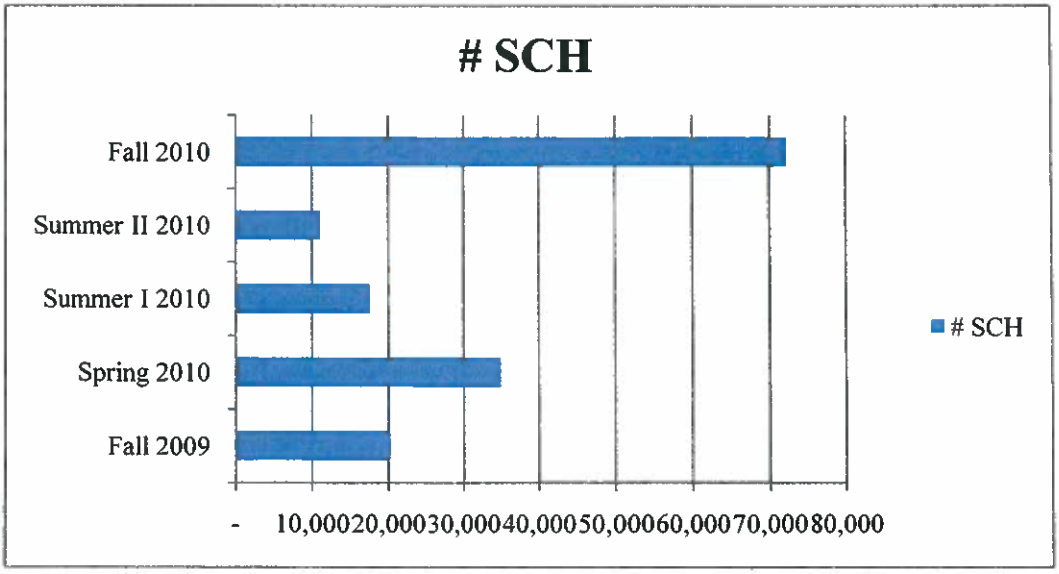
Student outcomes (TSW) [1]

1. Be independent researchers in the field of Curriculum Studies
2. Communicate research to a broad range of audiences
3. Teach a diverse range of students and enable others to teach the same range of students.
4. Use traditional and emerging technology when instructing others and in conducting research.
5. Apply, synthesize and evaluate curriculum and instruction theory.
6. Master content, pedagogical content knowledge, and instructional practices in the field of CS.

Distributed Learning Enrollment Trends







TEXAS TECH UNIVERSITY
University College

All Distributed Education Courses / Enrollments

Number of Courses

	Face-to-Face	Individual Study	Interactive TV	ITV/Web	Multi-Modal	Web	Total
Fall 2009	80	112	42		138	197	569
Spring 2010	94	2	47	7	849	298	1,297
Summer I 2010	128	2	14		534	184	862
Summer II 2010	44	5	7		500	138	694
Fall 2010	113	4	40		1,231	356	1,744

Number of Enrollments

	Face-to-Face	Individual Study	Interactive TV	ITV/Web	Multi-Modal	Web	Total
Fall 2009	780	555	213		2,806	2,262	6,616
Spring 2010	1,235	8	293	39	5,447	3,531	10,553
Summer I 2010	1,136	29	46		3,025	1,499	5,735
Summer II 2010	288	27	25		2,398	1,011	3,749
Fall 2010	1,354	22	218		18,122	3,890	23,606

Number of Semester Credit Hours

	Face-to-Face	Individual Study	Interactive TV	ITV/Web	Multi-Modal	Web	Total
Fall 2009	2,533	1,952	639		8,382	6,791	20,297
Spring 2010	4,399	24	879	117	18,939	10,616	34,974
Summer I 2010	4,014	71	138		8,898	4,427	17,548
Summer II 2010	963	53	75		7,128	2,912	11,131
Fall 2010	4,658	70	652		55,168	11,724	72,272

Legend:

Face-to-Face	Greater than 50% face-to-face - Those noted above are at sites other than Lubbock.
Individual Study	Those noted above are at sites other than Lubbock.
Interactive TV	50% or more of course is delivered by ITV. Those noted above are at sites other than Lubbock.
ITV/Web	50% or more of course is delivered by ITV and web. Those noted above are at sites other than Lubbock.
Multimodal	Course is delivered in a variety of instructional methods and is less than 50% ITV. Those noted above include all locations.
Web	Course is delivered more the 50% on-line. Those noted above include all locations

Non-Formula Eligible Distributed Learning Courses/Enrollments

Number of Courses

	Asynchronous	International	Reciprocal	Out-of State Location
Fall 2009	64	40	23	30
Spring 2010	69	33	22	1
Summer I 2010	60	69	9	14
Summer II 2010	60	23	1	10
Fall 2010	56	28	31	14

Number of Enrollments

	Asynchronous	International	Reciprocal	Out-of State Location
Fall 2009	777	219	182	56
Spring 2010	1114	461	203	1
Summer I 2010	392	708	25	69
Summer II 2010	306	206	1	20
Fall 2010	317	214	387	38

Number of Semester Credit Hours

	Asynchronous	International	Reciprocal	Out-of State Location
Fall 2009	2376	484	667	173
Spring 2010	3412	1885	748	1
Summer I 2010	1200	2798	75	188
Summer II 2010	930	838	1	62
Fall 2010	963	1358	924	136

Asynchronous	These courses are being phased out to maximize formula funding.
International	These courses include those at our sites in Spain and Germany as well as, study abroad programs.
Reciprocal	These courses are taught to or from other institutions of higher education. Examples are the Great Plains Idea program, Ag Idea, Big 12 Engineering Consortium, and Doc-at-a-Distance.

Face-to-Face Courses/Enrollments by Location

Number of Courses

	Abilene	Amarillo	Distance/Electronic	El Paso	Fredericksburg	Highland Lakes	International	Junction	Out-of-State	Site in Texas but Off-Campus	Reciprocal	Waco	Total
Fall 2009	5		6	9	2	2	30			13	10	3	80
Spring 2010	6	1	2	8			33			31	9	4	94
Summer I 2010			8	1	2	2	67	27	4	14	2	1	128
Summer II 2010	1		3		1	1	18	13		7			44
Fall 2010		1		8	4	4	26		7	45	11	7	113

Number of Enrollments

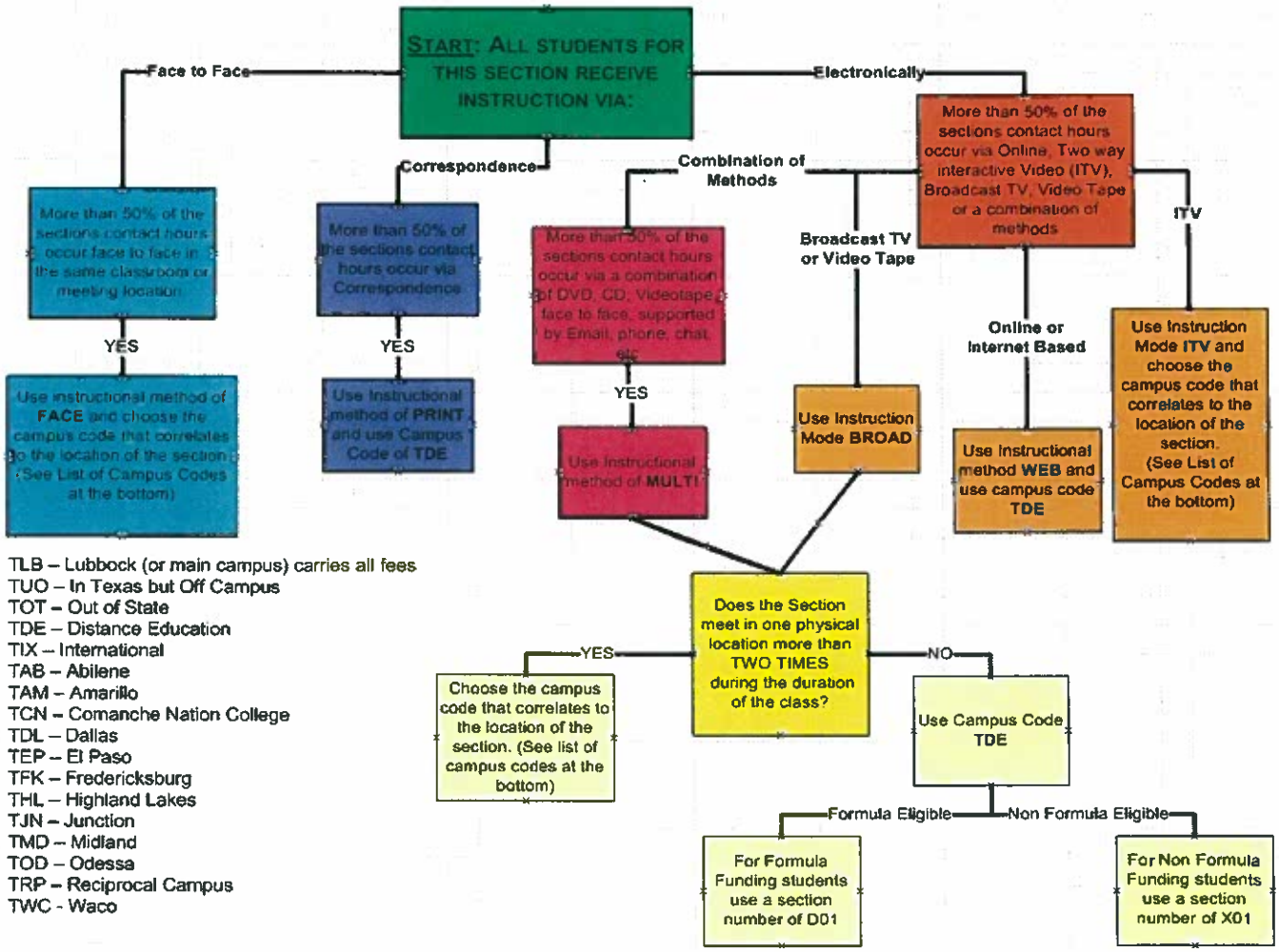
Fall 2009	12		39	189	10	12	155			236	109	18	780
Spring 2010	11	4	23	152			461			400	160	24	1,235
Summer I 2010			16	18	18	9	704	176	28	153	13	1	1,136
Summer II 2010	13		5		8	6	178	66		12			288
Fall 2010		4		145	29	25	210		25	562	277	77	1,354

Semester Credit Hours

Fall 2009	36		117	612	30	36	463			708	477	54	2,533
Spring 2010	31	24	63	494			1,885			1,195	635	72	4,399
Summer I 2010			33	108	54	27	2,786	489	65	410	39	3	4,014
Summer II 2010	39		13		24	18	744	88		37			963
Fall 2010		24		463	87	75	1,337		109	1,693	639	231	4,658

Instructional Methods

1. FACE – Face to Face interaction
2. MULTI – Multimodal
3. WEB – Internet or Web Based
4. ITV – Interactive Television
5. PRINT – Correspondence Credit
6. BROAD – Broadcast Television or Video Tape



TLB – Lubbock (or main campus) carries all fees
TUO – In Texas but Off Campus
TOT – Out of State
TDE – Distance Education
TIX – International
TAB – Abilene
TAM – Amarillo
TCN – Comanche Nation College
TDL – Dallas
TEP – El Paso
TFK – Fredericksburg
THL – Highland Lakes
TJN – Junction
TMD – Midland
TOD – Odessa
TRP – Reciprocal Campus
TWC - Waco

TEXAS TECH UNIVERSITY
University College

Marketing Report
Sept. 2009 - Aug. 2010

Online and off-campus College Programs

GENERAL AWARENESS

- Produced quarterly reports
- Participated in various surveys such as US News and World Report, Petersons, UCEA, and ADEIL
- Distributed press releases via PR Web, PitchEngine, and Texas Tech's Communications and Marketing Central Office
- Researched, wrote and published more than 20 press releases and student stories
- Handled prospective student inquiries
- Produced Online Learning Guide

MILITARY SPECIFIC

- Exhibited at Ft. Hood and San Antonio Career Expos
- Advertised on *military.com* for two months

EVENT ATTENDANCE AND SPONSORSHIP

Participated/hosted more than 20 conferences and events including:

- Hosted Distance Learning Awareness Week events and reception
- Hosted United States Distance Learning Association annual virtual conference
- Hosted four student lunch meet-and-greets
- Attended Spring receptions
- Attended President's receptions
- Exhibited at University Day
- Exhibited at New Faculty Orientation
- Exhibited at Red Raider Orientation
- Handled preparations for additional conferences and events as needed

PRINT COLLATERAL AND PROMOTIONAL ITEMS

- Designed and launched Dallas Love airport display ad
- Designed, printed and distributed posters, brochures and flyers to appropriate markets
- Advertised in various industry related publications including:
  - Agriculturalist
  - Teaching Exceptional Children
  - TechEdge
  - The Word
  - Intercom Magazine
  - TAEA Star
- Promotional items for conferences
- Designed pocket folders and other correspondence materials

ONLINE

- Redesigned and implemented a new Websites: *www.de.ttu.edu* and *www.uc.ttu.edu*
- Designed and implemented Red Raider Sports Web advertising campaign: click-through-rate 0.17, industry average 0.06, 100,000 impressions, 173 clicks
- Sponsored a Today's Garden Center eNewsletter: 74,494 impressions, 752 Website visitors
- Created and distributed e-mail blasts: delivered 60,304 e-mails with 18.9% click-through-rate
- Utilized multiple online advertising opportunities
  - Google AdWords: Texas – 8,009,025 impressions, 6,599 clicks; National – 3,047,759 impressions, 2,508 clicks
  - STC News and Notes: three month static button ad
  - Intercom Online: three month static sidebar ad
  - Today's Garden Center: 74,494 impressions, 752 total clicks
- Facebook, and various other targeted online ad campaigns: 18,092,028 impressions and 3,571 clicks
- Created 16 targeted landing pages: 2,227 unique views

Google AdWords, CRM, and Web Efforts

GOOGLE ADWORDS

- Met with Google to renew and implement AdWord recommendations
- Average cost per click: $1.68
- Daily budget: $70
- Conversion rate: 3.90%
- Average ad position: 3.4 – University of Phoenix was 3.9 (Source: *http://www.spyfu.com*)
- Market share of impressions in Texas: 38.37%

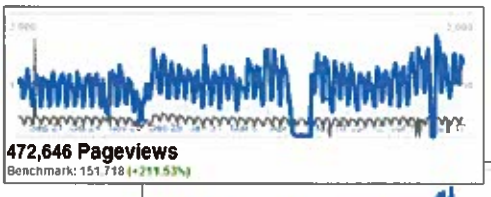
CRM

- Oversaw training and implemention of the RightNow to offer chat, incident management, mobile website, and knowledge base.

COLLEGE ONLINE AND OFF-CAMPUS PROGRAM WEBSITE - www.de.ttu.edu

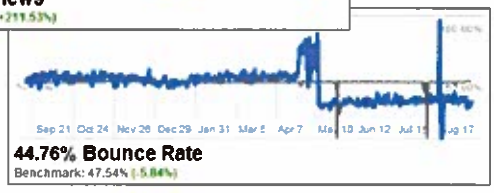
PAGEVIEWS

- Sep 2009: 280 - 700 hits per day
- Sep 2010: 380 - 800 hits per day
- Our visits and pageviews are approximately 280% better than Google's benchmarks for similarly-sized sites.



BOUNCE RATE

- Sep 2009: Bounce Rate 50%
- Sep 2010: Bounce Rate 30% (lower is better)
- In 2010, we have improved from being at or slightly worse than Google's bounce rate benchmarks to being five percentage points better than other similarly-sized sites.



New Program Request for Master's Degree
Forensic Science

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Certification Form for New Bachelor's and Master's Programs
Texas Higher Education Coordinating Board

Directions: An institution shall use this form to request a new bachelor's or master's degree program that meets all criteria for automatic approval in Coordinating Board Rules, Chapter 5, Subchapter C, Section 5.44: (a) The program has institutional and governing board approval; (b) the program complies with the *Standards for Bachelor's and Master's Programs;* (c) adequate funds are available to cover the costs of the new program; (d) new costs during the first five years of the program will not exceed $2 million; (e) the program is a non-engineering program (i.e., not classified under CIP code 14); and (f) the program will be offered by a university or health-related institution.

If a new bachelor's or master's program does not meet the criteria above, an institution must submit a request using the *Form for Requesting a New Bachelor's and Master's Degree Program.*
Information: Contact the Division of Academic Affairs and Research at 512/427-6200 for more information.

Administrative Information

1. Institution: Texas Tech University

2. Program Name: Master of Science in Forensic Science

3. Proposed CIP Code: 43.0106.00 02 Forensic Science and Technology

4. Number of Required Semester Credit Hours (SCHs) (*If the number of SCHs exceeds 120 for a bachelor's program, the institution must request a waiver documenting the compelling academic reason for requiring more SCHs.*): Requires at least 39 SCHs

5. Administrative Unit: Identify where the program would fit within the organizational structure of the university (*e.g., The Department of Electrical Engineering within the College of Engineering*).
The Graduate School

6. Delivery Mode: Identify how and where the program would be delivered, e.g. on-campus face-to-face, online, off-campus, interactive videoconferencing, hybrid, etc.
Program will be delivered on campus face-to-face, but it can include off-campus face-to-face classes.

7. Implementation Date: Report the first semester and year that students would enter the program.
Program is proposed in the 2011 spring semester.

8. Contact Person: Provide contact information for the person who can answer specific questions about the program.

Name: Kathy Sperry, Ph.D.
Name2: Clifford B. Fedler, Ph.D.
Title: Senior Director, Institute for Forensic Science
Title2: Associate Dean, Graduate School
E-mail: kathy.Sperry@ttu.edu
E-mail2: clifford.fedler@ttu.edu
Phone: (806) 743-7901
Phone2: (806) 742-2801

Signature Page

I hereby certify that all of the following criteria have been met in accordance with the procedures outlined in Coordinating Board Rules, Chapter 5, Subchapter C, Section 5.44:

(a) The program has institutional approval.

(b) The program complies with the *Standards for Bachelor's and Master's Programs.*

(c) Adequate funds are available to cover the costs of the new program.

(d) New costs during the first five years of the program will not exceed $2 million.

(e) The program is a non-engineering program (i.e., not classified under CIP code 14).

(f) The program will be offered by a university or health-related institution.

I understand that the Coordinating Board will update the program inventory for the institution if no objections to the proposed program are received during the 30-day public comment period.

_____

Chief Executive Officer Date

I hereby certify that the Board of Regents has approved this program.

Date of Board of Regents approval: _____

_____

Board of Regents (or Designee) Date

New Program Request Form for Bachelor and Master's Degrees

Directions: An institution shall use this form to propose a new bachelor's or master's degree program. In completing the form, the institution should refer to the document *Standards for Bachelor's and Master's Programs,* which prescribes specific requirements for new degree programs. Note: This form requires signatures of (1) the Chief Executive Officer, certifying adequacy of funding for the new program; (2) a member of the Board of Regents (or designee), certifying Board approval, and (3) if applicable, a member of the Board of Regents or (designee), certifying that criteria have been met for staff-level approval. Note: An institution which does not have preliminary authority for the proposed program shall submit a separate request for preliminary authority. That request shall address criteria set in Coordinating Board rules Section 5.24 (a).

Information: Contact the Division of Academic Affairs and Research at 512/427-6200 for more information.

Administrative Information

1. Institution: Texas Tech University

2. Program Name – Show how the program would appear on the Coordinating Board's program inventory (*e.g., Bachelor of Business Administration degree with a major in Accounting*): Master of Science in Forensic Science

3. Proposed CIP Code: 43.0106.00 02 Forensic Science and Technology

4. Brief Program Description – Describe the program and the educational objectives:
   This is an interdisciplinary program focused on the study of many of the characteristic aspects of forensic science. Two distinct tracks have been established for students planning on careers in forensic laboratories or forensic investigative careers. The program is ideally suited for the present and future needs of the forensic community in Texas. Students are required to enroll in classes in at least three different subject areas either in the sciences or humanities. Students typically take 12 credit hours in any one area and no more than 18 credit hours within a single college except Arts and Sciences.

   The program is designed for students from various undergraduate backgrounds in hard sciences, behavioral, or social sciences that desire the multidisciplinary knowledge that will establish them as effective professionals in interdisciplinary teams of forensics in Texas and throughout the nation.

5. Administrative Unit – Identify where the program would fit within the organizational structure of the university (*e.g., The Department of Electrical Engineering within the College of Engineering*): The Graduate School

6. Proposed Implementation Date – Report the first semester and year that students would enter the program: Year : 2011 Academic Semester: Spring

7. Contact Person – Provide contact information for the person who can answer specific questions about the program:

Name: Kathy Sperry, Ph.D.
Name2: Clifford B. Fedler, Ph.D.
Title: Senior Director, Institute for Forensic Science
Title2: Associate Dean, Graduate School
E-mail: kathy.Sperry@ttu.edu
E-mail2: clifford.fedler@ttu.edu
Phone: (806) 743-7901
Phone2: (806) 742-2801

Program Information

I. Need

Note: Complete I.A and I.B only if preliminary authority for the program was granted more than four years ago. This includes programs for which the institution was granted broad preliminary authority for the discipline.

A. Job Market Need – Provide short- and long-term evidence of the need for graduates in the job market.

A recent study submitted by the National Academy of Sciences (2009) cites the critical need for forensic science practitioners and are calling upon institutions of higher education to "develop graduate education programs designed to cut across organizational, programmatic, and disciplinary boundaries" (U. S. Department of Justice [DOJ], 2009).

According to the Bureau of Justice Statistics 2005 census 389 publicly funded forensic crime laboratories were operating in the United States. Of these 210 were state or regional crime laboratories, 84 county laboratories, 33 federal laboratories, and 62 municipal laboratories. These laboratories received evidence from approximately 2.7 million criminal cases in 2005. These facilities are staffed by professionals with a broad range of education and expertise. The range of education includes individuals with a forensic or related Ph.D. to technicians with on the job training. The capacity and quality of current forensic science systems have lead to the focus of increased scrutiny by Congress, the courts, and the media especially with a growing number of exonerations resulting from DNA analysis. Emerging scientific advances that could benefit forensic investigation elicit concerns about

resources, capacity, and specifically training of forensic professionals (DOJ, 2009). These concerns contribute to the need for highly educated and trained individuals in forensic science.

The field of forensic science encompasses a broad range of disciplines. Each discipline exhibit a wide range of variability with regard to methodologies, techniques, practices, protocols, research, error rates, and published materials. Even though the disciplines themselves are distinct, the field itself has traditionally been seen as a single entity thereby resulting in a shortage of forensic practitioners and criminalists and the lack of a "true" multidisciplinary model to educate them.

The Forensic Science graduate program will promote a method that is designed to cut across organizational, programmatic, and disciplinary boundaries. The program will integrate Arts and Sciences, the Law School, The Institute of Environmental and Human Health, College of Human Sciences, College of Education, and College of Engineering to name a few.

Short Term- The *Occupational Outlook Handbook,* projects a 31percent increase or 17,000 forensic science jobs in 2016 (U.S. Department of Labor, 2008-09). Almirall and Furton (2003) suggest it is possible to begin a career as a crime scene technician with only an associate's degree, but higher degrees are often preferred and future trends favor a minimum of a graduate degree in almost all areas of forensic science (DOJ, 2009)

Long Term- The National Academy of Sciences (2009) presented recommendations to Congress that forensic science is lacking in research and the number of scientists being trained in this task (DOJ, 2009). This recommendation will lead to a significant increase in forensic researchers. After the tragic events of 9/11, Congress questioned the role of forensic science in Homeland Security. The application of forensic science disciplines has come to support intelligence, investigations, and operations amide the prevention, interdiction, disruption, attribution, and prosecution of terrorism. This continued trend will also contribute to future forensic science positions.

B. Student Demand – Provide short- and long-term evidence of demand for the program.
As new media attention has focused on the field of crime scene investigation and forensic sciences, students have come to realize the potential for careers in forensics.

Short term-This program has been operating under the auspice of the Texas Tech University Graduate School's Interdisciplinary Studies program since fall 2007 when 2 students enrolled in the program. Since that time the program has increased enrollment by 175% to begin fall 2010 with 37 students. As of August 2010 the program will have graduated 14 students.

Long term- Since the 2008 academic year the program has increased by approx. 15 students per year. We anticipate a similar rate of growth in student enrollment to continue for the next five years based upon the recent historical data. As the result of a Red Book submission in FY02 the Institute for Forensic Science received an initial Congressional earmark from the National Institute of Justice (NIJ) for $248,375. The same award was supported by the FY03 Red Book with a continuation of the previous award for $989,444. The National Institute of Justice recognized the potential of the Institute and the initial concept that had been purposed in the original application for developing a graduate program in forensic science. NIJ recognized the need for new and innovative graduate education programs and awarded $989,444 to the Institute for Forensic Science funding to remodel our existing facility to develop a state of the art class room designed for multiple types of instruction that are specific to many facets' of forensic applications.

A Redbook proposal was submitted last year (FY10/11) for funding for taphonomy research for the academic program. This was not funded, but funding is still being pursued with the support of the provost's office.
Other research grants in forensic science are being pursued on a continued basis. NIJ funds criminal justice-focused social science, forensic science and technology research, development and evaluation projects, as well as laboratory enhancements and research fellowships, through a competitive solicitation process. Solicitations are generally released the first quarter of the calendar year.

C. Enrollment Projections – Use this table to show the estimated cumulative headcount and full-time student equivalent (FTSE) enrollment for the first five years of the program. (*Include majors only and consider attrition and graduation*.)

YEAR	1	2	3	4	5
Headcount	45	60	75	90	105
FTSE	40	55	70	85	100

II. Quality

A. Degree Requirements – Use this table to show the degree requirements of the program. *(Modify the table as needed; if necessary, replicate the table for more than one option.)*

Category ***Forensic Scientist***	**Semester Credit Hours**	**Clock Hours**
General Education Core Curriculum *(bachelor's degree only)*	N/A	
Required Courses	15-17	
Required Law Elective	2-3	
Free Electives	13-16	
Required Capstone *(Internship, Thesis, or Report)*	6	118
TOTAL	39	

Category ***Forensic Examiner***	**Semester Credit Hours**	**Clock Hours**
General Education Core Curriculum *(bachelor's degree only)*	N/A	
Required Courses	12	
Required Law Elective	2-3	
Free Electives	18-19	
Required Capstone *(Internship, Thesis, or Report)*	6	118
TOTAL	39	

The Master of Science degree program in Forensic Science is intended for students who wish to pursue a graduate degree in one of two areas of concentrations. The first area of concentration is the Forensic Scientist track, focusing on the hard sciences of forensics. It enables the students, who desire to work in a crime laboratory environment, to take relevant courses to prepare themselves for such work upon graduation. The second area is that of the Forensic Examiner track, focusing on the behavioral and social sciences of forensics. This is designed for those students who desire to work in some area of criminal justice or law enforcement. Either track requires that work be taken in at least three different subject areas and that up to 12 hours be presented in any one area. Also, no more than 18 hours maybe taken within a single college, expect Arts and Sciences. Students may pursue the Thesis, Report, or Internship for 6 hours of capstone credit (33 hours of graduate course work plus 6 hours for a terminal project).

B. Curriculum – Use these tables to identify the required courses and prescribed electives of the program. Note with an asterisk (*) courses that would be added if the program is approved. *(Add and delete rows as needed. If applicable, replicate the tables for different tracks/options.)*

The core curriculum of the Forensic Science program is based upon the track. The Forensic Scientist track consists of 15-17 hours of required courses. An additional 21-27 hours of electives selected from a list of recommended courses (also includes the 6-8 hours for the capstone projects) completes the track. The Forensic Examiner track consists of 12 hours of required courses. An additional 26-29 hours of electives (also includes the 6-8 hours for the capstone projects) completes the track. The Forensic Science Master's program allows students to study in a multidisciplinary environment. This includes topics in biochemistry, chemistry, toxicology, biology, family studies, criminology, law, or international securities and studies.

Prefix and Number	**Required Courses Forensic Scientist**	**SCH**
Chem 5314 or ENTX 6351/ENTX 6251(lab)	Advanced Analytical Chemistry or Analytical Toxicology with lab	3/5
	Statistics	3
	Research Methods	3
IS 5350	Crime Scene Investigation	3
IS 5351	Serial Offenders	3
Law	Any law course taught at Texas Tech University by the collaborating faculty listed below.	2-3
IS 6000, IS 6031 or IS 6330	Capstone Option (Thesis, Internship or Report)	6
Prefix and Number	**Elective Courses**	**SCH**
	Any graduate course, taught at Texas Tech University by the collaborating faculty below, can be taken as electives upon approval of the program faculty advisor.	19-22

Prefix and Number	Required Courses Forensic Examiner	SCH
IS 5350	Crime Scene Investigation	3
IS 5351	Serial Offenders	3
	Statistics	3
	Research Methods	3
Law	Any law course taught at Texas Tech University by the collaborating faculty listed below.	2-3
IS 6000, IS 6031 or IS 6330	Capstone Option (Thesis, Internship or Report)	6
Prefix and Number	**Elective Courses**	**SCH**
	Any graduate course, taught at Texas Tech University by the collaborating faculty below, can be taken as electives upon approval of the program faculty advisor.	24-25

C. Faculty – Use these tables to provide information about Core and Support faculty. Asterisk before the name of the individual who will have direct administrative responsibilities for the program. *(Add and delete rows as needed.)*

Name of Core Faculty and Faculty Rank	Highest Degree and Awarding Institution	Courses Assigned in Program	% Time Assigned To Program
e.g.: Robertson, David Asst. Professor	PhD. in Molecular Genetics Univ. of Texas at Dallas	MG200, MG285 MG824 (Lab Only)	50%
*Sperry, Kathy Adjunct	PhD. in Psychology Texas Tech University	IS 5000, 5351, 6000, 6031, 6330	25%
*Childers, James Adjunct	MS in Interdisciplinary Studies(Business) Texas Tech University	IS 5350	25%
*Fedler, Clifford Associate Dean	Ph.D. Agricultural Engineering University of Illinois	NA	10%
Cox, Stephan Asst. Professor	PhD in Environmental and Human Health Texas Tech University	ENTX 6100, 6385	0%
Moore-Kucera, Jennifer Asst. Professor	PhD. in Plant and Soil Sciences Oregon State University	TBA	0%
Morgan, Robert Assoc. Professor	PhD. in Psychology Oklahoma State University	TBA	0%
Paine, Robert Professor	PhD. in Sociology, Anthropology, and Social Work. Oklahoma State University	ANTH 5313	0%

Name of Support Faculty and Faculty Rank	Highest Degree and Awarding Institution	Courses Assigned in Program	% Time Assigned To Program
Abidi, N. Asst. Professor	PhD. in Plant and Soil Sciences Montpellier, France.	P&S 6000	0%
Anderson, Todd Assoc. Professor	PhD. in Environmental and Human Health University of Tennessee	ENTX 6351	0%
Blackburn, Jeff Adjunct	JD University of Houston	LAW 7212	0%
Canas, Jaclyn Asst. Professor	PhD. in Environmental and Human Health Texas Tech University	ENTX 6251	0%
Deslippe, Richard Assoc. Professor	PhD. in Biology University of Alberta	ZOOL 5421	0%
Fisher, Judith Professor	PhD. in Human Development and Family Studies University of Colorado	HDFS 5341, 5351	0%
Fitzpatrick, Jacki Assoc. Professor	PhD. in Human Development and Family Studies Auburn University	HDFS 5380, 5321	0%
Gao, M.D., Weimin Asst. Professor	PhD. in Environmental and Human Health Neijing University	ENTX 6326	0%
Godard-Codding, Celine Asst. Professor	PhD. in Environment and Human Health Texas Tech University	ENTX 6325	0%
Gollahon, Lauren Assoc. Professor	PhD. in Biological Sciences Texas A&M University	BIOL 6408, 7000	0%
Grimson, Mark Research Asst.	Biological Sciences	BIOL 6408	0%
Hamilton, Donna Instructor	PhD. in Biological Sciences Texas Tech University	BIOL 6301, 6100	0%
Knaff, David Horn Professor	PhD. in Chemistry and Biochemistry Yale University	BIOTEC 5338	0%
Mulligan, Kevin Assoc. Professor	PhD. in Geospatial Technology Texas A&M University	GEOG 5300, 5302	0%
Presley, Steve Assoc. Professor	PhD. in Geospatial Technology Oklahoma State University	ENTX 6312	0%
Pyeatt, Larry Asst. Professor	PhD. in Computer Science Colorado State University	Computer Forensics	0%
Ramirez, Luiz Asst. Professor	PhD. in Sociology, Anthropology, and Social Work University of New Hampshire	SOC 5335, 5336	0%
Ramkumar, Seshadri Assoc. Professor	PhD. in Textiles and Fiber Science	ENTX 6314	0%

	University of Leeds, England		
Rasty, Jahan Professor	PhD. in Mechanical Engineering Louisiana State University	ME 6331	0%
Riefman, Alan Professor	PhD. in Human Development and Family Studies University of Michigan	HDFS 5349	0%
Roberts, Alden Professor	PhD. Sociology, Anthropology, and Social Work Purdue University	SOC 5394	0%
San Francisco, Susan	PhD. Comparative Endocrinology Boston University	BIOTEC 5338	0%
Smithey, Martha Assoc. Professor	PhD. in Sociology, Anthropology, and Social Work A & M University	SOC 5332	0%
Sutton, Victoria V. Horn Professor	PhD. in Environmental Sciences, University of Texas at Dallas, JD, American University	Law	0%
Tripathy, Jatindra	PhD. in Biotechnology and Genomics Texas Tech University	BTEC 5338	0%
Wasserman, Jason Asst. Professor	PhD. in Sociology, Anthropology, and Social Work University of Alabama	SOC 5332	0%
Wherry, Jeffrey Rockwell Professor	PhD. in Human Development and Family Studies University of Southern Mississippi	HDFS 6373	0%
Williams, Amanda Instructor	PhD. in Educational Psychology Texas Tech University	EPSY 5380	0%
Williams, Laron Asst. Professor	PhD. in Political Science Texas A&M University	POLS 5369	0%

D. Library – Provide the library director's assessment of library resources necessary for the program. Describe plans to build the library holdings to support the program.

The present library holdings in this field, though not extensive, are adequate to begin the proposed program. The library has the core collection necessary for studies in the program. This collection includes books, reference materials, journals and trade magazines, indexes, and electronic databases. All library materials are conveniently available to students on campus. The University Library delivers full service to future distance students, including delivery of library and interlibrary loan materials.

All faculty and students have access to materials owned by other institutions through interlibrary loan. Books borrowed via Interlibrary loan are delivered by

the Library to academic offices, and articles are scanned and sent directly to the desktop computers of faculty and students. The University Library subsidizes all costs charged by other libraries for loans so this service is provided without charges to students or faculty.

TTU library is a member of the following Interlibrary Loan consortia: The Greater Western Library Alliance, TexShare with a courier system that expedites the delivery of books and electronic delivery system through ARIEL, AMIGOS Regional Consortia, and LVIS (Libraries Very Interested in Sharing). TexShare is a cooperative library program that is financed by the state legislature and involves academic and public libraries. This program currently includes reciprocal borrowing agreements, access to selected electronic databases, staff development and training offerings, and priority interlibrary loan service that features a statewide courier system. The Greater Western Library Alliance consists of 30 large research libraries in the Midwest and Western states. Priority interlibrary loans are one of the benefits of this consortium. TTU is a member of the Center of Research Libraries, which provides access to many scholarly resources. Texas Tech University is also a member of the Association of Research Libraries, which includes the 122 largest academic libraries in the U.S. and Canada.

Based on estimates provided, resources are adequate to begin the program. However, over the next four years additional material should be added. Library staff and forensic faculty members will work together to select additional library materials.

E. Facilities and Equipment – Describe the availability and adequacy of facilities and equipment to support the program. Describe plans for facility and equipment improvements/additions.

No new equipment has been added in anticipation of the program. However, annual purchases of new instructional technology to support the instructional and research activities of the faculty and graduate students have been made.

No new equipment expenditures are anticipated using state funds specifically for this program.

No facilities have been added or modified to institute this program. Physical facilities at the Institute for Forensic Science are in acceptable condition and efforts have recently been made to improve the quality of the facilities. The computer technology in the classroom has been updated as funds have become available. The digital video editing technology exceeds industry standards. Faculty members have private offices with up-to-date computers with Internet access, and printers.

No new alterations or renovations are needed in the existing facilities for this program. No new facilities will be required for this program. Future expansion for additional research is feasible, at a minimal cost, once the current county office vacates their portion of the current premises.

F. Accreditation – If the discipline has a national accrediting body, describe plans to obtain accreditation or provide a rationale for not pursuing accreditation. The Forensic Science Education Program Accreditation Commission (FEPAC) through the American Academy of Forensic created a process of accrediting undergraduate and graduate forensic science programs using the Technical Working for Education and Training in Forensic Science TWGED, 2004. This program will seek accreditation through FEPAC beginning in January, 2011.

III. Costs and Funding

Five-Year Costs and Funding Sources - Use this table to show five-year costs and sources of funding for the program.

Five-Year Costs		Five-Year Funding	
Personnel[1]	$499,340	Reallocated Funds	$0
Facilities and Equipment (Utilities & Maintenance)[5]	$95,914	Anticipated New Formula Funding[3]	$423,009
Library, Supplies, and Materials	$0	Special Item Funding	$0
Other[2]	$62,500	Other[4]	$272,445
Total Costs	**$657,754**	**Total Funding**	**$695,454**

1. This cost represents the time (25%) the staff from the Institute for Forensic Science are allocated to operating the program from FOP 16A128 B00095 for 5 years.
2. Estimate of 10 new course sections required plus cost associated with accreditation.
3. Indicate formula funding for students new to the institution because of the program; **formula funding should be included only for years three through five of the program** and should reflect enrollment projections for years three through five. Courses taken within the two tracks are allocated 50:50 from the sciences (formula code 02) and the social services (formula code 09) for the Fy2010-2011 funding year projected as the same for years three to five only assuming 18 SCH/year.
4. Report other sources of funding here. In-hand grants, "likely" future grants, and designated tuition and fees can be included, based on 18 SCH/year.
5. This cost represents 25% of the rental and operating cost of the building.

Signature Page

1. Adequacy of Funding – The chief executive officer shall sign the following statement:

   I certify that the institution has adequate funds to cover the costs of the new program. Furthermore, the new program will not reduce the effectiveness or quality of existing programs at the institution.

   _____ _____
   Chief Executive Officer Date

2. Board of Regents or Designee Approval – A member of the Board of Regents or designee shall sign the following statement:

   On behalf of the Board of Regents, I approve the program.

   _____ _____
   Board of Regents (Designee) Date of Approval

3. Board of Regents Certification of Criteria for Commissioner of Assistant Commissioner Approval – For a program to be approved by the Commissioner or the Assistant Commissioner for Academic Affairs and Research, the Board of Regents or designee must certify that the new program meets the eight criteria under TAC Section 5.50 (b): The criteria stipulate that the program shall:

   (1) be within the institution's current Table of Programs;
   (2) have a curriculum, faculty, resources, support services, and other components of a degree program that are comparable to those of high quality programs in the same or similar disciplines at other institutions;
   (3) have sufficient clinical or in-service sites, if applicable, to support the program;
   (4) be consistent with the standards of the Commission of Colleges of the Southern Association of Colleges and Schools and, if applicable, with the standards or discipline-specific accrediting agencies and licensing agencies;
   (5) attract students on a long-term basis and produce graduates who would have opportunities for employment; or the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution;
   (6) not unnecessarily duplicate existing programs at other institutions;
   (7) not be dependent on future Special Item funding
   (8) have new five-year costs that would not exceed $2 million.

   On behalf of the Board of Regents, I certify that the new program meets the criteria specified under TAC Section 5.50 (b).

   _____
   Board of Regents (Designee) Date

References

Almirall, R. & Furton, K. G. (2003). Trends in forensic science education: Expansion and increased accountability. *Analytical and Bioanalytical Chemistry, 376*, 1156-1159.

U. S. Department of Labor, Bureau of labor Statistics. (2008-09 ed.). *Occupational outlook handbook.* Retrieved from www.bls.gov/oco/ocos115.htm#projections_data.

U. S. Department of Justice, National Criminal Justice Resource Services. (2009). *Strengthening forensic science in the United States: A path forward* (228091). Washington, DC: Author.

Appendices

Appendix A:

COURSE DESCRIPTIONS for Related Courses

ANTH 5313. Human Skeletal Biology and Forensic Anthropology (3:3:0). Analysis of human skeletal remains for legal purposes. Methods of identification, techniques of recovery and examination, facial reconstruction, report writing, limits of inference, expert testimony.

BIOL 5302. Advanced Cell Biology (3:3:0). Prerequisite: 8 hours of biology, 8 hours of chemistry, plus at least one semester of organic chemistry; or consent of instructor. Structure and function of cells with introduction to modern techniques for cell study. Course is offered to graduate students with no formal training in cell biology.

BIOL 6301. Advanced Topics in Biology (3). Prerequisite: Consent of instructor. Special areas of current interest not commonly included in other courses. Content normally different each time offered. May be repeated for additional credit.

BIOL 6408. Research Techniques in Electron Microscopy (4:1:6). Prerequisite: BA or BS in a scientific field. Introduction to operation of electron microscopes emphasizing independent work with organic or inorganic sample preparation and analysis for transmission or scanning electron microscopes.

BTEC 5338. Methods in Biotechnology (3:1:6). Prerequisites: CHEM 3310 or 3311 and CHEM 3314. Methodology for identification and manipulation of genes, for protein expression and purification, and for enzyme assays.

CHEM 5334. Principles of Biochemistry (3:3:0). Prerequisite: Consent of instructor. . A one-semester course geared towards graduate students in animal sciences, food technology, plant and soil sciences, biotechnology and biology. Not appropriate for graduate students in the department.

COMS 5315. Nonverbal Communication (3:3:0). Examines communicative functions of nonverbal message behavior. Considers a variety of behavioral domains and interaction contexts from both theoretical and practical perspectives.

EDSP 5351. Emergent Language and Literacy for Students Who Are Deaf or Hard of Hearing (3:3:0). Development of communication, language, and emergent literacy in students who are deaf or hard of hearing. Addresses all modes of communication, including speech, ASL, and MCE.

EDSP 5382. Communication Skills for Individuals With Visual Impairments (3:3:0). Knowledge and skills in reading and writing the literary Braille code, Nemeth mathematics code, and format. Overview of other codes and basic signing skills for nonverbal communication.

ENTX 6100. Graduate Seminar (1:1:0). Prerequisite: Graduate standing or consent of instructor. A participatory seminar where graduate students condense, review, and

present research findings on focused topics. Subject matter varies by semester. May be repeated for credit.

ENTX 6251. Analytical Toxicology Laboratory (2:0:2). Corequisite: ENTX 6351 or consent of instructor. Extraction, cleanup, and quantitative analysis of environmental chemicals and their degradates. Reinforces and applies theories taught in ENTX 6351.

ENTX 6300. Advanced Topics in Environmental Toxicology (3:3:0). Special areas of current interest not generally covered in other courses. Content normally different each time offered. May be repeated for credit.

ENTX 6312. Biological Threats in the Environment (3:3:0). Prerequisite: Undergraduate biological background or consent of instructor. Detailed examination of characteristics, surveillance, and control of naturally-occurring zoonoses and diseases exploitable as biological weapon agents

ENTX 6314. Chemical Warfare and Protective Countermeasures (3:3:0). Coverage of chemical warfare agents, their protective measures, and technologies. Suitable for science and engineering majors.

ENTX 6325. Principles of Toxicology I (3:3:0). Prerequisite: Graduate standing in the department or consent of instructor. First half of two semester course. Examines the foundations of toxicological sciences. Covers principles, disposition, and first half of toxicity mechanisms.

ENTX 6326. Principles of Toxicology II (3:3:0). Prerequisite: ENTX 6325. Second half of two semester course. Covers remaining mechanisms, toxic agents, and applied toxicology.

ENTX 6351. Analytical Toxicology Lecture (3:3:0). Prerequisite: ENTX 6445 or consent of instructor. Theory of isolation, detection, identification, and quantification of toxic substances and their transformation products in environmental and biological samples.

ENTX 6385. Statistical Applications in Environmental Toxicology (3:3:0). Designed for students who wish to understand the interrelationships of statistical distributions and particular statistical approaches to environmental toxicology data analysis.

ENTX 7000. Research (V1-12).

EPSY 5379. Introduction to Educational Research (3:3:0). Introduction to the nature of research and its relationship to educational thought and practice. Focus on preparing research consumer

EPSY 5380. Introduction to Educational Statistics (3:3:0). An introductory course in statistics with major emphasis on univariate measures for analyzing educational data.

GEOG 5300. Geographic Information Systems (3:2:3). Review of basic cartographic principles and the use of geographic information systems for thematic mapping and spatial analysis. Laboratory emphasizes experience with GIS software.

GEOG 5302. Advanced Geographic Information Systems (3:2:3). Prerequisite: GEOG 5300 or equivalent. An advanced course in geographic information systems. Major topics include data acquisition, database management, and spatial analysis techniques. Laboratory emphasizes experience with professional GIS software.

HDFS 5313. Psychosocial Development (3:3:0). In-depth study of social, emotional, and psychological growth with emphasis on the development of personal and interpersonal competency.

HDFS 5320. Interpersonal and Family Dynamics (3:3:0). Group processes; factors influencing personal and family adjustment.

HDFS 5321. Family Theory (3:3:0). A comprehensive exploration of theory in family studies. The role of theory in empirical investigation; conceptual frameworks; strategies of theory building; examination of systems theory and a spectrum of other models useful in the interdisciplinary study of individual, couple, and family behavior.

HDFS 5349. Quantitative Methods I in Human Development and Family Studies (3:3:0). An introduction to the quantitative methods and statistics necessary to conduct research with children and families through a developmental perspective.

HDFS 5380. Relationship Development (3:3:0). Theory and research related to the formation of initial impressions of others and the development of interpersonal relationships.

HDFS 6373. Advanced Topics in Family Studies (3:3:0). Current topics in family studies. May be repeated for credit under various topics.

IS 5000. Graduate Directed Studies (V1-12). Prerequisite: Consent of Coordinator. Advanced studies in developing cultural understanding. Projects to be assessed by faculty committee.

IS 5350. Crime Scene Investigation (3:3:0). Develop a background in issues relevant to forensic science and be exposed to the principles of forensic science by understanding the concepts of identifying, preserving, collecting, and examining the elements that make up the broad base of forensics as it relates to solving criminal- and terrorist-related activity. Discussion of professional and legal ethics will also be included.

IS 5351. Serial Crime (3:3:0). Develop an understanding of the constructs of deviant behavior and how they relate to criminal activity and the impact that deviant behavior has on victims and society as a whole. Case studies and related research topics in these areas will be covered

IS 6000. Master's Thesis (V1-6).

IS 6031. Internship in Forensic Science (V1-6). Supervised internship in an aspect of forensic science designed to provide the student with practical experience in the field.

IS 6330. Master's Report in Forensic Science (3). Supervised research project to provide the student an opportunity to develop specific experience in the field.

LAW 7212. **Innocence Project Clinic (2).** Prerequisite or corequisite: LAW 6339, Criminal Procedure. Innocence project is a group of attorneys, professors, and students working to free innocent prisoners. With the help of Texas Tech University School of Law faculty and students, IP attorneys provide free legal help to inmates who have been wrongly convicted of crimes in Texas, cannot afford counsel and who no longer have a right to appointed counsel, have already completed the appeals process, have a substantial amount of prison time remaining to be served, and have a cognizable claim of actual innocence. Students in the project are responsible for screening prisoner cases and performing all aspects of investigation into the claims of actual innocence.
ME 6331. Theoretical Studies (3:3:0). Prerequisite: Consent of instructor. Theoretical study of advanced topics selected on the basis of the departmental advisor's recommendation. May be repeated for credit in different areas

POLS 5369. International Security Studies (3:3:0). Examines how states maintain their security in a dangerous world.

SPAN 5341. Intensive Spanish for Graduate Research I (3:3:0). Spanish readings with related grammar to acquaint graduates with Spanish as a research skill; equivalent to two years of normal coursework. Not intended to meet major or minor degree requirements.

SOC 5325. Seminar in Deviant Behavior (3:3:0). Critical review of current theory and research in deviance.

SOC 5332. The Research Organization (3:3:0). Participation in campus-based organized research project. Required at least once of research assistants; open to other students.

SOC 5334. Quantitative Methods in Sociology (3:3:0). Decision making skills (from test selection to inferences from data) for quantitative analysis in sociology

SOC 5335. Seminar in Family Violence (3:3:0). Advanced examination of definitions, prevalence, and theories of family violence. Focuses on impact of variation in definitions of family violence and societal responses to family violence.

SOC 5336. Seminar in Family Change (3:3:0). Analysis of how the family institution has changed, in relation to other institutions and society in general. Family is treated as both a dependent and independent variable.

SOC 5394. Seminar in Sociological Research Methods (3:3:0). An examination of the research process including problem formation, case selection, data collection, and data organization.

Appendix B:

SPACE USAGE

The physical space that currently houses the Institute for Forensic Science was remodeled with approved funding from the U.S. Department of Justice in 2006. The space includes a training center, research space, practical application or hands-on space, and staff offices. The square footage that the Institute occupies is 4,540 (see plat and site photos below).

The training center was designed and equipped specifically to provide law enforcement training, graduate classes and research activities. The training center has the capability to remotely access other Texas Tech satellite sites that could support the existing infrastructure currently at the Institute. This capability could be used to develop future distance education courses and professional certification programs in forensic science. Certification programs are considered a component of the industry standards for many disciplines within forensic science. The center itself is used both for on-site training for law enforcement and classroom instruction for students in the Master degree program. The research space is being utilized for graduate student training and other activities that require hands on instruction. Future research and other new projects that were outlined by the Institute in the FY11 Red Book submission were not carried forward during this congressional budget cycle. The Institute does plan to request consideration for inclusion in the FY12 Red Book submission proposal. The United States Department of Justice (DOJ) approved the funding for the space to be used for each of the functions listed below. Graduate courses IS 5350 and IS 5351 are currently being taught at the Institute building. Law enforcement training is also being conducted and trainings are currently scheduled through May 2011. The following narrative describes the rooms, the functions and how they are utilized for forensic graduate courses (Crime Scene Investigation, IS 5350 and Serial Crime, IS 5351) and law enforcement training.

See the corresponding plat for the following room description.

Room 121:

- A multimedia training center, capable of seating 32 students, equipped with state of the art podium, computer, DVD player, VCR player, document camera, audio/visual live broadcast connectivity capability. Also included is an electrically lowering wall screen, 21" monitor, an electronic Smart Board™, with capability to connect a laptop to the system, and direct connection to Health Net Central Control for trouble shooting issues. The center also includes dimmers for front and rear room lights, automatic on-off switch for lights, lighting specially designed for a projector image. The center is equipped a state-of-the-art podium designed specifically for the equipment described above.

- Activities include, but are not limited to, classroom instruction for students in the Master in Forensic Science degree program and training for Law Enforcement and criminal justice professionals.

- Graduate students utilize the equipment for case studies and presentations throughout the semester. The training center allows students the opportunity to practice public speaking and courtroom testimony.

- The purpose for selecting the above described equipment was to allow the student to become familiar with this type of media equipment which is now standard in many courtroom settings.

- The center also functions as a regional training site for law enforcement and criminal justice professionals from West Texas, Eastern New Mexico, and Oklahoma. Highly specialized training for these agencies is possible due to the unique design of the training center.

Room 121A:

- Storage for 12 specially configured laptop computers for computer forensic training and other audio visual equipment.

Room147:

- Area to be used for a crime mapping computer lab. Lab functions as a web based computer center for simulated/game type crime scene investigation training for graduate students and law enforcement. This space will be specifically outlined in the FY11 Red Book proposal for use as a crime mapping computer lab.

- Upon final completion of the computer lab graduate students will be trained in the most current techniques and applications of crime mapping and analysis.

- Law enforcement personnel will be trained in the use of crime analysis using the most current industry standards.

- Currently being used to house files from pasted trainings and correspondence. Also furniture, and file cabinets, for future endeavors.

- Specialized polycom double monitors for wide area network systems are located in this area.

- Storage of 5 anthropological recovery kits for use during human remains training. This course is conducted semiannual and attended by graduate students and law enforcement.

Room 146:

- Area for conducting mock crime scene scenarios for law enforcement and graduate student education, to include blood spatter demonstrations and evidence examinations.

Room 145:

- Area is used for the examinations of latent fingerprints, biological fluids, hairs and fibers that are examined using a full spectrum alternate light source.

- Graduate students and law enforcement are currently receiving hands on application of these techniques and use of the equipment as part of the "Crime Scene Investigation" courses.

Room 144:

- A microscope consisting of a comparison scope for firearms ballistics and tool mark examination.

- Work table with lighted magnifying glass.

Room 143:

- Area for examination of glass fragments and simulated blood spatter examination.

- Work space for developing physical matches of evidence.

- Work space for graduate research assistants is also available in this area.

Room 142:

- Large table for student exercises with shoe/tire impressions, fingerprint evidence, and evidence collection.

Room 141:

- Copy machine, storage, and shredder bin.

Room 138:

- Large flat work surface for group projects. Finger print development, examination, and identification.

- Examination of developed finger prints using alternate light sources.

- A microscope capable of digital photography of object and it can be viewed via a computer screen.

Room 138A:

- Area to develop latent finger prints using dry magnetic, non-carbon, florescent, and other powder reagents on a variety of surfaces (porous, non-porous, wood, paper, and metal).

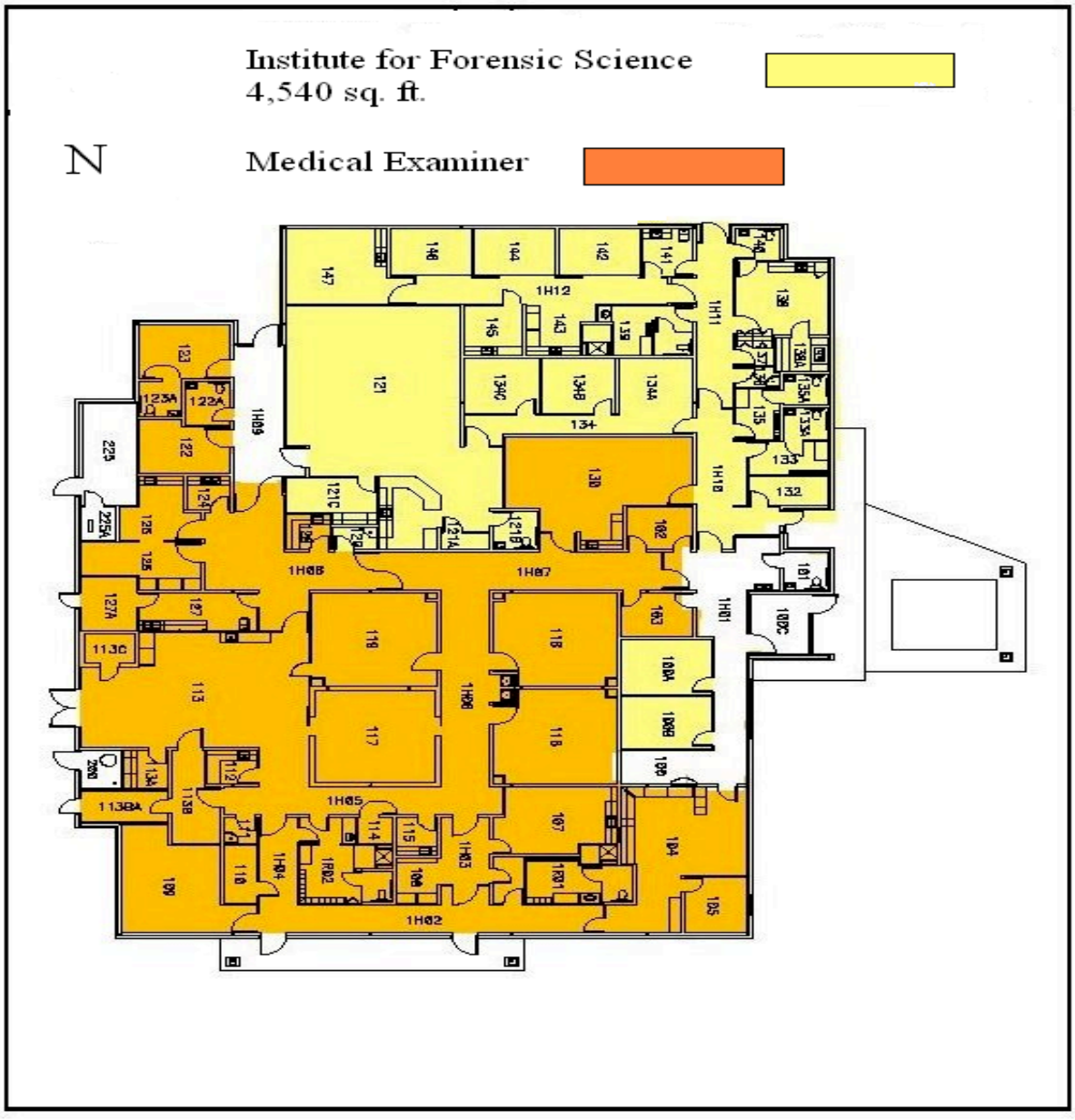
- Area for use and examination for trace metal detection test using UV light.

- Storage of evidence collection materials.

Rooms 100A, 100B, 121C, 134A, 134B, and 134C:

- Staff offices

*Note: None of the below space is designed for use as a wet laboratory. (Space in yellow)



Appendix C:

CURRENT FACILITY

Classroom

Appendix D:

STUDENT LEARNING OUTCOMES AND ASSESSMENT

Degree Title: Master of Science in **Forensic Science**
Purpose of degree program: This degree is designed for students with broad interest in several fields or for those whose career goals do not match fully with a singly identifiable academic unit or department. Emphasis is placed on continued intellectual and cultural development in a constantly changing society in which new career interests may extend over several traditional specializations.

Forensic Scientist

Item	**EXPECTED LEARNING OUTCOMES**	**METHODS OF ASSESSMENT**
1)	Students will be able to demonstrate their advanced knowledge in three or more different fields of study.	In their capstone experiences (thesis, report or internship), students will have their advanced knowledge of laboratory sciences, forensic sciences, and research methodologies judged by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
2)	Students will be able to integrate three or more fields of study.	In their capstone experiences (thesis, report or internship), students will have their integration of advanced laboratory sciences, forensic sciences, and research methodologies judged by their three-person faculty committees, its basis being in the Rubric for Outcomes Assessment of Student Learning.
3)	Students will demonstrate mastery of written communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of written communication of forensic sciences research or project activities assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
4)	Students will demonstrate effective oral communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of oral communication of forensic science research or project activities assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).

5)	Students will demonstrate the ability to think critically on issues related to their chosen fields of study.	Students' critical thinking related to advanced laboratory sciences, forensic sciences, and research methodologies as reflected in their capstone experiences (thesis, report or internship) will be assessed and reported by their committee members (grounded in the Rubric for Outcomes Assessment of Student Learning) and/or evaluations from the internship site supervisor.

Forensic Examiner

Item	**EXPECTED LEARNING OUTCOMES**	**METHODS OF ASSESSMENT**
1)	Students will be able to demonstrate their advanced knowledge in three or more different fields of study.	In their capstone experiences (thesis, report or internship), students will have their advanced knowledge of forensic sciences, behavioral and/or social sciences, and research methodologies judged by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
2)	Students will be able to integrate three or more fields of study.	In their capstone experiences (thesis, report or internship), students will have their integration of forensic sciences, behavioral and/or social sciences, and research methodologies judged by their three-person faculty committees, with its basis being in the Rubric for Outcomes Assessment of Student Learning.
3)	Students will demonstrate mastery of written communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of written communication relating to forensic sciences, behavioral and/or social sciences, and research methodologies assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).

4)	Students will demonstrate effective oral communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of oral communication related to forensic sciences, behavioral and/or social sciences, and research methodologies assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
5)	Students will demonstrate the ability to think critically on issues related to their chosen fields of study.	Students' critical thinking related to forensic sciences, behavioral and/or social sciences, and research methodologies as reflected in their capstone experiences (thesis, report or internship) will be assessed and reported by their committee members (grounded in the Rubric for Outcomes Assessment of Student Learning) and/or evaluations from the internship site supervisor.

RUBRIC FOR OUTCOMES ASSESSMENT OF STUDENT LEARNING
Both Scientist and Examiner track

For each student, complete the following assessment instrument and return this form to the Graduate School.
This Assessment is based on one of the following activities (check one):
( ) Thesis
( ) Report
( ) Internship

1) Knowledge of Fields

Indicate Field(s) of Study:

The student demonstrated knowledge of the above field(s): [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

2) Integration of Fields

(i.e., has the student been able to explain how the various fields or courses that she/he has taken are somehow related or share common qualities)

The student demonstrated knowledge of the above field(s): [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

3) Writing Ability:

The student demonstrated writing ability: [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

4) Oral Communication:

The student demonstrated effective oral communication: [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

5) Critical Thinking:

The student demonstrated effective critical thinking: [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

_____
Faculty Member's Signature

Appendix E:

PREVIOUS GRADUATE INFORMATION

	Name	Degree	Grad Date	Job
1	Ashley Ebling	Forensic Scientist	Aug 2009	South Plains Forensic Pathology
2	Crystal Allen	Forensic Scientist	Aug 2009	Louisiana State Crime Lab, DNA Analyst
3	Brittany Villarreal	Forensic Examiner	Aug 2009	Randall Co. Adult Probation & Parole
4	Kira Hassler	Forensic Scientist	Dec 2009	Sam Houston Crime Lab
5	Whitney McClendon	Forensic Examiner	Dec 2009	*Obtaining a double Masters*
6	Theresa Salazar	Forensic Scientist	May 2010	*Seeking employment*
7	Juliet Kinyua	Forensic Scientist	May 2010	*Obtaining Ph.D.*
8	Brittney Gabriel	Forensic Examiner	Aug 2010	*Applied with Garland PD & Texas Department of Public Safety*
9	Brandon Mount	Forensic Scientist	Aug 2010	*Applied with multiple Private & State Crime Labs*
10	James Ruiz	Forensic Examiner	Aug 2010	*Applied with Secret Service*
11	Amanda Malone	Forensic Examiner	Aug 2010	*Seeking employment*
12	Johnny Quilimaco	Forensic Examiner	Aug 2010	*Applied with US State Department*
13	Kristen Kaminski	Forensic Examiner	May 2010	Bair Forensic Software, contractors for DOD
14	Janette Cortez	Forensic Scientist	May 2010	*Seeking employment*
December 2010 Graduates				
15	Angela Sims	Forensic Scientist	Dec 2010	*Applying to Ph.D. programs*
16	Nirvani Mujumdar	Forensic Scientist	Dec 2010	*Applying to Ph.D. programs*

- NOTE: Nine of the 14 graduates completed the program in May or August 2010. Some of the new graduates have not corresponded with us since graduation and we are trying to contact them to determine their employment status. Several are pursuing federal employment which, as we are sure you are aware, is a long process. The state of the economy may have had a slowing effect on the job market as well. However, the previous four students have secured employment within 30 days after graduation and one continued at Tech to complete a double Masters.

New Program Request for Master's Degree
Forensic Science

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Certification Form for New Bachelor's and Master's Programs
Texas Higher Education Coordinating Board

Directions: An institution shall use this form to request a new bachelor's or master's degree program that meets all criteria for automatic approval in Coordinating Board Rules, Chapter 5, Subchapter C, Section 5.44: (a) The program has institutional and governing board approval; (b) the program complies with the *Standards for Bachelor's and Master's Programs;* (c) adequate funds are available to cover the costs of the new program; (d) new costs during the first five years of the program will not exceed $2 million; (e) the program is a non-engineering program (i.e., not classified under CIP code 14); and (f) the program will be offered by a university or health-related institution.

If a new bachelor's or master's program does not meet the criteria above, an institution must submit a request using the *Form for Requesting a New Bachelor's and Master's Degree Program.*
Information: Contact the Division of Academic Affairs and Research at 512/427-6200 for more information.

Administrative Information

1. Institution: Texas Tech University

2. Program Name: Master of Science in Forensic Science

3. Proposed CIP Code: 43.0106.00 02 Forensic Science and Technology

4. Number of Required Semester Credit Hours (SCHs) (*If the number of SCHs exceeds 120 for a bachelor's program, the institution must request a waiver documenting the compelling academic reason for requiring more SCHs.*): Requires at least 39 SCHs

5. Administrative Unit: Identify where the program would fit within the organizational structure of the university (*e.g., The Department of Electrical Engineering within the College of Engineering*).
The Graduate School

6. Delivery Mode: Identify how and where the program would be delivered, e.g. on-campus face-to-face, online, off-campus, interactive videoconferencing, hybrid, etc.
Program will be delivered on campus face-to-face, but it can include off-campus face-to-face classes.

7. Implementation Date: Report the first semester and year that students would enter the program.
Program is proposed in the 2011 spring semester.

8. Contact Person: Provide contact information for the person who can answer specific questions about the program.

Name: Kathy Sperry, Ph.D.
Name2: Clifford B. Fedler, Ph.D.
Title: Senior Director, Institute for Forensic Science
Title2: Associate Dean, Graduate School
E-mail: kathy.Sperry@ttu.edu
E-mail2: clifford.fedler@ttu.edu
Phone: (806) 743-7901
Phone2: (806) 742-2801

Signature Page

I hereby certify that all of the following criteria have been met in accordance with the procedures outlined in Coordinating Board Rules, Chapter 5, Subchapter C, Section 5.44:

(a) The program has institutional approval.

(b) The program complies with the *Standards for Bachelor's and Master's Programs.*

(c) Adequate funds are available to cover the costs of the new program.

(d) New costs during the first five years of the program will not exceed $2 million.

(e) The program is a non-engineering program (i.e., not classified under CIP code 14).

(f) The program will be offered by a university or health-related institution.

I understand that the Coordinating Board will update the program inventory for the institution if no objections to the proposed program are received during the 30-day public comment period.

_____

Chief Executive Officer Date

I hereby certify that the Board of Regents has approved this program.

Date of Board of Regents approval: _____

_____

Board of Regents (or Designee) Date

New Program Request Form for Bachelor and Master's Degrees

Directions: An institution shall use this form to propose a new bachelor's or master's degree program. In completing the form, the institution should refer to the document *Standards for Bachelor's and Master's Programs,* which prescribes specific requirements for new degree programs. Note: This form requires signatures of (1) the Chief Executive Officer, certifying adequacy of funding for the new program; (2) a member of the Board of Regents (or designee), certifying Board approval, and (3) if applicable, a member of the Board of Regents or (designee), certifying that criteria have been met for staff-level approval. Note: An institution which does not have preliminary authority for the proposed program shall submit a separate request for preliminary authority. That request shall address criteria set in Coordinating Board rules Section 5.24 (a).

Information: Contact the Division of Academic Affairs and Research at 512/427-6200 for more information.

Administrative Information

1. Institution: Texas Tech University

2. Program Name – Show how the program would appear on the Coordinating Board's program inventory (*e.g., Bachelor of Business Administration degree with a major in Accounting*): Master of Science in Forensic Science

3. Proposed CIP Code: 43.0106.00 02 Forensic Science and Technology

4. Brief Program Description – Describe the program and the educational objectives:
   This is an interdisciplinary program focused on the study of many of the characteristic aspects of forensic science. Two distinct tracks have been established for students planning on careers in forensic laboratories or forensic investigative careers. The program is ideally suited for the present and future needs of the forensic community in Texas. Students are required to enroll in classes in at least three different subject areas either in the sciences or humanities. Students typically take 12 credit hours in any one area and no more than 18 credit hours within a single college except Arts and Sciences.

   The program is designed for students from various undergraduate backgrounds in hard sciences, behavioral, or social sciences that desire the multidisciplinary knowledge that will establish them as effective professionals in interdisciplinary teams of forensics in Texas and throughout the nation.

5. Administrative Unit – Identify where the program would fit within the organizational structure of the university (*e.g., The Department of Electrical Engineering within the College of Engineering*): The Graduate School

6. Proposed Implementation Date – Report the first semester and year that students would enter the program: Year : 2011 Academic Semester: Spring

7. Contact Person – Provide contact information for the person who can answer specific questions about the program:

Name: Kathy Sperry, Ph.D.
Name2: Clifford B. Fedler, Ph.D.
Title: Senior Director, Institute for Forensic Science
Title2: Associate Dean, Graduate School
E-mail: kathy.Sperry@ttu.edu
E-mail2: clifford.fedler@ttu.edu
Phone: (806) 743-7901
Phone2: (806) 742-2801

Program Information

I. Need

Note: Complete I.A and I.B only if preliminary authority for the program was granted more than four years ago. This includes programs for which the institution was granted broad preliminary authority for the discipline.

A. Job Market Need – Provide short- and long-term evidence of the need for graduates in the job market.

A recent study submitted by the National Academy of Sciences (2009) cites the critical need for forensic science practitioners and are calling upon institutions of higher education to "develop graduate education programs designed to cut across organizational, programmatic, and disciplinary boundaries" (U. S. Department of Justice [DOJ], 2009).

According to the Bureau of Justice Statistics 2005 census 389 publicly funded forensic crime laboratories were operating in the United States. Of these 210 were state or regional crime laboratories, 84 county laboratories, 33 federal laboratories, and 62 municipal laboratories. These laboratories received evidence from approximately 2.7 million criminal cases in 2005. These facilities are staffed by professionals with a broad range of education and expertise. The range of education includes individuals with a forensic or related Ph.D. to technicians with on the job training. The capacity and quality of current forensic science systems have lead to the focus of increased scrutiny by Congress, the courts, and the media especially with a growing number of exonerations resulting from DNA analysis. Emerging scientific advances that could benefit forensic investigation elicit concerns about

resources, capacity, and specifically training of forensic professionals (DOJ, 2009). These concerns contribute to the need for highly educated and trained individuals in forensic science.

The field of forensic science encompasses a broad range of disciplines. Each discipline exhibit a wide range of variability with regard to methodologies, techniques, practices, protocols, research, error rates, and published materials. Even though the disciplines themselves are distinct, the field itself has traditionally been seen as a single entity thereby resulting in a shortage of forensic practitioners and criminalists and the lack of a "true" multidisciplinary model to educate them.

The Forensic Science graduate program will promote a method that is designed to cut across organizational, programmatic, and disciplinary boundaries. The program will integrate Arts and Sciences, the Law School, The Institute of Environmental and Human Health, College of Human Sciences, College of Education, and College of Engineering to name a few.

Short Term- The *Occupational Outlook Handbook,* projects a 31percent increase or 17,000 forensic science jobs in 2016 (U.S. Department of Labor, 2008-09). Almirall and Furton (2003) suggest it is possible to begin a career as a crime scene technician with only an associate's degree, but higher degrees are often preferred and future trends favor a minimum of a graduate degree in almost all areas of forensic science (DOJ, 2009)

Long Term- The National Academy of Sciences (2009) presented recommendations to Congress that forensic science is lacking in research and the number of scientists being trained in this task (DOJ, 2009). This recommendation will lead to a significant increase in forensic researchers. After the tragic events of 9/11, Congress questioned the role of forensic science in Homeland Security. The application of forensic science disciplines has come to support intelligence, investigations, and operations amide the prevention, interdiction, disruption, attribution, and prosecution of terrorism. This continued trend will also contribute to future forensic science positions.

B. Student Demand – Provide short- and long-term evidence of demand for the program.
As new media attention has focused on the field of crime scene investigation and forensic sciences, students have come to realize the potential for careers in forensics.

Short term-This program has been operating under the auspice of the Texas Tech University Graduate School's Interdisciplinary Studies program since fall 2007 when 2 students enrolled in the program. Since that time the program has increased enrollment by 175% to begin fall 2010 with 37 students. As of August 2010 the program will have graduated 14 students.

Long term- Since the 2008 academic year the program has increased by approx. 15 students per year. We anticipate a similar rate of growth in student enrollment to continue for the next five years based upon the recent historical data. As the result of a Red Book submission in FY02 the Institute for Forensic Science received an initial Congressional earmark from the National Institute of Justice (NIJ) for $248,375. The same award was supported by the FY03 Red Book with a continuation of the previous award for $989,444. The National Institute of Justice recognized the potential of the Institute and the initial concept that had been purposed in the original application for developing a graduate program in forensic science. NIJ recognized the need for new and innovative graduate education programs and awarded $989,444 to the Institute for Forensic Science funding to remodel our existing facility to develop a state of the art class room designed for multiple types of instruction that are specific to many facets' of forensic applications.

A Redbook proposal was submitted last year (FY10/11) for funding for taphonomy research for the academic program. This was not funded, but funding is still being pursued with the support of the provost's office.
Other research grants in forensic science are being pursued on a continued basis. NIJ funds criminal justice-focused social science, forensic science and technology research, development and evaluation projects, as well as laboratory enhancements and research fellowships, through a competitive solicitation process. Solicitations are generally released the first quarter of the calendar year.

C. Enrollment Projections – Use this table to show the estimated cumulative headcount and full-time student equivalent (FTSE) enrollment for the first five years of the program. (*Include majors only and consider attrition and graduation*.)

YEAR	1	2	3	4	5
Headcount	45	60	75	90	105
FTSE	40	55	70	85	100

II. Quality

A. Degree Requirements – Use this table to show the degree requirements of the program. *(Modify the table as needed; if necessary, replicate the table for more than one option.)*

Category ***Forensic Scientist***	**Semester Credit Hours**	**Clock Hours**
General Education Core Curriculum *(bachelor's degree only)*	N/A	
Required Courses	15-17	
Required Law Elective	2-3	
Free Electives	13-16	
Required Capstone *(Internship, Thesis, or Report)*	6	118
TOTAL	39	

Category ***Forensic Examiner***	**Semester Credit Hours**	**Clock Hours**
General Education Core Curriculum *(bachelor's degree only)*	N/A	
Required Courses	12	
Required Law Elective	2-3	
Free Electives	18-19	
Required Capstone *(Internship, Thesis, or Report)*	6	118
TOTAL	39	

The Master of Science degree program in Forensic Science is intended for students who wish to pursue a graduate degree in one of two areas of concentrations. The first area of concentration is the Forensic Scientist track, focusing on the hard sciences of forensics. It enables the students, who desire to work in a crime laboratory environment, to take relevant courses to prepare themselves for such work upon graduation. The second area is that of the Forensic Examiner track, focusing on the behavioral and social sciences of forensics. This is designed for those students who desire to work in some area of criminal justice or law enforcement. Either track requires that work be taken in at least three different subject areas and that up to 12 hours be presented in any one area. Also, no more than 18 hours maybe taken within a single college, expect Arts and Sciences. Students may pursue the Thesis, Report, or Internship for 6 hours of capstone credit (33 hours of graduate course work plus 6 hours for a terminal project).

B. Curriculum – Use these tables to identify the required courses and prescribed electives of the program. Note with an asterisk (*) courses that would be added if the program is approved. *(Add and delete rows as needed. If applicable, replicate the tables for different tracks/options.)*

The core curriculum of the Forensic Science program is based upon the track. The Forensic Scientist track consists of 15-17 hours of required courses. An additional 21-27 hours of electives selected from a list of recommended courses (also includes the 6-8 hours for the capstone projects) completes the track. The Forensic Examiner track consists of 12 hours of required courses. An additional 26-29 hours of electives (also includes the 6-8 hours for the capstone projects) completes the track. The Forensic Science Master's program allows students to study in a multidisciplinary environment. This includes topics in biochemistry, chemistry, toxicology, biology, family studies, criminology, law, or international securities and studies.

Prefix and Number	**Required Courses Forensic Scientist**	**SCH**
Chem 5314 or ENTX 6351/ENTX 6251(lab)	Advanced Analytical Chemistry or Analytical Toxicology with lab	3/5
	Statistics	3
	Research Methods	3
IS 5350	Crime Scene Investigation	3
IS 5351	Serial Offenders	3
Law	Any law course taught at Texas Tech University by the collaborating faculty listed below.	2-3
IS 6000, IS 6031 or IS 6330	Capstone Option (Thesis, Internship or Report)	6
Prefix and Number	**Elective Courses**	**SCH**
	Any graduate course, taught at Texas Tech University by the collaborating faculty below, can be taken as electives upon approval of the program faculty advisor.	19-22

Prefix and Number	Required Courses Forensic Examiner	SCH
IS 5350	Crime Scene Investigation	3
IS 5351	Serial Offenders	3
	Statistics	3
	Research Methods	3
Law	Any law course taught at Texas Tech University by the collaborating faculty listed below.	2-3
IS 6000, IS 6031 or IS 6330	Capstone Option (Thesis, Internship or Report)	6
Prefix and Number	**Elective Courses**	**SCH**
	Any graduate course, taught at Texas Tech University by the collaborating faculty below, can be taken as electives upon approval of the program faculty advisor.	24-25

C. Faculty – Use these tables to provide information about Core and Support faculty. Asterisk before the name of the individual who will have direct administrative responsibilities for the program. *(Add and delete rows as needed.)*

Name of Core Faculty and Faculty Rank	Highest Degree and Awarding Institution	Courses Assigned in Program	% Time Assigned To Program
e.g.: Robertson, David Asst. Professor	PhD. in Molecular Genetics Univ. of Texas at Dallas	MG200, MG285 MG824 (Lab Only)	50%
*Sperry, Kathy Adjunct	PhD. in Psychology Texas Tech University	IS 5000, 5351, 6000, 6031, 6330	25%
*Childers, James Adjunct	MS in Interdisciplinary Studies(Business) Texas Tech University	IS 5350	25%
*Fedler, Clifford Associate Dean	Ph.D. Agricultural Engineering University of Illinois	NA	10%
Cox, Stephan Asst. Professor	PhD in Environmental and Human Health Texas Tech University	ENTX 6100, 6385	0%
Moore-Kucera, Jennifer Asst. Professor	PhD. in Plant and Soil Sciences Oregon State University	TBA	0%
Morgan, Robert Assoc. Professor	PhD. in Psychology Oklahoma State University	TBA	0%
Paine, Robert Professor	PhD. in Sociology, Anthropology, and Social Work. Oklahoma State University	ANTH 5313	0%

Name of Support Faculty and Faculty Rank	Highest Degree and Awarding Institution	Courses Assigned in Program	% Time Assigned To Program
Abidi, N. Asst. Professor	PhD. in Plant and Soil Sciences Montpellier, France.	P&S 6000	0%
Anderson, Todd Assoc. Professor	PhD. in Environmental and Human Health University of Tennessee	ENTX 6351	0%
Blackburn, Jeff Adjunct	JD University of Houston	LAW 7212	0%
Canas, Jaclyn Asst. Professor	PhD. in Environmental and Human Health Texas Tech University	ENTX 6251	0%
Deslippe, Richard Assoc. Professor	PhD. in Biology University of Alberta	ZOOL 5421	0%
Fisher, Judith Professor	PhD. in Human Development and Family Studies University of Colorado	HDFS 5341, 5351	0%
Fitzpatrick, Jacki Assoc. Professor	PhD. in Human Development and Family Studies Auburn University	HDFS 5380, 5321	0%
Gao, M.D., Weimin Asst. Professor	PhD. in Environmental and Human Health Neijing University	ENTX 6326	0%
Godard-Codding, Celine Asst. Professor	PhD. in Environment and Human Health Texas Tech University	ENTX 6325	0%
Gollahon, Lauren Assoc. Professor	PhD. in Biological Sciences Texas A&M University	BIOL 6408, 7000	0%
Grimson, Mark Research Asst.	Biological Sciences	BIOL 6408	0%
Hamilton, Donna Instructor	PhD. in Biological Sciences Texas Tech University	BIOL 6301, 6100	0%
Knaff, David Horn Professor	PhD. in Chemistry and Biochemistry Yale University	BIOTEC 5338	0%
Mulligan, Kevin Assoc. Professor	PhD. in Geospatial Technology Texas A&M University	GEOG 5300, 5302	0%
Presley, Steve Assoc. Professor	PhD. in Geospatial Technology Oklahoma State University	ENTX 6312	0%
Pyeatt, Larry Asst. Professor	PhD. in Computer Science Colorado State University	Computer Forensics	0%
Ramirez, Luiz Asst. Professor	PhD. in Sociology, Anthropology, and Social Work University of New Hampshire	SOC 5335, 5336	0%
Ramkumar, Seshadri Assoc. Professor	PhD. in Textiles and Fiber Science	ENTX 6314	0%

	University of Leeds, England		
Rasty, Jahan Professor	PhD. in Mechanical Engineering Louisiana State University	ME 6331	0%
Riefman, Alan Professor	PhD. in Human Development and Family Studies University of Michigan	HDFS 5349	0%
Roberts, Alden Professor	PhD. Sociology, Anthropology, and Social Work Purdue University	SOC 5394	0%
San Francisco, Susan	PhD. Comparative Endocrinology Boston University	BIOTEC 5338	0%
Smithey, Martha Assoc. Professor	PhD. in Sociology, Anthropology, and Social Work A & M University	SOC 5332	0%
Sutton, Victoria V. Horn Professor	PhD. in Environmental Sciences, University of Texas at Dallas, JD, American University	Law	0%
Tripathy, Jatindra	PhD. in Biotechnology and Genomics Texas Tech University	BTEC 5338	0%
Wasserman, Jason Asst. Professor	PhD. in Sociology, Anthropology, and Social Work University of Alabama	SOC 5332	0%
Wherry, Jeffrey Rockwell Professor	PhD. in Human Development and Family Studies University of Southern Mississippi	HDFS 6373	0%
Williams, Amanda Instructor	PhD. in Educational Psychology Texas Tech University	EPSY 5380	0%
Williams, Laron Asst. Professor	PhD. in Political Science Texas A&M University	POLS 5369	0%

D. Library – Provide the library director's assessment of library resources necessary for the program. Describe plans to build the library holdings to support the program.

The present library holdings in this field, though not extensive, are adequate to begin the proposed program. The library has the core collection necessary for studies in the program. This collection includes books, reference materials, journals and trade magazines, indexes, and electronic databases. All library materials are conveniently available to students on campus. The University Library delivers full service to future distance students, including delivery of library and interlibrary loan materials.

All faculty and students have access to materials owned by other institutions through interlibrary loan. Books borrowed via Interlibrary loan are delivered by

the Library to academic offices, and articles are scanned and sent directly to the desktop computers of faculty and students. The University Library subsidizes all costs charged by other libraries for loans so this service is provided without charges to students or faculty.

TTU library is a member of the following Interlibrary Loan consortia: The Greater Western Library Alliance, TexShare with a courier system that expedites the delivery of books and electronic delivery system through ARIEL, AMIGOS Regional Consortia, and LVIS (Libraries Very Interested in Sharing). TexShare is a cooperative library program that is financed by the state legislature and involves academic and public libraries. This program currently includes reciprocal borrowing agreements, access to selected electronic databases, staff development and training offerings, and priority interlibrary loan service that features a statewide courier system. The Greater Western Library Alliance consists of 30 large research libraries in the Midwest and Western states. Priority interlibrary loans are one of the benefits of this consortium. TTU is a member of the Center of Research Libraries, which provides access to many scholarly resources. Texas Tech University is also a member of the Association of Research Libraries, which includes the 122 largest academic libraries in the U.S. and Canada.

Based on estimates provided, resources are adequate to begin the program. However, over the next four years additional material should be added. Library staff and forensic faculty members will work together to select additional library materials.

E. Facilities and Equipment – Describe the availability and adequacy of facilities and equipment to support the program. Describe plans for facility and equipment improvements/additions.

No new equipment has been added in anticipation of the program. However, annual purchases of new instructional technology to support the instructional and research activities of the faculty and graduate students have been made.

No new equipment expenditures are anticipated using state funds specifically for this program.

No facilities have been added or modified to institute this program. Physical facilities at the Institute for Forensic Science are in acceptable condition and efforts have recently been made to improve the quality of the facilities. The computer technology in the classroom has been updated as funds have become available. The digital video editing technology exceeds industry standards. Faculty members have private offices with up-to-date computers with Internet access, and printers.

No new alterations or renovations are needed in the existing facilities for this program. No new facilities will be required for this program. Future expansion for additional research is feasible, at a minimal cost, once the current county office vacates their portion of the current premises.

F. Accreditation – If the discipline has a national accrediting body, describe plans to obtain accreditation or provide a rationale for not pursuing accreditation. The Forensic Science Education Program Accreditation Commission (FEPAC) through the American Academy of Forensic created a process of accrediting undergraduate and graduate forensic science programs using the Technical Working for Education and Training in Forensic Science TWGED, 2004. This program will seek accreditation through FEPAC beginning in January, 2011.

III. Costs and Funding

Five-Year Costs and Funding Sources - Use this table to show five-year costs and sources of funding for the program.

Five-Year Costs		Five-Year Funding	
Personnel[1]	$499,340	Reallocated Funds	$0
Facilities and Equipment (Utilities & Maintenance)[5]	$95,914	Anticipated New Formula Funding[3]	$423,009
Library, Supplies, and Materials	$0	Special Item Funding	$0
Other[2]	$62,500	Other[4]	$272,445
Total Costs	**$657,754**	**Total Funding**	**$695,454**

1. This cost represents the time (25%) the staff from the Institute for Forensic Science are allocated to operating the program from FOP 16A128 B00095 for 5 years.
2. Estimate of 10 new course sections required plus cost associated with accreditation.
3. Indicate formula funding for students new to the institution because of the program; **formula funding should be included only for years three through five of the program** and should reflect enrollment projections for years three through five. Courses taken within the two tracks are allocated 50:50 from the sciences (formula code 02) and the social services (formula code 09) for the Fy2010-2011 funding year projected as the same for years three to five only assuming 18 SCH/year.
4. Report other sources of funding here. In-hand grants, "likely" future grants, and designated tuition and fees can be included, based on 18 SCH/year.
5. This cost represents 25% of the rental and operating cost of the building.

Signature Page

1. Adequacy of Funding – The chief executive officer shall sign the following statement:

   I certify that the institution has adequate funds to cover the costs of the new program. Furthermore, the new program will not reduce the effectiveness or quality of existing programs at the institution.

   _____ _____
   Chief Executive Officer Date

2. Board of Regents or Designee Approval – A member of the Board of Regents or designee shall sign the following statement:

   On behalf of the Board of Regents, I approve the program.

   _____ _____
   Board of Regents (Designee) Date of Approval

3. Board of Regents Certification of Criteria for Commissioner of Assistant Commissioner Approval – For a program to be approved by the Commissioner or the Assistant Commissioner for Academic Affairs and Research, the Board of Regents or designee must certify that the new program meets the eight criteria under TAC Section 5.50 (b): The criteria stipulate that the program shall:

   (1) be within the institution's current Table of Programs;
   (2) have a curriculum, faculty, resources, support services, and other components of a degree program that are comparable to those of high quality programs in the same or similar disciplines at other institutions;
   (3) have sufficient clinical or in-service sites, if applicable, to support the program;
   (4) be consistent with the standards of the Commission of Colleges of the Southern Association of Colleges and Schools and, if applicable, with the standards or discipline-specific accrediting agencies and licensing agencies;
   (5) attract students on a long-term basis and produce graduates who would have opportunities for employment; or the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution;
   (6) not unnecessarily duplicate existing programs at other institutions;
   (7) not be dependent on future Special Item funding
   (8) have new five-year costs that would not exceed $2 million.

   On behalf of the Board of Regents, I certify that the new program meets the criteria specified under TAC Section 5.50 (b).

   _____
   Board of Regents (Designee) Date

References

Almirall, R. & Furton, K. G. (2003). Trends in forensic science education: Expansion and increased accountability. *Analytical and Bioanalytical Chemistry, 376*, 1156-1159.

U. S. Department of Labor, Bureau of labor Statistics. (2008-09 ed.). *Occupational outlook handbook.* Retrieved from www.bls.gov/oco/ocos115.htm#projections_data.

U. S. Department of Justice, National Criminal Justice Resource Services. (2009). *Strengthening forensic science in the United States: A path forward* (228091). Washington, DC: Author.

Appendices

Appendix A:

COURSE DESCRIPTIONS for Related Courses

ANTH 5313. Human Skeletal Biology and Forensic Anthropology (3:3:0). Analysis of human skeletal remains for legal purposes. Methods of identification, techniques of recovery and examination, facial reconstruction, report writing, limits of inference, expert testimony.

BIOL 5302. Advanced Cell Biology (3:3:0). Prerequisite: 8 hours of biology, 8 hours of chemistry, plus at least one semester of organic chemistry; or consent of instructor. Structure and function of cells with introduction to modern techniques for cell study. Course is offered to graduate students with no formal training in cell biology.

BIOL 6301. Advanced Topics in Biology (3). Prerequisite: Consent of instructor. Special areas of current interest not commonly included in other courses. Content normally different each time offered. May be repeated for additional credit.

BIOL 6408. Research Techniques in Electron Microscopy (4:1:6). Prerequisite: BA or BS in a scientific field. Introduction to operation of electron microscopes emphasizing independent work with organic or inorganic sample preparation and analysis for transmission or scanning electron microscopes.

BTEC 5338. Methods in Biotechnology (3:1:6). Prerequisites: CHEM 3310 or 3311 and CHEM 3314. Methodology for identification and manipulation of genes, for protein expression and purification, and for enzyme assays.

CHEM 5334. Principles of Biochemistry (3:3:0). Prerequisite: Consent of instructor. . A one-semester course geared towards graduate students in animal sciences, food technology, plant and soil sciences, biotechnology and biology. Not appropriate for graduate students in the department.

COMS 5315. Nonverbal Communication (3:3:0). Examines communicative functions of nonverbal message behavior. Considers a variety of behavioral domains and interaction contexts from both theoretical and practical perspectives.

EDSP 5351. Emergent Language and Literacy for Students Who Are Deaf or Hard of Hearing (3:3:0). Development of communication, language, and emergent literacy in students who are deaf or hard of hearing. Addresses all modes of communication, including speech, ASL, and MCE.

EDSP 5382. Communication Skills for Individuals With Visual Impairments (3:3:0). Knowledge and skills in reading and writing the literary Braille code, Nemeth mathematics code, and format. Overview of other codes and basic signing skills for nonverbal communication.

ENTX 6100. Graduate Seminar (1:1:0). Prerequisite: Graduate standing or consent of instructor. A participatory seminar where graduate students condense, review, and

present research findings on focused topics. Subject matter varies by semester. May be repeated for credit.

ENTX 6251. Analytical Toxicology Laboratory (2:0:2). Corequisite: ENTX 6351 or consent of instructor. Extraction, cleanup, and quantitative analysis of environmental chemicals and their degradates. Reinforces and applies theories taught in ENTX 6351.

ENTX 6300. Advanced Topics in Environmental Toxicology (3:3:0). Special areas of current interest not generally covered in other courses. Content normally different each time offered. May be repeated for credit.

ENTX 6312. Biological Threats in the Environment (3:3:0). Prerequisite: Undergraduate biological background or consent of instructor. Detailed examination of characteristics, surveillance, and control of naturally-occurring zoonoses and diseases exploitable as biological weapon agents

ENTX 6314. Chemical Warfare and Protective Countermeasures (3:3:0). Coverage of chemical warfare agents, their protective measures, and technologies. Suitable for science and engineering majors.

ENTX 6325. Principles of Toxicology I (3:3:0). Prerequisite: Graduate standing in the department or consent of instructor. First half of two semester course. Examines the foundations of toxicological sciences. Covers principles, disposition, and first half of toxicity mechanisms.

ENTX 6326. Principles of Toxicology II (3:3:0). Prerequisite: ENTX 6325. Second half of two semester course. Covers remaining mechanisms, toxic agents, and applied toxicology.

ENTX 6351. Analytical Toxicology Lecture (3:3:0). Prerequisite: ENTX 6445 or consent of instructor. Theory of isolation, detection, identification, and quantification of toxic substances and their transformation products in environmental and biological samples.

ENTX 6385. Statistical Applications in Environmental Toxicology (3:3:0). Designed for students who wish to understand the interrelationships of statistical distributions and particular statistical approaches to environmental toxicology data analysis.

ENTX 7000. Research (V1-12).

EPSY 5379. Introduction to Educational Research (3:3:0). Introduction to the nature of research and its relationship to educational thought and practice. Focus on preparing research consumer

EPSY 5380. Introduction to Educational Statistics (3:3:0). An introductory course in statistics with major emphasis on univariate measures for analyzing educational data.

GEOG 5300. Geographic Information Systems (3:2:3). Review of basic cartographic principles and the use of geographic information systems for thematic mapping and spatial analysis. Laboratory emphasizes experience with GIS software.

GEOG 5302. Advanced Geographic Information Systems (3:2:3). Prerequisite: GEOG 5300 or equivalent. An advanced course in geographic information systems. Major topics include data acquisition, database management, and spatial analysis techniques. Laboratory emphasizes experience with professional GIS software.

HDFS 5313. Psychosocial Development (3:3:0). In-depth study of social, emotional, and psychological growth with emphasis on the development of personal and interpersonal competency.

HDFS 5320. Interpersonal and Family Dynamics (3:3:0). Group processes; factors influencing personal and family adjustment.

HDFS 5321. Family Theory (3:3:0). A comprehensive exploration of theory in family studies. The role of theory in empirical investigation; conceptual frameworks; strategies of theory building; examination of systems theory and a spectrum of other models useful in the interdisciplinary study of individual, couple, and family behavior.

HDFS 5349. Quantitative Methods I in Human Development and Family Studies (3:3:0). An introduction to the quantitative methods and statistics necessary to conduct research with children and families through a developmental perspective.

HDFS 5380. Relationship Development (3:3:0). Theory and research related to the formation of initial impressions of others and the development of interpersonal relationships.

HDFS 6373. Advanced Topics in Family Studies (3:3:0). Current topics in family studies. May be repeated for credit under various topics.

IS 5000. Graduate Directed Studies (V1-12). Prerequisite: Consent of Coordinator. Advanced studies in developing cultural understanding. Projects to be assessed by faculty committee.

IS 5350. Crime Scene Investigation (3:3:0). Develop a background in issues relevant to forensic science and be exposed to the principles of forensic science by understanding the concepts of identifying, preserving, collecting, and examining the elements that make up the broad base of forensics as it relates to solving criminal- and terrorist-related activity. Discussion of professional and legal ethics will also be included.

IS 5351. Serial Crime (3:3:0). Develop an understanding of the constructs of deviant behavior and how they relate to criminal activity and the impact that deviant behavior has on victims and society as a whole. Case studies and related research topics in these areas will be covered

IS 6000. Master's Thesis (V1-6).

IS 6031. Internship in Forensic Science (V1-6). Supervised internship in an aspect of forensic science designed to provide the student with practical experience in the field.

IS 6330. Master's Report in Forensic Science (3). Supervised research project to provide the student an opportunity to develop specific experience in the field.

LAW 7212. **Innocence Project Clinic (2).** Prerequisite or corequisite: LAW 6339, Criminal Procedure. Innocence project is a group of attorneys, professors, and students working to free innocent prisoners. With the help of Texas Tech University School of Law faculty and students, IP attorneys provide free legal help to inmates who have been wrongly convicted of crimes in Texas, cannot afford counsel and who no longer have a right to appointed counsel, have already completed the appeals process, have a substantial amount of prison time remaining to be served, and have a cognizable claim of actual innocence. Students in the project are responsible for screening prisoner cases and performing all aspects of investigation into the claims of actual innocence.
ME 6331. Theoretical Studies (3:3:0). Prerequisite: Consent of instructor. Theoretical study of advanced topics selected on the basis of the departmental advisor's recommendation. May be repeated for credit in different areas

POLS 5369. International Security Studies (3:3:0). Examines how states maintain their security in a dangerous world.

SPAN 5341. Intensive Spanish for Graduate Research I (3:3:0). Spanish readings with related grammar to acquaint graduates with Spanish as a research skill; equivalent to two years of normal coursework. Not intended to meet major or minor degree requirements.

SOC 5325. Seminar in Deviant Behavior (3:3:0). Critical review of current theory and research in deviance.

SOC 5332. The Research Organization (3:3:0). Participation in campus-based organized research project. Required at least once of research assistants; open to other students.

SOC 5334. Quantitative Methods in Sociology (3:3:0). Decision making skills (from test selection to inferences from data) for quantitative analysis in sociology

SOC 5335. Seminar in Family Violence (3:3:0). Advanced examination of definitions, prevalence, and theories of family violence. Focuses on impact of variation in definitions of family violence and societal responses to family violence.

SOC 5336. Seminar in Family Change (3:3:0). Analysis of how the family institution has changed, in relation to other institutions and society in general. Family is treated as both a dependent and independent variable.

SOC 5394. Seminar in Sociological Research Methods (3:3:0). An examination of the research process including problem formation, case selection, data collection, and data organization.

Appendix B:

SPACE USAGE

The physical space that currently houses the Institute for Forensic Science was remodeled with approved funding from the U.S. Department of Justice in 2006. The space includes a training center, research space, practical application or hands-on space, and staff offices. The square footage that the Institute occupies is 4,540 (see plat and site photos below).

The training center was designed and equipped specifically to provide law enforcement training, graduate classes and research activities. The training center has the capability to remotely access other Texas Tech satellite sites that could support the existing infrastructure currently at the Institute. This capability could be used to develop future distance education courses and professional certification programs in forensic science. Certification programs are considered a component of the industry standards for many disciplines within forensic science. The center itself is used both for on-site training for law enforcement and classroom instruction for students in the Master degree program. The research space is being utilized for graduate student training and other activities that require hands on instruction. Future research and other new projects that were outlined by the Institute in the FY11 Red Book submission were not carried forward during this congressional budget cycle. The Institute does plan to request consideration for inclusion in the FY12 Red Book submission proposal. The United States Department of Justice (DOJ) approved the funding for the space to be used for each of the functions listed below. Graduate courses IS 5350 and IS 5351 are currently being taught at the Institute building. Law enforcement training is also being conducted and trainings are currently scheduled through May 2011. The following narrative describes the rooms, the functions and how they are utilized for forensic graduate courses (Crime Scene Investigation, IS 5350 and Serial Crime, IS 5351) and law enforcement training.

See the corresponding plat for the following room description.

Room 121:

- A multimedia training center, capable of seating 32 students, equipped with state of the art podium, computer, DVD player, VCR player, document camera, audio/visual live broadcast connectivity capability. Also included is an electrically lowering wall screen, 21" monitor, an electronic Smart Board™, with capability to connect a laptop to the system, and direct connection to Health Net Central Control for trouble shooting issues. The center also includes dimmers for front and rear room lights, automatic on-off switch for lights, lighting specially designed for a projector image. The center is equipped a state-of-the-art podium designed specifically for the equipment described above.

- Activities include, but are not limited to, classroom instruction for students in the Master in Forensic Science degree program and training for Law Enforcement and criminal justice professionals.

- Graduate students utilize the equipment for case studies and presentations throughout the semester. The training center allows students the opportunity to practice public speaking and courtroom testimony.

- The purpose for selecting the above described equipment was to allow the student to become familiar with this type of media equipment which is now standard in many courtroom settings.

- The center also functions as a regional training site for law enforcement and criminal justice professionals from West Texas, Eastern New Mexico, and Oklahoma. Highly specialized training for these agencies is possible due to the unique design of the training center.

Room 121A:

- Storage for 12 specially configured laptop computers for computer forensic training and other audio visual equipment.

Room147:

- Area to be used for a crime mapping computer lab. Lab functions as a web based computer center for simulated/game type crime scene investigation training for graduate students and law enforcement. This space will be specifically outlined in the FY11 Red Book proposal for use as a crime mapping computer lab.

- Upon final completion of the computer lab graduate students will be trained in the most current techniques and applications of crime mapping and analysis.

- Law enforcement personnel will be trained in the use of crime analysis using the most current industry standards.

- Currently being used to house files from pasted trainings and correspondence. Also furniture, and file cabinets, for future endeavors.

- Specialized polycom double monitors for wide area network systems are located in this area.

- Storage of 5 anthropological recovery kits for use during human remains training. This course is conducted semiannual and attended by graduate students and law enforcement.

Room 146:

- Area for conducting mock crime scene scenarios for law enforcement and graduate student education, to include blood spatter demonstrations and evidence examinations.

Room 145:

- Area is used for the examinations of latent fingerprints, biological fluids, hairs and fibers that are examined using a full spectrum alternate light source.

- Graduate students and law enforcement are currently receiving hands on application of these techniques and use of the equipment as part of the "Crime Scene Investigation" courses.

Room 144:

- A microscope consisting of a comparison scope for firearms ballistics and tool mark examination.

- Work table with lighted magnifying glass.

Room 143:

- Area for examination of glass fragments and simulated blood spatter examination.

- Work space for developing physical matches of evidence.

- Work space for graduate research assistants is also available in this area.

Room 142:

- Large table for student exercises with shoe/tire impressions, fingerprint evidence, and evidence collection.

Room 141:

- Copy machine, storage, and shredder bin.

Room 138:

- Large flat work surface for group projects. Finger print development, examination, and identification.

- Examination of developed finger prints using alternate light sources.

- A microscope capable of digital photography of object and it can be viewed via a computer screen.

Room 138A:

- Area to develop latent finger prints using dry magnetic, non-carbon, florescent, and other powder reagents on a variety of surfaces (porous, non-porous, wood, paper, and metal).

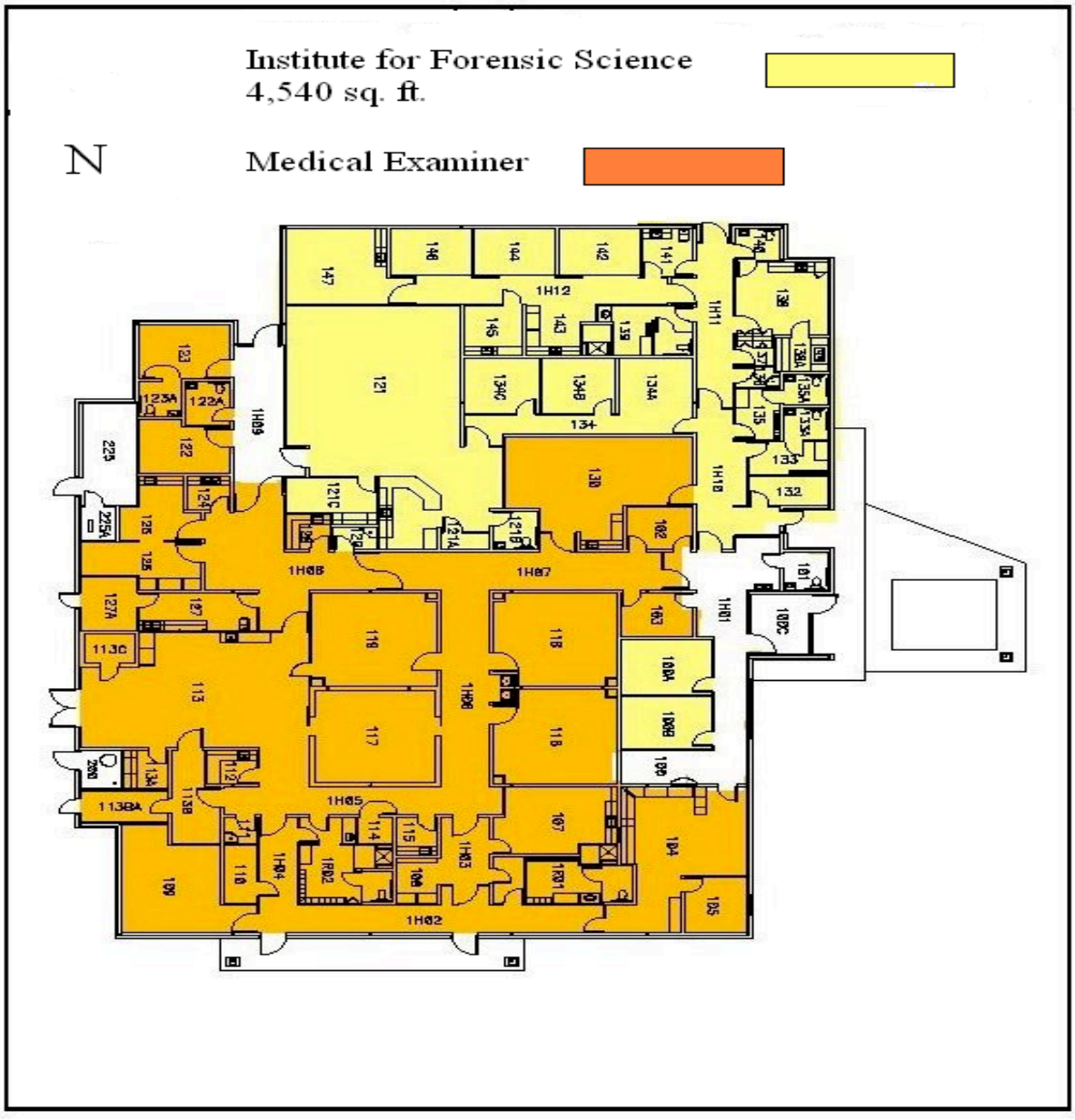
- Area for use and examination for trace metal detection test using UV light.

- Storage of evidence collection materials.

Rooms 100A, 100B, 121C, 134A, 134B, and 134C:

- Staff offices

*Note: None of the below space is designed for use as a wet laboratory. (Space in yellow)



Appendix C:

CURRENT FACILITY

Classroom

Appendix D:

STUDENT LEARNING OUTCOMES AND ASSESSMENT

Degree Title: Master of Science in **Forensic Science**
Purpose of degree program: This degree is designed for students with broad interest in several fields or for those whose career goals do not match fully with a singly identifiable academic unit or department. Emphasis is placed on continued intellectual and cultural development in a constantly changing society in which new career interests may extend over several traditional specializations.

Forensic Scientist

Item	**EXPECTED LEARNING OUTCOMES**	**METHODS OF ASSESSMENT**
1)	Students will be able to demonstrate their advanced knowledge in three or more different fields of study.	In their capstone experiences (thesis, report or internship), students will have their advanced knowledge of laboratory sciences, forensic sciences, and research methodologies judged by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
2)	Students will be able to integrate three or more fields of study.	In their capstone experiences (thesis, report or internship), students will have their integration of advanced laboratory sciences, forensic sciences, and research methodologies judged by their three-person faculty committees, its basis being in the Rubric for Outcomes Assessment of Student Learning.
3)	Students will demonstrate mastery of written communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of written communication of forensic sciences research or project activities assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
4)	Students will demonstrate effective oral communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of oral communication of forensic science research or project activities assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).

5)	Students will demonstrate the ability to think critically on issues related to their chosen fields of study.	Students' critical thinking related to advanced laboratory sciences, forensic sciences, and research methodologies as reflected in their capstone experiences (thesis, report or internship) will be assessed and reported by their committee members (grounded in the Rubric for Outcomes Assessment of Student Learning) and/or evaluations from the internship site supervisor.

Forensic Examiner

Item	**EXPECTED LEARNING OUTCOMES**	**METHODS OF ASSESSMENT**
1)	Students will be able to demonstrate their advanced knowledge in three or more different fields of study.	In their capstone experiences (thesis, report or internship), students will have their advanced knowledge of forensic sciences, behavioral and/or social sciences, and research methodologies judged by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
2)	Students will be able to integrate three or more fields of study.	In their capstone experiences (thesis, report or internship), students will have their integration of forensic sciences, behavioral and/or social sciences, and research methodologies judged by their three-person faculty committees, with its basis being in the Rubric for Outcomes Assessment of Student Learning.
3)	Students will demonstrate mastery of written communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of written communication relating to forensic sciences, behavioral and/or social sciences, and research methodologies assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).

4)	Students will demonstrate effective oral communication.	In their capstone experiences (thesis, report or internship), students will have their mastery of oral communication related to forensic sciences, behavioral and/or social sciences, and research methodologies assessed by their faculty committees (grounded in the Rubric for Outcomes Assessment of Student Learning).
5)	Students will demonstrate the ability to think critically on issues related to their chosen fields of study.	Students' critical thinking related to forensic sciences, behavioral and/or social sciences, and research methodologies as reflected in their capstone experiences (thesis, report or internship) will be assessed and reported by their committee members (grounded in the Rubric for Outcomes Assessment of Student Learning) and/or evaluations from the internship site supervisor.

RUBRIC FOR OUTCOMES ASSESSMENT OF STUDENT LEARNING
Both Scientist and Examiner track

For each student, complete the following assessment instrument and return this form to the Graduate School.
This Assessment is based on one of the following activities (check one):
( ) Thesis
( ) Report
( ) Internship

1) Knowledge of Fields

Indicate Field(s) of Study:

The student demonstrated knowledge of the above field(s): [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

2) Integration of Fields

(i.e., has the student been able to explain how the various fields or courses that she/he has taken are somehow related or share common qualities)

The student demonstrated knowledge of the above field(s): [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

3) Writing Ability:

The student demonstrated writing ability: [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

4) Oral Communication:

The student demonstrated effective oral communication: [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

5) Critical Thinking:

The student demonstrated effective critical thinking: [Check one]
____ Not at all
____ Marginally
____ Acceptably
____ Very Well
____ Excellently

_____
Faculty Member's Signature

Appendix E:

PREVIOUS GRADUATE INFORMATION

	Name	Degree	Grad Date	Job
1	Ashley Ebling	Forensic Scientist	Aug 2009	South Plains Forensic Pathology
2	Crystal Allen	Forensic Scientist	Aug 2009	Louisiana State Crime Lab, DNA Analyst
3	Brittany Villarreal	Forensic Examiner	Aug 2009	Randall Co. Adult Probation & Parole
4	Kira Hassler	Forensic Scientist	Dec 2009	Sam Houston Crime Lab
5	Whitney McClendon	Forensic Examiner	Dec 2009	*Obtaining a double Masters*
6	Theresa Salazar	Forensic Scientist	May 2010	*Seeking employment*
7	Juliet Kinyua	Forensic Scientist	May 2010	*Obtaining Ph.D.*
8	Brittney Gabriel	Forensic Examiner	Aug 2010	*Applied with Garland PD & Texas Department of Public Safety*
9	Brandon Mount	Forensic Scientist	Aug 2010	*Applied with multiple Private & State Crime Labs*
10	James Ruiz	Forensic Examiner	Aug 2010	*Applied with Secret Service*
11	Amanda Malone	Forensic Examiner	Aug 2010	*Seeking employment*
12	Johnny Quilimaco	Forensic Examiner	Aug 2010	*Applied with US State Department*
13	Kristen Kaminski	Forensic Examiner	May 2010	Bair Forensic Software, contractors for DOD
14	Janette Cortez	Forensic Scientist	May 2010	*Seeking employment*
December 2010 Graduates				
15	Angela Sims	Forensic Scientist	Dec 2010	*Applying to Ph.D. programs*
16	Nirvani Mujumdar	Forensic Scientist	Dec 2010	*Applying to Ph.D. programs*

- NOTE: Nine of the 14 graduates completed the program in May or August 2010. Some of the new graduates have not corresponded with us since graduation and we are trying to contact them to determine their employment status. Several are pursuing federal employment which, as we are sure you are aware, is a long process. The state of the economy may have had a slowing effect on the job market as well. However, the previous four students have secured employment within 30 days after graduation and one continued at Tech to complete a double Masters.

October 2010 Academic Council
Summary of Proposed Course Approvals

No.	College	Action	Prefix & No.	Title	HRS	Fee	Description/Term/CIP/Level
1	ARCH	DEL	ARCH 3312	Architectural Theory Seminar	3:3:0		Prerequisite: ARCH 2315. Topical theory seminar involving analysis of a body of scholarly literature, frequent writing and focused research. (Writing intensive) **Justification:** This course has not been taught in seven years. **Effective Term: Spring 2011** **CIP Code: 04.0201.0006**
2	ARCH	DEL	ARCH 4364	Issues of Differences in the Built Environment	3:3:0		Issues of race, ethnicity, culture, gender, and political - economic contexts influencing process of design of architecture, the built environment and international and cross-cultural architectural practices. **Justification:** This course has not been taught in four years. **Effective Term: Spring 2011** **CIP Code: 04.0201.0006**
3	AS	CHG title and description	CHEM 1105	**Current**: Chemical Basics Laboratory **Proposed**: Experimental Chemical Basics	1:0:3		Prerequisite or corequisite: CHEM 1305. Experimental chemistry course complementary to CHEM 1305. Partially fulfills Core Natural Sciences requirement when coupled with CHEM 1305. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0501.0002**
4	AS	CHG title and description	CHEM 1106	**Current**: Chemistry That Matters Laboratory **Proposed**: Chemistry Experiments That Matter	1:0:3		Prerequisite or corequisite: CHEM 1306. Experimental chemistry course complementary to CHEM 1306. Partially fulfills Core Natural Sciences requirement when coupled with CHEM 1306. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0501.0002**
5	AS	CHG title and description	CHEM 1107	**Current**: Principles of Chemistry I (Laboratory) **Proposed**: Experimental Principles of Chemistry I	1:0:3		Prerequisite or corequisite: CHEM 1307. Experimental chemistry course complementary to CHEM 1307. Partially fulfills Core Natural Sciences requirement when coupled with CHEM 1307. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0501.0002**
6	AS	CHG title and description	CHEM 1108	**Current**: Principles of Chemistry II (Laboratory) **Proposed**: Experimental Principles of Chemistry II	1:0:3		Prerequisite or corequisite: CHEM 1107, 1308. Experimental chemistry course complementary to CHEM 1308. Partially fulfills Core Natural Sciences requirement when coupled with CHEM 1308. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0501.0002**
7	AS	CHG title and description	CHEM 2103	**Current**: Introductory Organic Chemistry Laboratory **Proposed**: Experimental Introductory Organic Chemistry	1:0:3		Prerequisite: CHEM 1106 or 1108; prerequisite or corequisite: CHEM 2303. Experimental chemistry course complementary to CHEM 2303 for students in agriculture and human sciences. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0504.0002**

8	AS	CHG title and description	CHEM 3105	**Current**: Organic Chemistry Laboratory I **Proposed**: Experimental Organic Chemistry I	1:0:3		Prerequisite: CHEM 1108; prerequisite or corequisite: CHEM 3305. Experimental chemistry course complementary to CHEM 3305 addressing fundamental techniques of organic chemistry. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0504.0002**
9	AS	CHG title and description	CHEM 3106	**Current**: Organic Chemistry Laboratory II **Proposed**: Experimental Organic Chemistry II	1:0:3		Prerequisite: CHEM 3105; prerequisite or corequisite: CHEM 3306. Experimental chemistry course complementary to CHEM 3306 addressing fundamental techniques of organic chemistry. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0504.0002**
10	AS	CHG title and description	CHEM 3107	**Current**: Physical Chemistry Laboratory I **Proposed**: Experimental Physical Chemistry I	1:0:3		Prerequisite or corequisite: CHEM 3307 or CHE 3322. An introduction to physical chemical experimental methods, including calorimetry, phase equilibria, surface phenomena, and viscosity. (Writing Intensive) **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0506.0002**
11	AS	CHG title and description	CHEM 3108	**Current**: Physical Chemistry Laboratory II **Proposed**: Experimental Physical Chemistry II	1:0:3		Prerequisite or corequisite: CHEM 3308. An introduction to physical chemical methods, including spectroscopy, high-vacuum techniques, and electric and magnetic phenomena. (Writing Intensive) **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0506.0002**
12	AS	CHG title and description	CHEM 3141	**Current**: Analytical Chemical Methods Laboratory **Proposed**: Experimental Analytical Chemical Methods	1:0:3		Prerequisite or corequisite: CHEM 3341. Experimental chemistry course complementary to CHEM 3341 with emphasis on analytical techniques important to biological and medical sciences. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0502.0002**
13	AS	CHG title	CHEM 3201	**Current**: Advanced Organic Chemistry Laboratory **Proposed**: Advanced Experimental Organic Chemistry	2:0:6		Prerequisite: CHEM 3306. Advanced synthesis, purification, and analysis of organic compounds. Required for B.S. majors in chemistry. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0504.0002**
14	AS	CHG title and description	CHEM 3251	**Current**: Analytical Chemical Laboratory **Proposed**: Experimental Analytical Chemistry	2:0:6		Prerequisite or corequisite: CHEM 3351. Experimental chemistry course complementary to CHEM 3351 with emphasis on the major analytical techniques. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0502.0002**
15	AS	CHG title	CHEM 3313	**Current**: Biological Chemistry Laboratory **Proposed**: Experimental Biological Chemistry	3:1:6		Prerequisite: CHEM 3106 and 3311. Techniques for the isolation, purification, and characterization of biomolecular species. (Writing Intensive) **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0501.0002**

16	AS	CHG title and description	CHEM 4105	**Current**: Inorganic Chemistry Laboratory **Proposed**: Experimental Inorganic Chemistry	1:0:3		Prerequisite: CHEM 3105. Techniques used in the synthesis and characterization of inorganic compounds. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0503.0002**
17	AS	CHG title and description	CHEM 4114	**Current**: Instrumental Analytical Methods Laboratory **Proposed**: Experimental Instrumental Analytical Methods Chemistry	1:0:3		Prerequisite or corequisite: CHEM 4314. Experimental chemistry course complementary to CHEM 4314 providing experience and practice with several important chemical instruments. **Justification:** The name change provides a consistent naming scheme for experimental chemistry courses throughout the chemistry curriculum. **Effective Term: Spring 2011** **CIP Code: 40.0502.0002**
18	AS	ADD	PHIL 5315	Topics in Aesthetics	3:3:0	Y	In-depth examination of a particular area of topic in aesthetics and the philosophy of art. May be repeated as topic varies. **Justification:** The graduate program in philosophy has grown to the point of needing a dedicated course in aesthetics beyond PHIL 5310 and 5314, which are required courses in the Fine Arts Ph.D. program and are typically filled by students outside the Department of Philosophy. **Effective Term: Fall 2011** **CIP Code: 38.0103.0001**
19	BA	CHG title, description	ENCO 4325	**Current**: Global Energy Future **Proposed**: Global Energy Perspectives	3:3:0		Prerequisite: ENCO 3385 with a minimum grade of C. Explores the challenges and resources available to developed nations in meeting the energy demands of the twenty-first century. Focuses on OECD countries primarily in Europe. **Justification:** The change better reflects the material covered in the course. **Effective Term: Summer I 2011** **CIP Code: 52.0101.0016**
20	BA	ADD	ACCT 3303	Intermediate Accounting for Financial Managers	3:3:0	Y	Prerequisite: Non-accounting majors only, 2.75 GPA, and completion of ACCT 2300 with a grade of C or better. Income concepts, corporation assets, liabilities, equity, financial statements and their uses. **Justification:** The course will cover accounting for liabilities and stockholders' equity, which is material not covered in ACCT 3304 (required for finance majors). **Effective Term: Spring 2011** **CIP Code: 52.0301.0016**
21	BA	ADD	BA 4384	Volunteer Income Tax Assistance	3:3:0	Y	Prerequisite: ACCT 3307 or equivalent. Service learning course designed to teach students about income tax through hands-on training assisting others in the community with income tax return preparation. **Justification:** This is a special type of internship, so it needs to have its own course number and title. The topic previously was one section of BA 4382, but it has differing characteristics. **Effective Term: Spring 2011** **CIP Code: 52.0201.0016**
22	ED	CHG title	EPCE 5352	**Current**: Advanced Issues in School Counseling **Proposed**: Child and Adolescent Counseling	3:3:0		Prerequisite: EPCE 5358 and 5364, admission to the counselor education program. Philosophy, principles, and practices of counseling children and young adolescents in school and community settings. **Justification:** The new name is in line with the trends in the field of counselor education for child and adolescent counseling. In accordance with accreditation standards and state licensing, the name change will better reflect alignment to both standards. **Effective Term: Spring 2011** **CIP Code: 13.1101.0004**

23	ENGR	ADD	CHE 4122	Chemical Engineering Review	1:1:0	Y	Review of chemical engineering science and engineering courses. Preparation for the chemical engineering portion of the FE exam and the chemical engineering capstone design project. **Justification:** A practical review for the chemical engineering portion of the FE exam is needed to increase the student passing rates. This course will also serve as a review to prepare students for their capstone design project. A comprehensive exam required for all chemical engineering majors will be given as part of the course. **Effective Term: Fall 2011** **CIP Code: 14.0701.0006**
24	ENGR	CHG hours	CHE 4344	Polymers and Materials Laboratory	3:1:6 to 3:2:4		Prerequisites: CHE 3330, ME 2311, or MTEC 3441. Synthesis and properties of materials including polymers, polymerization, transitions, phase separation, mechanical properties, and processing. **Justification:** The requested change will amend the contact hours to reflect accurately the contact hours and activity type. The proposed hours include 4 contact hours for a credit lab and 2 contact hours for a discussion. The total number of contact hours remains the same (3). **Effective Term: Fall 2011** **CIP Code: 14.0701.0006**
25	HS	CHG number, hours	NS 4120 to NS 4220	Medical Terminology	1:1:0 to 2:2:0		Terminology in describing normal anatomical, physiological, and psychological conditions and those related to disease and its treatment. For students entering dietetic and allied health professions. S. **Justification:** The course has expanded to include numerous additional medical terms, tests, medications, and abbreviations. The new hours will match the coursework load for students. **Effective Term: Spring 2011** **CIP Code: 30.1901.0002**
26	HS	CHG title and description	PFP 2101	**Current**: Money Management Basics: Insurance and Risk Management **Proposed**: Money Management Basics: Major Purchases and Insurance	1:1:0	Y	For nonmajors only. Introduction to basic financial decision making regarding the acquisition of transportation, housing, and other major purchases and ways to protect assets through the use of various types of insurance. **Justification:** New title and description more accurately reflect course content. **Effective Term: Spring 2011** **CIP Code: 52.0804.0016**
27	LAW	DEL	LAW 6029	Advanced Legal Ethics	V2-3		Explores the application and development of professional judgment through examination of scenarios that are typical of difficult decisions that lawyers face. Lawyers, judges, other faculty and professionals from other disciplines will be included in the discussions. Enrollment is limited to 18 students. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
28	LAW	DEL	LAW 6032	Public Education Law	V2-3		A comprehensive study of the impact of law upon public education in America, emphasizing the diverse relationships existing between students, teachers, administrators, governing bodies, legislature, and the public, and how these relationships are affected by law expressed in regulations, statutes, judicial decisions, state constitutions, and the U.S. Constitution. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
29	LAW	DEL	LAW 6036	State and Local Government	V2-3		A study of the law relating to the creation of local government units and their legislative, fiscal, proprietary, and administrative powers and functions and their tort and contract liability. Discusses the relationship between state and local government and inter-governmental conflicts. Emphasizes Texas law. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**

30	LAW	DEL	LAW 6044	Admiralty	V2-3		This course will consider the unique procedures used by Admiralty courts and some of the unique substantive principles of Admiralty law that regulate maritime transactions. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
31	LAW	DEL	LAW 6054	Medical Malpractice	V2-3		A study of the civil liabilities of physicians and other health care providers for professional negligence, with attention to standard of care, analysis of hospital and medical records, pretrial and trial tactics, examination of the medical witness, and settlement negotiation. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
32	LAW	DEL	LAW 6062	Legislation	V2-3		This course presents a study of statutory law in the American legal system, including the recognition of legislative power as a legitimate source of law, restrictions on the forces shaping the legislative process, and rules for statutory interpretation. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
33	LAW	DEL	LAW 6202	Advanced Advocacy Skills For Moot Court	2		This course is designed for students interested in competing on intercollegiate moot court teams and uses a hypothetical moot court problem to develop legal research, brief writing, and oral advocacy skills. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
34	LAW	DEL	LAW 6211	Public Land Law	2		This course studies the ownership of land by the United States from the onset of nationhood until the present time. Constitutional an statutory doctrines that have shaped the disposition, retention, and management of those lands will also be analyzed. In addition, a study will be made of how the United States exploits the natural resources owned by it including water, timber, mineral, range, wildlife, recreation, and preservation resources. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
35	LAW	DEL	LAW 6235	International Petroleum Transactions	2		Seminar discussing ownership, transportation, and sale of oil and gas in the marketplace. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
36	LAW	DEL	LAW 6240	Problems in Small Business	2		Prerequisites: LAW 6434, Income Taxation and 6435, Business Entities. This course provides an applicatory study of various problems affecting the small business, including contract, choice of business entity, and tax and lease issues. It will also examine several ethical issues as well as basic principles of operating a business. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
37	LAW	DEL	LAW 6254	Agricultural Law	2		This course covers topics such as federal and Texas laws affecting the agricultural and food industry; impact of federal farm programs; Packers and Stockyards Act; agriculture commodities; basic agriculture financing and warehousing; soil, water, environmental and conservation laws and regulations; and health and safety regulations in the agriculture and food industry. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**

38	LAW	DEL	LAW 6260	International Economic Regimes: Laws, Norms, and Market Power	2		This seminar examines economic globalization and the global economy from a holistic legal perspective. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
39	LAW	DEL	LAW 6308	Business Analysis for Lawyers	3		This course introduces students to basic business concepts, including decision analysis, economic considerations in contracts, a lawyer's perspective on accounting and financial statements, basic finance principles, and economic analysis of legal issues. This course is designed primarily for students without a prior business background. **Justification:** This course has not been offered in three or more years. **Effective Term: Spring 2011** **CIP Code: 22.0101.0008**
40	VPA	ADD	MUAP 6301	Master's Recital I	(3)	Y	Capstone requirement for master's degree in music performance. **Justification:** Music performance students are required to present two recitals and a scholarly paper as the capstone experience. Previous enrollment for the graduate recital was done under MUAP 6000, the course number normally used for thesis work. Adding this course and MUAP 6302 will allow for a letter grade to be assigned for each recital. **Effective Term: Spring 2011** **CIP Code: 50.0916.0000**
41	VPA	ADD	MUAP 6302	Master's Recital II	(3)	Y	Capstone requirement for master's degree in music performance. **Justification:** Music performance students are required to present two recitals and a scholarly paper as the capstone experience. Previous enrollment for the graduate recital was done under MUAP 6000, the course number normally used for thesis work. Adding this course and MUAP 6301 will allow for a letter grade to be assigned for each recital. **Effective Term: Spring 2011** **CIP Code: 50.0916.0000**

REPORT TO THE PROVOST
Ad Hoc Committee on the Academic Calendar

Committee Members

Eleven committee members were chosen by Dr. Rob Stewart to address the complicated issues involved in preparing academic calendars for 2012 through 2015. All the committee members met in the Provost's Conference Room on October 11, 2010, and included the following:

- Dr. Cathy Duran, Associate Dean, Rawls College of Business
- Dr. Gary Elbow, Associate Vice Provost for Academic Affairs
- Dr. Greg Elkins, Associate Vice President and Dean of Students
- Tristan Griffin, Honors College Senator, Student Government Association
- Dr. Robert Henry, Associate Dean of the College of Visual and Performing Arts
- Paula Hunter, Assistant Registrar, NCAA Compliance
- Sue Jones (Chair), Director of Official Publications
- Bobbie Latham, Registrar
- Kim Mills, Unit Supervisor, College of Arts and Sciences
- DaNay Phelps, Senior Administrator, Office of the Provost
- Janessa Walls, Director, Academic Support and Facilities Resources

Key Issues

- The newly released THECB Common Calendar mandates semester start dates for all public universities and is designed to ensure that summer school at all state institutions will not start prior to the first week in June. This accommodates public school teachers desiring to take summer courses. Texas Tech has frequently started the summer term at the end of May after Memorial Day.
- 2012 is a leap year and this particular calendar configuration has only occurred twice in 70 years. It presents unique challenges.
- The calendar problems appear to be only in the fall semester and revolve around commencement occurring too close to the Christmas holidays.
- If Texas Tech follows its normal scheduling and at the same time builds a fall 2012 calendar that meets the demands of the Common Calendar, commencement will be on Friday and Saturday (Dec. 21-22), grades will be due on Christmas Eve day (Monday), and Christmas will be on Tuesday. This would adversely affect attendance at commencement and put an unacceptable burden on the Registrar's Office, the colleges, MailTech, and IT in regard to grade processing. End-of-term processing takes at the very least two days and includes the following:
    - After all grades have been submitted, the Registrar's Office manually enters grade replacements prior to running Academic Standing.
    - Registrar's Office must process Academic Standing and place on student's record. Colleges must check their students' standings and then print letters for mailing and receipt prior to January.
    - Colleges have five business days after commencement to post degrees, but the posting cannot take place until after all grades are submitted and processed.
    - The Registrar's Office must wait for the five-day period to end before sending out official transcripts. Students use these transcripts for acceptance into Graduate School in the spring and for job opportunities.

- NCAA athletic compliance requires all athletic participants in postseason and between-term competitions to be certified for 6 degree applicable hours and have good standing prior to the last day of work for fall. Any delay in processing grades and determining Academic Standing will affect this certification and subsequent reporting to the NCAA. In addition, college officials may not be accessible during this timeframe (i.e., grade appeal/suspension/grade changes). Students are not allowed to compete if they are not in good standing.
- Any effort to resolve the scheduling conflict by moving commencement dates one week earlier will inevitably affect fall break and the Carol of Lights.
- Although fall 2012 is the most adversely affected calendar, similar issues exist in fall 2013, 2014, and to a lesser extent in 2015.

Committee Recommendations

1. The challenges of the fall 2012 calendar should be met by scheduling commencement on December 14-15 and making the following adjustments:
    - The "Faculty on Duty" date for fall 2012 will be Wednesday, August 22.
    - Last Red Raider Orientation sessions will be Thursday, August 23 and Friday, August 24.
    - Classes for fall 2012 will begin on Monday, August 27.
    - No fall break will exist in 2012.
    - Individual study day will be on Dec. 6.
    - Finals will begin on Friday, Dec. 7.
    - The sponsoring organizations for Carol of Lights will hopefully consider Friday, November 30 as an alternative date.

2. Because the challenges facing future calendars <u>after</u> 2012 are more complex and not as easily resolved, the committee requests permission to reconvene throughout this academic year in an effort to re-evaluate <u>every</u> aspect of the university's class schedule and calendar, including such areas as operating policies, THECB rules, reading day, final exam schedules, and grade processing.

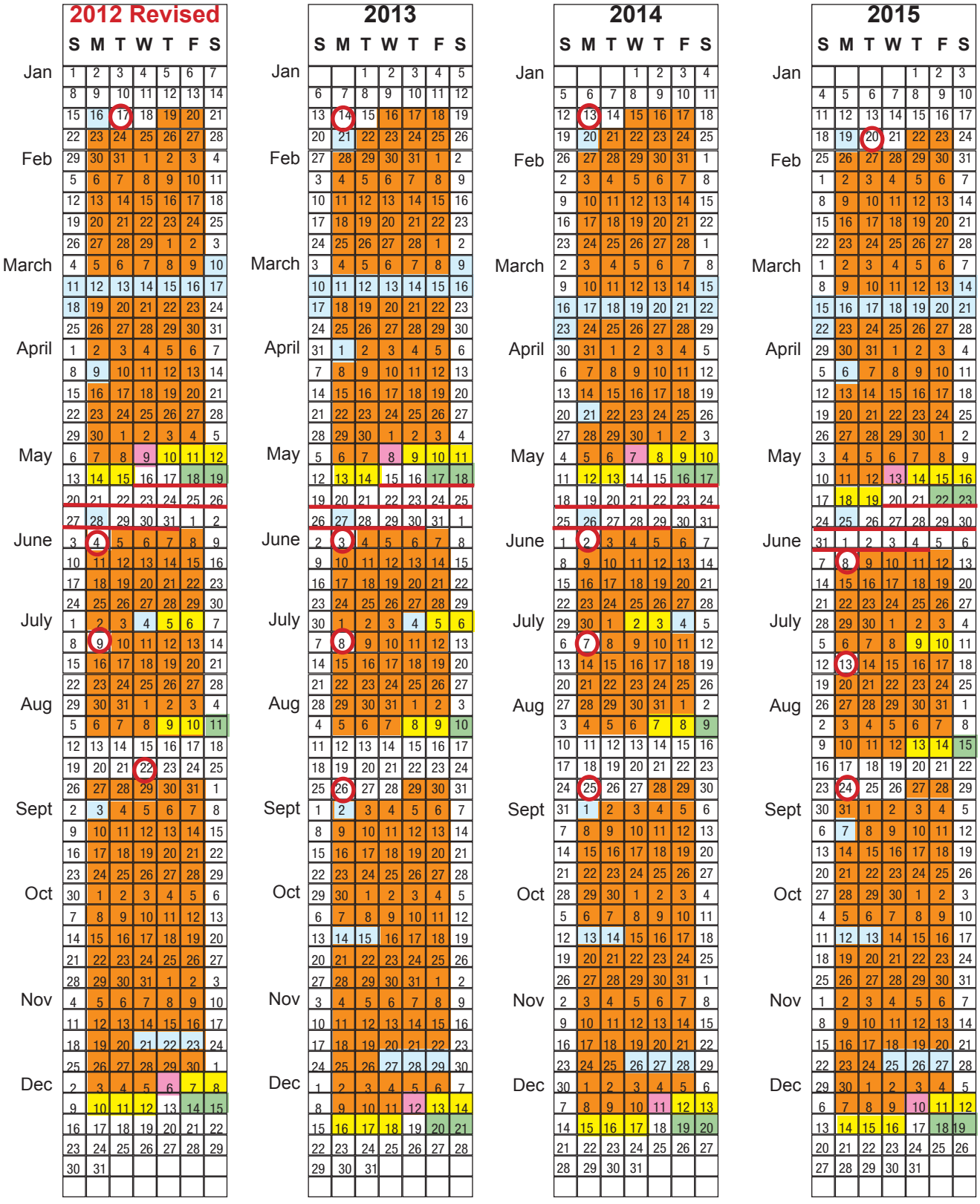
3. Because the ease and efficiency of processing grades during the holidays is a critical issue affecting the calendar, the committee believes the following changes should be initiated beginning in academic year 2011-12:
    - Make Raiderlink available for grading on Monday prior to the last class day.
    - Change the due date for grades to the following:
        - Long terms — three calendar days after the last day of finals
        - Summer terms — two calendar days after the last day of finals (national holidays exempt)

Important Discussion Points

- After hearing how involved the grade process is after commencement, all committee members appeared to believe that the solution lies in finding ways to move commencement to an earlier timeframe.
- The academic problems for future calendars can be resolved somewhat easily using the same adjustments discussed above for fall 2012. Unfortunately, these changes would interfere with Carol of Lights and not provide an alternative Friday date in all future years.

If Carol of Lights is held during final exams, the College of Visual and Performing Arts will not participate as per OP 34.10, section 1.g.

- The fall 2012 solution will give Texas Tech a fall calendar very similar to Texas A&M.
- As an alternative to discontinuing fall break, the committee discussed eliminating one day of Thanksgiving holiday (similar to A&M and UT) and one day of fall break. Both the SGA representative and other committee members believed retaining three days of Thanksgiving holidays and eliminating fall break would be a better solution.
- The SGA representative felt very positive about presenting the facts to SGA and receiving a positive response concerning discontinuing fall break in 2012.
- The Dean of Students could not make a commitment to rescheduling Carol of Lights in 2012.



faculty on duty | holiday | final exams | class day | no class day | commencement | Intersession at Junction

SPRING 2012
MWF = 43 contact hours
TT = 30 x 1.5 = 45

SUMMER 2012
SSI = 21
SSII = 22

FALL 2012
MWF= 41
TT= 28 x 1.5 = 42

SPRING 2013
MWF = 43 contact hours
TT = 30 x 1.5 = 45

SUMMER 2013
SSI = 22
SSII = 22

FALL 2013
MWF= 41
TT= 28 x 1.5 = 42

SPRING 2014
MWF = 43 contact hours
TT = 30 x 1.5 = 45

SUMMER 2014
SSI = 21
SSII = 22

FALL 2014
MWF= 41
TT= 28 x 1.5 = 42

SPRING 2015
MWF = 43 contact hours
TT = 30 x 1.5 = 45

SUMMER 2015
SSI = 22
SSII = 22

FALL 2015
MWF= 41
TT= 28 x 1.5 = 42

Texas Tech University Program Level - Curriculum Map

LEGEND

[I] OUTCOME STATEMENT:

The program outcome is (x) EXPLICITLY (score of 2) or (m) IMPLICITLY (score of 1) reflected in the course syllabus as being one of the learning outcomes for this course.

[II] LEVEL OF CONTENT DELIVERY:

(I) INTRODUCED - Students are not expected to be familiar with the content or skill at the collegiate level. Instruction and learning activities focus on basic knowledge, skills, and/or competencies and entry-level complexity. Only one (or a few) aspect of a complex program outcome is addressed in the given course (score of 1).

(R) REINFORCED- Students are expected to possess a basic level of knowledge and familiarity with the content or skills at the collegiate level. Instruction and learning activities concentrate on enhancing and strengthening knowledge, skills, and expanding complexity. Several aspects of the outcome are addressed in the given course, but these aspects are treated separately (score of 2).

(A) ADVANCED - Students are expected to possess a strong foundation in the knowledge, skill, or competency at the collegiate level. Instructional and learning activities continue to build upon previous competencies with increased complexity. All components of the outcome are addressed in the integrative contexts (score of 3).

[III] FEEDBACK ON STUDENT PERFORMANCE / ASSESSMENT:

(F) Students are asked to demonstrate their learning on the outcome through homework, projects, tests, etc. and are provided formal Feedback (score of 1).

| Date | 9/25/10 | SELECTED *PROGRAM LEARNING OUTCOMES* | | |

Texas Tech University Program Level - Curriculum Map

LEGEND

[I] OUTCOME STATEMENT:

The program outcome is (x) EXPLICITLY (score of 2) or (m) IMPLICITLY (score of 1) reflected in the course syllabus as being one of the learning outcomes for this course.

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(R) REINFORCED- Students are expected to possess a basic level of knowledge and familiarity with the content or skills at the collegiate level. Instruction and learning activities concentrate on enhancing and strengthening knowledge, skills, and expanding complexity. Several aspects of the outcome are addressed in the given course, but these aspects are treated separately (score of 2).

(A) ADVANCED - Students are expected to possess a strong foundation in the knowledge, skill, or competency at the collegiate level. Instructional and learning activities continue to build upon previous competencies with increased complexity. All components of the outcome are addressed in the integrative contexts (score of 3).

[III] FEEDBACK ON STUDENT PERFORMANCE / ASSESSMENT:

(F) Students are asked to demonstrate their learning on the outcome through homework, projects, tests, etc. and are provided formal Feedback (score of 1).

Date	**9/25/10**	**SELECTED *PROGRAM LEARNING OUTCOMES***															
Degree Title:		**Students will be able to demonstrate their advanced knowledge in three or omore different fields of study.**			**Sutdents will be able to integrate three or more fields of study.**			**Students will demonstrate mastery of written communication.**			**Students will demonstrate effective oral communication.**			**Students will demonstrate the ability to think critically on issues related to their chosen fields of study.**		
M.S. in Forensic Science																	
Courses in Degree Program (Scientist)		[i] Outcome Statement (X, M)	**[ii] Level (I, R, A)**	[iii] Feedback (F)	[i] Outcome Statement (X, M)	**[ii] Level (I, R, A)**	[iii] Feedback (F)	[i] Outcome Statement (X, M)	**[ii] Level (I, R, A)**	[iii] Feedback (F)	[i] Outcome Statement (X, M)	**[ii] Level (I, R, A)**	[iii] Feedback (F)	[i] Outcome Statement (X, M)	**[ii] Level (I, R, A)**	[iii] Feedback (F)
BTEC 5338		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
ENTX 6351 / 6251 (lab)		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
ENTX 6385 / 6100 (lab)		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
IS 5331		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
IS 5350		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
IS 5351		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
IS 6000		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
IS 6031		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
IS 6330		X	R	F	X	R	F	X	R	F	X	R	F	X	R	F
SOC 5394		M	R	F	M	R	F	M	R	F	M	R	F	M	R	F

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