May 2, 2019

TO: Academic Senate Members

FROM: Office of Academic Governance
Chris McGowan, Academic Governance Secretary

RE: Academic Senate Meeting

The Academic Senate will meet on Wednesday, May 22, 2019 at 1:00 p.m. in the TI Auditorium, ECS South 2.102.

Please bring the agenda packet with you to this meeting. If you cannot attend, please notify me at x4791.

xc: Richard Benson
Hobson Wildenthal
Inga Musselman
Jessica Murphy
Juan Gonzalez
Calvin Jamison
Larry Redlinger
Gene Fitch
Serenity King
Abby Kratz
John Wiorkowski

Naomi Emmett, SC President
Eric Chen, SG President
Chief Larry Zacharias

2018-2019 ACADEMIC SENATE

Akbar, Mohammad
Anderson, William
Bell, Elizabeth Lisa
Beron, Kurt
Bhatia, Dinesh
Blanchard, Andrew
Boots, Denise
Boyd, Elizabeth
Bradbury, Judd
Brandt, Patrick
Brikowski, Thomas
Brown, Matthew
Brassolo, Monica
Bunet, Jonas
Chandler, Adam
Chandrasekaran, R.

Choudhary, Pankaj
Connell, Nadine
Dragovic, Vladimir
Fumagalli, Andrea
Gelb, Lev
Gupta, Gopal
Hanlon, Michele
Hefley, William**
Hooshyar, M. Ali
Huynh Dung T
Izen, Joe
Kitagawa, Midori
Leaf, Murray ***
Lester, Paul
Maitra, Meenakshi
McCracken, John

Menon, Syam
Murthi, B P
Nowani, Mehrdad
Nafos, Simeon
Parsonoudi, Catherine
Piquero, Nicole
Prakash, Ravi *
Radhakrishnan, Suresh
Ramakrishna, Viswanath
Rebello, Michael
Scotch, Richard ***
Spirou, Stephen
Thompson, Lucien
Wissinger, Tonja

*Speaker
**Secretary
*** Vice-Speaker

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION UNIVERSITY
AGENDA
ACADEMIC SENATE MEETING
May 22, 2019

1. CALL TO ORDER, ANNOUNCEMENTS & QUESTIONS  Ravi Prakash
2. APPROVAL OF THE AGENDA  Ravi Prakash
3. APPROVAL OF MINUTES  Ravi Prakash
4. SPEAKER’S REPORT  Ravi Prakash
5. THECB/SACSCOC Legislative Updates  Serenity King
6. TXCFS/FAC REPORT  Murray Leaf and Bill Hefley
7. Student Government Report  Ayoub Mohammed
8. Staff Council Report  Naomi Emmet
9. CEP Recommendations  Charles Hatfield
   A. Undergraduate Course Inventory
   B. Graduate Course Inventory
   C. MS in Cybersecurity
   D. MA in Interdisciplinary Studies
   E. Changes in Undergraduate Programs
   F. Changes in Graduate Programs
   G. Master’s thesis requirements
   H. Change of Major in JSOM
   I. EPPS Honors
   J. Core Assessment Changes
   K. Revision to UTDPP1075- Supplemental Employment of Graduate Students
   L. Revision to UTDPP1052-Procedures for Completing a Graduate Degree
   M. Informational: Undergraduate Admission Priority Deadline changes
10. FY2020 Committee on Committee Appointments  Ravi Prakash
11. Email Vote to Approve the Summer Graduates  Ravi Prakash
12. Email Vote to Approve Faculty Appointments to Committees
   Ravi Prakash

13. Revisions to UTDPP 1055: Hearing tribunal selection
   Ravi Prakash

14. Hearing Tribunal Appointments
   Ravi Prakash

15. Revisions to UTDPP 1035: Committee on research involving human subjects (IRB Committee)
   Ravi Prakash

16. Revisions to UTDPP1007-Bylaws of the Academic Senate of the University of Texas at Dallas
   Ravi Prakash

17. Academic Policy Review
   Serenity King
   A. Revisions to UTDPP1050: Faculty Grievance
   B. Revisions to UTDPP1061-Hiring and Evaluation Procedures for Nontenure-System Faculty
   C. Revisions to UTDPP1062-General Standards and Procedures for Review of Nontenure-System Faculty
   D. Revisions to UTDPP1081-UT Dallas Policy on Financial Exigency
   E. Revisions to UTDPP1085- Faculty Fitness for Duty
   F. Revisions to UTDPP1088-Faculty Governance
   G. Revisions to UTDPP1107-International Education Development Committee

18. Presentation: UTD Student Counseling Center
   Kimberly Burdine

19. Informational: Update on OSA Accommodations for Testing Issue
   Tres Thompson

20. Adjournment
   Richard Benson
# TABLE OF CONTENTS

APRIL 2019 ACADEMIC SENATE MINUTES ........................................................................................................... 5

THECB/ SACSCOC/ LEGISLATIVE UPDATE .........................................................................................................14

COMMITTEE ON EDUCATIONAL POLICY RECOMENDATIONS ............................................................61
  - NEW COURSES-FY2020 UNDERGRADUATE COURSE INVENTORY ..........................................................61
  - NEW COURSES-FY2020 GRADUATE COURSE INVENTORY ...........................................................................82
  - MS IN CYBERSECURITY ...................................................................................................................................90
  - MA IN INTERDISCIPLINARY STUDIES ............................................................................................................378
  - CHANGES IN UNDERGRADUATE PROGRAMS .................................................................................................384
  - CHANGES IN GRADUATE PROGRAMS ...........................................................................................................386
  - MASTER’S THESIS REQUIREMENTS ..............................................................................................................387
  - CHANGE OF MAJOR IN JSOM .........................................................................................................................394
  - EPPS Honors .................................................................................................................................................395
  - REVISION TO UTDPP1075-SUPPLEMENTAL EMPLOYMENT OF GRADUATE STUDENTS ....................397
  - REVISION TO UTDPP1052-PROCEDURES FOR COMPLETING A GRADUATE DEGREE .........................407
  - INFORMATIONAL: UNDERGRADUATE ADMISSION PRIORITY DEADLINE CHANGES .........................420

FY2020 COMMITTEE ON COMMITTEES APPOINTMENTS ...........................................................................422

REVISION TO UTDPP1055-HEARING TRIBUNAL SELECTION ..................................................................423

HEARING TRIBUNAL APPOINTMENTS ..............................................................................................................425

REVISION TO UTDPP1035- COMMITTEE ON RESEARCH INVOLVING HUMAN SUBJECTS (IRB COMMITTEE) .................................................................426

REVISION TO UTDPP1007-BYLAWS OF THE ACADEMIC SENATE .....................................................430

ACADEMIC POLICY REVIEW ..............................................................................................................................438
  - REVISIONS TO UTDPP1050: FACULTY GRIEVANCE .................................................................................438
  - REVISIONS TO UTDPP1061-HIRING AND EVALUATION PROCEDURES FOR NON-TENURE- SYSTEM FACULTY ........................................................................................................................450
  - REVISIONS TO UTDPP1062: GENERAL STANDARDS AND PROCEDURES FOR REVIEW OF NON-TENURE- SYSTEM FACULTY .................................................................................................................452
  - REVISIONS TO UTDPP1081: UTD DALLAS POLICY ON FINANCIAL EXIGENCY ........................................457
  - REVISIONS TO UTDPP1085: FITNESS FOR DUTY ......................................................................................462
  - REVISIONS TO UTDPP1088: FACULTY GOVERNANCE ..............................................................................466
  - REVISIONS TO UTDPP1107: INTERNATIONAL EDUCATION DEVELOPMENT COMMITTEE ...................478
UNAPPROVED AND UNCORRECTED MINUTES

These minutes are disseminated to provide timely information to the Academic Senate. They have not been approved by the body in question, and, therefore, they are not the official minutes.

ACADEMIC SENATE MEETING
April 17, 2019


Absent: Mohammad Akbar, Dinesh Bhatia, Judd Bradbury, Mathew Brown, Monica Brussolo, Pankaj Choudhary, Nadine Connell, Vladimir Dragovic, Andrea Fumagalli, M. Ali Hooshyar, Paul Lester, Meenakshi Maitra, John McCracken, BPS Murthi, Shalini Prasad, Suresh Radhakrishna,

Visitors: Eric Chen, Melinda Colby, Darren Crone, Frank Feagans, Gene Fitch, Juan Gonzales, Nate Howe, Calvin Jamison, Serenity King, Abby Kratz, Jennifer McDowell, Terry Pankratz, Clint Peinhardt, Bill Pervin, Scott Simpson,

1. **Call to Order for the Academic Senate Meeting and Announcements – President Benson**

President Benson called the meeting to order at 1:01 PM. President Benson has just come from a meeting with the Chief of Police and other emergency management staff members. An email was sent out to all faculty, staff and students that the university would close at 3:00PM on April 17, 2019 due the dangerous storm that is moving into area. President Benson was concerned for members of campus being caught in storm rush hour traffic. The safety of Faculty, Staff and Students is his main concern.

The House is supportive of the university, especially through Texas Research Incentive Program. There is currently a backlog of 182 million, of which 50 million is earmarked for our university. A Tuition Revenue Bond is on the table for the creation of a shared building for bio-engineering with UT-Southwester, and a new Student Success building. The creation of new building on our campus is critical as UTD is a fast growing public institution in Texas.

The university is expecting another record freshman class this fall, and high admissions; however the graduation rate is appearing to be flat to previous years. He opened the floor to questions, there were none.

2. **Approval of the Agenda**

Murray Leaf moved to approve the agenda. Nicole Piquero seconded the motion. The motion carried.
3. **Approval of the Minutes**

Murray Leaf moved to approve the minutes as circulated. Andy Blanchard seconded the motion. The motion carried.

4. **Speaker’s Report – Ravi Prakash**

- On April 16, 2019, a group of faculty met with Terry Pankratz to discuss the recent procurement issues. The group will meet again in May. Pankratz was invited to give a presentation on these issues and possible solutions at the August or September Academic Senate meeting.
- The UT System Faculty Advisory Council meeting is April 11-12, 2019. Vice-Speaker Murray Leaf and Speaker Ravi Prakash attend as UTD representatives. A report on that meeting is later in the agenda.
- Speaker Prakash encouraged the faculty to participate in the new faculty orientation and mentoring. This is important for new professors. Speaker Prakash urged the senate members to assist as a mentor for the new professors in their areas.
- All other items that I have been working on are on the agenda.

5. **SACSCOC/ The Higher Education Coordinating Board (THECB) Updates – Serenity King**

Serenity King summarized a handout that is enclosed as Appendix A.

6. **FAC/TXCF Report – Ravi Prakash and Bill Hefley**

Ravi Prakash Murray Leaf - April 11-12, 2019

The meeting was held at the UT System Office in Austin and was attended by representatives from all eight academic campuses and five out of six medical campuses. No representative from UT MD Anderson Cancer Center attended the meeting.

One of the first issues to be discussed was the appointment of Air Force Secretary Heather Wilson as the President of UT El Paso. There has been significant opposition to this appointment among UT El Paso faculty, students, and the local community. FAC members felt a need to revisit how faculty are involved in the search process for Presidents, and other administrators. Over-emphasis on non-disclosure, and the role private search firms play in the process is not necessarily in the best interests of universities. Concerns were raised about the neutrality of search firms. There have been instances where representatives of search firms seem to be so familiar with specific candidates that it is not clear if they are working in the best interests of the university or as agents for specific applicants.

Following discussion on the UT El Paso President appointment, FAC adopted the following resolution: *Expand the text in Section 1.3 of the Rule on searches to provide that the job description should be drafted by the search committee and sent to campus governance bodies for their responses.*

There was a discussion on the FAC resolution on free speech versus the Chicago/Princeton Principles on free speech: both among FAC members and, subsequently, in a meeting with Chancellor Milliken. University of Chicago and Princeton University are private institutions. UT
System is a public university system and a limited public forum. While FAC endorses several ideas in the Chicago Principles, it has already prepared its own statement on free speech that is aligned with the UT System Regents Rules. UT System is the second largest university system in the country, and it should play a leadership role, rather than follow other universities.

At the last meeting, Chancellor Milliken asked the FAC to consider endorsing the Chicago statement (as we reported). The FAC considered it and unanimously decided to stick with its original position. At this meeting, he asked again to talk to us about it, and again asked the FAC to consider endorsing the Chicago statement/the Princeton statement The FAC affirmed its original position and further was very clear that its obligation was to represent the faculty, not to support the Chancellor. Members of the FAC were also increasingly interested in what the Chancellor's motives were, and what, precisely, he had in mind in bringing this back again. We spoke at lunch on the second day, for a half hour. The immediate outcome was that the Chancellor said the immediate need had passed. The implicit longer term outcome was that he appears to be taking the FAC position, and the Regents Rule that it supports, more seriously than he had up now.

The Governance Committee of FAC is gathering information about faculty grievance policies on all campuses. UT Dallas has already responded to this request. Right now, there are several different offices, several added in response to specific federal or state regulations, dealing with different kinds of grievance. This can cause confusion.

Wanda Mercer, Associate Vice Chancellor for Student Affairs, addressed the FAC. Her office has been considering issues related to parental leave, graduate students, tuition fees, sexual violence prevention, student mental health and safety. A system-wide Title IX coordinator may be hired.

Rebecca Karoff, Associate Vice Chancellor for Academic Affairs, discussed revised workload policies, Affordable Learning Accelerator taskforce, and the Association of College and University Educators (ACUE) pilot program to increase teaching effectiveness.

FAC discussed issues of salary compression and inversion, and steps taken on campuses to address this problem. UT Arlington has recently increased the amount of automatic raise on promotions, from $3,000 to $5,000 for promotion from assistant to associate professor, and from $5,000 to $10,000 for promotion from associate to full professor. UT Arlington President announced this in an open forum about 3-4 weeks back. At UT Austin, over ten years, attempts to achieve gender equity in salary have resulted in parity between male and female faculty members (controlling for other variables). Most universities focus on recruitment, and often not so much on retention.

Student feedback surveys were discussed. UT Arlington and UT Austin have studied this issue extensively. FAC believes that universities should use holistic measures to assess teaching quality, and not rely solely or primarily on student feedback surveys.
On health campuses, one-year contracts for non-tenure track faculty (most clinicians are on such contracts) and high faculty turnover continue to be major concerns. UT Health Science Center in Houston has experienced an 11% annual turnover, with six hundred faculty departures in five years.

The last event was a meeting with Regent Rad Weaver. He graduated from UT Austin with a bachelor’s degree in Finance in the late-90s and is currently the CEO of McCombs Partners. He said that both his parents were school teachers and he is very appreciative of the work faculty members do. He welcomed suggestions from FAC members, and seemed especially receptive to providing tuition aid for children of UT System employees attending UT System institutions, paid parental leave, and longer term contracts for non-tenure track faculty.

7. **Student Government Report – Eric Chen**
   FY19 Student Government President Eric Chen introduced the FY20 new Student Government President and Vice President. SG is wrapping up various projects but several will continue into the next term. He thanked the body for all of their support in the past year.

8. **Staff Council Report –**
   No representatives were in attendance.

9. **CEP Recommendations – Clint Peinhardt**
   A. **Undergraduate Course Inventory**
      Clint Peinhardt moved on the behalf of CEP to approve the Undergraduate Course Inventory. The motion carried.
   B. **Graduate Course Inventory**
      Clint Peinhardt moved on the behalf of CEP to approve the Graduate Course Inventory. The motion carried.
   C. **Certificate in Local Government Management**
      Clint Peinhardt moved on the behalf of CEP to approve the new Certificate in Local Government Management. The motion carried.
   D. **Certificate in innovation and Entrepreneurship**
      Clint Peinhardt moved on the behalf of CEP to approve the Certificate in Innovation and Entrepreneurship. The motion carried.
   E. **Major in Historical Studies to Major in History**
      Clint Peinhardt moved on the behalf of CEP to approve the name change. The motion carried.
   F. **Changes in Undergraduate Programs**
      Clint Peinhardt moved on the behalf of CEP to approve the changes. The motion carried.
   G. **Changes in Graduate Programs**
      Clint Peinhardt moved on the behalf of CEP to approve the changes. The motion carried.
   H. **Catalog Update- Undergraduate Certificates and Double Dipping**
      Clint Peinhardt moved on the behalf of CEP to approve the changes to the catalog. The motion carried.
   I. **Catalog Update- Fast Track Language**
      Clint Peinhardt moved on the behalf of CEP to approve the changes to the catalog. The motion carried.
   J. **Catalog Update- Registration Requirements**
Clint Peinhardt moved on the behalf of CEP to approve the changes to the catalog. The motion carried.

K. *Undergraduate First 40 policies*
Clint Peinhardt moved on the behalf of CEP to approve the undergraduate first 40 policies. The motion carried.

L. *Graduate First 40 Policies*
Clint Peinhardt moved on the behalf of CEP to approve the graduate first 40 policies. The motion carried.

M. *Syllabus Template Update- Social Media*
Clint Peinhardt moved on the behalf of CEP to approve the changes to the Syllabus Template. Bill Hefley noted that the amended sentence should also be included in the student’s code of conduct. Dr. Peinhardt noted that this change came from the Committee on Undergraduate Education due to specific instances of cheating, and was approved by the Committee on Educational Policy. Matt Brown moved to table this item until it was reviewed by the Committee on Academic Integrity. Joe Izen seconded. The motion carried with one nay vote.

N. *Policy Change – Change in Major in ECS*
Clint Peinhardt moved on the behalf of CEP to approve the changes to the policy. The motion carried.

10. **Presentation: Email Migration and Spam Filtering – Frank Feagans**
Frank Feagans and Nate Howe presented a series of slides to the senate membership detailing the rational of why the Information Technology and Information Security group are moving to a different program for Email management and Spam Filtering. They presented a time line of when changes will be made, and how the information on the change will be conveyed across the campus in the next 2 months. A copy of the presentation is enclosed in Appendix B.

11. **Informational: Appointments to the Committee on Committees – Ravi Prakash**
Speaker Prakash encouraged the Council members to speak with their colleges to find recommendations to be on the committee. He reminded the Senate member that the nominees should be available the second and third week of June in order to attend the meeting. Bill Hefley will also be sending out emails to committee chairs for recommendations for committees, and the link to the volunteer system will be up shortly.

12. **Informational: Removal of UTDPP1065 – Ravi Prakash**
The policy contains redundant information that is found in other policies. By consensus the senators agreed it should be removed from the policy navigator.

13. **Informational: Update on OSA Accommodations for Testing Issue – Bill Hefley**
A subcommittee of the University Accessibility Committee was created to address these issues. They have been working with the testing center and Darren Crone to assemble a list of resources and funding required to facilitate those resources. Currently a new procedure is being beta tested, and should be ready for fall semester 2019. So far, the beta testing is going well.

14. **Approval of Spring 2019 Graduates – Bill Hefley**
Bill Hefley moved that:
These students have applied for graduation and have been reviewed by the Office of Records. The Office of Records has declared that all of these students will be eligible for graduation upon the
completion of the current semester’s work at the necessary levels. I move, therefore, that the Faculty Senate certify these students to graduate upon receipt of final grades, and notification of completion of other requirements, provided that the grades are consistent with the standards for graduation prescribed by this University. I also request that the Faculty Senate certify those students designated as eligible to graduate with honors upon completion of coursework and requirements consistent with the standards for honors at the levels offered by this University. Andrew Blanchard seconded. The motion carried.

Bill Hefley moved that:
These students have applied for graduate degrees and have been reviewed by the Graduate Dean. The Graduate Dean certifies that all of these students will be eligible for the degrees indicated upon satisfactory completion of the current semester’s work. I move, therefore, that the Academic Senate certify these students to receive the degrees as indicated upon receipt of final grades and notification of completion of other requirements, provided that the grades received are consistent with the standards for credit prescribed by this University. Andrew Blanchard seconded. The motion carried unanimously.

15. Adjournment
There being no further business, President Benson adjourned the meeting 2:30 PM.

APPROVED: ___________________________  DATE: _____________

Ravi Prakash
Speaker of the Faculty
THECB/Legislative Update to Senate  
April 17, 2019

1. Past THECB Meetings:
   a. University Accountability Meeting April 4-5, attended by Dr. Courtney Brecheen, OUE Associate Dean and THECB Data Fellow
      Two-day meeting; day 1 included CC’s by region; day 2 was universities only
      Day 2: http://www.thecb.state.tx.us/index.cfm?ObjectID=F2D60DC0-4CEF-11E9-A95D0050560100A9
      Subsequent campus meeting in June to discuss related initiatives; faculty will be invited to participate to share completion strategies in schools
   b. Top Improver Webinar (analysis of completion targets) Peer group/region...how to download completion, grad rate, and transfer data
   c. Webinar Field of Study: https://youtu.be/KAm46na5x78

2. Upcoming THECB Meetings
   a. THECB Undergraduate Education Advisory Council April 26
      i. UT Dallas reps Marilyn Kaplan (term ends spring 19) and Hope Cory (student, term ends 2020)
      ii. Election of co-chair
      iii. Discussion of reducing core curriculum hours/legislative bills
   b. Board meeting April 25
      i. Presentation by UT San Antonio on their Strategic Plan
         PPT: http://www.thecb.state.tx.us/reports/PDF/12351.PDF?CFID=97403445&CFTOKEN=87527022
         Handout: http://www.thecb.state.tx.us/reports/PDF/12350.PDF?CFID=97403445&CFTOKEN=87527022
      ii. Major Policy Discussion: Providing Access without Unnecessary Duplication (how to consider online programs)
         http://www.thecb.state.tx.us/reports/PDF/12322.PDF?CFID=97404848&CFTOKEN=32587871
      iii. Efficiencies in Student Pathways to Completion (completion measures, including graduation rates and transfer rates will be discussed)
         http://www.thecb.state.tx.us/reports/PDF/12322.PDF?CFID=97404848&CFTOKEN=32587871
iv. TRIP funds (Refer to page 3 of this handout)
   http://www.thecb.state.tx.us/reports/PDF/12322.PDF?CFID=97404848&CFTOKEN=32587871 - page=36
v. Bioinformatics and Computational Biology LPP recommended for closure by THECB
   http://www.thecb.state.tx.us/reports/PDF/12322.PDF?CFID=97404848&CFTOKEN=32587871
   http://www.thecb.state.tx.us/reports/PDF/12339.PDF?CFID=97404848&CFTOKEN=32587871
vi. Texas OnCourse expansion (online career counseling for parents, students, and educators)
   http://www.thecb.state.tx.us/reports/PDF/12322.PDF?CFID=97404848&CFTOKEN=32587871
vii. Field of Study review schedule (every five years)
    http://www.thecb.state.tx.us/reports/PDF/12322.PDF?CFID=97404848&CFTOKEN=32587871
viii. Field of Study up next: Chemistry; UT Dallas will want to nominate
3. Legislative Bills
   a. HB 375 Polling on Campus: Referred to Elections
   b. SB 64: Incentivizes Cybersecurity degree programs (Senate Higher Education Committee, printed and distributed)
   c. HB 4175: Public speaking courses cannot be online (House Higher Education Committee, left pending)
   d. SB 502: Report on Nontransferable credit (Senate Higher Education Committee, placed on intent calendar)
   e. SB 1923/SB 25: Transfer credit (Senate Higher Education Committee, SB 1923 left pending/SB 25 placed on intent calendar)
   f. SB 2058: Waivers of tuition/fees for courses not transferred toward degree program, including electives (Senate Higher Education Committee, left pending)
   g. HB 449: Require disciplinary notation on student’s transcript: Passed to engrossment as amended
   h. HB 4586: Expansion of geographic location (House Higher Education Committee, left pending)
   i. HB 3395: Protection of expressive activities (House Higher Education Committee, left pending)
Below are certified TRIP gifts and the amount of the state match by institution. State matches are subject to the availability of funds appropriated for this purpose.

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<th>Institution</th>
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<th>Gifts Waiting for State Funding That Were Previously Certified by the Board</th>
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| State Match                          |                                              |                                                                         |                                        |
|--------------------------------------|                                              |                                                                         |                                        |
| The University of Texas at Arlington | $250,000.00                                  | $6,232,939.42                                                           | $6,482,939.42                        |
| The University of Texas at Dallas    | 6,992,472.39                                 | 39,966,656.67                                                           | 46,959,129.06                        |
| The University of Texas at El Paso   | -                                             | 2,872,755.00                                                           | 2,872,755.00                         |
| The University of Texas at San Antonio | 750,000.00                                | 8,624,728.72                                                           | 9,374,728.72                         |
| University of Houston                | 9,590,413.20                                  | 40,894,553.22                                                           | 50,484,966.42                        |
| University of North Texas            | 1,267,365.07                                  | 11,540,910.83                                                           | 12,808,275.90                        |
| Texas Tech University                | 1,494,237.91                                  | 36,771,755.01                                                           | 38,265,992.92                        |
| Texas State University               | 202,500.00                                    | 11,345,541.40                                                           | 11,548,041.40                        |
| **Totals**                           | **$20,546,988.57**                            | **$158,249,840.27**                                                   | **$178,796,828.84**                  |

Report Data as of: 02/26/19

| Total Counts | 32 | 383 | 415 |
1. THECB Field of Study Implementation Guide
2. Standing THECB meeting updates
3. Transfer bill legislative updates
4. Testimony by Dr. Belle Wheelan, SACSCOC President, for the US Senate Committee on Health, Education, Labor, and Pensions (HELP)
5. Other administrative updates
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Agency Mission
The mission of the Texas Higher Education Coordinating Board (THECB) is to provide leadership and coordination for Texas higher education and to promote access, affordability, quality, success, and cost efficiency through 60x30TX, resulting in a globally competitive workforce that positions Texas as an international leader.

Agency Vision
The THECB will be recognized as an international leader in developing and implementing innovative higher education policy to accomplish our mission.

Agency Philosophy
The THECB will promote access to and success in quality higher education across the state with the conviction that access and success without quality is mediocrity and that quality without access and success is unacceptable.

The Coordinating Board’s core values are:
Accountability: We hold ourselves responsible for our actions and welcome every opportunity to educate stakeholders about our policies, decisions, and aspirations.
Efficiency: We accomplish our work using resources in the most effective manner.
Collaboration: We develop partnerships that result in student success and a highly qualified, globally competent workforce.
Excellence: We strive for excellence in all our endeavors.

The Texas Higher Education Coordinating Board does not discriminate on the basis of race, color, national origin, gender, religion, age or disability in employment or the provision of services.

Please cite this report as follows: Texas Higher Education Coordinating Board. (2019). Implementing Fields of Study. Austin, TX.
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Table of Contents

Executive Summary ............................................................................................................. i
Background Information on Fields of Study ................................................................. 1
  What is a Field of Study? .................................................................................................. 1
  How do Fields of Study work with the core curriculum? .............................................. 2
  How does the Coordinating Board develop and approve Fields of Study? .................. 2
  How do Fields of Study contribute to the state’s higher education goals? ................... 3
Implementation Information for Administrators .......................................................... 5
  Distribute Information and Oversee Compliance ..................................................... 5
  Encourage Faculty Participation .................................................................................. 5
  Review Transfer Policies ............................................................................................ 5
  Transfer Dispute Resolution ....................................................................................... 5
Implementation Information for Registrars and Institutional Researchers .................... 6
Implementation Information for Deans and Department Chairs at Universities .......... 6
Implementation Information for Deans and Department Chairs at Community and Technical Colleges ................................................................................................................. 7
Implementation Information for Faculty and Advisors .................................................. 8

Appendices
  Appendix A .................................................................................................................... 9
  Appendix B .................................................................................................................... 10
  Appendix C .................................................................................................................... 11
  Appendix D .................................................................................................................... 12
  Appendix E .................................................................................................................... 13
  Appendix F .................................................................................................................... 16
  Appendix G .................................................................................................................... 17
  Appendix H .................................................................................................................... 18
  Appendix I .................................................................................................................... 21

Tables
Table 1: Average student costs of excess college SCH (based on 2017 statewide average academic charges)
Executive Summary

Fields of Study (FOS) are sets of lower-division courses that are guaranteed by state law to transfer across all Texas public institutions of higher education and apply to degree programs.

FOS contribute to the goals of the state’s 60x30TX strategic plan for higher education. Each FOS is designed by faculty committees to include the necessary coursework for success in the major, no matter to which public institutions of higher education in Texas students transfer. Also, because every course in an FOS is guaranteed by state law to transfer and apply to the appropriate degree program, students can minimize the risk of taking unnecessary courses and incurring the extra expenses that come with them. Students who complete an FOS are finished with their lower-division major requirements for the applicable degree program. Students who do not complete an FOS must still have the courses they completed transfer and apply to the degree program.

FOS help advance each of the four goals in the state’s 60x30TX strategic plan for Texas higher education, particularly the goal of not having student loan debt exceed 60 percent of first-year wages for graduates of Texas public institutions by 2030. Because every course in a complete or incomplete FOS is guaranteed by state law to transfer and apply to the relevant degree program, students can eliminate the extra time and expense of taking unnecessary courses.

Each FOS is determined by advisory committees consisting of up to 24 faculty with expertise in the field, drawn equally from two- and four-year institutions. Committees may create multiple tracks within the FOS, depending upon discipline specialties or licensing requirements. If necessary, committees can create new courses or revise existing ones in the Lower-Division Academic Course Guide Manual. All FOS are posted in the Texas Register for a 30-day public comment period before they are approved by the Board of the Texas Higher Education Coordinating Board.

All institutional personnel can assist with FOS implementation.

- Executive Administration can assist with the implementation of FOS by distributing relevant information to faculty and staff, regularly nominating faculty for FOS advisory committees, and reviewing transfer policies to remove barriers.
- Registrars have a key role to play in identifying FOS courses on transcripts and promoting efficient and consistent course equivalencies in transfer.
- Deans and department chairs need to work with faculty to make sure there are enough course offerings and to see if FOS courses can also be used as core curriculum component options.
- Faculty and advisors can make sure students know about FOS courses early in their degree plans to minimize time and money spent on unnecessary courses.

Fields of Study will not help students if public institutions of higher education throughout Texas are not complying with the statute, not offering the courses, or inconsistently applying the regulations. This guide offers recommendations to institutions on how to effectively implement the Field of Study curricula to maximize student benefits while minimizing administrative conflicts.
Background Information on Fields of Study

The Texas higher education strategic plan prioritizes the creation of effective pathways from the first semester of higher education, through graduation with a manageable amount of student debt, and into the workforce with an identifiable set of marketable skills. There are many pathway projects, from secondary schools to graduate programs, at the local and state level. For example, pathway initiatives and tools approved by the Texas Higher Education Coordinating Board (Coordinating Board or THECB) in recent years include a core curriculum that is guaranteed by state law to transfer between all public institutions of higher education; the Lower-Division Academic Course Guide Manual which lists all of the courses that can receive state funding at community colleges and are guaranteed to transfer across institutions; the Texas Common Course Numbering System, which lets students know what courses are equivalent across institutions despite possible course title differences; and required advising for optimum course selection once a student completes 30 semester credit hours (SCH) to prevent students from taking unnecessary courses.

Other pathway initiatives are the individual articulation agreements between colleges and their university transfer partners. Faculty from the same discipline at both institutions meet to discuss coursework, student needs, and common learning objectives. When the student transfers from the college, the university agrees to accept the transfer credits toward the degree program. The 75th Texas Legislature enacted legislation that requires the state’s public universities to accept lower-division coursework for bachelor’s degree programs in specific academic areas. FOS function as statewide articulation agreements; they are valid across all public institutions of higher education in the state and are backed up by state law (Texas Education Code, Chapter 61, Section 61.823; see Appendix A).

What is a Field of Study?

An FOS is the grouping of lower-division courses that are guaranteed by state law to transfer and apply to a degree program. Just as when students complete the core curriculum at public institutions and are considered core complete when they transfer to any other public institution (even if the receiving institution offers a different selection of core courses), students who complete an FOS curriculum at any public institution have completed the lower-division requirements for their degree program when they transfer to any other public institution (even if the receiving institution offers a different selection of lower-division requirements).1

Texas Administrative Code (TAC), Chapter 4, Subchapter B, Rule 4.32(b), states: “If a student successfully completes a field of study curriculum developed by the Board, that block of courses must be substituted in transfer to a general academic teaching institution for that institution's lower-division requirements for the degree program for the field of study into which the student transfers, and the student must receive full academic credit toward the degree program for the block of courses transferred.” The word “substituted” means that the completed FOS transfers

1 The Coordinating Board also has a related initiative called Programs of Study, which do for workforce certificates and associate of applied science degree programs what FOS do for academic programs. Advisory committees consisting of secondary school faculty, higher education faculty, and industry representatives design sets of courses that give students guidance on what courses from high school onward are guaranteed to transfer and ensure preparation for specific workforce careers.
in as the completed lower-division major requirements at the receiving institution, and the
receiving institution cannot require any additional lower-division major coursework for the
degree. The receiving institution can continue to set its own lower-division course requirements
for its native students in degree programs.

Also, according to Rule 4.32(c), institutions can require additional lower-division courses outside
the FOS if a student transfers with an incomplete FOS: “A student who transfers from one
institution of higher education to another without completing the field of study curriculum of the
sending institution must receive academic credit in the field of study curriculum of the receiving
institution for each of the courses that the student has successfully completed in the field of
study curriculum of the sending institution. Following receipt of credit for these courses, the
student may be required to satisfy the remaining course requirements in the field of study
curriculum of the receiving institution, or to complete additional requirements in the receiving
institution’s program, as long as those requirements do not duplicate course content already
completed through the field of study curriculum.”

Community colleges can award an associate degree to students who complete an approved FOS
but only a portion of the 42 SCH core curriculum, if the total for both would exceed 60 SCH.
This is helpful for degree programs such as Architecture, Engineering, or Music, where students
need to begin taking program courses as soon as possible and stay on track with extensive
degree requirements at the lower division (TAC, Title 19, Part 1, Chapter 9, Subchapter J, Rule
9.183).

How do Fields of Study work with the core curriculum?

Courses in the FOS can “double dip” with the core curriculum. For example, Calculus I (MATH
2413) is a part of the Mathematics FOS, but it can also fulfill the 3 SCH requirement for the
Mathematics component area of the core.

If an FOS course is also used as a core course, the receiving institution cannot add an extra
lower-division degree program requirement in its place. The FOS transfers in as the total set of
lower-division requirements for the degree program (unless there are also lower-division
courses required of all students in the university or college regardless of major).

Appendix H is a shareable infographic about how the FOS integrates with the core curriculum.

How does the Coordinating Board develop and approve Fields of Study?

Advisory committees: The process of creating an FOS begins with Coordinating Board rules
authorizing the creation of an FOS advisory committee. Texts of the proposed rules are
published in the Texas Register for a 30-day public comment period.

After the rules are approved by the Committee on Academic and Workforce Success (CAWS)
and the full Board of the THECB, a call for nominations goes out via GovDelivery to presidents,
chancellors, chief academic officers (CAOs), chief instructional officers (CIOs), and Coordinating
Board liaisons at all public general academic institutions, community colleges, and public and
state technical colleges in Texas. By nominating an individual for an advisory committee, each
institution pledges to pay the nominee’s expenses for the meetings in Austin.
Once nominations are received, Coordinating Board staff select up to 24 faculty members, drawn equally from two- and four-year institutions. For example, if there were 12 nominations from one type of institution but only 8 nominations from the other type of institution, then there would be 16 total members on the FOS advisory committee.

Whenever possible, FOS advisory committee members are selected to provide fair representation of Texas institutions and faculty. Coordinating Board staff aim for balance between the sizes of institutions, accountability peer groups, regions of the state, university systems, community college districts, faculty of all levels, and gender.

The FOS advisory committees are polled for their preference of meeting dates, and then a two-day meeting is held at the Coordinating Board offices in Austin. All meetings are broadcast live and stored on YouTube for full transparency. The first day provides an overview of what FOS are, how they work, and what regulations are in place. Two co-chairs are elected, one from a two-year institution and one from a four-year institution.

Faculty discuss the general needs of the major at the lower division, review the degree requirements at universities, review what courses are available in the Lower-Division Academic Course Guide Manual, and review Coordinating Board data on which courses are most frequently offered and have the highest enrollments. When they are ready to select the specific courses for the FOS, committee members may create more than one track within the FOS if necessary, depending upon discipline specialties or licensing requirements for career paths. Only if it is essential for including crucial content for success in upper-division courses, the committee can create new courses or revise existing ones in the Lower-Division Academic Course Guide Manual.

Public comment: Once the advisory committee has drafted a recommended FOS curriculum, it is distributed to the Texas Register, CAOs, CIOs, and Coordinating Board liaisons for a 30-day public comment period to provide further opportunities for faculty input. Every comment is considered by the committee. The committee's responses to the public comments are summarized in the public agenda item pages when the FOS curriculum is up for final approval by the Board of the THECB.

Advisory committees will review each FOS every five years, or sooner if needed, to ensure that the curriculum is meeting the needs of the discipline and the job market.

How do Fields of Study contribute to the state’s higher education goals?

FOS help advance each of the four goals in the state’s 60x30TX strategic plan for Texas higher education.

**Goal 1:** By 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree.

**Goal 2:** By 2030, at least 550,000 students in that year will complete a certificate, associate, bachelor’s, or master’s from an institution of higher education in Texas

By completing an FOS at any public institution of higher education, no matter where they transfer, students can progress with confidence in two essential elements of a pathway to graduation: 1) the courses they take are guaranteed by state law to transfer for credit and
apply toward a major, and 2) the pre-selected coursework in the FOS has been reviewed by a panel of faculty to ensure that students will have the knowledge and skills necessary for success in upper-division coursework.

**Goal 3:** All graduates from Texas public institutions of higher education will have completed programs with identified marketable skills.

FOS curricula are designed by advisory committees consisting of community college and university faculty from across the state with practical teaching and research experience in the discipline. The committees consider each course carefully for how it prepares students for success in the major and the careers to which those majors lead. Each FOS is revisited periodically to ensure that it reflects the current state of the discipline and the needs of the related job markets.

**Goal 4:** By 2030, undergraduate student loan debt will not exceed 60 percent of first-year wages for graduates of Texas public institutions.

Because every course in an FOS is guaranteed by state law to transfer and apply to a degree program (even when the total FOS is not completed), students can eliminate the extra time and expense of unnecessary courses. Some FOS courses may also be available as dual credit options, allowing students to begin their degree plan in high school with the certainty that their courses will count toward their baccalaureate degree no matter what public institution they decide to attend.

Even small changes in the number of attempted SCH can have a significant impact on student debt, and by extension, student persistence and graduation rates. Students may end up paying twice for each course that is taken at a community college that is not accepted for credit toward the degree program at a transfer university (Table 1). For example, a community college student may take two courses (6 SCH) in Criminal Justice that the student assumes will count toward a Criminal Justice major after transferring to a university. If the university does not accept those courses toward requirements for the major, and if the student has already used up the lower-division free elective credits (if any) and core curriculum selections, then the student will have paid for the two courses at the college and will have to pay again for the two required university Criminal Justice courses that will count in their stead.

**Table 1.** Average student costs of excess college SCH (based on 2017 statewide average academic charges).

<table>
<thead>
<tr>
<th></th>
<th>One Course (3 SCH)</th>
<th>Two Courses (6 SCH)</th>
<th>Three Courses (9 SCH)</th>
<th>Four Courses (12 SCH)</th>
<th>Seven Courses (21 SCH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Costs</td>
<td>$301.80</td>
<td>$603.60</td>
<td>$905.40</td>
<td>$1,207.20</td>
<td>$2,112.60</td>
</tr>
<tr>
<td>University Costs</td>
<td>$904.20</td>
<td>$1,808.40</td>
<td>$2,712.60</td>
<td>$3,616.80</td>
<td>$6,329.40</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,206</strong></td>
<td><strong>$2,412</strong></td>
<td><strong>$3,618</strong></td>
<td><strong>$4,824</strong></td>
<td><strong>$8,442</strong></td>
</tr>
</tbody>
</table>

Source: Coordinating Board

FOS minimize this financial risk to students. Students who plan to major in a field with a THECB board-approved FOS will know exactly what courses to take, and by omission what courses not to take, as soon as they enroll or begin taking dual-credit courses in high school.
Implementation Information for Administrators

Distribute Information and Oversee Compliance

Administrators can be most helpful to the success of FOS by ensuring that relevant information and communication from the Coordinating Board is distributed to the appropriate people on campus. This includes making sure that deans and registrars understand the legal requirements for compliance, distributing requests for faculty nominations to the appropriate department chairs, and keeping staff updated with information about FOS in the quarterly update memos that follow each Board meeting. It may be helpful to identify an administrator to oversee FOS participation on campus, collect data for compliance reports, and serve as the liaison for FOS issues between the faculty and administration. Coordinating Board staff are available to work with institutional staff to address questions and provide guidance and information.

Encourage Faculty Participation

Administrators should promote and support nominations to FOS advisory committees. It is important to have voices in the room from a cross-section of institutions when decisions are made about what the lower-division requirements will be for degree programs at every public institution in Texas. Faculty participation also assumes financial support from institutions to support the member’s transportation, lodging, and expenses for the meeting dates in Austin. The THECB is aware that this sometimes means a substantial financial commitment from institutions, particularly small institutions in regions far from central Texas, but we hope that administrators will recognize the importance of the committee’s work and offer faculty members the opportunity to participate in the committee process.

After an advisory committee proposes an FOS, it goes out for a 30-day public comment period. The proposed FOS is sent out as a memo to all presidents, chancellors, chief academic officers, chief instructional officers, and Coordinating Board liaisons at all Texas public institutions of higher education. Administrators should let relevant deans and department chairs know when an FOS is proposed for one of their degree programs, encourage departments to discuss the proposed FOS at faculty meetings, and send the Coordinating Board any responses and recommendations. The advisory committees consider all responses received, and if changes are made to the proposed FOS, it goes out for a second 30-day comment period.

Review Transfer Policies

Administrators can promote the success of FOS by proactively reconsidering any policies that create barriers to successful transfer, including any policies that prevent lower-division courses from transferring in as the equivalent of upper-division courses with similar course content. Barriers can take many forms (see, for example, the Coordinating Board’s annual Texas General Academic Institutions: Increasing Successful Community College Transfer report for survey results). For FOS, it is important that department chairs and curriculum committees establish course equivalencies in transfer for courses that their programs may not offer at the lower division.

Transfer Dispute Resolution

If there are any disputes about how transfer credits are applied to programs, the two institutions and the student must first attempt to reach a consensus according to Coordinating Board rules (Title 19, Part 1, Chapter 4, Subchapter B, Rule 4.27). Failing that, either institution
may notify the Commissioner of Higher Education in writing for a transfer dispute resolution. The Commissioner’s determination is final.

**Implementation Information for Registrars and Institutional Researchers**

Registrars can play an important role in making sure that staff who handle transfer issues are aware of what FOS are and how they work. Most importantly, registrars need to make it clear to the staff who apply credit for transferred-in courses that the courses from a completed FOS are not optional or to be handled on a course-by-course basis, but instead are a block of courses that are required by state law to transfer and fulfill the lower-division major degree requirements for the applicable degree program. If a student has not completed the full FOS and transfers from one institution of higher education to another, the student must receive academic credit for each of the courses that the student has successfully completed and have these courses applied to the major.

Institutional reporting officials are responsible for reporting FOSC completion on the CBM009, the report that captures graduation and other completion outcomes. It is important to document completed FOSC each year, even if a student has also completed the core curriculum or a degree at the same time.

Registrars are responsible for implementing the statutory requirement that FOS courses be identified on a student’s transcript. Texas Administrative Code (TAC), Title 19, Chapter 4, Subchapter B, Rule 4.32(e) states that “Each institution must note field of study curriculum courses on student transcripts as recommended by the Texas Association of Collegiate Registrars and Admissions Officers (TACRAO).” The Coordinating Board is currently working with TACRAO to develop a common transcription process for FOS.

To assist receiving institutions, college registrars are encouraged to indicate on a student’s transcript if a student has completed an FOS. Registrars also are encouraged to identify FOS courses in the undergraduate catalog and sample degree plans, including explanations of how the FOS works. It is especially important for community college students to understand FOS as soon as possible after identifying a planned major so they can select the appropriate courses and minimize the risk of taking unnecessary SCH.

**Implementation Information for Deans and Department Chairs at Universities**

One of the most commonly asked questions the Coordinating Board receives is whether a university can add additional lower-division courses on top of what is in the FOS. It is important for deans and department chairs to understand, and communicate to their faculty, that the answer is no—a completed FOS transfers in as a full substitute for the receiving institution’s lower-division requirements for the degree program. For example, if an institution’s Criminal Justice major requires native students to take a lower-division Statistics for Social Sciences course, a transfer student who comes in with the completed FOS in Criminal Justice (which does not include a comparable course) cannot be required to take it, even if the Statistics course is a prerequisite for later upper-division courses.
Here are the possible exceptions:

- If the transfer student comes in with an incomplete core curriculum, the receiving institution could advise the student to take the Statistics course to fulfill the relevant component area of the core.

- An institution can still require lower-division courses that are not specific to the degree program, such as Learning Frameworks, Math, or Language courses that are required of all students at the institution, college, or school, regardless of their major. Non-credit courses such as Introduction to University Studies that are required of all students can also be required, as can developmental education courses that do not count toward the degree program.

- If a student transfers in with an incomplete FOS, the student must be given credit toward the major for the FOS courses that are completed. After that, the student can be treated as a native student and be required to take additional lower-division courses not specified in the FOS, so long as the additional courses do not substantially repeat the content from completed FOS courses.

The Coordinating Board encourages deans and department chairs to work closely with the departments’ curriculum planning committees and undergraduate studies committees to help align lower-division curriculum with the FOS. This can be done in several ways:

- Offer enough sections of the courses included in the FOS.

- When FOS courses are not yet available on your campus, identify how the FOS courses will transfer in as course equivalents. It will increase both efficiency and consistency. Communicate the equivalencies to your transfer partner institutions.

- Add FOS courses to the institution’s core curriculum component area options. If a course can count toward both the core curriculum and the FOS, it may enable more program flexibility for applying courses to the overall 120-SCH degree program.

- Revisit the upper-division curricula and the possible prerequisites to align the curriculum with the learning outcomes reflected in the FOS.

**Implementation Information for Deans and Department Chairs of Community and Technical Colleges**

It can be an effective recruitment tool to let students know that the institution offers a full slate of courses that are guaranteed by state law to transfer and apply to degree programs at any public university in Texas. Institutions are encouraged to offer every course in each FOS curriculum with enough sections to accommodate student demand.

Institutions are encouraged to embed the FOS into the relevant associate degree programs, providing students with the opportunity to have a completed FOS if they later decide to transfer to a four-year institution. Developing guided pathways and model degree maps may be a good mechanism for reviewing how FOS courses can be incorporated into degree plans and flagged for students.

Work with members of your partner transfer institutions to identify course equivalencies if the university does not offer the same FOS courses. The specific course content taught in the FOS...
courses may influence how the receiving university chooses to use its electives and shape its upper-division offerings.

This may require changes in staffing and teaching assignments, and in some cases, it may mean that enrollments may fall in *Lower-Division Academic Course Guide Manual* courses that are not included in the FOS. Please communicate to your faculty that the long-term benefits to students will justify the difficult choices to be made on campus. For example, see Table 1 (pg. 4) for the cost savings to students by not taking courses that do not apply to their degrees. If a student takes just three unnecessary courses that do not apply toward their major after transfer, and if the student then must take three additional courses to replace them at the university, that student will be losing an average of $3,618 and possibly a full additional semester of time to complete the degree.

### Implementation Information for Faculty and Advisors

Faculty and advisors can have a powerful impact on students’ educations by making sure they know about the FOS curriculum as soon as they identify their intended degree program. FOS can take a burden off advisors who no longer need to produce multiple transfer guides for multiple institutions or work with individual students to identify what courses will and will not count for credit in degree programs at various universities across the state. The FOS curriculum can be made available in sample degree maps, course selection guides, and course catalogs. If your institution offers FOS courses for dual credit or has outreach programs to area high schools, there are opportunities to publicize the FOS curriculum. The sooner students know about FOS curricula, the less chance there is of them using time and money to take unnecessary courses for their degree programs.

Take opportunities to communicate with the faculty at transfer partner institutions to discuss the content of shared FOS courses. The goal is to not have students unnecessarily duplicating content in courses with different names at different levels. Because FOS courses are fully transferrable and applicable to the degree program, the courses and their applicable fields have the potential to open spaces for faculty to bridge the content of their courses and promote student engagement and degree completion. They may also present new opportunities for collaboration between college and university faculty members.
Appendix A

Texas Education Code, Chapter 61, Section 61.823: Field of Study Curriculum

(a) The board, with the assistance of advisory committees composed of representatives of institutions of higher education, shall develop field of study curricula. Each advisory committee shall be equitably composed of representatives of institutions of higher education. Each university system or institution of higher education which offers a degree program for which a field of study curriculum is proposed shall be offered participation on the advisory committee for that particular field of study. At least a majority of the members of any advisory committee named under this section shall be faculty members of an institution of higher education. An institution shall consult with the faculty of the institution before nominating or recommending a person to the board as the institution’s representative on an advisory committee.

(b) If a student successfully completes a field of study curriculum developed by the board, that block of courses may be transferred to a general academic teaching institution and must be substituted for that institution’s lower division requirements for the degree program for the field of study into which the student transfers, and the student shall receive full academic credit toward the degree program for the block of courses transferred.

(c) A student who transfers from one institution of higher education to another without completing the field of study curriculum of the sending institution shall receive academic credit from the receiving institution for each of the courses that the student has successfully completed in the field of study curriculum of the sending institution. Following receipt of credit for these courses, the student may be required to satisfy further course requirements in the field of study curriculum of the receiving institution.

(d) In developing field of study curricula, the board shall pursue a management strategy that maximizes efficiency, including a management strategy that provides for the decentralization of advisory committees to enable concurrent development of curricula for different fields of study.

(e) The board, with the assistance of an appropriate advisory committee, shall periodically review each field of study curriculum to ensure alignment with student interest and academic and industry needs.

(f) Repealed by Acts 2011, 82nd Leg., R.S., Ch. 1083, Sec. 25(21), eff. June 17, 2011.
Texas Administrative Code, Title 19, Part 1, Chapter 4, Subchapter B, Rule 4.32: Field of Study Curricula

(a) In accordance with Texas Education Code, §61.823, the Board approves field of study curricula for certain fields of study/academic disciplines. Field of study curricula shall be developed with the assistance of advisory committees whose membership includes at least a majority of members who are teaching faculty (as defined by §4.23(8) of this title, relating to Definitions for Core Curriculum and Field of Study Curricula) within the field of study under consideration.

(b) If a student successfully completes a field of study curriculum developed by the Board, that block of courses must be substituted in transfer to a general academic teaching institution for that institution's lower-division requirements for the degree program for the field of study into which the student transfers, and the student must receive full academic credit toward the degree program for the block of courses transferred.

(c) A student who transfers from one institution of higher education to another without completing the field of study curriculum of the sending institution must receive academic credit in the field of study curriculum of the receiving institution for each of the courses that the student has successfully completed in the field of study curriculum of the sending institution. Following receipt of credit for these courses, the student may be required to satisfy the remaining course requirements in the field of study curriculum of the receiving institution, or to complete additional requirements in the receiving institution's program, as long as those requirements do not duplicate course content already completed through the field of study curriculum.

(d) A student concurrently enrolled at more than one institution of higher education shall follow the field of study curriculum requirements of the institution at which the student is classified as a degree-seeking student.

(e) Each institution must note field of study curriculum courses on student transcripts as recommended by the Texas Association of Collegiate Registrars and Admissions Officers (TACRAO).

(f) Each institution must review and evaluate its procedures for complying with field of study curricula at intervals specified by the Board and shall report the results of that review to the Board. These reports shall be submitted following the same timetable as the regular reports of core curriculum evaluations.
Appendix C

Texas Administrative Code, Title 19, Part 1, Chapter 4, Subchapter B, Rule 4.33: Criteria for Evaluation of Field of Study Curricula

(a) Every five years, each public institution of higher education shall review and evaluate its policies and practices regarding the acceptance and application of credit earned as part of a Board-approved field of study curriculum, and reports the results of that evaluation to the Board. The evaluation should include:
   (1) the extent to which the institution's compliance with the acceptance of transfer credit through field of study curricula is being achieved;
   (2) the extent to which the institution's application to the appropriate degree program of credit earned as part of a Board-approved field of study curriculum facilitates academic success;
   (3) the effectiveness of field of study curricula in the retention and graduation of transfer students in those degree programs that have Board-approved field of study curricula.

(b) Each institution's evaluation report must contain at least the following:
   (1) a listing of the institution's degree programs that have Board-approved field of study curricula;
   (2) a description of the institution's policies and practices regarding applicable Board-approved field of study curricula, including admission-point evaluation of transfer credit, advising practices (including catalogue and website information on existing field of study curricula and advising/counseling practices for enrolled students), and transcripting practices to show field of study participation and completion;
   (3) a chart or table showing the number of total transfer students for each degree program that has a Board-approved field of study curriculum, for each of the last five years; the chart should indicate year-by-year the percentage of students who transferred having completed the applicable field of study curriculum, the percentage of students who transferred without having completed the applicable field of study curriculum, and any information about progress toward graduation or graduation rates that can compare transfer student performance with non-transfer student performance during the evaluation period.
(a) The Board shall have the authority to modify or revise a Board-approved field of study curriculum when a need for such a revision is identified, as specified in current Board policy and procedures.

(b) The need for a revision or modification to a Board-approved field of study curriculum may be identified by one the following methods, or by other methods that are similarly appropriate:
   (1) notice of a change in licensure, certification, or accreditation standards that would affect the field of study curriculum and lower-division requirements for a field of study or academic discipline;
   (2) notice of a change in curricular structure or content that is part of a pervasive change in the academic discipline served by the field of study curriculum, as documented by national or regional professional organizations, faculty organizations, or other indicators of best practices in the discipline;
   (3) receipt of a request from at least three public institutions of higher education that are affected by the field of study curriculum under consideration for modification, including at least one two-year and one four-year academic-degree-granting institution. The request and justifications for the request should be made by the chief academic officers of the institutions, in a joint memorandum sent to the Commissioner.

(c) Any proposed modification or revision to a Board-approved field of study curriculum should be evaluated by an advisory committee convened under the conditions cited in §4.30(a) of this title (relating to Criteria for Evaluation of Core Curricula). Recommendations for modifications or revisions to a Board-approved field of study curriculum should reflect the advice and wisdom of an advisory committee made up primarily of teaching faculty from the academic discipline(s) affected by the field of study curriculum under consideration.
Appendix E

Texas Administrative Code, Title 19, Part 1, Chapter 1, Subchapter A, Rule 1.6: Advisory Committees

(a) The Board may appoint advisory committees from outside the Board's membership to advise the Board as it may deem necessary.

(b) The use of advisory committees by the Board shall be in compliance with the provisions of Texas Government Code, Chapter 2110 regarding the composition and duration of committees, the reimbursement of committee member's expenses, the evaluation of committees, and the reporting to the Legislative Budget Board.

(c) An advisory committee is automatically abolished on the fourth anniversary of the date of its creation unless it has a specific duration prescribed by statute or the Board reestablishes the committee. A written statement shall be prepared by the Commissioner or his or her designee for each advisory committee setting forth the purpose of the committee, the task of the committee, the manner in which the committee will report to the Board, the date on which the committee is created, and the date on which the committee will automatically be abolished. The written statements shall be maintained on file in the Board offices.

(d) Purpose and Duties of Advisory Committees. The purpose of an advisory committee shall be to give the Board the benefit of the members' collective technical expertise and experience with respect to matters within the Board's jurisdiction. An advisory committee's sole duty is to advise the Board. An advisory committee has no executive or administrative powers or duties with respect to the operation of the Board, and all such powers and duties rest solely with the Board. The specific purposes and tasks of an advisory committee subject to this subchapter shall be identified in Board rules.

(e) Composition of Advisory Committees.

(1) The composition of advisory committees created by the Board, including subcommittees or workgroups with non-advisory committee members, shall contain no more than 24 members in compliance with the requirements of Texas Government Code, Chapter 2110.

(2) The Board shall make reasonable attempts to provide balanced, geographic representation, consonant with Texas Government Code, Chapter 2110, on all advisory committees. A rule or other action may not be challenged because of the composition of an advisory committee.

(3) This section does not apply to an advisory committee to the extent that:
(A) another state law specifically states that Texas Government Code, Chapter 2110 does not apply; or
(B) a federal law or regulation:
(i) imposes an unconditional requirement that irreconcilably conflicts with the requirements of Texas Government Code, Chapter 2110; or
(ii) imposes a condition on the state's eligibility to receive money from the federal government that irreconcilably conflicts with Texas Government Code, Chapter 2110.

(f) Membership Terms. Except as otherwise provided by law, advisory committee members shall serve terms as determined by the Board.
(g) Membership. The Board shall solicit nominations and make appointments from such nominations for membership on advisory committees from presidents and chancellors, or the respective designee. For advisory committees that include members not associated with an institution of higher education, the Board shall solicit nominations from appropriate entities, such as stakeholder organizations whose membership consists of the type of representative the advisory committee is seeking. Except as otherwise provided by law, all members of advisory committees are appointed by and serve at the pleasure of the Board. Board members may not serve on advisory committees. If an advisory committee member resigns, is no longer associated with the nominating institution or entity, dies, becomes incapacitated, is removed by the Board, otherwise vacates his or her position, or becomes ineligible prior to the end of his or her term, the Board may appoint a replacement who shall serve the remainder of the unexpired term.

(h) Attendance. A record of attendance at each meeting of advisory committees shall be made. Except as otherwise provided by law, if a member of an advisory committee misses three consecutive regularly scheduled meetings or more than half of all the regularly scheduled meetings in a one-year period, without approval by a majority vote of the Board, that member automatically vacates his or her position on the advisory committee and the Board may make an appointment to fill the remainder of the unexpired term of the vacancy.

(i) Reimbursement. Members of advisory committees shall not be reimbursed for expenses unless the Board expressly authorizes reimbursement. The Board may also, in its discretion, reimburse the expenses of members of any duly authorized subcommittee of an advisory committee.

(j) Presiding Officer. Except as otherwise provided by law, each advisory committee shall select from its members a presiding officer, who shall report the committee's recommendations to the Board. The Board may, at its discretion, appoint other officers of advisory committees or allow committee members to elect other officers at their pleasure.

(k) Manner of Reporting. Advisory committees shall report any recommendations directly to the Board at a Board meeting determined in consultation with agency staff, including the Commissioner of Higher Education. Advisory committees shall also provide an annual or biennial report to the Board to allow the Board to properly evaluate the committee's work, usefulness, and the costs related to the committee's existence, including the cost of agency staff time spent in support of the committee's activities.

(l) Subcommittees or Workgroups. Advisory committees may organize themselves into subcommittees or workgroups. One member of each subcommittee or workgroup shall serve as the chairperson. Subcommittee or workgroup chairs shall make written reports regarding their work to the presiding officer of the advisory committee. A subcommittee or workgroup of an advisory committee may include members who are not members of the advisory committee, but must include at least one member of the advisory committee.

(m) Meetings. Advisory committees shall meet at the call of the presiding officer or the Board. All advisory committee and subcommittee meetings shall be open to the public and broadcasted via the web, unless prevented by technical difficulties.
(n) Monitoring of Advisory Committees and Records.
   (1) The Board shall monitor the activities of advisory committees.
   (2) Agency staff shall record and maintain the minutes of each advisory committee and
       subcommittee meeting. The staff shall maintain a record of actions taken and shall
       distribute copies of approved minutes and other committee documents to the Board and to
       advisory committee members on a timely basis.
   (3) Minutes kept for advisory committee meetings and reports required under subsection (k)
       of this section shall be maintained in a form and location that is easily accessible to the
       public, including making the information available on the Board's website.
Appendix F

Texas Administrative Code, Title 19, Part 1, Chapter 9, Subchapter J, Rule 9.185: Academic Certificates

A college may award an academic certificate to a student who completes:

(1) the college’s approved core curriculum; or
(2) a Board-approved field of study curriculum; or
(3) fifty percent of the courses specified in a voluntary statewide transfer compact.
Appendix G

Current and Upcoming FOS

The list of approved and currently active FOS is available at this website:

www.thecb.state.tx.us/fos
Appendix H

Infographic on Integration of FOS and Core Curriculum

(see following pages)
Fields of Study Curriculum:
Improving Transfer and Minimizing Credit Loss in Texas

In Texas, Field of Study Curriculum (FOSC) is one of the most important policies to support efficient upward transfer with minimal loss of credit. FOSC is a set of courses that fulfill lower-division requirements for a specific major or degree plan. Combined with the Core Curriculum, FOSC can help a student reach an associate degree and/or be prepared for efficient transfer to another institution. Courses within FOSC are guaranteed to transfer to any public college or university in Texas and are guaranteed to apply to the appropriate bachelor’s-level degree plan. No exceptions. A student who transfers without completing the entire FOSC shall receive credit for each of the courses the student successfully completed in the FOSC.

In Practice, the Total Number of Credits Earned through the Field of Study Curriculum Varies by Major

In practice, the total number of credits students will earn through FOSC and the core curriculum will vary based on the number of semester credit hours included in the FOSC. The number and content of courses contained in each FOSC are identified by faculty committees representing two-year and four-year institutions who determine the knowledge and courses necessary to prepare students for upper-division coursework in a particular major.
The graphic above displays two possible scenarios combining FOSC of different sizes with the core curriculum. The core curriculum contains 42 semester credit hours in each scenario. There is often some degree of overlap between the FOSC and the core.

1. **Small FOSC**: Several FOSC require students to complete 18 SCH or fewer major-specific lower division courses. One example is communications with 12 SCH. Students pursuing these majors must take other non-major degree requirement courses to earn a 60 SCH associate degree or may wish to transfer with their guaranteed FOSC and core hours.

2. **Large FOSC**: Other FOSC contain more than 18 SCH, such as business (24 SCH), electrical engineering (30 SCH), and nursing (34 SCH). In cases where an FOSC contains more than 18 hours, credits earned to satisfy lower division major requirements in the FOSC will also satisfy lower division general education requirements in the core curriculum.

- Communications (12)
- Criminal Justice (15)
- English Language & Literature (12)
- Political Science (12)
- Social Work (15)
- Sociology (12)
- Mexican American Studies (18)
- Psychology (18)
- Architecture (36)
- Business Administration and Management (24)
- Chemical Engineering (35)
- Civil Engineering (39)
- Electrical Engineering (30)
- Mechanical Engineering (36)
- Engineering Technology (37)
- Music (31)
- Nursing (34)
Appendix I

Frequently Asked Questions

The frequently asked question document is available at this website:

www.thecb.state.tx.us/fos

What is a Field of Study?

A Field of Study (FOS) is a selection of lower-division courses that are guaranteed by state law to transfer and apply to a degree program. Usually an FOS is somewhere between four and eight introductory-level classes, selected to provide students with a solid introduction to the field and prepare them for success in upper-division courses. If a student takes all the courses in an FOS and then transfers to another Texas public institution of higher education, the FOS is guaranteed to transfer as a block and be applied to the appropriate major. If a student has completed (1) the Texas common core curriculum; (2) the university or college courses required of all students regardless of major, if any; and (3) the FOS, then the student is finished with all the lower-division courses for the degree program. This is true even if the institution to which the student transfers requires a different selection of lower-division courses for their own freshmen or sophomores, and even if the institution has prerequisites for their upper-division courses that are not included in the FOS.

What courses can be in an FOS?

An FOS can consist of any courses from the Lower-Division Academic Course Guide Manual. In rare cases, new courses can be created for the Lower-Division Academic Course Guide Manual to serve the needs of an FOS. An FOS may draw from several disciplines and may include courses outside of the main field of the major. For example, the Business Administration and Management FOS includes courses in Math, Economics, Accounting, and Business Computer Information Systems as well as courses from Business.

Can a course “double dip” and count toward both the core curriculum and an FOS?

Yes, the same course can count toward the core curriculum and an FOS. For example, if a student plans to transfer from a community college to a university and major in Psychology, the student can take General Psychology (PSYC 1301) and have the same 3 semester credit hours (SCH) count toward both the Social & Behavioral Sciences component area of the statewide core curriculum and the Psychology FOS.

What if students take fewer, or more, lower-division courses than the ones included in the FOS before they transfer?

If students take fewer courses than the complete FOS, then each FOS course the students did take is guaranteed to transfer and apply. If students do not transfer the complete FOS as a block, the receiving institution can require them to take additional lower-division, non-FOS courses and prerequisites up to the maximum number of SCH for the degree program.
If students take more lower-division courses than are required for the FOS, the students and their advisors may want to look at the degree plans at the institutions to which the students want to transfer and consider what additional courses they may need to prepare for upper-division courses. Some lower-division courses may transfer in as electives. Most universities will transfer in a maximum of around 60 SCH, so students will need to choose any extra courses wisely.

**What is the advantage of completing an FOS rather than a student self-selecting the courses needed before transferring?**

Coordinating Board data show that it takes Texas transfer students an average of 7.6 years to graduate, with 11.4 semesters and 142 SCH attempted. The most efficient and least expensive way to graduate is to take 4 years, with 8 semesters and 120 SCH. The data reveal that most transfer students are taking far too many courses that do not apply to a degree program. Prior to the development of an FOS in a degree field, community college students would have to rely on advisors and university catalogs to determine what courses are most likely to transfer to the university to which they planned to apply. If a student did not get admitted to that targeted university, or if the student changed plans, then the student may have taken several unnecessary courses and may have to take several additional requirements at the new university. All of these courses take valuable time and money. With an FOS, a student can be certain that the block of courses will transfer and apply toward the degree with no additional lower-division major requirements at any public institution.

**What if a student can’t complete the full FOS and the full core curriculum in two years (60 SCH) before the student transfers?**

There are several FOS—such as Architecture, Music, and Engineering programs—that have over 18 SCH. These cannot be completed alongside the entire 42 SCH core curriculum in the 60 SCH before transfer from a two-year institution. If students complete the FOS and then transfer the courses as a block to a university, students can complete the core curriculum in their third and fourth years at the university while taking the upper-division requirements for the major.

**Does the transfer of an FOS work just from a two-year to a four-year institution?**

FOS courses are guaranteed to transfer and apply to degree programs at all Texas public institutions of higher education, including community colleges, state and technical colleges, universities, and health-related institutions. This means the courses will transfer and apply from a two-year to a four-year institution, from a two-year to a two-year institution, from a four-year to a two-year institution, and from a four-year to a four-year institution. Students who are enrolled at more than one institution simultaneously, or who attend several institutions on their path toward a baccalaureate degree, can now work on their lower-division degree requirements with confidence that every course will apply to a degree.
Do FOS Advisory Committees violate Southern Association of Colleges and Schools (SACS) standards?

SACS accreditation requires faculty input on program development. Each FOS is developed by a committee of faculty actively teaching in the discipline, the same way that degree plans are assembled at individual institutions. Additional faculty committees are assembled by the Coordinating Board to regularly review and update the courses in the Lower-Division Academic Course Guide Manual, the listing of approved community colleges courses that are used to create FOS curricula. Faculty members at Texas public institutions are the only ones who determine the courses in the Lower-Division Academic Course Guide Manual or in any FOS curriculum.

How are the courses chosen for the FOS? What do I do if I have a suggestion?

FOS courses are selected by an advisory committee of up to 24 faculty in the discipline with an equal number of community college and university representatives, drawn from a spectrum of public institutions across the state. They have an open meeting at the Coordinating Board offices in Austin which is broadcast live and preserved on YouTube. The courses they select then go out for a 30-day public comment period. The committee members then consider every recommendation, and if changes are made to the FOS, it goes out for another 30-day public comment period until the committee has determined that the proposed FOS represents the best selection of courses for the needs of students and institutions. Advisory committees will meet periodically to reconsider existing FOS and keep them up to date.

If you have any complaints or suggestions about an FOS, please send them to fos.contact@thecb.state.tx.us.

Where can I get more information?

Updated information about current FOS is available on the Coordinating Board website: www.thecb.state.tx.us/fos

Information about FOS Advisory Committees is available here: http://www.thecb.state.tx.us/fosadvisorcomms

If you have any questions about FOS, please send a message to fos.contact@thecb.state.tx.us, or call Allen Michie, Program Director, at (512) 427-6518.
The list of approved and currently active FOS is available at this website: www.thecb.state.tx.us/fos

This document is available on the Texas Higher Education Coordinating Board website.

Contact Information

Please contact Coordinating Board staff if there is anything we can do to help your campus effectively and efficiently implement FOS.

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For nearly 15 years, I have served as President of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), one of seven recognized regional accrediting agencies in the nation.

I will provide an overview on how SACSCOC functions as a gatekeeper to federal funds and how our accredited institutions are held accountable for academic quality which in turn protects the investments of students, parents and taxpayers. SACSCOC’s role in the “triad” is to oversee and ensure the quality of education at each of the institutions we accredit. Process in short: Once eligible for consideration to be accredited, an institution must apply for candidacy, which involves demonstrating through a compliance certification to the Commission they meet each of our standards. If an institution makes it through this stage and becomes accredited, they continue to be held accountable – for e.g. if the Commission has reason to believe an institution is no longer meeting standards (consistent with those required under HEA), the institution is asked to demonstrate how it plans to come into compliance through a monitoring report. If after two such reports compliance is not demonstrated, they are placed on either Warning or Probation, or have its accreditation withdrawn (more in full remarks).

It has been proposed by some that as part of the next reauthorization of the Higher Education Act, the Federal government, either directly or through accreditors, should impose “bright lines” for institutional outcomes. Unfortunately, it is not that simple. Last year, The Council of Regional Accrediting Commission (C-RAC), in which SACSCOC is a member, issued a one-year review of the Graduation Rate project which had been initiated the prior year. A key finding was that 75 percent of these “low-grad” institutions had at least a majority of their students not reflected in the federal data given they did not enter the institutions as first-term, full-time students. The point here is not just that federal graduation rates are often incomplete (an issue Congress is working to tackle), but also the fact that “bright line” graduation rates would invariably not capture the many ways graduation rates can be approached.

Although I oppose the concept of federal bright lines for accountability, I strongly believe accreditors can and must hold institutions accountable for outcomes, such as graduation rates. In fact, that is exactly the direction all regional accreditors, including SACSCOC, are headed:

- SACSCOC takes a close look at institutional outcome metrics including – enrollment, completion rates, cohort default rates, retention/withdrawal rates, transfer-out rates, loan repayment rates, as well as median earnings.
- Under SACSCOC’s newly adopted standards, we require every institution to identify a key student completion indicator from the following completion metrics to serve as their “baseline performance level”: (1) “Traditional” IPEDS overall graduation rate (within 150% time); (2) “New” IPEDS Outcome Measure (8-year award rate), or (3) National Student Clearinghouse “total” completion rate (6 years).
- SACSCOC asks each of our institutions to select institutions they considered to be their peers and provide them with outcomes data from these peers, so they are able to better evaluate their performance against similarly situated institutions.
- SACSCOC requires every institution to develop a Quality Enhancement Plan (QEP) and SACSCOC standards also hold institutions accountable for collecting and using evaluation data to inform planning and improvement efforts.
Testimony before the United States Senate Committee on Health, Education, Labor and Pensions

April 10, 2019

Belle Wheelan, President
Southern Association of Colleges and Schools Commission on Colleges

Chairman Alexander, Ranking Member Murray, and members of the Committee, thank you for the opportunity to present testimony today on the important issue of accountability in higher education.

My name is Belle Wheelan, and for nearly 15 years, I have served as President of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), one of seven recognized regional accrediting agencies in the nation. SACSCOC represents the common denominator of shared values and practices among more than 794 institutions across 11 southern states, consisting of 480 public, 305 private, and nine for-profit institutions. Our institutions are diverse and encompass research universities, state colleges, liberal arts colleges, community and technical colleges, Historically Black Colleges, Hispanic Serving Institutions as well as faith-based institutions.

SACSCOC-accredited institutions enroll nearly 4.5 million students, 41% of whom receive Pell Grants and 39% of whom receive federal loans. Taken altogether, these institutions have a Title IV federal student aid volume of over $30 billion annually.

I’m here today to provide an overview on how our agency functions as a gatekeeper to these federal funds and how our accredited institutions are held accountable for academic quality, which in turn protects the investments of students, parents and taxpayers.

The process of accountability includes the requirement that eligible institutions be authorized by the states in which they operate and approved by the U.S. Department of Education. While states focus largely on consumer protections for students, the Department is responsible for ensuring compliance with federal rules and regulations tied to student aid.

SACSCOC’s role of what is commonly referred to as the “triad” is to oversee and ensure the quality of education at each of the institutions we accredit.

Once eligible for consideration to be accredited, an institution must apply for candidacy, a process that involves demonstrating through a compliance certification to the Commission that they meet each of our rigorous standards in areas such as student achievement and fiscal capacity. Our Board of Trustees, comprised of 77 members elected by the membership, relies on the work of over 5,000 volunteer peer reviewers to help inform decisions around final accreditation approvals.
If an institution becomes accredited, it will be subject to ongoing review and robust oversight by our Commission, including undergoing a comprehensive evaluation every 10 years, submitting a formal report at the fifth year, and providing annual reports that include financial information and completion data. In addition, if an institution does not demonstrate compliance with our standards at any time during the decennial process, we are obligated to assess the reasons for non-compliance and may leverage a sanction on the institution.

Some have proposed that, as part of the next reauthorization of the Higher Education Act, the federal government, either directly or through accreditors, should impose “bright lines” for institutions that would result in the loss of accreditation and the ability to participate in federal student aid programs if institutions do not meet certain outcomes.

I understand why some would be interested in such an idea. It seems simple, takes away most subjectivity, and would presumably remove “bad actors,” thereby protecting students. Unfortunately, it’s simply not that simple.

I will use graduation rates as an example since it’s most often the suggested metric for which a bright line could be applied.

Last year, the Council of Regional Accrediting Commission, of which SACSCOC is a member, issued a one-year review of the Graduation Rate project that had been initiated the prior year.

One of our goals of this project was to take a deeper look at federal graduation rates. At times, accreditors are asked — “why do you accredit some institutions that have extremely low graduation rates?” It was and continues to be a fair question, and one we felt needed to be answered.

As part of the project, we examined both 2-year and 4-year institutions with a federal IPEDS graduation rate below 25 percent, or half the national average. We found that at 75 percent of these “low-grad” institutions, a majority of students (and often a vast majority) were not reflected in the federal data because they did not enter the institutions as first-time, full-time students. An inaccurate representation of an institution’s student body will clearly have a significant impact on the institution’s graduation rate and outcomes.

As cited in our report, “The Western Association Senior Colleges (WASC) analyzed 23 California State University institutions and found that the federal IPEDS Student Right to Know graduation rate dramatically underreported graduation rates by 3 to 32 percentage points, largely because the data did not include large groups of students (including non-first-time, non-full-time students) enrolled.”

In our own region, we looked at the impact of using data from the National Student Clearinghouse, which tracks far more students and uses a longer period of time for when student graduate (particularly relevant for part-time and non-traditional students). Not surprisingly, the graduation rates of the
The point here is not just that federal graduation rates are often incomplete (an issue I know Congress is working to tackle), but also the fact that “bright line” graduation rates would invariably fail to capture the many different ways in which graduation rates can be approached. Nor would bright lines, in and of themselves, account for the significant differences between our institutions - ranging from highly selective universities to community colleges that have open door admission policies and enroll students of widely varied academic abilities.

However, I want to be very clear: although I oppose the concept of federal “bright lines” for accountability, I strongly believe we as accreditors can and must hold institutions accountable for student outcomes, such as graduation rates.

In fact, that is exactly the direction all regional accreditors, including SACSCOC, are headed.

As part of the reviews I mentioned above, SACSCOC takes a close look at institutional outcome metrics including enrollment, completion rates, cohort default rates, retention/withdrawal rates, transfer-out rates, loan repayment rates, and median earnings. These reviews are sometimes done at the institutional level and at times drive down to the program level, depending on information provided by the institution.

At SACSCOC, we pay particular attention to graduation rates – however, we recognize that there is more than one way to define “graduation rate.” But we didn’t let that prevent us from holding institutions accountable for this important outcome. Under our newly-adopted standards, we require every institution to identify a key student completion indicator from the following completion metrics to serve as their “baseline performance level”:

1) “Traditional” IPEDS overall graduation rate (within 150% time);
2) “New” IPEDS Outcome Measure (8-year award rate); or
3) National Student Clearinghouse “total” completion rate (6 years).

Subsequent performances are then compared to baseline levels. Peer evaluation committees are expected to use this information as contextual reference points to inform their reviews of institutional cases for compliance.

We also ask each of our institutions to identify peer institutions and evaluate their performance and outcomes data against similarly-situated institutions. We do this as a way to encourage institutions to consider how they could learn and adopt strategies from high-performing peers. This work has also included, for example, polling all of our institutions for effective strategies to increase graduation rates. We received over 5,000 comments that have enabled institutions to learn about best practices to address this issue.
We also require every institution to develop a Quality Enhancement Plan (QEP). These plans must focus on how the institution intends to improve specific student learning outcomes and/or student success. Institutions must also commit resources to initiate, implement, and complete their plans.

The QEP is an example of intentional and focused use of institutional evaluation data to identify and address a specific and significant area for improving student achievement.

Our standards also hold institutions accountable for collecting and using evaluation data to inform planning and improvement efforts. Many institutions struggle with this necessary requirement. During the first (off-site) stage of the peer review process, about a quarter of institutions in the 2018 class were found to be in non-compliance with this standard. However, by the time the entire process is completed, all but 4% of the same institutions had demonstrated compliance.

Since we perceive the reaffirmation of accreditation process to be a continuous improvement process, institutions are able to provide additional information after each stage of the review process, often yielding more positive results and, subsequently, greater compliance with the standards.

Since completion data is submitted annually, staff is able to work with institutions that are making little or no progress with related compliance issues.

When the Commission has reason to believe that an institution is no longer meeting one of our standards (which are consistent with those standards required under HEA), it will ask the institution to demonstrate how it plans to come into compliance through a monitoring report. If after two monitoring reports an institution is not able to demonstrate compliance, it is placed on either Warning or Probation, or its accreditation is withdrawn altogether. The withdrawal of membership or loss of accreditation can be appealed on procedural grounds. During that process, if it is determined that the reason for the drop was strictly financial, there is a provision for new evidence that, if found to be material and significant, can lead the Commission to reconsider its decision.

I hope that my testimony here today has helped provide a better understanding of how accreditors such as SACSCOC strive each and every day to help not only improve institutions but also to protect students, parents and taxpayers.

As you consider changes to the Higher Education Act, I welcome the opportunity to work with each of you on ways to ensure we are living up to this responsibility.

Thank you for the opportunity to testify and I welcome any questions you may have.
Senator Doug Jones’ Questions:

1. There are 101 accredited Historically Black Colleges and Universities (HBCUs) in our country who have historically been accredited by the Southern Association of Colleges and Schools Commission on Colleges. Unfortunately, if you speak with the Presidents of these institutions, they will tell you stories of perceived additional barriers to maintain accreditation compared to their higher-resourced, non-HBCU peers. For instances, you might hear one of the following:

- The peer review process allows too many personal biases to enter the process and have negative impacts, especially for small, low-resourced institutions.
- True “peers” that reflect an institution’s size, locale, sector, resources and outcomes generally do not comprise the majority of a campus review team, compromising the accuracy and integrity of the review team’s findings.
- Standards are applied without consideration of institutional size, scope, programmatic offerings, resources, endowments, etc. requiring institutions with minimal resources to be evaluated using the same criteria as some of the best endowed institutions in the country. Weighting of standards should be employed to provide equity for lower-resourced institutions.
- Accreditors tend to shift what is required of institutions on sanction, much like what happened to Bennett College, leading to a belief that when institutions reach a state of extreme difficulty in meeting the standards, the accredits would rather remove them from membership instead of providing them with any additional opportunity to rectify their problems.
- The degrees of progress are not taken into account when an institution has been on sanction for two years. For example, an institution can go from 10
sanctions to one in two years, demonstrating substantial progress, yet that one lone sanction can be enough to remove them from membership and rescind their ability to award federal financial aid without another accreditor in place.

Given this information, can you please share your views of SACSCOC relationship with HBCUs and how the agency considers the under-resourced nature of these institutions when making accrediting decision? Does SACSCOC apply the exact same standard to all institutions accredited by the organizations and approach every institution the same or does it take various approaches depending on institutional size and endowment levels?

**RESPONSE:**

SACSCOC has one set of *Principles of Accreditation* or standards that are approved by the membership and used to evaluate quality at all of its 794-member institutions; however, each institution is evaluated according to its mission and purpose irrespective of institutional size or level of endowment. When an institution has been non-compliant with standards and enters a monitoring period, they must then become compliant within two years. Many times, this monitoring is accompanied by a sanction for being out of compliance with certain standards, many of them financial. Once an institution’s monitoring period has expired, federal laws require that we must drop them from membership. Every institution we have dropped has had at least three years notice that it is in danger of being dropped from SACSCOC membership. Each correspondence to the institution includes an explanation of the possible ramifications of continued non-compliance. Not one of them were caught off guard about this possibility.

Since I became President of SACSCOC almost 15 years ago, we have instituted training and education sessions for small and private institutions and all HBCUs. Prior to my arrival, very few of the HBCU presidents or their staff members were involved in the peer review process or as members of the SACSCOC Board, so they were not familiar with the interpretation of the standards by peer reviewers. Nor were they familiar with ways in which to demonstrate compliance. Since my arrival, however, we have assisted many of our institutions, including HBCUs, from losing membership, helped them reduce the amount of time they were on sanction, and increased the number of Board members from HBCUs on our governing board.
In the case of Bennett College, they were dropped from membership because they could not demonstrate financial stability and, even after raising $10 million dollars did not demonstrate how they were going to be able to meet their financial obligations past the current fiscal year. Additionally, this was not the first time they had been in this situation with us.

HBCUs, particularly private ones, have several challenges that impact their finances; (1) they have an extremely high tuition discount rate which leaves them extremely dependent on student enrollment and Pell grant revenue; (2) the number of African American students between 18 and 21 years of age is dwindling, making their enrollments decline; (3) they have small or no endowments on which to cushion financial setbacks; and (4) they are resistant to ‘right-sizing’ their institutions by laying off staff and culling academic programs. You can’t continue to do business the same today as you did previously when you had a captured market, and yet, many are still trying to do so.

We have no standard that dictates how much money or how many programs an institution must maintain. We do expect them to live within their means; whatever that means for their particular institution. When they can’t or won’t do that, they are likely to lose their accreditation.

Accrediting agencies work hard and are quite successful at balancing the need to apply standards and policies equitably to all institutions, as well as the need to care for and protect students while also caring for a given institution’s mission, identity, context and future. These are sometimes competing goals; however, peer evaluators, staff and Commissioners work carefully to accomplish all three. While there is subjectivity and discernment in all evaluation work, our evaluators and Commissioners do an excellent job of attempting to maintain appropriate objectivity while attending to mission, identity and context.

It is simply untrue that our preference would be to remove a challenged institution from membership than to work with them for quality improvement. Frankly, it has been Congress, DOE and NACIQI that has pressured accreditors to have more bite and to impose more severe sanctions on struggling institutions. This has been done in an attempt to design a “one-size-fits-all” set of regulations to address issues in other areas of higher education.
Senator Bernard Sanders’ Questions:

1. As you know, Secretary DeVos has delayed implementation of the Obama Administration’s accountability regulations to provide additional transparency, protect student borrowers and taxpayers and establish a more robust system to measure the success of students attending institutions of higher education. Specifically, the “gainful employment” rule was supposed to ensure that for-profit colleges and universities provide students with the education skills required to be successful in the workplace. In the meantime, students continue to spend money and time on education/training programs that do not lead to “gainful employment” or a valuable degree or certificate. Based on your experience as an accreditor and in the field of higher education, what else can Congress do to help you better regulate the practices of for-profit institutions to protect students from predatory tactics?

RESPONSE

- We believe we have very rigorous processes by which to evaluate all of our institutions and our for-profit institutions have been able to demonstrate compliance with our standards.

- You and other members have also pushed for expanding the current “90-10” rule so that these institutions would be required to demonstrate that an even higher amount of funds are coming from non-federal sources and that such sources also begin to include those derived from Veterans GI education benefits. Such approaches are worthy of consideration.

2. Inequities continue to exist in nearly every aspect of our nation’s higher education system. More often than not, students who are least likely to complete a college program after enrolling are often given the least amount of support and resources. What else can Congress do to help you create a better accountability system that extends beyond standardized performance-based funding and one that also considers racial and ethnic diversity, income stratification, family history and varying institutional missions? More specifically, how can we recraft federal accountability policies to ensure that schools are dedicating federal resources and funds to students (and schools) who require the most assistance?
RESPONSE

- Some ideas that come to mind include: Increasing the amount of Pell grants so that fewer loans would be needed and continue to allow them to be used year round; and tweak federal work-study so more on-campus programs can be funded at institutions that serve high risk students and in the students’ program of study.

Senator Tim Scott’s Questions:

1. When we talk about accountability in higher education, I think it’s important to say, from the outset, that we all recognize and agree that there are certain bad actors in every sector—and that some institutions, regardless of mission or tax status—are not serving their students well. At the same time, when I look at South Carolina, I also see incredible institutions across sectors— institutions that are constantly innovating and doing all that they can to meet the needs of students from all walks of life. And I think my skepticism of a top-down, one-size-fits-all accountability framework comes partially from the fact that any time Washington tries to impose rigid metrics and attaches penalties to them, the “solution” tends to be worse than the problem. And in this case, the students who suffer are more than likely to be folks from underserved backgrounds, and people of color, and people looking for a second chance.

   a. From my perspective, we should be expanding access and options—not limiting them. And I don’t think we, as Congress, are particularly equipped to define what a valuable program is, and what isn’t. Rather than penalizing institutions for—frankly—enrolling a disproportionate share of lower-income students, we need to do more on the front-end to help these students access high-quality opportunities. That’s why I joined Sen. Cassidy and two of our Democratic colleagues in leading the College Transparency Act—a bill that will make students and families more informed and empowered consumers, who can better identify which educational opportunities are the best fit for them. Along those lines, for the whole panel, where do you see the biggest gaps in data and information on student outcomes and program quality
right now—and what steps could Congress take to best fill those gaps?

RESPONSE:

Without question, the biggest gap on data is graduation rates, for reasons with which you are well aware. Your legislation, if enacted, would help address this issue by ensuring data on the College Scorecard and other federal websites paint a far more accurate picture of this critical measure, especially taking into account the mobility of students from one institution to another.

2. Now, let’s say that we do develop and publish better data—how do we make sure this information gets in the hands of the students and families who need it—and in a meaningful way?

RESPONSE:

Many prospective students are already accessing federal data on the College Scorecard, as well as through third-party college and career software programs used in many schools. In addition, if you look up an institution on Google (where most 18-year olds are most likely to get their information!) three data points show up: cost, graduation rate, and acceptance rate—all data from the U.S. Department of Education, and at least with respect to graduation rates, data that all too often paints an inaccurate picture of an institution’s quality.

I believe getting data into the hands of students is less of a challenge than ensuring students know how to use the data and are able to interpret the data in order to make sensible choices as to which institution or program they should enroll. While many proposed changes to the Higher Education Act have addressed the importance of students receiving sufficient counseling related to their student loans, there has been very little discussion around the counseling students need to interpret data to make the types of decisions that will actually help them pay off their loans.

More work needs to be done to bring in high schools and groups representing secondary education, such as chief state school officers, superintendents, principals, counselor groups as well as parents and teacher groups,
all of which have a role to play in making sure that prospective students know how to leverage this data to make smart and informed decisions.

**Senator Elizabeth Warren’s Questions:**

1. What are the weaknesses in America’s system of higher education accreditation?

**RESPONSE:**

No system is perfect, and our nation’s system of accreditation is no exception. However, I believe that there are far more perceived weaknesses in accreditation than actual weaknesses. For example, some perceive our peer review process as the “fox watching the hen house,” while in fact, peers are best suited for recognizing when an institution is not meeting quality standards and are diligent in holding their peers accountable.

Our system is not perfect in part because of the realities inherent in our complex system of high education which often forces us to continually balance issues such as allowing for innovation while not allowing institutions to expose undo risk to students, or the trade-off of stepping in at the right time to prevent a fragile institution from collapsing versus protecting students.

If there is a better way to eliminate these challenges as part of an alternative system of accreditation, I have yet to hear about it. While not perfect, I do believe our current accreditation system is best suited to handle the many trade-offs that are inherent in our nation’s postsecondary education system.

2. Is higher education accreditation serving students and taxpayers? If yes, how so? If no, what could be done better?

**RESPONSE:**

Higher education accreditation does serve students and taxpayers as, in the words of the Higher Education Act, a reliable authority as to the quality of education. The United States arguably has the most robust, mission-sensitive quality assurance system in the world. Mission sensitivity, along with understanding the student body of the institution is essential, given that the U.S. also has the most diverse, trustworthy set of institutions in the world.
3. You testified that you do not believe accreditors should be compelled to implement "bright line" outcomes metrics to maintain accreditation because the data on metrics like graduation rate are flawed.
   o Do you support the College Transparency Act, which would remedy the flawed data you mentioned in your testimony?

RESPONSE:
   I do support the College Transparency Act, though I am concerned about the privacy of students’ information.

   o Assuming Congress passed legislation (like the College Transparency Act) to fully remedy the data issues you cited in your testimony, why would "bright line" outcomes metrics based on those data not then be appropriate to impose on colleges and universities seeking to maintain accreditation?

RESPONSE:
   Having data that better reflects the true outcomes of institutions and ideally, programs, is essential but not enough to justify ‘bright lines.’ There are simply too many factors that play into this data being able to paint a full picture of the overall quality of an institution. But this data can and must be used to send a strong signal to institutions.

4. In your view, is there a graduation rate that is too low to maintain accreditation (assuming the rate is accurate)? If so, what is that rate?

RESPONSE:
   This is a fair question and an issue which SACSCOC and the other regional accreditors have spent a great deal of time examining. In particular, last year, we released a report in which we examined all of the institutions within our respective regions which had an IPEDS graduation rate of less than half the national average in order to learn more about these institutions including whom they were serving and how the data reflected their overall quality.

   What we found is that in fact, a single data point such as a graduation rate is never sufficient to determine the overall quality of an institution. Some institutions which are facing serious issues may actually have a graduation rate that, on the
surface, is fine, while other high performing institutions may have a graduation rate that is extremely low, but upon future examination, such rate fails to include a vast majority of the institution’s student population because they are not first-time, full-time students and, therefore, not included in IPEDS data. There are also institutions where a high percentage of students transfer into other institutions and, therefore, show up as a failure in terms of graduate rates to the institution from which they transferred.

Accreditors are and must be more nuanced in how they look at institutions; however, that is not to say that we shouldn’t look at an institution that has a low graduation rate, or for that matter, any institution that is experiencing a sudden growth or decline in enrollment, or other factors that can trigger a need for us to take a closer look at the institution.

5. In a 2015 WSJ article, when asked if a college with a 10% graduation rate can do a good job, you said: “It can be a good school for those 10% who graduate.” Do you still believe this is true? Should a school with a 10% graduation rate maintain accreditation and access to Title IV funding, retaining the ability to put students into debt?

**RESPONSE:**

As noted above, it is possible that a school with a very low graduation rate has a very high transfer rate or a rate that fails to reflect a vast majority of the students it serves. So, yes, it is possible that an institution with a 10% graduation rate can do a good job based upon other factors.

6. Should the Department of Education publish aggregate outcomes data, such as graduation rates or cohort default rates, by accreditor?

**RESPONSE:**

Under the prior administration, NACIQI developed a ‘dash board’ report for each accreditor which included aggregated outcome data (See [https://www.ed.gov/accreditation](https://www.ed.gov/accreditation)). In large part, particularly with respect to regional accreditors, the data reflected the types of institution accredited as opposed to the relative quality of institutions. For example, ACCJC, which accredits two-year institutions, has a vastly different set of outcomes thanWSCUC which accredits four-year institutions.
It is worth noting that the Department publishes annual data, broken down by accreditor, on dozens of factors ranging from graduation rate to percentage of student receiving Pell grants. These data may be found at https://www.ed.gov/accreditation.

7. In light of accreditation's failures to hold predatory institutions accountable, why should Congress continue to allow accrediting agencies to be gatekeepers to federal student aid dollars?

RESPONSE:
Accreditors play an invaluable role in serving as gatekeepers to federal student aid and should continue to serve in this function. Predatory institutions should not be eligible to participate in federal student aid programs period; however, Congress is best suited to define what constitutes such institutions along the lines of the current definition of ‘diploma mill’ under the Higher Education Act.

8. In your view, what is the difference between institutions that can't improve without additional resources and institutions that won't improve?

RESPONSE:
I believe the peer review system of accreditation is one of the only ways to really make this distinction on a case-by-case basis and to recognize when there is an institution that simply will not improve. These are the types of institutions most likely to face sanctions and ultimately, have their accreditation withdrawn.

I also believe there are very few institutions which don’t try each and every day to improve the educational outcomes for their students; however, it is clear that some institutions face far more barriers, such as old facilities, outdated programs, and boards and alumni groups that don’t want to change, and are unlikely to improve dramatically without additional resources.

Oftentimes, these institutions serve students who are already struggling to keep up with the cost of attending college, so increasing tuition is rarely an option to meet these resource needs. These institutions often rely on the limited funds available from the State or programs under the Higher Education Act which are aimed at strengthening institutions. Any reauthorization of HEA should look at the extent to which these programs are meeting the needs of all institutions they are intended to serve.
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= Renumber – no additional info required
= Reinstate – no additional info required
+ Adding Core
^ Core Being Updated

Table only contains courses that were added or edited. Removed courses are not counted.

Click on any course number above to see a PDF of that course.

Only New and Repeat courses are within this actual document. The rest open on the Registrar's Intranet. Your regular NetID and password are all that is required to login.

Clicking "Return to Main Menu" at the bottom of any page will bring you back to this page.

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Climer, Registrar’s Office, 2019.04.24
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HIST 3305

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Major   Core   Elective
☐       ☐       ☑

3. Does it replace a previously required course in that curriculum?

Yes ☐ No ☑

3.5. Which course is being replaced?

This question was not displayed to the respondent.

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

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☐ 2
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**request notes**

Added per Megan Herring and Dr. Rosen.

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HIST 3306

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3. Does it replace a previously required course in that curriculum?

Yes No
☐ ☐

3.5. Which course is being replaced?

*This question was not displayed to the respondent.*

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

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1. Course Subject and Number

MUSI 2321

2. How does this course fit in the curriculum? (Can select more than one.)

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<tbody>
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3. Does it replace a previously required course in that curriculum?

Yes  No

3.5. Which course is being replaced?

This question was not displayed to the respondent.

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

- [ ]
- [ ]
- [ ]
- [ ]

5. How does the proposed course differ from those identified in the last question (target audience, content, learning outcomes, etc.)?
6. Faculty contact that requested this course be added to the inventory:

   Eric Jones

7. This form submitted by:

   Megan Gray Hering
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<tr>
<td>2019-open</td>
<td>add * phil2304</td>
<td>(r1) phil2304.5 group_head series_head</td>
<td>PHIL 2304 Understanding Science (3 semester credit hours) A course on the nature, processes, and evaluation of scientific reasoning, scientific method, and scientific inquiry. The actual scientific process is distinguished from the inaccurate stereotype presented in many popular venues, including textbooks, the press, and the scientific journal article. The complex pattern of scientific inquiry is examined, including the processes of observation, reasoning, and experimentation that comprise it, as well as the formal methods that scientists use to assist them in these tasks. Several cases from the history of science are examined that exemplify various parts of the scientific process. Students will learn how to apply the basics of statistical and causal reasoning, as well as to understand and evaluate the uses of scientific evidence in policy-making and personal decision-making. (3-0) R</td>
<td>phase: approve</td>
<td>mlg105020 2018-11-30 08:15:38 NOLINK 38.0101.00 01 audit: -27647 m index: -27647 m match_fail</td>
<td>ps info orion info overview change process modify</td>
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**request notes**

Faculty requested removal of "an introduction of"

**peoplesoft diff: NOLINK**

PHIL 2304 Understanding Science (3 semester credit hours) A course on the nature, processes, and evaluation of scientific reasoning, scientific method, and scientific inquiry. The actual scientific process is distinguished from the inaccurate stereotype presented in many popular venues, including textbooks, the press, and the scientific journal article. The complex pattern of scientific inquiry is examined, including the processes of observation, reasoning, and experimentation that comprise it, as well as the formal methods that scientists use to assist them in these tasks. Several cases from the history of science are examined that exemplify various parts of the scientific process. Students will learn how to apply the basics of statistical and causal reasoning, as well as to understand and evaluate the uses of scientific evidence in policy-making and personal decision-making. (3-0) R

**show fields: phil2304.5**

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1. Course Subject and Number

PHIL 2304

2. How does this course fit in the curriculum? (Can select more than one.)

Major    Core    Elective

3. Does it replace a previously required course in that curriculum?

Yes    No

3.5. Which course is being replaced?

This question was not displayed to the respondent.

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

1

2

3

None

5. How does the proposed course differ from those identified in the last question (target audience, content, learning outcomes, etc.)?

This question was not displayed to the respondent.

6. Faculty contact that requested this course be added to the inventory:
7. This form submitted by:

Megan Gray Hering
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<td>atcm2310 (r1)</td>
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<td>ATCM 2310 Animation and Game Fundamentals (3 semester credit hours) This course will provide students a foundation in the practices and methods of computer animation and games. Students will gain exposure to the various areas of production pipelines through lectures supported by hands-on lab sessions. Topics may include the state of the industry, non-traditional applications, basic project management, and future directions. (3-0) S</td>
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<td>ps info orion info overview change process modify</td>
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<td>peoplesoft diff: ATCM 2310 Animation and Game Fundamentals (3 semester credit hours) This course will provide students a foundation in the practices and methods of computer animation and games. Students will gain exposure to the various areas of production pipelines through lectures supported by hands-on lab sessions. Topics may include the state of the industry, non-traditional applications, basic project management, and future directions. (3-0) S</td>
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</table>
1. Course Subject and Number

ATCM 2310

2. How does this course fit in the curriculum? (Can select more than one.)

Major  Core  Elective

3. Does it replace a previously required course in that curriculum?

Yes  No

3.5. Which course is being replaced?

ATCM 2305 Computer Animation Fundamentals/ATCM 2365 Game Design Fundamentals

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

1  ATCM 2305 Computer Animation Processes
2  ATCM 2365 Game Design Fundamentals
3  None

5. How does the proposed course differ from those identified in the last question (target audience, content, learning outcomes, etc.)?
This course replaces the two existing courses, combining their content to eliminate redundancy and provide more consistent and predictable preparation for subsequent coursework.

6. Faculty contact that requested this course be added to the inventory:

   Todd Fechter

7. This form submitted by:

   Lisa Bell
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<td>CS 2337</td>
<td>Computer Science II (3 semester credit hours) Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Includes comprehensive programming projects. Programming language of choice is C++. Credit cannot be received for both CS 2337 and (CS 2336 or CE 2336 or TE 2336). Prerequisite: CE 1337 or CS 1337 or TE 1337 with a grade of C or better. Prerequisite or Corequisite: CE 2305 or CS 2305 or TE 2305 with a grade of C or better. (3-0) S</td>
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**request notes**

Added per Dr. Ntafos's email "This has to do with students that have AP credit for CS 1337. The AP classes in High School are done in JAVA which is the language used in CS 2336 (i.e. those students would not get exposure to C++). From what I recall, the CS Department proposed creating a new class (CS 2337) to handle that group of students. CS 2337 is the same as CS 2336 but the language of choice is C++ and enrollments in it are limited to the students that bypassed 1337 using AP scores (hence the AP of 4 requirement)."

**peoplesoft diff:**

CS 2337 Computer Science II (3 semester credit hours) Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Includes comprehensive programming projects. Programming language of choice is C++. Credit cannot be received for both CS 2337 and (CS 2336 or CE 2336 or TE 2336). Prerequisite: CE 1337 or CS 1337 or TE 1337 with a grade of C or better. Prerequisite or Corequisite: CE 2305 or CS 2305 or TE 2305 with a grade of C or better. (3-0) S

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<td><em>isns2366</em></td>
<td>(r1) isns2366.4 group_head series_head</td>
<td>ISNS 2366 Global Climate Change (3 semester credit hours) The course will integrate the four main Earth Sciences - Geology, Biology, Paleontology, Oceanography, Meteorology, and Astronomy - and will demonstrate the inseparable connection between these sciences and how their interplay determines world climate conditions. A biological component - including the evolution of the human species - will also be incorporated to show how life itself is likely Earth’s thermostat that regulates climate on a range of spatial and temporal scales. (3-0) S</td>
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<td>This is a course in global climate change which is proposed to be offered beginning the Fall semester 2019 at UTD. The course will integrate the four main Earth Sciences - Geology, Oceanography, Meteorology, and Astronomy â€“ and will demonstrate the inseparable connection between these sciences and how their interplay determines world climate conditions. A biological component â€“ including the evolution of the human species - will also be incorporated to show how life itself is likely Earthâ€™s thermostat that regulates climate on a range of spatial and temporal scales.</td>
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<td>2019-open</td>
<td>add * univ3310 (r1)</td>
<td>UNIV 3310 Community-Engaged Service Learning (3 semester credit hours) Community engaged learning can take several forms, including; service-learning, community-service, participatory research, and project-based scholarship. This interdisciplinary course aligns students with different community partners to affect social change. These collaborative relationships place a student's education in a broader context, immersing them in real-life issues that create shared relevancy. This form of experiential education enables students to grow through three distinct goals; academic learning, personal growth, and civic engagement. Each course section will have a different emphasis but will share a focus on the inter- and intra-personal development of 21st century skills, and reflective and reciprocal experiences. Community-engaged learning has been described as a transformative experience and identified as a high-impact practice in education. The course will integrate topic relevant reading and reflective writing assignments in a small-group setting. Credit/No Credit only. May be repeated as topics vary (9 semester credit hours maximum). Instructor consent required. (3-0) S</td>
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**request notes**

Added per Dr. Murphy.

**peoplesoft diff:**

UNIV 3310 Community-Engaged Service Learning (3 semester credit hours) Community engaged learning can take several forms, including; service-learning, community-service, participatory research, and project-based scholarship. This interdisciplinary course aligns students with different community partners to affect social change. These collaborative relationships place a student's education in a broader context, immersing them in real-life issues that create shared relevancy. This form of experiential education enables students to grow through three distinct goals; academic learning, personal growth, and civic engagement. Each course section will have a different emphasis but will share a focus on the inter- and intra-personal development of 21st century skills, and reflective and reciprocal experiences. Community-engaged learning has been described as a transformative experience and identified as a high-impact practice in education. The course will integrate topic relevant reading and reflective writing assignments in a small-group setting. Credit/No Credit only. May be repeated as topics vary (9 semester credit hours maximum). Instructor consent required. (3-0) S

**repeat reason**

Topics vary.

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<tr>
<td>2019-open</td>
<td>edit *</td>
<td>acts4307</td>
<td>(r1)</td>
<td>ACTS 4307 Statistics for Risk Modeling (3 semester credit hours) The purpose of this class is to provide an understanding of the basics of several important analytic methods such as linear models, time series models, principal components and cluster analysis, and decision trees. This class covers parts of the SOA Exam SRM and leads the student to the deeper preparation for the SOA Exam PA - Predictive Analytics. May be repeated for credit (6 semester credit hours maximum). Prerequisites: STAT 3355 and STAT 4352. (3-0) Y</td>
<td>phase: approve</td>
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<td>To cover the material of the new exam now offered by the Society of Actuaries. Removed consent per Dr. Humphreys.</td>
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<td>ACTS 4307 Statistics for Risk Modeling (3 semester credit hours) The purpose of this class is to provide an understanding of the basics of several important analytic methods such as linear models, time series models, principal components and cluster analysis, and decision trees. This class covers parts of the SOA Exam SRM and leads the student to the deeper preparation for the SOA Exam PA - Predictive Analytics. May be repeated for credit (6 semester credit hours maximum). Prerequisites: STAT 3355 and STAT 4352 and instructor consent required. 4352. (3-0) Y</td>
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<td>Achieve better understanding of the material and results.</td>
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# Graduate Courses to be offered in 2019-2020

## Number of Courses

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## Previously Approved Additions

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These additions were already approved for 2019, but the department has made a modification since that requires a second review.

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Click on any course number above to see a PDF of that course.

Only New and Repeat courses are within this actual document. The rest open on the Registrar's Intranet. Your regular NetID and password are all that is required to login.

Clicking "Return to Main Menu" at the bottom of any page will bring you back to this page.

---

* New as repeatable
# Update made to repeat
* Renumber – no additional info required
~ Reinstate – no additional info required
+ Table only contains courses that were added or edited.
| Removed courses are not counted
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ACCT 6195

2. How does this course fit in the curriculum? (Can select more than one.)

- Major
- Core
- Elective

3. Does it replace a previously required course in that curriculum?

- Yes
- No

3.5. Which course is being replaced?

*This question was not displayed to the respondent.*

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

- 1
- 2
- 3
- None

5. How does the proposed course differ from those identified in the last question (target audience, content, learning outcomes, etc.)?

*This question was not displayed to the respondent.*

6. Faculty contact that requested this course be added to the inventory.
7. This form submitted by:

Shawn Alborz
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<td>IMS 6362 (ENGY 6362 and OPRE 6362 and SYSM 6311) Project Management in Engineering and Operations (3 semester credit hours) Project management is the discipline of planning, organizing and managing resources to bring about the successful completion of specific project goals and objectives. The course will cover various aspects of managing projects in engineering and operations environments including the critical path methods for planning and controlling projects, time and cost tradeoffs, resource utilization, organizational design, conflict resolution and stochastic considerations. (3-0) S</td>
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</table>

**request notes**

Added per Dr. Alborz

**peoplesoft diff:**

IMS 6362 (ENGY 6362 and OPRE 6362 and SYSM 6311) Project Management in Engineering and Operations (3 semester credit hours) Project management is the discipline of planning, organizing and managing resources to bring about the successful completion of specific project goals and objectives. The course will cover various aspects of managing projects in engineering and operations environments including the critical path methods for planning and controlling projects, time and cost tradeoffs, resource utilization, organizational design, conflict resolution and stochastic considerations. (3-0) S

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1. Course Subject and Number

IMS 6362

2. How does this course fit in the curriculum? (Can select more than one.)

- Major
- Core
- Elective

3. Does it replace a previously required course in that curriculum?

- Yes
- No

3.5. Which course is being replaced?

*This question was not displayed to the respondent.*

4. Identify the courses (including in other schools) that are most closely related to the proposed course and list their course subjects and numbers below.

- 1
- 2
- 3
- None

5. How does the proposed course differ from those identified in the last question (target audience, content, learning outcomes, etc.)?

*This question was not displayed to the respondent.*

6. Faculty contact that requested this course be added to the inventory.
7. This form submitted by:

Shawn Alborz
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**request notes**

On 02/27/19 cross listed the OPRE 6362 with ENGY 6362. Updated to add IMS crosslisting

**diff previous req: engy6362.2**

ENGY 6362 (OPRE (IMS 6362 and OPRE 6362 and SYSM 6311) Project Management in Engineering and Operations (3 semester credit hours) Project Management in Engineering and Operations (3 semester credit hours) Project management is the discipline of planning, organizing and managing resources to bring about the successful completion of specific project goals and objectives. The course will cover various aspects of managing projects in engineering and operations environments including the critical path methods for planning and controlling projects, time and cost tradeoffs, resource utilization, organizational design, conflict resolution and stochastic considerations. (3-0) S

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**Proposal for a New Bachelor’s or Master’s Degree Program**

**Directions:** Texas public institutions of higher education must complete this form to propose: (1) Bachelor’s or Master’s Degree programs in engineering; (2) Bachelor’s or Master’s degree programs that have an estimated cost of more than $2 million in the first five years of operation; and/or (3) Bachelor’s or Master’s degree programs that do not meet the certification requirements set forth in [Texas Administrative Code (TAC), Title 19, Chapter 5, Subchapter C, Section 5.44 (a) (3)].

Institutions should notify the Division of Academic Quality and Workforce of its intent to plan a new engineering program with a letter submitted through the [Document Submission Portal] prior to submission of the Proposal for a New Bachelor’s or Master’s Degree Program. The letter should include the title, degree designation, CIP code of the program, the anticipated submission date of the proposal, and a brief description of the program. Address the letter to the Assistant Commissioner of the Academic Division of Academic Quality and Workforce.

In completing the proposal, the institution should refer to the document *Standards for Bachelor’s and Master’s Degree Programs*, which prescribes specific requirements for new degree programs.

This form requires the signatures of: (1) the Chief Executive Officer, certifying adequacy of funding for the new program, the notification of other Texas public institutions of higher education, and adherence to [Texas Education Code (TEC) Sections 61.822 through 61.823]; (2) the Chief Financial Officer, certifying the accuracy of funding estimates for the new program; and (3) a member of the Board of Regents (or designee) certifying Board approval.

**Contact:** Division of Academic Quality and Workforce, 512-427-6200.

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**Administrative Information**
1. Institution Name and Coordinating Board Accountability Group:
The University of Texas at Dallas / Emerging Research Accountability Group

2. Proposed Program:
Show how the proposed program would appear on the institution’s Program Inventory (e.g., Bachelor of Business Administration degree with a major in Accounting).

Master of Science in Cyber Security, Technology and Policy

3. Proposed CIP Code:
List of CIP Codes may be accessed online at www.txhighereddata.org/Interactive/CIP/.
Include justification if the proposed program name is not included in the Texas Classification of Instructional Programs.

11.1003.00

4. Semester Credit Hours Required:
Bachelor’s degree programs should not exceed 120 semester credit hours (SCH). If the number of SCH exceeds 120 for a bachelor’s degree program, the institution must submit documentation explaining the compelling academic reason. Master’s degree programs do not have semester credit hour restrictions; however, 30 to 36 SCH is common.

36

5. Location and Delivery of the Proposed Program:
Provide the location of instruction and how the proposed program will be delivered to students (e.g., Instructed on the main campus in Lubbock, face-to-face).

The University of Texas at Dallas, face to face classes.

6. Administrative Unit:
Identify where the proposed program would fit within the organizational structure of the institution (e.g., Department of Electrical Engineering within the College of Engineering).

School of Economic, Political and Policy Sciences

The program will be offered jointly by the School of Economic, Political and Policy Sciences (EPPS) and the Department of the Computer Science within the Erik Jonsson School of Engineering and Computer Science, with EPPS serving as the administrative home of the program.

7. Program Description:
Describe the proposed program.
The University of Texas at Dallas (UT Dallas) requests approval to offer a new Master of Science in Cyber Security, Technology and Policy. This proposed degree program is intended for individuals who will systematically analyze cyber security and technological issues while assessing security risks to protect governmental, military, and profit organizations. Graduates will recommend solutions in key areas such as implementation of systems ensuring data integrity, provide ethical, legal and security analyses to address applicable statutory and regulatory issues, and provide policy analyses regarding privacy, user access, and other security areas within an interdisciplinary and strategic approach, and according to the mission of the organization. Graduates will be prepared for managerial and analytical positions in a wide array of professional settings in the public and private sectors.

1) Students will analyze the risks of vectors of cyber attacks, identify security gaps, and the pros and cons of different policy and security options.
2) Students will identify sector specific standards and policies regarding privacy, ethics and legal requirements.
3) Students will analyze the options that ensure survivability, resilience, and restoration of services and functions and demonstrate resourcefulness in investigating unfamiliar issues.
4) Students will communicate complex security and policy information, concepts, or ideas in a confident and well-organized manner through verbal, written, and/or visual means.

In the School of Economic, Political and Policy Sciences (EPPS), both the Political Science and the Public Policy and Political Economy programs have faculty who are experts on Congress, policy making, and security studies. The Political Science program also has two faculty members who are JD PhDs, providing strength in legal and regulatory issues. Faculty conflict expertise ranges from international conflict to terrorism to civil wars. These two programs offer two PhD degrees and also offer a Master of Arts in Political Science and a Master of Public Policy. Many alumni from the Public Policy program are working in the federal government as analysts. Public policy serves as a bridge to more technical issues in science and technology. As of spring 2019, faculty in these programs are collaborating with computer scientists on at least five active grants.

UT Dallas’ Department of Computer Science has established a strong education program in Cyber Security since 2004 with the establishment of the Cyber Security Research and Education Institute in October 2004. UT Dallas was designated an NSA/DHS National Center of Academic Excellence in Cyber Security Education in June 2004, as an NSA/DHS National Center of Academic Excellence Information Assurance Research in 2008, and received NSA’s highly prestigious National Center of Academic Excellence in Cyber Operations in 2015, and received SFS (NSF Scholarship for Service) grants in 2010 and 2014 with 100% placement with the federal government of UT Dallas students. This proposed degree is a natural complement to the existing technical offerings out of the Department of Computer Science.
8. Proposed Implementation Date:
   Provide the date that students would enter the proposed program (MM/DD/YYYY).

   08/17/2020

9. Institutional and Departmental Contacts:
   Provide contact information for the person(s) responsible for addressing any questions related to the proposal.

   1. Name: Jennifer S. Holmes  
      Title: Interim Dean, School of Economic, Political and Policy Sciences  
      E-mail: jholmes@utdallas.edu  
      Phone: 972 883 6852

   2. Name: Poras Balsara  
      Title: Interim Dean, Erik Jonsson School of Engineering and Computer Science  
      E-mail: poras@utdallas.edu  
      Phone: 972 883 2557

   3. Name: Serenity Rose King  
      Title: Associate Provost for Policy and Program Coordination  
      E-mail: serenity.king@utdallas.edu  
      Phone: 972 883 6749

10. Notification to Area Institutions:
    Provide a copy of the notification sent to area institutions.
    The institution proposing the new bachelor’s or master’s degree program must notify all public institutions of higher education within 50 miles of the teaching site of their intention to offer the program at least 30 days prior to submitting their request to the Coordinating Board. If objections occur, the proposing institution must resolve those objections prior to submitting the request to the Coordinating Board. If the proposing institution cannot resolve the objection(s), and the institution wishes to submit the proposed program, the proposing institution may request the assistance of the Assistant Commissioner of Academic Quality and Workforce to mediate the objections and determine whether the proposing institution may submit the proposed program. No new program will be approved until all objections are resolved.
Proposed Bachelor’s or Master’s Degree Program Information

I. Need

A. Job Market Need

Demonstrating the need for additional graduates in the field is vital. Provide short- and long-term evidence of the need for graduates in the Texas and U.S. job markets. Cite the Bureau of Labor Statistics, Texas Workforce Commission, professional association data, and other documented data sources to create a supply/demand analysis. Institutions should be able to show how the number of new graduates produced both in Texas and nationally compares to the number of job openings that require a degree in the discipline now and in the future on both the state and national levels. The use of predictive modeling is encouraged. If the program is designed to address particular regional or state needs in addition to workforce demands, provide a detailed description.

Cyberseek.org was created in order to help meet the growing demand for cyber professionals. This website is supported by the National Initiative for Cybersecurity Education (NICE), https://www.nist.gov/itl/applied-cybersecurity/nice, a program of the National Institute of Standards and Technology in the U.S. Department of Commerce, in partnership with Burning Glass Technologies and Computing Technology Industries Association (CompTIA). NICE is a partnership between government, academia, and the private sector focused on cybersecurity education, training, and workforce development. According to cyberseek.org, there “are 200,000 additional openings requesting cybersecurity-related skills, and employers are struggling to find workers who possess them.” As of July 2018, there are 18,694 total job openings in security intelligence and 22,544 openings for a cybersecurity analyst (average salary of $89,000), and 12,028 openings for a cybersecurity manager (average salary of $114,000). Cyberseek.org also provides a supply and demand heat map by location shown in Appendix L, section 2, [http://www.cyberseek.org/heatmap.html](http://www.cyberseek.org/heatmap.html). As cited in the heat map, they rate Texas as having a very low supply in general of cybersecurity workers with significant demand in workers who have primary responsibilities in analysis (8,499 job openings as of July 31, 2018) and the ability to oversee and govern (6,188 job openings as of July 31, 2018). This unique master’s degree program will provide students both policy expertise with enough exposure to technical skills necessary for analysis and management roles.

Nationally, agencies such as the NSA recruit students from political science, public policy, economics, and criminology, in addition to other social science trained students who can develop into intelligence analysts, especially those with native foreign language abilities, or serve in management and other roles. This was confirmed in a September 2018 meeting with NSA representatives at UT Dallas.

Further, the Bureau of Labor Statistics, *Occupational Outlook Handbook* supports CyberSeek’s data, stating that “employment of information security analysts [a name that has not yet changed to cybersecurity analysts], is projected to grow 28 percent from 2016 to 2026, much faster than the average for all occupations. Demand for information security analysts is expected to be very high, as these analysts will be needed to create innovative solutions to
prevent hackers from stealing critical information or causing problems for computer networks” (https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm). Although the computer and information research scientist would be the career path for an exclusively technical education as opposed to this proposed interdisciplinary approach, it underscores the need to meet an untapped niche emphasizing an interdisciplinary approach for cyber security, technology, and policy.

Finally, this blend of policy and cyber expertise is in demand, as evidenced by the GAO advertisement for a cybersecurity analyst from May 2018 (See Appendix L, section 1).

B. Existing Programs
The information provided indicates knowledge of existing programs in Texas and of high-ranking programs nationally. This section provides an understanding of program duplication, capacity, and quality. Identify all existing degree programs in the state, include those specific to the region and major programs at peer institutions across the nation. Peer institutions have similar missions, programs, and research expenditures. Peer institutions include, but are not limited to, out-of-state peer groups identified in the Coordinating Board’s Accountability System.

Identify the existing programs and their locations in Texas. Provide enrollments and graduates of these programs for the last five years, and explain how the proposed program would not unnecessarily duplicate existing or similar programs in Texas. Provide evidence that existing Texas programs are at or near capacity and describe how the existing programs are not meeting current workforce needs. Provide the job placement of existing Texas programs.

Include an assessment of capacity to accept additional students in existing Texas programs. One indicator of capacity is the faculty-to-student ratio in existing programs in the discipline. Another indicator is the number of students admitted to a program in comparison to the number of qualified applicants.

UT Dallas analyzed similar cybersecurity programs offered by some of its Texas and out-of-state peer institutions. Those master’s level programs do not have the interdisciplinary foci of this proposed degree program which focuses on solving cybersecurity risks from a public policy perspective within the statutory and regulatory environment. The closest similar programs are Georgia Tech’s MS in Cybersecurity with a policy specialization and the University of Maryland-Baltimore County’s professional graduate programs.

The Texas peer institutions’ programs (designated with 11.1003 CIP code) programs focus more on safeguarding information systems within the non-profit and private sectors. For example, The University of Texas at Austin (UT Austin) offers a MS in Identity Management and Security for students “seeking management or executive roles in identity security or privacy” (https://msims.ischool.utexas.edu/). To date, there is no enrolled students within UT Austin’s program (see Table 1). Other Texas programs offered by Sam Houston State University (MS in Digital Forensics and MS in Information Assurance and Security, https://df.shsu.edu/), Stephen F. Austin State University (MS in Cyber Security,
http://www.sfasu.edu/academics/colleges/sciences-math/computer-science/academics/cybersecurity), and the University of Houston (MS in Information System Security, https://www.uh.edu/technology/departments/ilt/graduate/iss/) have similar foci by providing their graduates the technological tools to identify cyber attacks and to respond to these online threats by defending these systems. The University of Texas at San Antonio has a bachelor’s degree in Cyber Security (https://business.utsa.edu/programs/cyber-security/), and a graduate program with a cyber security concentration in their Information Technology MS with a different CIP code (https://business.utsa.edu/programs/msit-cyber-security/).

Additionally, these Texas graduate programs focus on areas relevant to business, such as accounting, business analytics, finance, and marketing in conjunction with computer science or information systems. The University of Texas at Arlington offers a Master of Science (MS) degree in Information Systems in the College of Business, Department of Information Systems and Operations Management. The MS in Security Management at the Marilyn Davies College of Business, the University of Houston-Downtown and the MS in Computer Information Systems and Business Analytics at West Texas A&M University also have similar disciplines.

Other Texas universities have more national security oriented master programs, including Texas A&M (a master’s program in Homeland Security and graduate academic certificates in Homeland Security and National Security Studies), Angelo State University (Global Security Studies; Homeland Security; Intelligence, Security Studies and Analysis, and Security Studies), Sam Houston State University has a program in Homeland Security Studies. The University of Texas at El Paso has two related master’s degrees (Defense and Strategic Studies and Intelligence and National Security Studies).

As for UT Dallas’ out-of-state peer institutions as designated by the THECB, the following information shows the graduate programs’ foci, which are similar to Texas peer institutions, by giving students the tools to identify security risks and address these online threats. These related cybersecurity (computer science and/or information assurance) programs do not have an interdisciplinary approach from the public policy perspective within the statutory and regulatory environment.

Oklahoma State University, a designated Center for Academic Excellence in Information Assurance Education and Research institution, offers graduate programs with concentrations or emphases in information assurance, including the MS in Management and Information Systems. The curricula have been recognized and approved by the NSA and Department of Homeland Security.


The University of California-Riverside has a Center for Research and Education in Cyber Security and Privacy; their graduate programs, both master’s and doctoral, are in the field of computer
science with research areas such as but not limited to algorithm design, artificial intelligence, and databases.

The University of New Mexico at Albuquerque has two MBA programs in Information Assurance and Management Information Systems Management, along with the traditional computer science master’s programs.

The University of Oklahoma-Norman offers the traditional master’s programs in computer science.

UT Dallas identifies seven aspirational peer institutions in its 2018 UT Dallas Strategic Plan (https://www.utdallas.edu/strategicplan/strategic-plan-2018.pdf): Georgia Tech, Iowa State University, Purdue University, University of California at Berkeley, University of California at Santa Barbara, University of Colorado at Boulder, and University of Maryland at College Park. Out of these seven aspirational peer institutions, one aspirational institution, Georgia Tech, offers cybersecurity programs with policy foci. Georgia Tech’s School of Public Policy provides the MS in Cybersecurity degree with a policy specialization of 18 credit hours in addition to 32 hours of coursework in technology and policy dimensions of cybersecurity for a total of 50 credit hours (http://catalog.gatech.edu/programs/cybersecurity-ms/#overviewtext).

The remaining aspirational peer institutions’ program disciplines are similar to those found in UT Dallas’ Texas and the THECB designated out-of-state peer institutions. Iowa State University began offering a bachelor’s program cyber security engineering in fall 2019 and offers the traditional information assurance programs on the master’s and doctoral levels. Purdue also offers a BS in Cybersecurity along with a MS in Computer and Information Technology and a PhD in Technology. University of California-Berkeley’s Master of Information and Cybersecurity (MICS) is an online program that allows students to understand “information security technologies as well as the economic, legal, behavioral, and ethical impacts of cybersecurity (https://cybersecurity.berkeley.edu/). However, Berkeley’s curriculum does not include public policy areas although it addresses security issues within the legal, behavioral and ethical environment. University of California-Santa Barbara offers the traditional graduate programs in computer science. University of Colorado at Boulder (CU), who recently renamed its Interdisciplinary Telecom Program to Technology, Cybersecurity, and Policy Program in March 2019 (https://www.colorado.edu/program/tcp/about), offers a MS in Technology, Cybersecurity, and Policy. Along with the renaming, CU’s curricula will be updated and CU’s research areas will also be realigned with industry needs. The MS in Technology, Cybersecurity, and Policy requires one core course in policy at this time. Finally, the University of Maryland at College Park’s cybersecurity engineering graduate programs (master’s, certificate, online, and remote site) are offered in collaboration with the Department of Electrical and Computer Engineering, Department of Computer Science, and Maryland Cybersecurity Center by “merg[ing] engineering applications with computer science principles” (https://advancedengineering.umd.edu/cybersecurity).
Another existing program similar to this proposed program can be found outside of UT Dallas’ peer universities, at the University of Maryland-Baltimore County (UMBC). This university, also designated as NSA/DHS Center of Academic Excellence for Cyber Defense and Information Assurance Research, offers cybersecurity graduate programs (see http://cyber.umbc.edu/index.php): the Master of Professional Studies in Cybersecurity (an 18-credit program) and two graduate certificates in Cybersecurity Strategy & Policy and Cybersecurity Operations. The Cybersecurity Strategy & Policy graduate certificate is a 12-credit program and when completed, “students will possess advanced knowledge of the strategy, policy, and analytic aspects of cybersecurity, enabling them to fill critical roles in operational cybersecurity missions supporting both industrial and governmental entities.”

As shown in the examination of UT Dallas’ peer institutions’ programs related to cybersecurity, this new proposed program will not duplicate existing or similar programs in Texas because this proposed program’s curriculum will include courses on policies regarding privacy, ethics, data security, applicable law and regulations in relation to cybersecurity as outlined in the II.B Curriculum section within this proposal.

The following table, Table 1, indicates the enrollments for universities designated with the CIP code of 11.1003: Sam Houston State University, Stephen F. Austin State University, The University of Texas at Austin (no available data), and the University of Houston. Sam Houston State University shows a steady growth for both programs, MS in Digital Forensics and MS in Information Assurance and Security since the figures are combined for the CIP code of 11.1003. On the other hand, the University of Houston shows a slight decline. Stephen F. Austin State University implemented its program in 2018.

Table 1. Enrollment Counts for Selected Texas Master’s Programs – CIP Code 11.1003

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<th>Sam Houston State University</th>
<th>Stephen F. Austin State University</th>
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<td>MS in Cyber Security</td>
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<td>2018</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>7</strong></td>
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</table>

Division of Academic Quality and Workforce
2.21.18
The number of degrees awarded for the master’s programs for the same Texas universities are also displayed in Table 2 except for Stephen F. Austin State University which launched its program in 2018. Although THECB’s accountability system provides no enrollment data for The University of Texas at Austin between 2014 and 2018, this same accountability system indicates that 15 master’s degrees were awarded in 2018.

Table 2. Number of Degrees Awarded for Selected Texas Master’s Programs – CIP Code 11.1003

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<td>Year</td>
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</tr>
<tr>
<td>Total</td>
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<th>Stephen F. Austin State University</th>
<th>MS in Cyber Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Number of Master's Degrees Awarded</td>
</tr>
<tr>
<td>No data is available for the 2014 to 2018 years.</td>
<td></td>
</tr>
</tbody>
</table>
Table 3. Enrollment Counts for Georgia Tech’s MS in Cybersecurity with Policy Specialization

<table>
<thead>
<tr>
<th>Georgia Tech</th>
<th>MS in Cybersecurity</th>
<th>Enrollment Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>


In conclusion, this proposed graduate program will fill a workforce demand focusing on policy making and policy analysis in relation to the cybersecurity field that is needed both in Texas and nationally. As indicated in Table 3, Georgia Tech recognized the need to provide such a program which was implemented in 2017. UMBC offers professional programs while this academic proposed program will provide students the marketable skills such as policy creation,
prioritization and implementation, intelligence analysis, threat analysis, risk and vulnerability assessment, risk management, information security, and network security.

**C. Student Demand**

Provide short- and long-term evidence of student demand for the proposed program. Types of data commonly used to demonstrate this include increased enrollment in related and feeder programs at the institution, high enrollment in similar programs at other institutions, qualified applicants rejected at similar programs in the state, and student surveys (if used, include data collection and analysis methods). Surveying students currently enrolled in feeder programs provides limited data about actual student demand. Information that demonstrates student interest includes the development of a student interest group. Provide documentation that qualified applicants are leaving Texas for similar programs in other states.

Currently, the Computer Science department offers a certificate in Information Assurance. In the past three years, 36 graduate students and one undergraduate student have earned the 15-hour certificate.

To assess short-term student demand, EPPS surveyed existing students to see if they were interested in enrolling into the proposed cyber security degree program. The request for comment was sent only one time and the following responses were received in less than two weeks.

- EPPS received 53 responses from graduate students (see Appendix L, section 3). Of the responses, 29 (55%) said they would be interested in the degree, an additional 13 (25%) said maybe and 11 (21%) said no. Responses were received by graduate students in the following programs: criminology, economics, Geographic Information Sciences (GIS), International Political Economy (IPE), political science, public affairs, public policy, and Public Policy & Political Economy (PPPE). Current students in both the public affairs (25%) and PPPE (29%) programs expressed their interest.

- EPPS also surveyed its existing undergraduate students (see Appendix L, section 4). Of 116 respondents, 77 (66%) reported that they would be interested, an additional 24 (21%) said maybe, and only 15 (13%) said no. Responses were received from undergraduate students in the following programs: criminology, economics, GIS, IPE, political science, public affairs, public policy, and sociology. Undergraduate students in the criminology program have expressed a high interest (24%) in the proposed program.

Long-term demand is often determined by employability. The job market demand is strong, as specified in section I.A (Job Market Need) and visualized the supply and demand heat map from NICE (See Appendix L, section 2).

**D. Enrollment Projections**

Enrollment projections are realistic and based on demonstrable student demand. Projections take into account student attrition, graduation rates, and part-time students. Attrition calculations should be based upon the average rates of related supporting graduate programs at the institution, if available.
Complete Table 4 to show the estimated cumulative headcount and full-time student equivalent (FTSE) enrollment for the first five years of the proposed program. Include summer enrollments, if relevant, in the same year as fall enrollments. Subtract students as necessary for projected graduations or attrition. Provide explanations of how headcounts, FTSE numbers, and attrition were determined. Define full-time and part-time status.

Table 4. Enrollment Projections

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total New Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attrition</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Cumulative Headcount</strong></td>
<td><strong>15</strong></td>
<td><strong>33</strong></td>
<td><strong>43</strong></td>
<td><strong>51</strong></td>
<td><strong>55</strong></td>
</tr>
<tr>
<td>FTSE</td>
<td>13</td>
<td>31</td>
<td>41</td>
<td>49</td>
<td>53</td>
</tr>
<tr>
<td>Graduates</td>
<td>0</td>
<td>9</td>
<td>14</td>
<td>19</td>
<td>23</td>
</tr>
</tbody>
</table>

**E. Student Recruitment**

Plans to recruit students are realistic and based on evidence of student demand and unmet need in similar programs in Texas. Indicate if the proposed program and its discipline are projected to have a special attraction for students of a particular population. Describe general recruitment efforts and admission requirements. Describe plans to recruit, retain, and graduate students from underrepresented groups to the proposed program.

Graduate applicants must meet the University admission requirements. The program seeks applications from students with a baccalaureate degree from an institution of higher education. Although applications will be reviewed holistically, in general, entering students have earned a 3.0 undergraduate grade point average (GPA) (on a 4.0 point scale). GRE test scores are required with a verbal score of 156 and a quantitative score of 146. An application essay, letter of recommendation, and official transcripts are also required.

In the social science and public policy area, there are organizations that promote first time in college or underrepresented minorities. EPPS will recruit students who have participated in the following programs for minority students, especially the Public Policy and International Affairs program (PPIA) and their undergraduate Junior Summer Institutes (JSI). Additionally, EPPS will recruit among participants in The Ronald E. McNair Post-Baccalaureate Achievement Program. This is the single largest federal effort aimed at preparing low-income, first-generation in college and minority students to pursue graduate studies. The McNair Program is funded through the U.S. Department of Education’s TRIO programs and provides participants with research internships, faculty mentors, opportunities to present and publish results of their research, undergraduate teaching experience, and assistance with applying to and preparing for graduate school. They release a directory of McNair Scholars who have expressed an interest in pursuing graduate studies, which contains records of recent graduates, seniors, and rising seniors.

EPPS will also be able to leverage existing efforts in the Department of Computer Science (CS) outlined below.
Prospective Students via NSF:
The NSF Scholarship for Service (SFS) CyberCorps scholarship program started at UT Dallas in Fall 2010 and involved recruitment, training, and placement of 22 CS graduate students with 100% placement in federal government positions. The computer science follow-on SFS program started in Fall 2014, with recruiting and training a total of 28 students for this program. The SFS students participate in several activities and competitions including those organized by CSG and TexSAW as discussed below.

In 2019, CS plans to propose their third NSF SFS and train around 32 students. While the previous SFS programs have focused mainly on graduating Computer Science Master’s students, for the 2019 NSF SFS proposed program, CS will recruit around 4 to 6 students from this new proposed interdisciplinary Cyber Security Master’s program and eventually place them with jobs in the federal government. CS plans to recruit the students during the second year of the program for them to graduate at the end of Year 3.

Prospective Students via clubs and outreach:
CSG (Computer Security Group) is a student club that strives to involve the larger student body in all aspects of cyber security. CSG also serves as an integral part of CS’ outreach and recruitment activities to attract students into CS’ education and research programs in Cyber Security and the UT Dallas SFS scholarship program. All SFS students are active members of CSG and serve as officers. CSG activities include: Crash Courses in Cyber Security that are intended for freshmen and sophomore students and aim at providing a quick start for students in Cyber Security. Weekly hands-on training classes are a signature event of CSG. At the beginning of each semester, the group decides on a curriculum for the entire semester and then split the topics among the members. Each group takes two to three weeks to cover a topic including a presentation of the material, a live demonstration of the concepts, and a hands-on exercise (when relevant). Please see https://csg.utdallas.edu/ for a list of recent presentation topics. Cyber Security Competitions: Competitions are important exercises where students learn about practical aspects of Cyber Security. CSG forms teams of students to participate in various online competitions in Cyber Security throughout the academic year. Please see https://ctftime.org/team/333 for a full list of the Cyber Security competitions in which CSG participated.

Texas Security Awareness Week (TexSAW) Event:
Starting in October 2011, CS has been organizing the Texas Security Awareness Week (TexSAW) event as an annual outreach event to promote cyber security education activities and collaboration among academia, industry and government. Around 60 students from multiple universities in Texas as well as in neighboring states participate in the hands-on workshops and competitions.

II. Quality

A. Degree Requirements
Describe the similarities and differences between the proposed program and peer programs in Texas and nationally. Provide a justification if the program requires more than 120 semester credit hours for a bachelor’s degree. Acceptable justifications may include program accreditation requirements, statutory requirements, and/or licensure/certification requirements that cannot be met without exceeding 120 SCH.

Complete Table 5 to show the degree requirements of the proposed program. Show semester credit hours (SCH) and clock hours (if applicable). Modify the table as needed. If necessary, replicate the table to show more than one option.

Table 5. Semester Credit Hour Requirements by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Semester Credit Hours</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Core Curriculum (Bachelor’s degree program only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Courses</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Prescribed Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify, e.g., internships, clinical work)</td>
<td>(if not included above)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Bachelor’s degree programs should not exceed 120 SCHs. Bachelor’s degree programs that exceed 120 SCH must provide detailed documentation describing the compelling academic reason for the number of required hours, such as program accreditation requirements, statutory requirements, and/or licensure/certification requirements that cannot be met without exceeding 120 SCH.

**B. Curriculum**

Describe the educational objectives of the proposed program. For the description of educational objectives, distinguish between aspects of the curriculum that are standard for the field and aspects that would be unique to the proposed program.

If the proposed program has a unique focus or niche, describe it in relationship to peer programs. Indicate how the niche or specialties of the proposed program are appropriate for the job market and student demand, and describe how they complement other peer programs in the state (or nation, if relevant).

Describe how the proposed program would achieve national prominence. Indicate if the proposed program is designed to have a particular regional focus.

Provide an explanation of required, prescribed, and elective courses and how they fulfill program requirements.

Describe policies for transfer of credit, course credit by examination, credit for professional experience, placing out of courses, and any accelerated advancement to degree. Provide a plan that would allow a student entering with relevant work experience to rapidly progress through the program or provide an explanation why this would not apply.
Identify any alternative learning strategies, such as competency-based education, that may increase efficiency in student progress in the curriculum. If no such policies are in place to improve student progression through a program, provide an explanation.

Complete Tables 6, 7, and 8 to list the required/core courses, prescribed elective courses, and elective courses of the proposed program and semester credit hours (SCH). Note with an asterisk (*) courses that would be added if the proposed program is approved. Modify the tables as needed. If applicable, replicate the tables for different tracks/options.

The proposed degree program will prepare students to bridge technical issues in computer science and technology by having expertise in public policy. It will allow students to systematically analyze cyber security and technological issues while assessing security risks to protect governmental, military, and profit organizations, to provide ethical, legal and security analyses to address applicable statutory and regulatory issues, and to provide policy analyses regarding privacy, user access, and other areas of cyber security. The learning outcomes are:

1) Students will analyze the risks of vectors of cyber attacks, identify security gaps, and the pros and cons of different policy and security options.
2) Students will identify sector specific standards and policies regarding privacy, ethics and legal requirements.
3) Students will analyze the options that ensure survivability, resilience, and restoration of services and functions and demonstrate resourcefulness in investigating unfamiliar issues.
4) Students will communicate complex security and policy information, concepts, or ideas in a confident and well-organized manner through verbal, written, and/or visual means.

As described in the I.B Existing Programs section, the new proposed program, if approved, will not duplicate existing or similar programs in Texas because its curriculum will provide students both policy and cyber security expertise needed to study and solve complex problems using innovative methods for existing technology on a societal level. The courses listed in Table 6 reflect the unique foci for policy in conjunction with the cyber security infrastructure. The new program, if approved, will complement Georgia Tech’s program and possibly the University of Colorado at Boulder’s renamed academic programs within the Technology, Cybersecurity, and Policy Program after its curricula and research areas are re-aligned based on industry feedback.

Prospective students may have satisfactory work experience in addition to a baccalaureate degree that would prepare them to become managers and/or analysts in the field of cybersecurity.
Table 6. Required/Core Courses

<table>
<thead>
<tr>
<th>Prefix and Number</th>
<th>Required/Core Course Title</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΩPPPE/PSCI 6xxx</td>
<td>Cyber Security Policy (Year Two)</td>
<td>3</td>
</tr>
<tr>
<td>ΩPPPE/PSCI 6xxx</td>
<td>Legal Aspects of Cyber Security &amp; Cyber Security Ethics (Year Two)</td>
<td>3</td>
</tr>
<tr>
<td>ϕPPPE/PSCI 6xxx</td>
<td>Political Violence and Conflict in Cyberspace (Year One)</td>
<td>3</td>
</tr>
<tr>
<td>*ECS 6xxx</td>
<td>Cyber Security Essentials for Managers (Year One)</td>
<td>3</td>
</tr>
<tr>
<td>*ECS 6xxx</td>
<td>Data Security and Privacy for Managers (Year Two)</td>
<td>3</td>
</tr>
<tr>
<td>*ECS 6xxx</td>
<td>Cyber Security Analytics &amp; Malware Analysis for Managers (Year Two)</td>
<td>3</td>
</tr>
<tr>
<td>ϕECS 6xxx</td>
<td>Cyber Physical Systems and Critical Infrastructure Security for Managers (Year Two)</td>
<td>3</td>
</tr>
<tr>
<td>ΩECS/PSCI 6xxx</td>
<td>Governance and Auditing Essentials for Cyber Security (Year One)</td>
<td>3</td>
</tr>
<tr>
<td>*BBS/ECS/PPPE 6xxx</td>
<td>Cognitive Psychology Essentials for Cyber Security (Year One)</td>
<td>3</td>
</tr>
<tr>
<td>MIS 6333</td>
<td>Digital Forensics and Incident Management (Year One)</td>
<td>3</td>
</tr>
<tr>
<td>MIS 6330</td>
<td>Cybersecurity Fundamentals (Year One)</td>
<td>3</td>
</tr>
<tr>
<td>*PPPE/PSCI/CS 6xxx</td>
<td>Capstone in Cyber Security and Policy (Year Two)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Required/Core Courses SCH</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

* Denotes new class
Ω Denotes a new class that will support multiple degree programs.
ϕ Denotes a new class that will be based on an existing class in the catalog which will be modified to serve this new program and other existing programs.

The following four ECS 6xxx classes (Cyber Security Essentials for Managers, Data Security and Privacy for Managers, Cyber Security Analytics & Malware Analysis for Managers, and Cyber Physical Systems and Critical Infrastructure Security for Managers) may be replaced by the following courses (CS 6324 Information Security, CS 6349 Network Security, CS 6348 Data and Applications Security, and another from a list of existing cybersecurity systems in Computer Science courses if the student has met the individual course pre-requisites and if they are approved by the computer science program head.

In summary, of the ten new classes, only eight of them will increase the number of new classes within the course inventory. Two will be evolved versions of existing courses. Of the eight new classes, three will support multiple programs. Therefore, only five of the new courses in Table 6 will exclusively support this proposed degree. All of the required courses are detailed in the Appendix A for course descriptions and prescribed sequence of courses.
C. Strategic Plan and Marketable Skills

Describe how the proposed program fits into the institution’s overall strategic plan, and provide the web link to the institution’s strategic plan.

Describe how the proposed program will align with the state’s 60x30TX plan, and address the goals related to completion, marketable skills, and student debt. Specifically identify the marketable skills the students will attain through the proposed program. Explain how students will be informed of the marketable skills included in the proposed program.

Explain how the proposed program builds on and expands the institution’s existing recognized strengths.

UT Dallas’ strategic plan is located at: http://www.utdallas.edu/strategicplan/strategic-plan-2018.pdf. The proposed degree program aligns with three strategic themes: (1) Enrich the Student Experience, in that the proposed major is in an emerging field that prepares students for 21st-century employment; (2) Advance Research by investing in research facilities and services, including cyber-infrastructure, data management, and collaborative gateways; and (3) Become an Economic Engine for the Region through collaborations with the government (e.g.
NSA/DHS), public and private sectors, and new business. Further, the new proposed program is an interdisciplinary program that leverages EPPS’ strengths in public making, security studies, legal and regulatory issues, and ECS, specifically the Department of Computer Science’s collaboration with the Cyber Security Research and Education Institute at UT Dallas, focusing on information assurance and cyber security and defense.

The National Initiative for Cybersecurity Careers and Studies (NICCS), within the Department of Homeland Security (DHS), provides resources for cybersecurity training and connects government employees, students, educators, and industry with training and educational opportunities. NICCS is designed to develop a sufficient stock of people with dynamic cybersecurity skills.

The faculty and the curriculum will be informed by resources provided by the National Initiative for Cybersecurity Education (NICE) on the Cybersecurity Workforce Framework (NICE Framework) website (https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework). The NICE Framework provides a blueprint to categorize, organize, and describe cybersecurity work into Categories, Specialty Areas, Work Roles, tasks, and knowledge, skills, and abilities (KSAs). The NICE Framework provides a common language to speak about cybersecurity roles and jobs. NICE also supports the cyberseek.org website (in Appendix L, section 4), which is a tool that outlines cybersecurity skills and matches them to career paths in an effort to address “one of the most critical workforce challenges of our time.”

Relevant cyber security and policy marketable skills include policy creation, prioritization, and implementation, intelligence analysis, threat analysis, risk and vulnerability assessment, risk management, information security, and network security. These skills will be highlighted on the website and in marketing materials in alignment with the state’s 60x30TX Plan. All these resources will be available to students, both in and outside of classes.

**D. Faculty**

The proposed program shall have a sufficient number of core and support faculty to teach the scope of the discipline, consistent with similar programs in the state and nation. At least 50 percent of the faculty full-time equivalent (FTE) supporting a bachelor’s or master’s program must be Core Faculty.

Complete Table 9 to provide information about Core Faculty. Add an asterisk (*) before the name of the individual who will have direct administrative responsibilities for the proposed program. Core Faculty are full-time tenured and tenure-track faculty who would teach 50 percent or more in the proposed program or other individuals integral to the proposed program. Modify the table as needed.

Faculty are typically hired with a 2/2 workload (or 4 classes a year workload). Thus, the two new faculty may be more than sufficient to support this program, even with shifting assignments of existing faculty.
## Table 9. Core Faculty

<table>
<thead>
<tr>
<th>Name and Rank of Core Faculty</th>
<th>Highest Degree and Awarding Institution</th>
<th>Courses Assigned in Program</th>
<th>% Time Assigned to Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g.: Robertson, David Assoc. Prof</td>
<td>PhD. in Molecular Genetics Univ. of Wisconsin-Madison</td>
<td>MG200, MG285 MG824 (Lab Only)</td>
<td>50%</td>
</tr>
<tr>
<td>D’Orazio, Vito Assistant Professor</td>
<td>Ph.D. in Political Science, Pennsylvania State University</td>
<td>*PPPE/PSCI 6xxx Political Violence and Conflict in Cyberspace</td>
<td>25%</td>
</tr>
<tr>
<td>Gray, Thomas Assistant Professor</td>
<td>Ph.D. in Political Science, University of Virginia, JD. Western New England College (now University) School of Law</td>
<td>*PPPE/PSCI 6xxx Legal Aspects of Cyber Security &amp; Cyber Security Ethics</td>
<td>25%</td>
</tr>
<tr>
<td>Hamlen, Kevin Associate Professor</td>
<td>Ph.D., Computer Science, Cornell University</td>
<td>*ECS 6xxx Cyber Security Analytics &amp; Malware Analysis for Managers</td>
<td>25%</td>
</tr>
<tr>
<td>Holmes, Jennifer, Professor and Interim Dean</td>
<td>PhD in Political Science, University of Minnesota</td>
<td>*PPPE/PSCI 6xxx Cyber Security Policy,</td>
<td>25%</td>
</tr>
<tr>
<td>Kantarcioğlu, Murat Professor</td>
<td>Ph.D., Computer Science, Purdue University</td>
<td>*ECS 6xxx Data Security and Privacy for Managers</td>
<td>25%</td>
</tr>
<tr>
<td>Krawczyk, Daniel Professor and Debbie and Jim Francis Chair in Behavioral and Brain Sciences</td>
<td>Ph.D., Cognitive Neuroscience, University of California, Los Angeles</td>
<td>*ECS/PPPE 6xxx Cognitive Psychology Essentials for Cyber Security</td>
<td>25%</td>
</tr>
<tr>
<td>Khan, Latifur Professor</td>
<td>Ph.D., Computer Science, University of Southern California</td>
<td>*ECS 6xxx Cyber Security Analytics &amp; Malware Analysis for Managers</td>
<td>25%</td>
</tr>
<tr>
<td>*Miller, Banks Associate Professor</td>
<td>Ph.D. in Political Science, The Ohio State University JD. University of Texas</td>
<td>*PPPE/PSCI 6xxx Legal Aspects of Cyber Security &amp; Cyber Security Ethics</td>
<td>50%</td>
</tr>
</tbody>
</table>
Thuraisingham, Bhavani Louis A. Beecherl, Jr. Distinguished Professor of computer science and the Executive Director of the Cyber Security Research and Education Institute

<table>
<thead>
<tr>
<th>Name and Rank of Support Faculty</th>
<th>Highest Degree and Awarding Institution</th>
<th>Courses Assigned in Program or Other Support Activity</th>
<th>% Time Assigned to Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g.: Robertson, David Assoc. Prof</td>
<td>PhD. in Molecular Genetics Univ. of Wisconsin-Madison</td>
<td>MG200, MG285 MG824 (Lab Only)</td>
<td>10%</td>
</tr>
<tr>
<td>Zulfi Ahmed</td>
<td>MBA University of Texas-Pan American at</td>
<td>MIS 6333 Digital Forensics and Incident</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

Complete Table 10 to provide information about Support Faculty. Support Faculty are other tenured or tenure-track faculty from related disciplines, adjunct faculty, and graduate teaching assistant or assistant instructor who meets SACSCOC minimum requirements and serves as the instructor of record for a course. Modify the table as needed.
E. Library Resources
A printout of the library’s relevant holdings or a list of the planned acquisitions is not necessary. A letter or other statement from the librarian describing the adequacy of existing resources is required (include in Required Appendices). Provide the library director’s assessment of both paper and electronic library resources necessary for the proposed program. Describe plans to build the library holdings to support the proposed program. Include the amount allocated to the proposed program.

Describe how students will access library resources, including print, electronic, and in person. Describe how communication with the library and interaction with the library staff and librarians occur. Describe how resources are made available in a format that is accessible to remote students.

Access
Access to library services and collections is available in the physical facilities during designated hours that vary according to the patterns of the academic calendar. UT Dallas faculty, students, staff, and visitors may use materials from the physical collections whenever they are in Eugene McDermott Library or Callier Library (for Audiology and Communication Sciences and Disorders students). For students and faculty engaged in distance learning, the library maintains a special webpage to enable use of the collections as well as special library services for remote learners. In support of the collections, the Eugene McDermott Library provide services and equipment to make optimal use of the materials (both physical and electronic) and to teach its customers how to use the collections and information available in other resources. The services include research services, access and delivery services, library instruction and tours, media, interlibrary loan, and data services for students engaged in both face-to-face classrooms and online courses.

Collection Review
To compare the book resources available for cyber security, technology, and policy the library liaison for the School of Economic, Political and Policy Studies searched across library catalog systems in several universities including Southern Methodist University, Stephen F. Austin University, The University of Texas at Austin, and the University of Houston.

The monographic collections available at UT Dallas compared favorably with the schools mentioned. To support this new degree, an additional 50 volumes on the topics should be
added per year. Each volume will cost approximately $150 and will cost approximately $7,500 for the set.

For journals, the liaison and Interlibrary Loan librarian combed through a few years of requests on cyber security journals not owned or licensed by the library. Two journals were identified for possible addition costing approximately $700 per year.

- Cryptogia
- Information security journal: a global perspective.

**Summary**

The collection available at the McDermott Library is adequate to begin the program. During the program’s first 5 years, additional journals would be purchased at an approximate cost of $3,500 ($700 per year for 5 years). An additional 50 book titles would be purchased each year at $7,500/year or $37,500 over 5 years. The total cost of the graduate degree plan for cyber security, technology, and policy is approximately $41,000 (plus inflation) over 5 years.

**Ellen Safley**  
Dean of McDermott Library  
University of Texas at Dallas

**F. Facilities and Equipment**

Describe the availability and adequacy of facilities and equipment to support the proposed program. Describe plans for new facilities and equipment, improvements, additions, and renovations.

Provide the amount of anticipated expenditures related to facilities and equipment, and include those amounts in the budget under “Costs and Revenues.” Also, describe the status of all building project(s) related to the program and include the schedule for completion. For shared equipment and facilities, describe availability for the proposed program.

Students have access to the computing faculties in the School of Economic, Political and Policy Sciences and the University's computer labs. The school has four computing laboratories which house 24-30 computers each that are network linked and equipped with major social science software packages, including EViews, R, RATS, SPSS and Stata. A geographic information system, the LexisNexis database, and Westlaw are also available for student use. The University's computer labs provide personal computers and UNIX workstations. Many important data and reference materials are also available online via the library and the school's memberships in numerous organizations.

**G. Accreditation**

If the discipline has a national accrediting body, describe plans and timeline to obtain accreditation. For disciplines where licensure of graduates is necessary for employment, such as clinical psychology, plans for accreditation are required. If the program will not seek accreditation, provide a detailed rationale. If accreditation is not available but is
projected to become so within the next five years, include that information. It is not necessary to provide copies of the accreditation criteria.

The affiliated professional organization is APPAM (Association for Public Policy Analysis and Management). However, APPAM does not have a formal accreditation process.

H. Evaluation
Describe how the proposed program would be evaluated. Describe any reviews that would be required by an accreditor, and show how the proposed program would be evaluated under Board Rule 5.52.

Describe procedures for evaluation of the program and its effectiveness in the first five years of the program, including admission and retention rates, program outcomes assessments, placement of graduates, changes of job market need/demand, ex-student/graduate surveys, or other procedures.

Describe how evaluations would be carried out. Describe how the results of evaluation would be used to improve distance delivery.

The School of Economic, Political and Policy Sciences and the Erik Jonsson School of Engineering, as well as the University, as part of the periodic program review process, assess every program within the School. The procedures to be used for institutional evaluation of the proposed program, as well as for all existing programs, have been established by The University of Texas at Dallas and are described in UTDPP1013 (Academic Program Review), which governs the periodic review of academic programs and charges the review team to provide an “assessment of the goals, plans, staffing, resources, existing and potential strengths etc. of the unit, and those areas needing improvement.” The Office of the Vice President for Academic Affairs and Provost maintains the schedule of reviews and works with the Program Review Committee (PRC) and the unit under review to facilitate the review process. The process is peer review oriented and includes a team that incorporates both internal and external members. In addition, there will be periodic internal evaluations, which will encompass job offerings, initial salary, institutional wide assessments, and supervisor satisfaction. UT Dallas has a rigorous process of program review and assessment that ensures that expected outcomes are clearly defined and measurable and are used for improving education. Each degree program as well as academic certificate program at UT Dallas is assessed annually using UT Dallas’ assessment process.

EPPS has worked closely with the Office of Assessment to design the Capstone course to measure all of the learning outcomes (see Appendix M).

Additionally, the program will create a student advisory board. This group will meet with the program head at least once a semester to gain insight into the program, both in terms of curriculum and implementation. Finally, graduating students will be asked to complete an exit survey. The exit survey will include questions regarding how individual courses and the program in general have met the learning objectives and goals. The survey will also work to evaluate courses in terms of their usefulness to students in fulfilling their personal career goals.
and will provide an opportunity for students to provide feedback for course and program improvement.

III. Costs and Funding

A. Five-Year Costs and Funding Sources Summary

Adding a new degree program will cost the institution some amount of money. Calculating the costs and identifying the funding sources associated with implementation of a new program requires several institutional offices to collaborate to present an accurate estimate.

Provide an overview of new and reallocated costs for the proposed program using the form Costs to the Institution of the Proposed Program. Faculty salaries include all faculty assigned to the proposed program. If an existing faculty member is reassigned to the program, the salary is reflected as a reallocated cost. New faculty salaries need to be competitive for the discipline, and figures include start-up costs in proportion to the new faculty member's allotted time in the proposed program. Faculty salaries do not include benefits or pensions. If the proposed program will hire new faculty, it is a new cost. Program administration includes all institutional costs associated with running the program, including amounts associated with the Dean's office, Institutional Research, and other administrative costs. Graduate Assistant costs are identified either as new or reallocated, as appropriate. Clerical/Staff include specific costs associated with the new program. This includes the additional staff needed to organize applications, prepare for the proposed program, and for general administration of the proposed program. If the enrollments in the proposed program are projected to be large, the associated costs related to clerical/staff may also be more. New staff or purchases of new equipment should be adequate to support the stated goals and enrollments for the proposed program. Other program costs identified in the proposal should be realistic.

Total funding for the proposed program should meet or exceed total costs by the end of the first five years. On the forms provided, include a description of sources for existing and anticipated external funding. Include explanatory footnotes as needed.

Because enrollments are uncertain and programs need institutional support during their start-up phase, institutions should demonstrate that they could provide:

- sufficient funds to support all the costs of the proposed program for the first two years (when no new formula funding will be generated); and
- half of the costs of the proposed program during years three through five from sources other than state funding.

Funding sources may include formula income, other state funding, tuition and fees, reallocation of existing resources, federal funding, and other funding (such as awarded grants). The total projected income of state funding, tuition and fees, and private funds will allow the proposed program to become self-sufficient within five years.

Consult with your institution’s Institutional Research department when calculating the formula funding.
When estimating program funding for new programs, institutions take into account that students switching programs do not generate additional formula funds for the institution. For example, if a new program has ten students, but six of them switched into the program from existing programs at the institution, only four of the students would generate additional formula funding.

The Other State Funding category could include special item funding appropriated by the Legislature, or other sources of funding from the state that do not include formula-generated funds (e.g., HEAF, PUF).

Reallocation of Existing Resources includes the salary of faculty reassigned who may be partially or wholly reallocated to the new program. Explain how the current teaching obligations of those faculty are reallocated and include any faculty replacement costs as program costs in the budget. If substantial funds are reallocated, explain how existing undergraduate and graduate programs will be affected.

Federal Funding (In-hand only) refers to federal monies from grants or other sources currently in hand. Do not include federal funding sought but not secured. If anticipated federal funding is obtained, at that time it can be substituted for funds designated in other funding categories. Make note within the text of the proposal of any anticipated federal funding.

Tuition and Fees includes revenue generated by the institution from student tuition and fees.

Other Funding category may include auxiliary enterprises, special endowment income, or other extramural funding.

B. Signature Page
The signature page must be signed by the required institutional officials and board of regents.

V. Additional Distance Education Delivery Consideration – Not applicable; delivery will be face-to-face.

A. Adherence to Principles of Good Practice
Submit the Certification Form or provide a statement from the Chief Academic Officer certifying adherence to Principles of Good Practice as well as adherence to Coordinating Board distance education rules and policies.

B. Administrative Oversight and Structure
Identify the person/office directly responsible for the overall management of the proposed program. Identify other responsibilities of the person/office with primary responsibility and any modifications in responsibility made to accommodate the program. Describe the ways in which the delivery method will affect the proposed program.
For online programs:
1. How will exam proctoring and monitoring be managed and evaluated?
2. How will user authentication be validated?
3. How will the proposed program assure compliance with accessibility standards and regulations (institutional, state, and federal) for instructional delivery, course materials, and other components of the proposed program?

C. Collaborative Arrangements
Describe all collaborative arrangements with other institutions that will be participating in the delivery of the proposed program. Be certain to identify the:
1. Responsibilities of each institution.
2. Process for the credentialing of faculty at each participant site.
3. Institution awarding credit.

D. Program Differences
If the proposed program will be delivered both on-campus face-to-face at the main campus and at a distance, describe all differences between on-campus and distance delivery, including:
1. Student admission and advisement.
2. Exams.
3. Independent study.
4. Courses and sequencing.
5. Library access.

Discuss the accommodations available for students with special needs to assure accessibility to the course materials, activities, and support services related to the proposed program.

E. Student Interactions
Describe the student orientation process. Beyond the courses, how are students oriented to the services of the institution – library, student support, etc.

Describe how electronic and on-campus students would interact. How will interactions occur between distance education students?

Describe how instructor and students will interact throughout the program. Include interactions both in and out of the classroom setting. How is the sense of community developed?

Describe the advisement process throughout the proposed program.
VI. Required Appendices

A. Course Descriptions and Prescribed Sequence of Courses

B. Five-Year Faculty Recruitment Plan/Hiring Schedule

C. Institution’s Policy on Faculty Teaching Load
   If teaching load policy is set at the departmental level, include that information.

D. Itemized List of Capital Equipment Purchases During the Past Five Years
   
   Equipment means an article of nonexpendable, tangible personal property having a useful life of more than one year and an acquisition cost, which equals or exceeds the lesser of the capitalization level established by the governmental unit for financial statement purposes, or $5,000.

E. Librarian’s Statement of Adequate Resources

F. Articulation Agreements with Partner Institutions (NA)
   Include copies of any agreements or Memoranda of Understanding related to the proposed program. These include formal and sustained arrangements with other universities, private businesses, or governmental agencies that contribute directly to the proposed program and student research/residency opportunities.

   N/A

G. Curricula Vitae for Core Faculty

H. Curricula Vitae for Support Faculty

I. List of Specific Clinical or In-Service Sites to Support the Proposed Program (NA)

J. Letters of Support from Peer Institutions and/or Area Employers
   Letters from regional and national companies who have made commitments to hire graduates from the proposed new program are particularly helpful. Also, include statements of support or commitments to shared research projects from other institutions in the state with similar programs.

Appendix L.
Includes (1) GAO advertisement for a cyber security analyst, (2) Cybersecurity Supply/Demand Heat Map, (3) Graduate Survey Results, and (4) Undergraduate Survey Results.

Appendix M.
Cyber Capstone Assessment.

1 “Equipment” has the meaning established in the Texas Administrative Code §252.7(3) as items and components whose cost are over $5,000 and have a useful life of at least one year.
Complete the table to show the costs to the institution that are anticipated from the proposed program.

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost Sub-Category</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>5th Year</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Salaries</td>
<td>New</td>
<td>110,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reallocated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Administration</td>
<td>New</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reallocated</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Assistants</td>
<td>New</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Reallocated</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Clerical/Staff</td>
<td>New</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reallocated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Support (Scholarships)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies and Materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library &amp; Instructional Technology Resources</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$41,000</td>
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<tr>
<td>Equipment</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Identify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$8,200</td>
<td>$41,000</td>
<td></td>
</tr>
</tbody>
</table>

1 Report costs for new faculty hires, graduate assistants, and technical support personnel. For new faculty, prorate individual salaries as a percentage of the time assigned to the program. If existing faculty will contribute to program, include costs necessary to maintain existing programs (e.g., cost of adjunct to cover courses previously taught by faculty who would teach in new program). The $110,000 reflects the 50% time of two new faculty hired at 100,000 and 120,000 annual salaries.

2 Equipment has the meaning established in the Texas Administrative Code §252.7(3) as items and components whose cost are over $5,000 and have a useful life of at least one year.
## Anticipated Sources of Funding

Complete the table to show the amounts anticipated from various sources to cover new costs to the institution as a result of the proposed program. Use the Non-Formula Sources of Funding form to specify as completely as possible each non-general revenue source.

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>5th Year</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Formula Funding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$237,626</td>
<td>$281,835</td>
<td>$303,940</td>
<td>$823,401</td>
</tr>
<tr>
<td><strong>II. Other State Funding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>III. Reallocation of Existing Resources</strong></td>
<td>$336,675</td>
<td>$343,409</td>
<td>$350,277</td>
<td>$357,282</td>
<td>$364,428</td>
<td>$1,752,071</td>
</tr>
<tr>
<td><strong>IV. Federal Funding (In-hand only)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>V. Tuition and Fees</strong></td>
<td>$11,000</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$55,000</td>
</tr>
<tr>
<td><strong>VI. Other Funding</strong></td>
<td>$428,475</td>
<td>$428,475</td>
<td>$428,475</td>
<td>$428,475</td>
<td>$428,475</td>
<td>$2,142,375</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>$776,150</td>
<td>$782,884</td>
<td>$1,027,378</td>
<td>$1,078,592</td>
<td>$1,107,843</td>
<td>$4,772,847</td>
</tr>
</tbody>
</table>

1. 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.
2. Report other sources of funding here. In-hand grants, "likely" future grants, and special item funding can be included.
### Non-Formula Sources of Funding

Complete the table to specify each of the non-formula funding sources for the amounts listed on the Anticipated Sources of Funding form.

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>Non-Formula Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>II. Other State Funding</td>
<td>#1 N/A</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>III. Reallocation of Existing Resources</td>
<td>#1 Reallocated estimated salaries within existing budget</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>IV. Federal Funding (In-hand only)</td>
<td>#1 N/A</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>V. Tuition and Fees</td>
<td>#1 Estimated per existing guaranteed tuition plans for resident and non-resident students</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>VI. Other Funding</td>
<td>#1 Designated tuition fees for Jindal School of Management, $100 per hour and Erik Jonsson School of Engineering and Computer, $75 per hour (estimated)</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
</tbody>
</table>
Signature Page

1. **Adequacy of Funding and Notification of Other Institutions** – The Chief Executive Officer shall sign the following statements:

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

   *I certify that my institution has notified all public institutions within 50 miles of the teaching site of our intention to offer the proposed program at least 30 days prior to submitting this request. I also certify that if any objections were received, those objections were resolved prior to the submission of this proposal.*

   *I certify that my institution will adhere to Texas Education Code (TEC), Sections 61.822 through 61.823, requiring my institution to accept and apply to the proposed program Core Curriculum and Field of Study courses in transfer.*

   ___________________________  ___________________________
   Chief Executive Officer  Date

2. **Accuracy of Financial Estimates** – The Chief Financial Officer shall sign the following statement:

   *I certify that the estimated costs and sources of funding presented in the proposal are complete and accurate.*

   ___________________________  ___________________________
   Chief Financial Officer  Date

3. **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 hereby certify that the proposed program is appropriate for the mission of this institution and the Board of Regents has approved the proposed program.*

   ___________________________  ___________________________
   Board of Regents (Designee)  Date
Appendix A. Course Descriptions and Prescribed Sequence of Courses

Year One

*PPPE/PSCI 6xxx  Political Violence and Conflict in Cyberspace
In this discussion-based and interdisciplinary seminar, we examine concepts, causes, and consequences of different types of political violence and war, with a special focus on how cyber attacks compare causally and strategically to more conventional types of conflicts. Finally, we will discuss the different policy responses to cyber versus conventional attacks.

*ECS 6xxx  Cyber Security Essentials for Managers
The Cybersecurity Essentials course develops foundational understanding of that cybersecurity is a business risk. This class will help identify threats to an organization and how they relate to cyber security. An in-depth understanding of the different types of cyberattacks, the business systems that are most at risk, and the importance of an organization-wide approach to cybersecurity. This course will also cover the crucial role of leadership in managing cyber risk throughout the entire organization.

Ω ECS/PSCI 6xxx  Governance and Auditing Essentials for Cyber Security
The course will address topics such as Cyber Security Governance including the roles and responsibilities of the various individuals in the corporation as well as the corporate board. It will also discuss topics such as data classification and data ownership issues. This will be followed by a discussion of risk analysis and risk mitigation including cyber insurance. Various auditing techniques will also be discussed. Finally an overview of various cyber governance frameworks will be provided. The ability to draft, strategize and develop a cyber risk mitigation strategy will also be a major focus area.

*BBS/ECS/PPPE 6xxx  Cognitive Psychology Essentials for Cyber Security
This course is an introduction to the human side of cyber security. It will provide an in-depth overview of scientific study of the mind and the mental processes involved in cyber defense. The content will include different cognitive processes that are important for cyber security including memory, working memory, semantic memory, and attention. It will also focus on how types of reasoning such as inductive, deductive, analogical and abductive reasoning are involved in the cyber security. We will consider the role of expertise and information complexity emphasizing how these affect human performance. The focus will be on current research and theory in this rapidly evolving field. We will also consider the relevance of different types of data and how these can be analyzed to better understand decision making under uncertainty that is involved in cyber defense.

MIS 6333  Digital Forensics and Incident Management
Digital Forensics and Incident Management (3 semester credit hours) This course discusses methods and techniques for responding to security incidents and breaches and in-depth coverage of digital forensics of client devices, databases, web servers, application servers, and computer networks. The use and application of data analysis techniques in support of forensic
efforts and chain of evidence are also discussed. The course provides students with opportunities to work hands-on utilizing a digital forensics lab. Prerequisite: MIS 6330. (3-0)

**MIS 6330 Cybersecurity Fundamentals**
Information Technology Security (3 semester credit hours) This course prepares business decision makers to recognize the threats and vulnerabilities present in current information systems and how to design and develop secure systems. This course introduces the concept of defense-in-depth and covers different layers in a typical security architecture. Topics include security risk management, cyber laws related to security and privacy, access controls, network security, host security, detective controls, cryptography, and communications security. (3-0)

**Year Two**

Ω PPPE/PSCI 6xxx Cyber Security Policy
This class focuses on how to craft cyber security policies that promote organizational mission. Strategy, mission, and objectives vary by organization. Consequently, security management planning vary by organization. This course stresses the importance of strategic alignment and the use of an integrated approach where the aims of security are balanced with fundamental organizational drivers and goals. Discussion about how to best achieve security within budgetary, personnel, organizational culture and infrastructure limitations.

Ω PPPE/PSCI 6xxx Legal Aspects of Cyber Security & Cyber Security Ethics
Cyber security is a public good with ethical implications. The course explores how rapid change in technology interacts with the much slower pace of change in law to better understand the role of government in regulating cyber security. We will explore the legal basis upon which governments may provide for cyber security as well as the ethical concerns raised by increasing government involvement in this area and privacy issues related to the collection of information. The course will also discuss the appropriate legal and compliance steps that need to be taken when responding to cyberattacks and reporting cyberattacks to law enforcement. Finally, the legal aspects of conducting cyber forensics as well as topics such as cyber espionage will also be discussed.

*ECS 6xxx Data Security and Privacy for Managers*  
The course will teach principles, tools and trends for data and applications security and privacy. Topics to be covered include: confidentiality, privacy and trust management. Additionally, best practices and policies to promote secure databases, distributed systems, and applications such as social media systems, the cloud and IoT systems will be covered. In addition, the privacy implications of data analytics and potential solutions will be discussed. Students will assess one system or application to identify potential vulnerabilities and identify possible remediations. The topics include an overview of common and emerging vectors of attack and the best practices for deterring them.

*ECS 6xxx Cyber Security Analytics & Malware Analysis for Managers*
A supervisory view of security vulnerabilities in information systems, applications and safe computing. Additionally, best practices to promote security standards and applications, management and analysis of security. Applications of data science techniques, preparation for adversarial attacks.

ϕECS 6xxx  Cyber Physical Systems and Critical Infrastructure Security for Managers
The Stuxnet attack was a wake-up call to improve the security of our critical infrastructures, which include transportation networks, the power grid, and other cyber-physical systems, where computation, communications, and control are tightly integrated. This class covers the security of cyber-physical systems from a multi-disciplinary point of view, from computer science security research (network security and software security), to public-policy (e.g., the Executive Order 13636), risk-assessment, business drivers, and control-theoretic methods to reduce the cyber-risk to cyber-physical critical infrastructures. Students are required to participate in several cyber war games.

*PPPE/PSCI/CS 6xxx  Capstone in Cyber Security and Policy
This is the culminating experience for graduating students. Students integrate knowledge from across the curriculum to participate in an experiential learning project or case studies. This capstone project can be a faculty-directed semester-long applied research project or can be a case studies from organizations or local companies. Students create a comprehensive cyber security policy that identifies the risks, the available security and policy options, the sector specific privacy, ethics and legal standards and policies, and promotes institutional resilience in unfamiliar circumstances. Finally, students will have to develop and present a concise policy brief that summarizes their recommendations.

* Denotes new class
Ω Denotes a new class that will support multiple degree programs.
ϕ Denotes a new class that will be based on an existing class in the catalog which will be modified to serve this new program and other existing programs. In other words, this class will be budget neutral.

In summary, of the ten new classes, only eight of them will increase the number of new classes in the course inventory. Two will be evolved versions of existing courses. Of the eight new classes, three will support multiple programs. Only five of the courses in this degree will exclusively support the proposed degree. Faculty are typically hired with a 2/2 (or 4 classes a year workload). Thus, the two new faculty may be more than sufficient to support this program, even with shifting assignments of existing faculty.
Appendix B. Five-Year Faculty Recruitment Plan/Hiring Schedule

FY2020
Currently, the Department of Computer Science in the Erik Jonsson School of Engineering and Computer Science is hiring a replacement faculty member in computer science with expertise in cyber security and critical infrastructure to replace a faculty member who left this year. This faculty member will start in fall 2019. The Public Policy and Political Economy program has prioritized science and technology policy as a new concentration of expertise to prioritize as a significant number of faculty are expected to retire in the next few years. The School will maintain an interdisciplinary focus on conflict as well.

FY 2021
To meet the demands of the new program, the Department of Computer Science in the Erik Jonsson School of Engineering and Computer Science will hire an additional tenure track faculty member in computer science with expertise in cyber security. This faculty member will start in fall 2020. In addition to advertising through the main computer science professional organizations, the position will be advertised at leading cybersecurity conferences.

The Public Policy and Political Economy program in the School of Economic, Political and Policy Sciences will hire a faculty member with a Ph.D. in Public Policy or a related discipline with expertise in cyber security and technology policy. This faculty member will primarily support the proposed masters degree. This faculty member will start in fall 2020. In addition to advertising through the Association for Public Policy Analysis & Management and related disciplinary organizations, we will advertise at events through the National Initiative for Cybersecurity Careers and Studies events, such as the annual Cyber Security Summit and Annual National Initiative for Cybersecurity Education Conference and Expo.
Appendix C. Institution’s Policy on Faculty Teaching Load
The University of Texas at Dallas recognizes that teaching (including classroom and on-line delivery), creative productivity and professional achievement, service, administrative activities, and professional development are important elements of faculty workloads.

**Reason for Policy**

Regents' *Rules and Regulations* Rule 31006 requires that each academic institution establish a faculty workload policy.

**Scope**

This policy applies to all faculty members who hold a title defined in Regents' *Rules and Regulations* Rule 31001.

**Contacts**

Office of the Vice President for Academic Affairs and Provost

**Responsibilities and Procedures**

Faculty members at The University of Texas at Dallas have workload responsibility in the following broad areas:

- **Teaching:** Through teaching that is imaginative, effective, innovative, and interactive, we seek to prepare students to take leading roles in scholarship, their future professions, public service, and the lives of their communities.
- **Creative Productivity and Professional Achievement:** We seek to engage in research, scholarship, and creative and professional activities that are significant, substantive, and impactful.
- **Service:** Service activities support our university of scholars and students and our wider professional communities. Service obligations are commitments to scholarship, education, and to the university and external communities.
- **Professional Development:** Faculty are encouraged to take advantage of opportunities to develop as scholars and educators. In some Schools and disciplines, professional development is a formal requirement of accreditation agencies.

Each School, and in some cases departments/programs, shall establish, publish, and monitor specific academic unit workload requirements that set forth equitable and fair guidelines that permit each academic unit to best deploy its faculty members, in accordance with this policy, to foster student success, and to advance the university, school, and department/program missions. All workload decisions should be made with educational mission and financial implications in mind.

A dean or department/program head may assign differential teaching loads in recognition of differing individual circumstances such as large class sizes, team-taught courses, research productivity, time bought out by external grants, significant administrative or service assignments, significant advising responsibilities, or other activities aligned with the institution's mission and/or critical to student success.

The workload requirements shall give appropriate weight to the teaching, creative productivity and professional achievement, service (including administrative service), and professional development responsibilities and
expectations of:

- Tenured and tenure-track faculty who have active programs in creative productivity and professional achievement;
- Tenured faculty who are less active or no longer active in creative productivity and professional achievement; and
- Nontenure-system faculty.

Specific Academic Unit Workload Requirements

Teaching load shall be set by Schools and departments/programs to be aligned with their disciplines and peers, based on faculty members total contribution in teaching, creative productivity and professional achievement, and service. It is expected that tenured faculty members with marginal research and service contributions teach up to eight courses per academic year as a recognition that teaching is their primary contribution to the unit.

Specific academic unit workload requirements for tenured/tenure-track faculty:

- Faculty appointed in the tenure system have responsibilities for teaching, creative productivity and professional achievement, and service.
- Each specific academic unit must establish the following criteria:
  1. a minimum undergraduate class size;
  2. a minimum graduate class size;
  3. a maximum buyout of organized courses and of SCH; and
  4. principles that would justify an exception.
- Prior to the academic year, the dean, in consultation with the provost, shall set teaching workload standards or goals for the School's tenured and tenure-track faculty as a whole, including the number of classes they will teach and the semester credit hours (SCH) they will generate.
- Each specific academic unit shall establish a teaching workload for probationary tenure-track faculty that is nationally competitive. For tenured faculty, teaching workloads may be adjusted up or down for teaching productivity as measured in SCH (i.e., significantly smaller or larger class enrollments), for either high or marginal scholarly productivity, for either high or marginal productivity in the supervision of externally funded research measured in numbers of externally supported research assistants, and for significant service and administrative assignments.
- Adjustment to teaching workload may also arise from the buyout of courses from funds derived from external research grants or from income derived from endowed faculty appointments.

Specific academic unit workload requirements for full-time nontenure-system faculty:

- The primary responsibility of full-time nontenure-system faculty is organized course instruction, service, and professional development unless otherwise specified in their appointment letters. The standard teaching load of such faculty is equivalent to eight three semester credit hours of organized instruction per academic year.
- Prior to the academic year, the dean, in consultation with the provost, shall set teaching workload standards or goals for the School's nontenure-system faculty as a whole, including the number of classes they will teach and the SCH they will generate.
- Teaching workloads may be adjusted for high teaching productivity as measured in SCH (i.e., significantly larger class enrollments), for significant scholarly productivity, for significant service and administrative assignments, and for professional development as required by accreditation boards, such as AACSB and ABET.
Compliance and Reporting Requirements

Each dean is responsible for reviewing and approving the workload requirements in her/his School. Workload requirements are subject to approval by the provost and shall be filed with the Office of the Provost once every three years.

Each department/program head is responsible for ensuring that faculty members within their academic unit are in compliance with their stated workload requirements each year.

The President has designated the Provost as the University's officer responsible for monitoring workload, preparing and reviewing appropriate reports, and reporting faculty workload information to the Texas Higher Education Coordinating Board and to the University of Texas System Administration that shows evidence of compliance with requirements established by this policy and the University of Texas System Board of Regents, Regents' Rules and Regulations Rule 31006.

Related Statutes, Policies, Requirements or Standards

Regents' Rules and Regulations Rule 31006 Faculty Workload and Reporting Requirements https://www.utsystem.edu/board-of-regents/rules/31006-faculty-workload-and-reporting-requirements


Policy History

- Issued: 1976-04-15
- Revised: 1977-04-15
- Revised: 1978-01-05
- Revised: 1979-08-01
- Revised: 1998-11-13
- Editorial Amendments: 2000-09-01
- Editorial Amendments: 2010-03-05
- Revised: 2019-01-11

Policy Links

- Permalink for this policy: http://policy.utdallas.edu/utdpp1060
- Link to PDF version: http://policy.utdallas.edu/pdf/utdpp1060
- Link to printable version: http://policy.utdallas.edu/print/utdpp1060
## Appendix D. EPPS Itemized List of Capital Equipment Purchases During the Last Five Years

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>PO#</th>
<th>Amount</th>
<th>Other</th>
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<tbody>
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<td>Geo 7 Series Premium CM Kit</td>
<td>S083174</td>
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<tr>
<td></td>
<td>Dell Precision Tower 7910 with a Dell 24 Ultra HD</td>
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<td></td>
</tr>
<tr>
<td>5/30/17</td>
<td>4K Monitor</td>
<td>S146796</td>
<td>5,647.00</td>
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<td>Barracuda Backup 690 Recovery Appliance</td>
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<td>S120843</td>
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<td></td>
</tr>
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<td>11/11/15</td>
<td>Planar 70 inch Diagonal Touchscreen television</td>
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<td></td>
</tr>
<tr>
<td>1/11/16</td>
<td>Precision Workstation T7910 (9 total)</td>
<td>S099488</td>
<td>99,941.40</td>
<td>11104.60 Each</td>
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<tr>
<td>9/22/16</td>
<td>Optical Particle Counter</td>
<td>S123066</td>
<td>16,400.00</td>
<td></td>
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<tr>
<td>12/6/16</td>
<td>Vapor 55 Base System</td>
<td>S130134</td>
<td>76,905.00</td>
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<tr>
<td></td>
<td>PhaseOne iXU 150 Camera Kit</td>
<td>S130134</td>
<td>40,000.00</td>
<td></td>
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<tr>
<td></td>
<td>Scheider Kreunach 55 mm F2.8 LS - FS Lens</td>
<td>S130134</td>
<td>11,380.00</td>
<td></td>
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<tr>
<td>5/3/17</td>
<td>Precision 7720</td>
<td>S144050</td>
<td>7,350.00</td>
<td>296,077.90</td>
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</table>
Appendix E. Librarian’s Statement of Adequate Resources

Collection Assessment for the
Master of Science in Cyber Security, Technology and Policy
University of Texas at Dallas Libraries
September 2018

Collection Review

To compare the book resources available for cyber security, technology, and policy the library liaison for Economic, Political and Policy Studies searched across library catalog systems in several universities including Southern Methodist University, Stephen F. Austin University, the University of Texas at Austin, and the University of Houston.

The monographic collections available at UT Dallas compared favorably with the schools mentioned. To support this new degree, an additional 50 volumes on the topics should be added per year. Each volume will cost approximately 150.

For journals, the liaison and Interlibrary Loan librarian combed through a few years of requests on cyber security journals not owned or licensed by the library. Two journals were identified for possible addition costing approximately 700 per year.

- Cryptogia
- Information security journal: a global perspective.

Summary

The collection available at the cDermott Library is adequate to begin the program. During the program’s first 5 years, additional journals would be purchased at an approximate cost of 3500 (700 per year for 5 years). An additional 50 book titles would be purchased each year at 7,500/year or 37,500 over 5 years. The total cost of the graduate degree plan for cyber security, technology, and policy is approximately 41,000 (plus inflation) over 5 years.

Ellen Safley
Dean of McDermott Library
University of Texas at Dallas
Vito D’Orazio

800 W Campbell Rd, GR 31
Richardson, TX 75080
972-883-6212
February 18, 2019
dorazio@utdallas.edu
vitodorazio.com

Employment

University of Texas at Dallas, School of Economic, Political, and Policy Sciences
Assistant Professor of Political Science (August 2015 – Present)

Harvard University, Institute for Quantitative Social Science
Visiting Research Fellow (July 2013 – December 2013)

Education

Pennsylvania State University Political Science Ph.D. 2013
Pennsylvania State University Political Science M.A. 2010
Binghamton University Political Science B.A. 2008

Achievements in Original Investigation

Peer-Reviewed Journal Publications


Included in *Political Analysis* Virtual Issue 10, “Recent Innovations in Text Analysis for Social Science”


**Peer-Reviewed Conference Publications**


**Articles Submitted for Publication**


“Multinational Corporations and Political Violence” (with Clint Peinhardt and Alero Akporiaye).

**Original software**


**PreText.** Software for the representation and automated classification of text. [Github.](#)

**Research in Progress**

“Conflict Forecasting: Trends and Future Directions”.

“An Experimental Analysis of Crowdsourcing Designs for Conflict Event Data” (with Michael Kenwick, Matthew Kelly, Glenn Palmer, David Reitter, and Zhanna Terechshenko).

“Constraining Cooperation: Military Integration and Government Repression.”

**External Funding for Original Investigations**

2017 - 2021  *TwoRavens: Intuitive Statistical Exploration, Model Extraction, and Curation*  
DARPA Data-Driven Discovery of Models Program ($1,700,000)  
Role: Co-PI ($348,166 to UTD)  
Collaborators: James Honaker (Harvard)

2015 - 2018  *Updating the Militarized Dispute Data Through Crowdsourcing: MID5*  
National Science Foundation # SBE-SES-1528624 ($1,057,785)  
Role: Principal Investigator ($367,432 to UTD)  
Collaborators: Glenn Palmer, David Reitter (Penn State)

2015 - 2018  *Modernizing Political Event Data for Big Data Social Science Research*  
National Science Foundation # SBE-SMA-1539302 ($1,497,358)  
Role: Senior Personnel  
Collaborators: Patrick Brandt, Jennifer Holmes, Latifur Khan, Vincent Ng (UTD)

2017 - 2018  *Spark-based Political Event Coding*  
National Science Foundation # TG-SES-170012 (630,720 SUs)  
XSEDE resource allocation estimated by NSF at $105,267  
Role: Co-PI  
Collaborators: Patrick Brandt, Latifur Khan, (UTD)

** Lectures, Presentations, and Workshops**

*Invited Lectures, Presentations, and Workshops*

2018  American Political Science Association Event Data Workshop  
    Peace Science Society, Militarized Interstate Dispute Workshop  
2017  Harvard University, Privacy Tools for Sharing Research Data Workshop  
    London School of Economics, Transnational Conflict Data Workshop  
    Harvard University, Dataverse Community Meeting  
    Ohio State University, Democracy, the State, and Protest  
2016  Baylor University, Texas Digital Library Data Symposium  
    Harvard University, Dataverse Community Meeting  
    Political Instability Task Force, Machine-Learning and Automated Data Collection  
    University of Texas at Dallas, Seventh Conference on Political Violence and Policy  
    University of Houston, Political Economy of Risk Conference
Pennsylvania State University, Militarized Interstate Dispute Workshop
University of Central Florida, Department of Political Science

2015 University of Texas at Dallas, Event Data Workshop
Harvard University, Dataverse Community Meeting
University of Navarra (Spain), Economics, Leadership, and Governance Program

2014 University of Texas at Dallas, School of Economic, Political, and Policy Studies
University of Exeter (United Kingdom), Department of Politics
Wesleyan University, Quantitative Analysis Center
University of California at Davis, Militarized Interstate Dispute Workshop
Political Instability Task Force Winter Workshop
Kansas State University, Department of Political Science

Conference Participation–Presentations

American Political Science Association 2011, 2012 (conference canceled), 2013 (poster), 2015, 2018
Political Methodology 2012 (poster), 2015, 2017 (poster), 2018
Texas Triangle 2016, 2017
APSA Teaching and Learning 2016
Peace Science Society (Asia) 2016

Conference Participation–Discussant

International Studies Association 2014
Midwest Political Science Association 2015, 2017
St. Louis Area Methods Meeting 2018
American Political Science Association 2018

Teaching

Classroom teaching—University of Texas at Dallas

2015, Fall, PSCI 3328, International Relations
2016, Spring, EPPS 7V81, Concepts and Measurement
2016, Fall, PSCI 7330, International Conflict
2016, Fall, PSCI 3328, International Relations
2017, Spring, EPPS 6316, Applied Regression
2017, Fall, PSCI 4302, Data and Policy
2017, Fall, PSCI 3328, International Relations
2018, Spring, EPPS 6316, Applied Regression
2018, Spring, PSCI 4359, International Conflict
2018, Fall, EPPS 6359, Concepts and Measurement
2018, Fall, PSCI 3328, International Relations
Classroom teaching—University of Navarra

2015, Winter, Scientific Study of International Relations (2 week course)

Classroom teaching—Pennsylvania State University

2012, Summer, Introduction to International Relations

Doctoral advisement/direction:

- Brent J. Sackett: Proposal to be defended Fall 2018
  Who Pays? Who Benefits? NATO Burden-Sharing in the Third Phase:
  Crisis Response and Asymmetric Military Capabilities

- Austin Kingsolver: Proposal defended Summer 2017
  Polarization and the Supreme Court

- Aaron Lebo: Proposal defended Spring 2017
  Information Competition and Social Media Networks

- Randell Torno: Dissertation defended Winter 2017
  The Arc of Conflict: Three Articles on the “Life” of a Conflict

Service

Journal Reviewer


Grant Reviewer

Sloan Foundation, 2017

University and Department Service—University of Texas at Dallas

- Committee Member, Methodological Qualifying Exam, 2017-present
- Founder and Organizer, Working Paper Series, 2018-present
- Ad Hoc Committee Member, Peace and Conflict Studies concentration, 2015-present
- Outside Chair, Dissertation in Arts and Technology, Spring 2017

University and Department Service—Penn State University

- President, Graduate Association of Political Science (2011-2012)
- Founder and Organizer, Political Methodology Brown Bag (2011-2012)
Awards


2012. Dissertation support grant. College of Liberal Arts at Penn State ($2,000).


2012. Summer Graduate Research Award. Department of Political Science, Penn State University.


2008 - 2009. Florence and Angelo Paterno Graduate Fellowship. Department of Political Science, Penn State University.

Graduate and Undergraduate Research Experience

| 2012-2013 | Joseph Wright | Regional Dynamics and Regime Disruption in Dictatorships |
| 2009-2011 | Glenn Palmer  | Militarized Interstate Dispute 4 Project |
| Summer 2010 | Philip Schrodt | Integrated Crisis Early Warning Systems |
| Spring 2007 | David Cingranelli | CIRI Human Rights Dataset |

Additional Training

*University of Michigan*, ICPSR
Game Theory I and II (Summer 2009)

*Binghamton University*, Middle East and North African Program
Certificate in Middle Eastern and North African Studies (Spring 2008)

*Al Akhawayn University*, Intensive Arabic Summer Program
Intermediate Arabic (Summer 2007)
Thomas R. Gray
The University of Texas at Dallas
800 W. Campbell Road
Mailstop - GR 31
Richardson, TX 75080

Office: Green Hall 2.242
Phone: (972) 883-4948
Email: thomas.gray1@utdallas.edu
Website: www.thomasrgray.com

Academic Positions
Assistant Professor of Political Science; University of Texas at Dallas, School of Economic, Political and Policy Sciences (August 2017 - present)

Education
Ph.D., Government, University of Virginia (August 2017).
   Dissertation: “Elite Influence on State Supreme Courts through Retention Pressures”
   Committee: Jeff Jenkins (chair), David Klein (Eastern Michigan University), Sidney Milkis, and Craig Volden
   Major Field: American Politics; Minor Field: Comparative Politics
J.D., Western New England College (now University) School of Law (May 2010, Magna Cum Laude).

Research
Peer-Reviewed Publications


Editor-Reviewed Publications


Under Review

“Executive Influence on State Supreme Court Justices: Strategic Deference in Executive Reappointment States.” (Winner of the 2016 APSA Law & Courts Section Best Graduate Student Paper Award, conditionally accepted at The Journal of Law, Economics, & Organization)

“The Political Economy of Daylight Savings Time.” (with Jeff Jenkins)

“The Direct Election of Senators and the Emergence of the Modern Presidency.” (With Phil Potter and Jeff Jenkins)

“A Bridge Too Far? Examining Bridging Assumptions in Common-Space Estimation” (with Jeff Jenkins)

Working Papers

“Racial Bias in Appellate Criminal Outcomes: Evidence from Texas.”

“The Partisan State Attorney General.”

“The Congressional Politics of Export-Import Bank Policy.” (with Jonas Bunte)

“The Impacts of Foreign Direct Investment on Congressional Voting on Trade Policy.” (with Jonas Bunte and Paulo Cavallo)


Law Reviews


Other Writings


Research Featured at the Following Conferences

SPSA 2015, 2016, 2017, 2018, 2019

APSA 2015, 2016, 2017, 2018

Congress and History 2018 (Princeton University)

EPSA 2017, 2018

MPSA 2016, 2017

Conference on Empirical Legal Studies 2015 (Washington University in St. Louis)

PolMeth 2013 (University of Virginia; poster)
Research Presented at the Following Invited Talk

Universite Paris II - Pantheon Assas, Law and Humanities Research Center - “Tribunaux Americains, Amis ou Ennemis? [American Courts, Friends or Foes?]” (Paris, France; March 15, 2018)

Academic Journal Experiences

Editorial Assistant

Editorial Assistant

Fellowships and Awards

APSA Law & Courts Section Best Graduate Student Paper Award (2016)

University of Virginia Graduate Teaching Award - A Department of Politics Nominee (2015)

Huskey Graduate Research Conference (University of Virginia), 1st Place for best paper presentation on politics and economics panel (2015)

Political Psychology Working Group 2014 Elections Grant - $800 (2014)

University of Virginia Quantitative Collaborative Fellow (2012 - 2013, 2016 - 2017)

Oliver W. Holmes Scholar, Western New England College (now University) School of Law - full tuition, merit scholarship (2007 - 2010)

Miscellaneous

*Technical Skills*

STATA, R, LATEX, LimeSurvey, MTurk

*Additional Training*

EITM Summer Institute (2016); Inter-university Consortium for Political and Social Research (ICPSR) Summer Program (2013 - Introduction to Bayesian Modeling)

*References*

Jeff Jenkins - jajenkins@usc.edu

David Klein - dklein2@emich.edu

Craig Volden - cv4w@eservices.virginia.edu

Sidney Milkis - smm8e@eservices.virginia.edu

Last updated: February 15, 2019
August 20, 2015

Dr. Kevin W. Hamlen
Associate Professor
Department of Computer Science
The University of Texas at Dallas

Contact Information:
Office Address: 800 W. Campbell Rd.
Computer Science Department, Mailstop EC31
The University of Texas at Dallas
Richardson, TX 75080-3021
Voice: (972) 883-4724
Fax: (972) 883-2349
Email: hamlen@utdallas.edu (preferred method of contact)
Web page: http://www.utdallas.edu/~hamlen

Educational History:
Ph.D. 2006 Cornell University Computer Science
M.S. 2002 Cornell University Computer Science
B.S. 1998 Carnegie Mellon University Computer Science and Mathematical Sciences

Security Policy Enforcement by Program-rewriting
Ph.D. Dissertation
Computer Science Department, Cornell University
Advisors: Greg Morrisett and Fred B. Schneider

Proof-Carrying Code for x86 Architectures
Senior Undergraduate Honors Thesis
School of Computer Science, Carnegie Mellon University
Advisor: Peter Lee

Employment History:
Associate Professor (with tenure)
Department of Computer Science, The University of Texas at Dallas
September 2012 – present

Assistant Professor
Department of Computer Science, The University of Texas at Dallas
August 2006 – August 2012

Research and Teaching Assistant
Computer Science Department, Cornell University
September 1998 – August 2006
Research Intern
Microsoft Research, Cambridge, UK
September 2002 – December 2002

Technical Consultant
Microsoft Research, Redmond, WA
June 2001 – August 2001

Professional recognitions and honors:
NYU-Poly CSAW Best Applied Security Paper of the Year Award, 2nd place, 2014
Metroplex Technology Business Council Tech Titan Technology Inventor, Finalist (final four), 2013
Outstanding Teaching Award, Erik Jonsson School of Engineering and Computer Science, The University of Texas at Dallas, 2013
Best Student Paper Award, Annual Computer Security Applications Conference (ACSAC), 2012
NYU-Poly AT&T Best Applied Security Paper of the Year Award, 2nd place, 2012
Faculty Research Award, Erik Jonsson School of Engineering and Computer Science, The University of Texas at Dallas, 2012
Best Paper Award, IEEE International Conference on Tools with Artificial Intelligence (ICTAI), Special Session on Stream Data Mining, 2011
CAREER Award, National Science Foundation, 2011
Young Investigator Program (YIP) Award, U.S. Air Force Office of Scientific Research, 2008
Ph.D. Fellowship Award, Intel Foundation, 2004
Allen Newell Award for Excellence in Undergraduate Research, Carnegie Mellon University, 1998
Phi Kappa Phi Honor Society, Carnegie Mellon University, 1998
Phi Beta Kappa Honor Society, Carnegie Mellon University, 1998
Graduated summa cum laude (3rd in class), Carnegie Mellon University, 1998

Professional memberships:
Institute of Electrical and Electronics Engineers (IEEE), 2010–present
Association of Computing Machinery (ACM), 2008–present

Selected Invited Talks:
Fog of War: Clouds, Software Hardening, and the Art of Cyber Deception, Invited Speaker, Secure Cloud Computing and Storage Workshop, Hariri Institute, Boston University / Massachusetts Institute of Technology Lincoln Lab Cybersecurity Workshop Series, 5/8/2015
Mutants, Zombies, and Frankenstein Monsters: Taming the Menagerie of Software Cyber Security Threats, Invited Computer Science Colloquium Speaker, Virginia Commonwealth University, 4/24/2015
Grants awarded:

*Deception-enabled Interactive Software for Active Cyber Defense*
PI: Kevin Hamlen; Co-PIs: Latifur Khan, Zhiqiang Lin
National Security Agency (NSA)
09/01/15–08/31/16, $287K

**TWC:** TTP Option: Medium; Collaborative Research: **ENCORE:** ENhanced program protection through COMPiler-REwriter cooperation
PI: Kevin Hamlen
National Science Foundation (NSF)
07/01/15–06/30/18, $1.2M total ($177K for UTD)

*Automated, Binary Evidence-based Attribution of Software Attacks*
PI: Kevin Hamlen; Co-PIs: Latifur Khan, Zhiqiang Lin
U.S. Air Force Office of Scientific Research (AFOSR)
7/1/14–6/30/17, $613K

**UTD SFS Renewal:** Growing a Cybersecurity Community through SFS Scholarship Program at UTD
PI: Kamil Sarac; Co-PIs: Kevin Hamlen, Alvaro Cardenas, Zhiqiang Lin, Bhavani Thuraisingham
National Science Foundation (NSF)
9/1/14–8/31/19, $3.95M

*Binary Retrofitting of Untrusted Software Components for Secure Software Complexity Reduction*
PI: Kevin Hamlen
Office of Naval Research (ONR)
11/1/13–10/31/16, $593K

*Metamorphic Extensions to Frankenstein Malware for Defensive Testing*
PI: Kevin Hamlen; Co-PIs: Latifur Khan, Zhiqiang Lin
Raytheon Company (IUCRC Project)
8/12/13–8/11/15, $70K

**TWC:** Medium; Collaborative Research: **Policy Compliant Integration of Linked Data**
PI: Murat Kantarcioglu; Co-PIs: Kevin Hamlen, Latifur Khan
National Science Foundation (NSF)
9/1/12–8/31/15, $1.2M total ($400K for UTD)

*MRI:** Development of an Instrument for Assured Cloud Computing
PI: Latifur Khan; Co-PIs: Kevin Hamlen, Murat Kantarcioglu
National Science Foundation (NSF)
10/1/12–9/30/15, $300K

*Semantic Approach to Behavior-based IDS and its Applications*
PI: Bhavani Thuraisingham; Co-PIs: Latifur Khan, Zhiqiang Lin, Kevin Hamlen
U.S. Air Force Office of Scientific Research (AFOSR)
4/1/12–3/31/16, $2.2M total ($966K for UTD)
DUE: *Capacity Building for Assured Cloud Computing*
PI: Bhavani Thuraisingham; Co-PIs: Latifur Khan, Kamil Sarac, Murat Kantarcioglu, Kevin Hamlen
National Science Foundation (NSF)
9/15/11–8/31/14, $265K

TC: Medium: Collaborative Research: *Securing Web Advertisements: Fixing the Short-term Crisis and Addressing Long-term Challenges*
PI: Kevin Hamlen
National Science Foundation (NSF)
9/1/11–9/30/16, $1.2M total ($527K for UTD)

CAREER: *Language-based Security for Polymorphic Malware Protection*
PI: Kevin Hamlen
National Science Foundation (NSF)
8/1/11–7/31/16, $504K

*Adaptive Malware Detection over Evolving Malwares: Attacks and Defenses*
PI: Latifur Khan; Co-PIs: Kevin Hamlen, Bhavani Thuraisingham
U.S. Army
9/1/11–9/30/12, $350K

Federal Cyber Service: *Scholarship for Service Program at UTD*
PI: Kamil Sarac; Co-PIs: Kevin Hamlen, Murat Kantarcioglu, Edwin Sha, Bhavani Thuraisingham
National Science Foundation (NSF)
9/1/10–8/31/14, $1.7M

*Reactively Adaptive Malware: Attacks and Defenses*
PI: Kevin Hamlen; Co-PI: Latifur Khan
U.S. Air Force Office of Scientific Research (AFOSR)
3/1/10–2/28/14, $450K

EAGER: *Secure Peer-to-peer Data Management*
PI: Kevin Hamlen; Co-PI: Bhavani Thuraisingham
National Science Foundation (NSF)
9/15/09–8/31/11, $80K

IASP: *Information Assurance Education at UTD*
PI: Kevin Hamlen
U.S. Department of Defense (DoD)
9/1/08–8/31/09, $42K

YIP: *Automated, Certified Program-rewriting for Software Security Enforcement*
PI: Kevin Hamlen
U.S. Air Force Office of Scientific Research (AFOSR)
1/1/08–11/30/11, $280K
Achievements in Original Investigation:

Refereed conference & workshop publications:


**Articles in refereed journals:**


Mohammad Mechedy Masud, Clay Woolam, Jing Gao, Latifur Khan, Jiawei Han, Kevin W. Hamlen, and Nikunj C. Oza. Facing the Reality of Data Stream Classification: Coping with Scarcity of Labeled Data. *Knowledge and Information Systems (KAIS)*, pp. 1–32. November 2011.

Mohammad M. Masud, Tahseen M. Al-Khateeb, Kevin W. Hamlen, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani Thuraisingham. Cloud-based Malware Detection for Evolving Data Streams. *ACM Transactions on Management Information Systems (TMIS)*, 2(3). October 2011.


**Articles accepted by refereed journals (publication pending):**


**Patent Application:**

Unrefereed articles and technical reports:

Richard Wartell, Yan Zhou, Kevin W. Hamlen, and Murat Kantarcioglu. **Shingled Graph Disassembly: Finding the Undecidable Path**. Tech. rep. (UTDCS-12-13). Richardson, Texas: Computer Science Department, The University of Texas at Dallas, June 2013.


In the News:

*The following is an assortment of press articles covering my research.*


Selena Hernandez. **UTD Professor Creates Solution to ‘Heartbleed’ Bug**. *CW 33 Nightcap News*. April 15, 2014.


Teaching:

Graduated Ph.D. students supervised:

2014 Vishwath Mohan: Source-free Binary Mutation for Offense and Defense
2014 Meera Sridhar: Model-checking In-lined Reference Monitors
2012 Richard Wartell: Rewriting x86 Binaries Without Code-producer Cooperation
2011 Sunita Ramanujam: Towards an Integrated Semantic Web: Interoperability Between Data Models

Graduated masters students supervised:

2013 Dhiraj V. Karamchandani: Surveying the Landscape of ActionScript Security Trends and Threats
2010 Aditi Patwardhan: Security-aware Program Visualization for Analyzing In-lined Reference Monitors
2009 Scott Moore: graduation based on coursework (non-thesis)
Undergraduate honors theses supervised:

2009 Jonathan Cooke: *A Comparison of the Effectiveness of Denial-of-service Attacks against Structured Peer-to-peer Networks*

Classroom teaching:

Median student evaluation: 4.75 / 5 = Excellent

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<td>CS6371 Advanced Programming Languages</td>
<td>4.89 / 5 = Excellent</td>
</tr>
<tr>
<td>2014 Fall</td>
<td>CS6301 Language-based Security</td>
<td>4.75 / 5 = Excellent</td>
</tr>
<tr>
<td>2014 Spring</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.92 / 5 = Excellent</td>
</tr>
<tr>
<td>2013 Fall</td>
<td>CS6301 Language-based Security</td>
<td>4.69 / 5 = Excellent</td>
</tr>
<tr>
<td>2013 Spring</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.92 / 5 = Excellent</td>
</tr>
<tr>
<td>2012 Fall</td>
<td>CS6V81 Language-based Security</td>
<td>4.83 / 5 = Excellent</td>
</tr>
<tr>
<td>2012 Fall</td>
<td>CS4384 Automata Theory</td>
<td>4.80 / 5 = Excellent</td>
</tr>
<tr>
<td>2012 Spring</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.81 / 5 = Excellent</td>
</tr>
<tr>
<td>2011 Fall</td>
<td>CS4384 Automata Theory</td>
<td>4.50 / 5 = Excellent</td>
</tr>
<tr>
<td>2011 Spring</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.19 / 5 = Very Good</td>
</tr>
<tr>
<td>2011 Spring</td>
<td>CS7301 Language-based Security</td>
<td>4.75 / 5 = Excellent</td>
</tr>
<tr>
<td>2010 Fall</td>
<td>CS4384 Automata Theory</td>
<td>4.33 / 5 = Very Good</td>
</tr>
<tr>
<td>2010 Spring</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.58 / 5 = Excellent</td>
</tr>
<tr>
<td>2009 Fall</td>
<td>CS4485 Computer Science Project</td>
<td>4.50 / 5 = Excellent</td>
</tr>
<tr>
<td>2009 Fall</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.81 / 5 = Excellent</td>
</tr>
<tr>
<td>2009 Spring</td>
<td>CS4485 Computer Science Project</td>
<td>4.83 / 5 = Excellent</td>
</tr>
<tr>
<td>2009 Spring</td>
<td>CS6371 Advanced Programming Languages</td>
<td>3.22 / 5 = Good</td>
</tr>
<tr>
<td>2008 Fall</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.25 / 5 = Very Good</td>
</tr>
<tr>
<td>2008 Spring</td>
<td>CS6V81 Language-based Security</td>
<td>4.92 / 5 = Excellent</td>
</tr>
<tr>
<td>2007 Fall</td>
<td>CS6371 Advanced Programming Languages</td>
<td>4.08 / 5 = Very Good</td>
</tr>
<tr>
<td>2007 Spring</td>
<td>CS7301 Seminar on Language-based Security</td>
<td>4.75 / 5 = Excellent</td>
</tr>
</tbody>
</table>

Service:

External service:

2015, 2013 Program Committee Member for the *13th and 11th IEEE Intelligence and Security Informatics Conferences (ISI)*

2015, 2014 Program Committee Member for the *International Workshop on Secure Peer-to-Peer Intelligent Networks & Systems (SPINS)*

2014 Program Committee Member for the *13th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)*

2014 Program Committee Member for the *8th International Conference on Emerging Security Information, Systems and Technologies (SECURWARE)*

2013 Program Chair of the *Next Generation Malware Attacks and Defenses Workshop (NGMAD)*

2013 Local Chair of the *16th Information Security Conference (ISC)*

2013 Program Committee Member for the *12th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)*
2013 Program Committee Member for the 7th International Conference on Emerging Security Information, Systems and Technologies (SECURWARE)
2013 Program Committee Member for the 1st International Workshop on Privacy in Semantic Technologies (PriSeT)
2013 Program Committee Member for the International Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI)
2013 Program Committee Member for the International Conference on Information Communication Technology (ICT-EurAsia)
2012 Program Committee Member for the 8th International Conference on Information Systems Security (ICISS)
2012 Program Committee Member for the International Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI)
2012 Program Committee Member for the 10th IEEE Intelligence and Security Informatics Conference (ISI)
2010 Program Committee Member for the International Workshop on Visual Languages and Computing (VLC)
2009 General Chair and Program Committee Member for the 11th ACM International Symposium on Practical Aspects of Declarative Languages (PADL)
2009 Program Committee Member for the 4th ACM SIGPLAN Workshop on Programming Languages and Analysis for Security (PLAS)
2007 Registration Chair for the 10th High Assurance Systems Engineering Symposium (HASE)

External reviewer for:
  2013 ACM Conference on Computer and Communications Security (CCS)
  2013 Theory and Practice of Logic Programming (TPLP)
  2013, 2011 Journal of Machine Learning Research (JMLR)
  2012 Journal of Computer Engineering & Information Technology (JCEIT)
  2012 International Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI)
  2012, 2010 Air Force Research Laboratory (AFRL)
  2011, 2009 Practical Aspects of Declarative Languages (PADL)
  2010 International Journal of Information Security (IJIS)
  2010 Information Processing Letters (IPL)
  2010 Mathematical Structures in Computer Science Journal (MSCS)
  2009–2007 Science of Computer Programming
  2009 International Journal of Computer Mathematics
  2009, 2008 Encyclopedia of Computer Science and Engineering
  2008, 2007 Fundamenta Informaticae
  2008 The European Symposium on Programming (ESOP)
University/department service:

2012–present  Information Security Committee, UTD
2009–present  TA Committee, Computer Science Department, UTD
2006–present  Computer Systems Group Committee, Computer Science Department, UTD
2006–present  Faculty co-advisor for the UTD Graduate Christian Fellowship

Dissertation/thesis committees served:

2014 Timothy Hoffman, M.S.: *Flexible Access and Information Flow Control in Multi-domain Distributed Systems* (supervisor: I-Ling Yen)
2014 Kyle Marple, Ph.D.: *Goal-directed Answer Set Programming* (supervisor: Gopal Gupta)
2012 Wei-Che Tseng, Ph.D.: *Memory Architecture, Management, and Scheduling for Embedded Systems* (supervisor: Edwin Sha)
2011 Mohammad Farhan Husain, Ph.D.: *Data Intensive Query Processing for Semantic Web using Hadoop and MapReduce* (supervisor: Latifur Khan)
2010 Jeffrey Koch, Ph.D.: *AOVis: Reverse Engineering and Visualization of AspectJ/Java Source Code* (supervisor: Kendra Cooper)
2009 Mohammad Mehedy Masud, Ph.D.: *Adaptive Classification of Scarcely Labeled and Evolving Data Streams* (supervisor: Latifur Khan)
2007 Parag Doshi, M.S.: *General Strategies for Buffer Overflow Attack Proofing* (supervisor: Gopal Gupta)
2007 Srividya Kona, Ph.D.: *Semantics-based Web Service Discovery and Composition* (supervisor: Gopal Gupta)
Jennifer S. Holmes  
School of Economic Political and Policy Sciences  
University of Texas at Dallas  
800 West Campbell Road (GR31)  
Richardson, Texas 75080-3021  
(972) 883 - 6843  
jholmes@utdallas.edu

Educational History  
University of Minnesota, Ph.D. Political Science. August 31, 1998. Major fields:  
Comparative Politics and Political Theory. Supporting program: History of the  
Hispanic World and International Relations  
Dissertation Title: The Consequences of State and Non-State Violence on Democratic  
University of Chicago, A.B., June 12, 1993. Political Science. General and Departmental  
Honors  
Summer 1999, ICPSR summer program at the University of Michigan

Academic Appointments  
Professor, Public Policy, Political Economy and Political Science, School of Economic,  
Political, and Policy Sciences, September 2014 –  
Associate Professor, Public Policy, Political Economy and Political Science, School of  
Economic, Political, and Policy Sciences (formerly School of Social Sciences),  
September 2006 – August 2014  
Assistant Professor, Government & Politics and Political Economy, School of Social  
Sciences, University of Texas at Dallas, January 2000 –August 2006.  
Visiting Assistant Professor, School of Social Sciences, University of Texas at Dallas,  

Additional Academic Affiliations  
Tower Center Associate, John Goodwin Tower Center for Political Studies, Southern  
Methodist University, November 2017-October 2020.

Administrative Appointments  
Interim Dean, School of Economic, Political, and Policy Sciences, June 2018-present  
Program Head, Political Science, September 2014-May 2018  
Program Head, Public Policy and Political Economy, July 2012- May 2018  
Member, Political Science Field of Study (FOS) Advisory Committee, Texas Higher  
Education Coordinating Board, 2018-

HONORS AND PROFESSIONAL RECOGNITIONS

Honors and Awards  
2011  Regents’ Outstanding Teaching Award, University of Texas System
(This award was the Board of Regents' highest honor for faculty in the UT system of nine universities)

2010 Special Faculty Development Assignment, University of Texas at Dallas
2006 Finalist, Chancellor’s Teaching Award, University of Texas at Dallas
2005 Special Faculty Development Assignment, University of Texas at Dallas (declined)
2004 Young Leader, Atlantik-Bruecke, Neuhardenberg, Germany

Professional, Administrative, and Academic Grants

2018 Texas National Security Network Excellence Fund, April 2018, with Alvaro Cardenas and Ross Baldick “Improving the Resiliency of the Texas Power Grid” $75,000
2017 “Promoting Quantitative Analysis Capabilities and Applied Research on Citizen Security in Central America” $6,000 (subaward) Research Foundation of New York
2017 CUSLAI travel grant, Guatemala, $5,500
2016 National Science Foundation “Lessons from Five Decades of Attacks against Critical Infrastructures” PI: Alvaro Cardenas, Co-PI: Jennifer S. Holmes “Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP) Type 1: Collaborative” $401,049.72 (1/1/2016-12/31/18)
2015 CUSLAI travel grant, Colombia $7,500
2015 EPPS Advisory Board Grant, $5,000
2013 CUSLAI travel grant, Peru, $3,500
2005 Summer Workshop on Teaching About Terrorism, College of William and Mary (a competitive and externally funded workshop)
2003 Kauffman Collegiate Entrepreneurship Network Grant
2002 Webct Class Development Grant, University of Texas at Dallas
2002 FIPSE Summer Course Development Grant, University of Texas at Dallas
2001 FIPSE Summer Course Development Grant, University of Texas at Dallas
1999 Bureau of Justice Statistics, U.S. Department of Justice Grant to attend the Quantitative Analysis of Crime and Criminal Justice four week workshop at the Inter-University Consortium on Political and Social Research (ICPSR)
1997 Doctoral Dissertation Special Grant, University of Minnesota
1997 Vernie Wolfsberg Fellowship, University of Minnesota
1996 Vernie Wolfsberg Fellowship, University of Minnesota
1994 Vernie Wolfsberg Fellowship, University of Minnesota
1993 General and Departmental Honors, University of Chicago
1990 Calderwood Scholarship, University of Chicago
**Publications**

**Books**


**Edited Books**


**Edited books for the Political Science Program**


**Peer Reviewed Articles**


Benjamin E. Bagozzi, Patrick T. Brandt, John R. Freeman, Jennifer S. Holmes, Alisha Kim, Agustin Palao and Carly Potz-Nielson “The Prevalence and Severity of


**Refereed Conference Proceedings or Abstracts**

“Future of Deception: Machine-Generated and Manipulated Images, Video and Audio?”

Jonathan Bakdash, Char Sample, Monica Rankin, Murat Kantarcioglu, Jennifer S. Holmes, Sue Kase, Erin Zaroukian, Boleslaw K. Szymanski. VISION abstract at the Social Sensing (SocialSens) conference 2018

https://www.cse.buffalo.edu/~lusu/SocialSens2018/

Sayeed Salam, Patrick Brandt, Jennifer Holmes, Latifur Khan; Distributed Framework for Political Event Coding in Real-Time; In Proceeding of 2nd European Conference on Electrical Engineering & Computer Science (EECS), Bern, Switzerland 2018

**Invited Publications**


Jennifer S. Holmes. “Interaction, innovation and insight: how comparative politics can


**Chapters in Edited Books**


Review Essays


Articles submitted for publication
Numerous articles in various stages of review and preparation

CONFERENCE PRESENTATIONS AND PUBLIC SPEAKING

Invited Presentations
Terrorism short course, Korean National Fire Academy, August 2017
"Risk factors for violence in Colombia: Policy insights from a subnational analysis"
Western Hemisphere Regional Trends, Sponsored by the Bureau of Intelligence and
Research, the U.S. Department of State, and the National Intelligence Council, September 16, 2016, Washington D.C.
“Colombia: The United Self-Defense Forces of Colombia” hosted by the Alliance for Peacebuilding, December 11, 2014, Washington D.C.
“Responding to Terror” The 7th International Conference on Crisis and Emergency Management Chungbuk National University, Cheongju, Chungbuk, South Korea, October 11, 2013
“The Expansion of State Capacity in Latin America: The Case of Colombia” Universidad San Ignacio de Loyola, Lima, Peru June 18, 2012.
“Armas, Drogas Desarrollo en Colombia” February 22, 2012 Encuentro Académico de Investigadores "TEJIENDO REDES" Oficina de las Naciones Unidas contra la Droga y el Delito (UNODC) Bogotá, Colombia.
“Drugs, Thugs, and Development in Colombia” September 21, 2011. Latin American and Caribbean Studies Center at SUNY-Stony Brook.
“Importance of State Capacity: lessons from Colombia,” Conferencia Subregional en El Salvador, San Salvador July 2010
"They’re back: A sub-national analysis of Sendero Luminoso in Peru" University of Oklahoma, March 31, 2010
"Cesspool of Misery or Source of Insurgency" University of Oklahoma, March 31, 2010
“Latin American Terrorism: Lessons from the Colombia and Peru” Intelligence Community Colloquium, Contemporary National Security Issues and Intelligence, April 15, 2009, El Paso, Texas.
“Responding to Terrorism” Inaugural address, Chicago Society, University of Chicago Alumni Society, Old Red Court House, Dallas Texas, October 29, 2008.
“Colombian and Peruvian Terrorist Groups” Summer Workshop on Teaching about Terrorism, University of Oklahoma, June 8, 2008.
“Colombian and Peruvian Terrorist Groups” Summer Workshop on Teaching about Terrorism, University of Oklahoma, June 30, 2008.
“Cesspool of Misery or Spring of Insurgency? Displacement in Colombia” Conference on Terrorism and Policy, University of Texas at Dallas, May 15-17, 2008.
“Colombian and Peruvian Terrorist Groups” Summer Workshop on Teaching about Terrorism, University of Oklahoma, July 2007.
“Colombian and Peruvian Terrorist Groups” Summer Workshop on Teaching about Terrorism, Morehouse College, June 2007.
“La debilitación del Estado de Derecho por Paramilitares y la privatización de la seguridad (especialmente en Colombia) y su amenaza para Panamá.” Conferencia internacional sobre estrategias de lucha contra el crimen organizado transnacional. Panama City, Panamá November 19, 2006.
“Colombian and Peruvian Terrorist Groups” Summer Workshop on Teaching about Terrorism, University of Georgia, July 2006.

Refereed Talks/Conference Presentations

PROFESSIONAL AND UNIVERSITY CITIZENSHIP

1. Professional Memberships
   American Conference of Academic Deans, 2015-present
   American Political Science Association, 1995 - present
   Latin American Studies Association, 1995 - present
   Midwest Political Science Association, 1996 - present (lifetime member)
   Midwest Association of Latin American Studies, 2004 – present (lifetime member)
   Southern Political Science Association, 1995- 2006
   Southwestern Political Science Association, 1998 - 2006
   Asociación de Colombianistas, 2001 - present
   Dallas Committee on Foreign Relations, 2000 - present
   European Consortium on Political Research (ECPR) Standing Group on Extremism and Democracy, 2002 – present

2. Professional Service
Program committee, APPAM, National Security, 2017
APPAM Institutional Representatives, Secretary, 2015-present
Board of Directors, Bill of Rights Defense Committee, 2010-2014
Steering Committee of the ECPR Standing Group on Extremism & Democracy, 2007-present
Academic Advisory Board for Weapons of Mass Destruction and Terrorism, McGraw-Hill, 2009-present
President, Midwest Association of Latin American Studies, 2010
Vice President, Midwest Association of Latin American Studies, 2006-2007, 2008-2009
Membership Director, Midwest Association of Latin American Studies, 2007-2008
Advisory Board, Midwest Association of Latin American Studies, 2007-2013
Program Committee, Dallas Committee on Foreign Relations, 2006-2007
Midwest Association of Latin American Studies, committee for the selection of the best student paper presented 2006-present
Chair, Amnesty International USA’s Threat Protocol Task Force, 2004-5
Member, Advisory Board Council United Nations Association Dallas, 2005 – 2006
Southwestern Political Science Association, committee for the selection of the best graduate paper presented at the 2001 meeting, 2002

3. Editorial Positions
Editorial Board, Security and Defense Studies Review, 2010-2014
Guest Editor, special issue on domestic extremism and terrorism, Policing A Journal of Policy and Practice, Volume 3 Issue 3, 2009
Managing editor of e-Extreme, 2005-2008
Coeditor of e-Extreme, Electronic Newsletter of the ECPR-SG on Extremism & Democracy. 2002-2005

4. Program Service
Member, Merger committee (PPPE & PSCI) 2016 - 2017
Program Head, Political Science, September 2014 - May 2018
Program Head, Public Policy and Political Economy, July 2012 - May 2018 (Wrote 2012 PPPE Self Study, chaired the search committee for two PPPE faculty members, 2012)

Associate Program Head, International Political Economy, 2007 - May 2012. (In one year increased enrollment in the MS program from 0 -14 and in the BA/BS from 0 – 35. Enrollments have continued to increase to 23 in the masters program and 84 undergraduate majors by spring 2012).

Interim Program Head, Public Policy and Political Economy, February - August 2010 (Facilitated the revision and approval of the Ph.D. prospectus requirement, facilitated the draft and approval of program faculty expectations, updated advising guide and catalog copy, and streamlined advising protocol.)

Program Committee (elected), Public Policy and Political Economy Program, 2007-2011


5. School Committees and Activities
   EPPS Strategic Planning Committee (2016)
   Chair, Ad hoc committee on Non-tenure track faculty review (2016)
   Member, Political Science Leadership Committee, May –June 2014
   EPPS Faculty Advisory Committee (elected), 2006-7, 2007-8, 2008-9, 2009-10, 2010-11, 2014-15
   EPPS School Peer Review Committee (elected) 2014-2015, 2016-2018
   EPPS Executive Committee, 2012-present
   Ad hoc committee on graduate advising, 2011
   Search Committee for Dean, School of Economic, Political and Policy Sciences, 2009-2010
   UTD EPPS Drafted and guided the Masters degrees in Political Science, Constitutional Law Studies, and Legislative Affairs through the University process and on to Coordinating Board approval, 2007-2008. (Approved summer 2008.)
   UTD EPPS Drafted and guided the Masters degree in International Political Economy, Bachelor of Arts in International Political Economy, Bachelor of Science in International Political Economy and Master of Public Policy degree programs through the University process and on to Coordinating Board approval, 2006-2007. (Approved summer 2007.)
   Faculty advisor for the GOLD Program, UTD, 2000-2001
   UTD NASPAA Textbook Project, 1999-2001
   Faculty advisor for Political Science Association, UTD, 1998-2001
   Committee member, Truman scholarship nominees, UTD, 1998-2000

6. University Activities and Committees
   Athletic Advisory Board Committee, 2018-present.
UT Dallas Strategic Plan Committee, 2017 – 2018
Committee on Workload Policy, 2018
Advisory Committee on Research, 2018-present
President's Teaching Excellence Award Committee, 2018
E-forms committee, 2017-2018
Procurement oversight committee, 2016-2017 (with VP of procurement, plus numerous staff and faculty)
Regents’ Outstanding Teaching Award selection committee, 2017, 2018
Ad hoc PeopleSoft Productivity Committee, 2017 (with VP of IT, plus numerous staff and faculty)
President's Teaching Excellence Award Committee, 2017
External review of Chemistry program, 2017
UT Dallas Strategic Plan Committee, 2017
Search Committee for VP of Communications 2017 (appointed)
International Oversight Committee (elected), Chair 2014-2016, Chair 2016-2017 (appointed) 2017-2018
Senior faculty observer in the Teaching Observation Program (TOPs), 2016
SACSSOC Institutional Effectiveness Committee, 2016
Presidential Search Committee, 2015 (elected)
Search for Graduate Dean, 2015
McDermott Faculty Honors Council, 2009-present
3+3+3 committee on nontenure track faculty, 2014-2015
Advisory Committee for the Center for U.S. Latin American Initiatives (CUSLAI), 2014-present.
Auxiliary Services Advisory Committee, 2010-2014
Senate Committee on the Graduate Application, 2009
Hearing Officer, Judicial Affairs, 2008-2011
International Education Advisory Committee, chair (elected) 2012-2014
International Education Advisory Committee, chair elect 2008-2011
Boren selection committee, 2011
Faculty advisor for IPESA (International Political Economy Students Association) 2011-2015
Faculty advisor for the UTD College Greens, 2002
Student Fee Advisory Committee, 2006-7
Select Committee on Tuition, 2005
Committee on Women and Minorities 2004-2005, 2005-2006
Quality Enhancement Committee (part of the SACs reaffirmation process initiated to create GEEMS) 2007-2008
Strategic Planning Campus Life Ombudsman Subcommittee, 2005
Senate Committee on School Bylaws, 2002
Committee for Student Life, 2001 - 2002
Health Professions Advisory Committee, 2000- 2014
Faculty Associate, U.S. Mexico Center, University of Texas at Dallas, 2001-present.
Alumni Schools Committee, University of Chicago, 1995 – present
Council of Graduate Students, University of Minnesota, 1993-4, 1994-5
Academic Policy and Review Board, University of Minnesota, 1994-5

Administrative Training:
Leadership Academy for Department Chairs, American Council on Education, Skokie, Illinois, October 2017
University of Texas System Senior Leaders Network Workshop, Austin, Texas January 2017, January 2019
Regional Women’s Leadership Forum, American Council on Education, Miami, Florida, October 2015

Miscellaneous
Language: Spanish
Overseas Study: Universidad de Sevilla, Spain: one academic year of study, Universidad Autonomo de Mexico (UNAM), Mexico: summer intensive language program.
Fieldwork conducted in Colombia, El Salvador, Guatemala, and Peru
a. Professional Preparation:

Middle East Technical University  B.s., Computer Engineering with Minor in Finance, 2000
Purdue University  M.s., Computer Science, 2002
Purdue University  Graduate Certificate in Statistics, 2005
Purdue University  Ph.d., Computer Science, 2005

b. Appointments:

2015-Present  Professor of Computer Science with Tenure, University of Texas at Dallas
2013-Present  Visiting Scholar, Harvard University, Data Privacy Lab
2011-2015  Associate Professor of Computer Science with Tenure, University of Texas at Dallas
Summer 2012  Visiting summer faculty, Air Force Research Lab (AFRL)
Summer 2011  Visiting summer faculty, Air Force Research Lab (AFRL)
2005-2011  Assistant Professor of Computer Science (Tenure Track), University of Texas at Dallas
2001-2005  Research Assistant, Department of Computer Sciences, Purdue University
Summer 2004  Research Intern, IBM Almaden Research Labs (Mentor: Rakesh Agrawal)
Summer 2003  Research Intern, NEC C&C Research Labs (Mentor: Wen-syan Li)
Summer 2002  Research Intern, NEC C&C Research Labs (Mentor: Wen-syan Li)
2000-2001  Teaching Assistant, Department of Computer Sciences, Purdue University

c. Relevant Products:


Other Significant Products:


**D. Synergistic Activities:**

- Associate Editor, IEEE Transactions on Dependable and Secure Computing, 2011-Present
- Associate Editor, VLDB Journal, 2015- Present
- Associate Editor, IET Information Security Journal, 2015-Present
- Associate Editor, International Journal of Cooperative Information Systems, 2015- Present
- Program Committee Member, Senior Member or Chair for more than 100 conferences over the years (e.g., Secure and Privacy-preserving Data Mining Area Chair, 23th ACM International Conference on Information and Knowledge Management (CIKM ’14); Program Committee Co-chair, The ACM Symposium on Access Control Models and Technologies (SACMAT) 2012 ; Poster Track Chair, World Wide Web Conference, (WWW 2011) )

**E. Collaborators & Other Affiliations:**

**Graduate and Postdoctoral Advisors (1):** Chris Clifton, Purdue University

**Graduate students (15):** (University of Texas at Dallas)
Mustafa Canim (IBM), Ali Inan (Isik University), Ryan Layfield (Amazon), Jack Lindamood (Facebook), Li Liu (e-bay), Raymond Heatherly (Vanderbilt Univ.), Robert Nix (Lipscomb Univ.), Mehmet Kuzu (Google Inc.), Saiful Islam (Microsoft), Vaibhav Khadilkar (Nutraspace Inc.), Abhijith Shastry (Google Inc.), Erman Pattuk (UT Dallas), Huseyin Ulusoy (UT Dallas), Fahad Shanon (UT Dallas), Harichandan Roy ( UT Dallas)

**Postdoctoral Researchers (3) :** Ebru Celikel (UT Dallas), Yan Zhou (UT Dallas), Celine Hoe (Texas A&M)
CURRICULUM VITAE

January 2017
Daniel C. Krawczyk

Educational History:
Ph.D., June, 2003, University of California, Los Angeles, 1285 Franz Hall, Box 951563, Los Angeles, CA 90095-1563, Psychology (Cognitive Neuroscience)
Dissertation Title: Information Processing and the Emergence of Cognitive Coherence in Decision Making. Keith J. Holyoak, Ph.D., Dissertation Advisor
M.A., June, 2000, University of California, Los Angeles, 1285 Franz Hall, Box 951563, Los Angeles, CA 90095-1563, Psychology (Cognitive Neuroscience)

Employment History:
Deputy Director, 2016-present, The University of Texas at Dallas, Center for BrainHealth®, 2200 Mockingbird Lane, Dallas, TX 75235
Debbie and Jim Francis Chair in Behavioral and Brain Science, 2013-present, School of Behavioral and Brain Sciences, The University of Texas at Dallas, GR41, Richardson, TX 75083-0688
Research Investigator, 2013-present, VA North Texas Health Care System: Dallas VA Medical Center, 4500 South Lancaster Road, Dallas, TX 75216
Associate Professor, 2012-present, School of Behavioral and Brain Sciences, The University of Texas at Dallas, GR41, Richardson, TX 75083-0688
Associate Professor, 2013-present, Department of Psychiatry, University of Texas, Southwestern Medical Center, Dallas, 5323 Harry Hines Blvd., Dallas TX 75390-9070
Assistant Professor, 2006-2012, School of Behavioral and Brain Sciences, The University of Texas at Dallas, GR41, Richardson, TX 75083-0688
Assistant Professor, 2006-2013, Department of Psychiatry, University of Texas, Southwestern Medical Center, Dallas, 5323 Harry Hines Blvd., Dallas TX 75390-9070
Ruth L. Kirschstein Postdoctoral Fellow, 2003-2006, Helen Wills Neuroscience Institute and Department of Psychology, University of California, 3210F Tolman Hall MC 3192, Berkeley, CA 94720-3192

Professional recognition:
American Psychological Association, Science Directorate Dissertation Research Award, 2003
Dissertation Fellowship, 2002-2003, UCLA Department of Psychology
Institute Fellowship, 2001, Summer Institute in Cognitive Neuroscience
University Fellowship, 1998, University of California, Los Angeles
State University of New York Chancellor's Award for Student Excellence, 1998, State University of New York System
Psi Chi Medallion, 1998, Psychology Department, State University of New York, Fredonia

Professional memberships:
American Congress of Rehabilitation Medicine 2012-present
Cognitive Neuroscience Society 2000-present
International Brain Injury Association 2012-present
Society for Neuroscience 2000-present

Achievements in original investigation:

Articles in refereed journals:


**Articles Appearing as Chapters in Edited Volumes:**


**Articles submitted for publication:**


2. Martinez, D. & Krawczyk, D. C. (under review). Evaluating the characteristics of individuals with traumatic brain injury using Multiple Correspondence Analysis.


**Books in preparation:**

**Articles in preparation:**


**Refereed talks/presentations to professional meetings:**


Invited talks to seminar or colloquia assemblies:


3. Krawczyk, D. C. “Relational Reasoning in Frontotemporal Dementia.” Talk presented at the University of California, Los Angeles, Department of Neurology, Frontotemporal Dementia Research Colloquium, Los Angeles, California, November, 2002.


13. Krawczyk, D. C. “Neuroimaging of Incentives and Attention.” Talk presented at the University of Texas Southwestern Medical Center, Department of Psychiatry, Clinical Works in Progress Series, Dallas, Texas, October, 2006.


20. Krawczyk, D. C. “The Neuroscience of Human Reasoning in Health and Disease.” University of Texas Southwestern Medical Center, Department of Psychiatry, Grand Rounds, Dallas, Texas, November, 2009.


28. Krawczyk, D. C. “Why and how are faces special? Implications from research with masters at chess”. The University of Texas at Dallas, Center for BrainHealth Lecture Series, Dallas, Texas, April, 2012.

29. Krawczyk, D. C. “Social Cognition and Neuroscience”. The University of Texas at Dallas, Center for BrainHealth Lecture Series, Dallas, Texas, October, 2013.


32. Krawczyk, D. C. “Biomarkers for Evaluating Executive Dysfunction in TBI”, Clinical Research Infrastructure meeting, University of Texas Southwestern Medical Center, Dallas, Texas, April, 2014.

33. Krawczyk, D. C. “Neuroscience Evidence in Court”. Forensics Group, Dedman School of Law, Southern Methodist University, Dallas, Texas, May, 2014.


36. Krawczyk, D. C. “Methods and Strategies for Brain Improvement”. Inaugural “Brain Matters” Lecture Series. School of Behavioral and Brain Sciences, The University of Texas at Dallas, October, 2015.


40. Krawczyk, D. C. “Relational Knowledge as a Foundation for Higher Cognition”. Biopsychology Seminar, Department of Psychology, Texas Christian University, Fort Worth, Texas, September, 2016.


42. Krawczyk, D. C. “The Links Between Brain Structure and Behavior”. TEDxKids@SMU, Dallas, Texas, November, 2016.


External Funding:

Grants/Contracts Awarded:

1. Active

Project: Improving Cognitive and Functional Deficits after TBI Using Virtual Technology (PI D. Krawczyk)
Department of Defense; Joint Warfighter Medical Research Program
W81XWH-16-1-0053
2016-2019, $2,681,401

2. Completed

Project: Evaluating spatial learning in humans with fMRI (PI D. Krawczyk)
Faculty Research Initiative, School of Behavioral and Brain Sciences, The University of Texas at Dallas
2015-2016, $5,000

Project: BIOMarkers of dynamic Sociocultural capacities: Integrating Neurotechnologies and Novel Math (BIOSINM) (PI D. Krawczyk)
Department of Defense; Defense Advanced Research Projects Agency (DARPA)
DARPA-14-38-FP-020
2015-2016, $401,270

Project: Investigating Human Values through Hormones and Neuroimaging (PI D. Krawczyk)
Prothro Clark Fund; Dallas Foundation
2014-2015, $50,000

Project: Brain Training to Enhance Frontal Lobe Reasoning in Soldiers with TBI (PI D. Krawczyk)
Department of Defense; Congressionally Directed Medical Research Programs (PH/TBI)
W81XWH-11-2-0194
2011-2015, $1,845,823
Project: Cognitive Biases That Reduce the Effectiveness of Intelligence Analysis
(PI D. Krawczyk)
Raytheon Company
2012-2015, $50,000

Project: Brain Training to Enhance Frontal Lobe Reasoning in TBI
(Co-PI D. Krawczyk)
Meadows Foundation
2011-2013, $245,000

Project: Neurobehavioral Outcome of Head Injury in Children
(PI H.S. Levin)
National Institutes of Health R01 NS021889-26
2010-2014, subcontract to D. Krawczyk $20,000

Project: Training to Enhance Frontal Lobe Reasoning in Soldiers with Traumatic Brain Injuries
(PI D. Krawczyk)
The Harbin Fellowship for Brain Repair in Soldiers
2011-2012, $100,000

Project: Neural basis of extreme visual expertise
(PI D. Krawczyk)
The University of Texas at Dallas, Catalyst Grant
2010-2011, $48,000

Project: Neural basis of fluid reasoning in older and younger adults
(PI D. Krawczyk)
National Institutes of Health, NIA Seed Grant Funding Aging Research at UT Dallas
2010, $25,000

Project: Functional MRI Studies of Working Memory and Reward Motivation.
(PI M. D’Esposito)
National Institutes of Health RO3MH074887
2006-2007, $50,000

Project: fMRI Studies of Motivation and Executive Function
(Postdoctoral trainee: D. Krawczyk, mentor: M. D’Esposito)
National Institutes of Health, Ruth L. Kirschstein National Research Service Award
1F32MH074255-01A2
2006-2008, $88,476 (Award terminated early due to move to faculty position)

Classroom Teaching at The University of Texas at Dallas:

2006, Fall, Seminar in Executive Functions, HCS7372
2007, Spring, Cognitive Psychology, PSY/CGS3361
2007, Fall, Clinical Cognitive Neuroscience, HCS7372
2008, Spring, Cognitive Psychology, PSY/CGS3361
2008, Fall, Clinical Cognitive Neuroscience, HCS7372
2009, Spring, Cognitive Psychology, PSY/CGS3361
2009, Fall, Clinical Cognitive Neuroscience, HCS7372
2010, Spring, Cognitive Psychology, PSY/CGS3361
2010, Fall, Clinical Cognitive Neuroscience, HCS7372
2011, Spring, Cognitive Psychology, PSY/CGS3361
2011, Fall, Clinical Cognitive Neuroscience, HCS7372
2012, Spring, Cognitive Psychology, PSY/CGS3361
2012, Fall, Clinical Cognitive Neuroscience, HCS7372
2013, Spring, Cognitive Psychology, PSY/CGS3361
2013, Fall, Clinical Cognitive Neuroscience, HCS7372
2014, Fall, Clinical Cognitive Neuroscience, HCS7372
2015, Spring, Cognitive Psychology, PSY/CGS3361
2015, Fall, Clinical Cognitive Neuroscience, HCS7372
2016, Spring, Psychology of Reasoning, HCS7372

**Guest Lecturing:**

2002, Spring, Graduate Course on Aging, Andrus Gerontology Center, University of Southern California
2007, Fall, Undergraduate Neurobiology of Memory, The University of Texas at Dallas
2007, Spring, Graduate Course in Functional Imaging, The University of Texas at Dallas
2009 Spring, Undergraduate Cognitive Neuroscience, The University of Texas at Dallas
2010 Spring, Undergraduate Cognitive Neuroscience, The University of Texas at Dallas
2010 Spring, Graduate Course Behavioral and Brain Sciences Proseminar, The University of Texas at Dallas
2011 Spring, Graduate Course Behavioral and Brain Sciences Proseminar, The University of Texas at Dallas
2013 Spring, Research Forum for Medical Residents, UT Southwestern Medical Center at Dallas

**Service**

**University Service:**

2007
Faculty Search Committee, T. Boone Pickens Chair in Cognitive Neuroscience

Spring 2007
Referee for Distinguished Poster Abstract, UT Dallas Center for BrainHealth Conference: Reprogramming the Human Brain

Spring 2010
Organizer for UT Dallas Center for BrainHealth Conference: Reprogramming the Human Brain
Spring 2010
Referee for Distinguished Poster Abstract, UT Dallas Center for BrainHealth Conference: Reprogramming the Human Brain

2010-2011
Organizer for UT Dallas School of Behavioral and Brain Sciences Colloquium Series

2011-present
School of Behavioral and Brain Sciences Committee to evaluate the Cognitive Science undergraduate major at UT Dallas

2012-present
School of Behavioral and Brain Sciences Undergraduate Psychology Curriculum Review Committee

2014-present
School of Behavioral and Brain Sciences Teaching Effectiveness Committee

2012-present
Vice Chair, Committee on Research Involving Human Subjects, UT Dallas

Professional Service:

2014-2015
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Reasoning Work Group: The Cognitive and Neurobiological Development of Reasoning

2015
Participant in State of the Science Meeting on Blast Traumatic Brain Injury held by the U.S. Department of Defense

Ad hoc Reviewer:
Aging, Neuropsychology and Cognition
American Journal of Psychiatry
American Journal of Psychology
Autism Research
Behavioural Brain Research
Biological Psychiatry
Biological Psychology
Brain & Cognition
Brain & Language
British Journal of Psychology
Cerebral Cortex
Cognition & Emotion
Current Directions in Psychological Science
Developmental Neuropsychology
Developmental Science;
Frontiers in Human Neuroscience
Frontiers in Psychology
Human Brain Mapping
Journal of the American Academy of Child and Adolescent Psychiatry
Journal of Behavioral Decision Making
Journal of Cognitive Neuroscience
Journal of Experimental Psychology: Learning, Memory, and Cognition
Journal of Neuroscience
Journal of Problem Solving
Neuroimage
Neuropsychologia
Neuroscience and Biobehavioral Reviews
PLoS Biology
PLoS One
Psychological Science
Scandanavian Journal of Psychology

Grant Proposal Reviews:

2004
Grant Reviewer: Marsden Fund, Royal Society of New Zealand

2009
Grant Reviewer: British Academy, BARDA Grant

2013
Grant Reviewer: Health Research Board, Health Research Award (Ireland)

2014
Grant Reviewer: Health Research Board, Health Research Award (Ireland)

2015
Grant Reviewer: U.S. Department of Defense (DoD) Congressionally Directed Medical Research Programs (CDMRP) Psychological Health and Traumatic Brain Injury Research Program

Book Reviews:

2011
Text Book Reviewer: Oxford University Press, Cognitive Psychology Text
**Curriculum Vitae**  
*Latifur R. Khan*  
Computer Science Department  
The University of Texas at Dallas  
MS EC-31, P.O. Box 830688  
Richardson, Texas 75083, USA  
lkhan@utdallas.edu

**EDUCATION**

- Ph.D. in Computer Science, *University of Southern California (USC)*, USA August 2000  
  Dissertation: Ontology-based Information Selection.
- M.S. in Computer Science, *University of Southern California (USC)*, USA December 1996.
- B.S. in Computer Science and Engineering, *Bangladesh University of Engineering and Technology*, November 1993 (First Class with Honors—Second position).

**WORK EXPERIENCE**

- Professor: Computer Science Dept., The University of Texas at Dallas (UTD), since September 2012.
- Associate Professor: Computer Science Dept., The University of Texas at Dallas (UTD), September 2006 – August 2012.
- Assistant Professor: Computer Science Dept., The University of Texas at Dallas, September 2000 – August 2006.

**SERVICE TO THE PROFESSION:**

- Associate Editor of *IEEE Transactions on Knowledge & Data Engineering (TKDE)*, IEEE Computer Society since June 2011.
- Associate Editor of *International Journal of Data Mining, Modeling and Management (IJDMMM)*, Inderscience Publishers, Switzerland, since 2008.
- Associate Editor of *Journal of Advanced Computing and Applications*, USM, Malaysia, since July 2010.

• Guest Editor of *International Journal of Multimedia Tools and Applications*, Springer.

• Member of *IEEE Kanai Award Committee*, 2005 and 2006.

**MOST SIGNIFICANT ACHIEVEMENTS**

Dr. Khan’s research emphasizes fundamentals and applications of (i) *data mining*, (ii) *scalable semantic web data management using cloud computing* and (iii) *geospatial and multimedia information management*. His research has been published in several prestigious journals and top tier conferences. Dr. Khan has selected five of his original investigations from the three areas listed above. Specifically, he has chosen 2 representative papers from the data mining area (in particular, stream mining area), 1 paper from the scalable semantic web data management area and 2 papers from the geospatial and multimedia information management area. Three of these papers have appeared in prestigious journals such as *IEEE Transactions on Knowledge and Data Engineering* (2 papers), and the *Journal of Web Semantics*. Please note that preliminary versions of two of these journal papers were presented in top tier conferences (with acceptance rates less than 25%). Significant contributions of Dr. Khan’s original investigations include the proposed highly novel algorithms and techniques of Dr. Khan and his PhD students to overcome the shortcomings of current state-of-the-art approaches. They have also demonstrated effectiveness of their algorithms and techniques empirically and analytically.

Here is the listing of 5 original investigations along with explanations why each of these investigations is significant:

**Data Mining:**

- “Classification and Novel Class Detection in Concept-Drifting Data Streams under Time Constraints”
  Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani Thuraisingham
  *IEEE Transactions on Knowledge & Data Engineering (TKDE)*, 2011, IEEE Computer Society, June 2011, Vol. 23, No. 6, Page 859-874

  Earlier version of this paper appeared in *Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases* (ECML/PKDD), Bled, Slovenia, September 2009, 79-94, (acceptance rate: 24.9%)

  **Explanation:** Data streams are continuous flows of data. Examples of data streams include network traffic, sensor data, call center records and so on. Their sheer volume and speed pose a great challenge for the data mining community to mine them. Most existing data stream classification techniques ignore one important aspect of stream data: arrival of a novel class. Dr. Khan’s group has addressed this issue and proposed a data stream classification technique
that integrates a novel class detection mechanism into traditional classifiers, enabling automatic detection of novel classes before the true labels of the novel class instances arrive.

- “A Practical Approach to Classify Evolving Data Streams: Training with Limited Amount of Labeled Data”
  Mohammad Masud, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani Thuraisingham
  In Proc. of 2008 IEEE International Conference on Data Mining (ICDM 2008), Pisa, Italy, December, 2008 (acceptance rate: 19.9%

Enhanced version is accepted to International Journal of Knowledge and Information Systems (KAIS), Springer, June 2011, (Journal Impact factor is 2.211).

Explanation: Recent approaches in classifying evolving data streams are based on supervised learning algorithms, which can be trained with labeled data only. Manual labeling of data is both costly and time consuming. Therefore, in a real streaming environment, where huge volumes of data appear at a high speed, labeled data may be very scarce. Thus, only a limited amount of training data may be available for building the classification models, leading to poorly trained classifiers. Dr. Khan’s group has applied a novel technique to overcome this problem by utilizing both unlabeled and labeled instances to train and update the classification model.

Scalable Semantic Web Data Management Using Cloud Computing:

- “Heuristics Based Query Processing for Large RDF Graphs Using Cloud Computing”
  Mohammad Husain, Mohammad Mehedy Masud, James McGlothlin, Latifur Khan
  IEEE Transactions on Knowledge and Data Engineering (TKDE), Vol. 23, No. 9, Page 1312-1327 (2011.)

Preliminary version of this paper appeared in 2010 IEEE 3rd International Conference on Cloud Computing (CLOUD), July 2010, Miami Florida. (acceptance rate is 20%)

Explanation: With the explosion of semantic web technologies, large Resource Description Framework (RDF) graphs are common in the semantic web arena. Current frameworks do not scale for large RDF graphs for storage and retrieval purposes. Cloud computing is the newest paradigm in the IT world and provides services to handle data intensive applications. Semantic web technologies are an ideal candidate to be used together with cloud computing tools to provide a solution to address the scalability issues of large RDF datasets. Dr. Khan’s group has described a framework that was built using Hadoop, a popular open source framework for Cloud Computing, to store and retrieve large numbers of RDF triples. The group has presented an algorithm to generate the best possible query plan to answer a SPARQL Protocol and RDF Query Language (SPARQL) query based on a cost model.

Geospatial and Multimedia Information Management:
• “Geographically-Typed Semantic Schema Matching”
  Jeffrey Partyka, P. Parveen, Latifur Khan, B. Thuraisingham, Shashi Shekhar
  Web Semantics Journal: Science, Services and Agents on the World Wide Web,
  Elsevier, Vol. 9, No 1, March 2011, Pages 52-70 (Journal Impact factor is 3.412).

Explanation: Geographic information can be distributed across multiple sources with heterogeneous schemas. To facilitate retrieval of information from various sources, the first step is schema matching. Many existing state-of-the-art techniques for schema matching rely on either syntactic measurements, such as performing string matches between the names of the compared attributes, or shallow semantic techniques, such as a WordNet-based name match, to calculate semantic similarity. However, these techniques are fraught with uncertainty and error. Dr. Khan’s group has proposed an innovative technique for aligning heterogeneous schemas in the geospatial domain.

• “Image Annotations By Combining Multiple Evidence & WordNet”
  Yohan Chin, Latifur Khan, Lei Wang, and Mamoun Awad
  In Proc. of 13th Annual ACM International Conference on Multimedia (MM 2005),
  Singapore, November 2005 (2005), Page 706-715. (acceptance rate is 16%).

Explanation: The development of technology generates huge amounts of non-textual information, such as images. An efficient image annotation and retrieval system is highly desired. Clustering algorithms make it possible to represent visual features of images with finite symbols. Based on this, many statistical models, which analyze correspondence between visual features and words, and which discover hidden semantics, have been published. These models improve the annotation and retrieval of large image databases. However, the current state-of-the-art approach produces too many irrelevant keywords for images during annotation. Dr Khan, and his former graduate students, proposed a novel approach that augments the classical model with generic, knowledge-based WordNet to improve image annotation accuracy.

KEYNOTE ADDRESSES

• Stream Mining, International Workshop on Reliability Aware Data Fusion in Participatory Networks, in Conjunction with 2013 SIAM Data Mining Conference (SDM), May 4, 2013, Austin, Texas.
• Stream Mining and Its Applications, 14th International Conference on Computer and Information Technology (ICCIT), 2011.
• Geospatial Schema Matching With High-Quality Cluster Assurance and Location Mining from Social Network, Third International Workshop on Semantic Aspects in Data Mining (SADM'10) in conjunction with the 2010 IEEE International Conference on Data Mining (ICDM 2010), Sydney, Australia, Dec. 2010.
• Matching Words and Pictures: Problems, Application and Progress, 9th International Conference on Computer and Information Technology (ICCIT), 2006.
• Co-author of over 30 keynote address presentations.

AWARDS

• ACM Distinguished Scientists, since Dec 2012.
• UTD Inventor Award, April 2010, Dec 2011
• UTD Author Recognition Award, October 2009
• Best Paper Award: Yohan Jin, Kibum Jin, Latifur Khan, B. Prabhakaran, “The Randomized Approximating Graph Algorithm for Image Annotation Refinement Problem”, Workshop on Semantic Learning Applications in Multimedia in conjunction with 2008 IEEE Conference on Computer Vision and Pattern Recognition, Alaska, USA, July 2008. (In the workshop, 10 papers were presented by researchers from UCSD, UCLA, RPI, UIUC, University of Toronto, University of Washington, University of Wisconsin, UTD and UTD paper received the best paper award—more information: http://www.ecse.rpi.edu/slam08/SLAM08_scheduleV2.pdf).
• Chancellor Award from the President of Bangladesh.

CHAIR/CO-CHAIR OF CONFERENCES:

• Program co-Char: IEEE Intelligence and Security Informatics (ISI) 2013, Seattle Washington, USA, June 4-7, 2013
• Local co-Chair: ICDM ’13: The 13th IEEE International Conference on Data Mining, December, 2013, Dallas, Texas, USA.
• Local co-Chair: 2013 SIAM Data Mining Conference, Austin, Texas, April, 2013
• Workshop Selection co-chair of IEEE International Conference on Intelligence and Security Informatics (ISI 2012), June, 2012, Washington DC.
• Workshop Selection co-chair of *IEEE International Conference on Intelligence and Security Informatics (ISI 2011)*, July 10-12, 2011, Beijing, China
• Program Co-Chair of *IEEE International Conference on Intelligence and Security Informatics (ISI-2009)*, June 8-11, 2009, Dallas, Texas, U.S.A.
• Program Co-Chair of *ACM 6th International Workshop on Multimedia Data Mining (MDM/KDD2005)*, August 2005, Chicago, IL, USA.
• Program Chair of *ACM 5th International Workshop on Multimedia Data Mining (MDM/KDD2004)*, August 2004, Seattle, Washington.
• Program Co-Chair in *First International Workshop on Geographic and Biological Data Management (GBDM04)* in conjunction with COMPSAC 2004, September 2004, Hong Kong.
• Poster co-chair at *IEEE International Conference on Intelligence and Security Informatics (ISI-2010)*, May 2010, Vancouver, Canada.

**PUBLICITY CO-CHAIR:**

**SPONSORSHIP CHAIR:**
• *12th International Symposium on Spatial and Temporal Databases*, Minneapolis, MN, USA, August, 2011.

**PROGRAM COMMITTEE MEMBER OF:**
• ICDM ’13: The *13th IEEE International Conference on Data Mining*, December, 2013, Dallas, Texas, USA.
• *18th ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, August 2012, Beijing, China.
• ICDM ’12: The *12th IEEE International Conference on Data Mining*, December, 2012, Belgium.
• 20th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2012), November 6-9 2012 — Redondo Beach, California.
• European Conference on *Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD)*, Bristol, UK, September, 2012.
• 17th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, August 2011, San Diego, CA, USA.
• ICDM '11: The 11th IEEE International Conference on Data Mining, December, 2011, Vancouver, Canada.
• European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), Athens, Greece, September, 2011.
• 20th ACM Conference on Information and Knowledge Management (CIKM), October 2011, Glasgow, UK.
• 23rd IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2011), Nov. 7-9, 2011, Boca Raton, Florida, USA
• NASA Conference on Intelligent Data Understanding (CIDU 2011), Mountain View, California.
• ICDM '10: The 10th IEEE International Conference on Data Mining, December 13-17, 2010, Sydney, Australia.
• 18th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2010), November 2 - 5,2010, San Jose, California.
• 16th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, July 2010, Washington DC.
• The 14th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Hyderabad, India, June 2010.
• NASA Conference on Intelligent Data Understanding (CIDU), Mountain View, California, 2010, 2011.
• ICDM '09: 2009 IEEE International Conference on Data Mining (ICDM 2009), December 2009, Miami, Florida, USA.
• 15th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, July 2009, Paris, France.
• SDM '09: 2009 SIAM International Conference on Data Mining, April 30 - May 2, Nevada, USA.
• 13th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD-09), Bangkok, Thailand, April 27 - 30, 2009.
• International Conference on Computers and Information Technology, December 2009, Bangladesh.
• SDM '08: 2008 SIAM International Conference on Data Mining, Atlanta, Georgia, USA, April 24 - 26, 2008.
• 24th International Conference on Data Engineering (ICDE), April 7 - 12, 2008, Cancún, México.
• Twelfth ACM Symposium on Access Control Models and Technologies (SACMAT), Nice, France, July 2008.
• International Conference on Computers and Information Technology, December 2008, Bangladesh.
• 2007 IEEE International Conference on Data Mining (ICDM), Omaha, NE, December 2007.
• 12th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, August 2006, Philadelphia, USA.
• IEEE International Conference on Data Mining (ICDM), ICDM 2006 December 18 - 22, 2006, Hong Kong.
• 17th European Conference on Machine Learning and 10th European Conference on Principles and Practice of Knowledge Discovery in Databases, September 2006, Berlin, Germany
• International Conference on Computers and Information Technology, December 2006, Dhaka, Bangladesh.
• 11th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, August 2005, Chicago, Illinois.
• Workshop on Clustering High Dimensional Data and its Applications, in Conjunction with the Fifth SIAM International Conference on Data Mining (SDM 2005), April 2005, Newport Beach, California.
• International Conference on Computers and Information Technology, December 2004, Dhaka, Bangladesh.
• 16th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), November, 2004, Boca Raton, Florida.
• 12th International Conference on Cooperative Information Systems (CoopIS 2004), October 2004, Larnaca, Cyprus.
• 15th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), November, 2003, Sacramento, California.
• 12th International Conference on Computer Communications and Networks, October, 2003, Dallas, Texas.
• International Conference on Database and Expert Systems Applications DEXA 2003, September, 2003, Prague, Czech Republic.
• ACM 4th International Workshop on Multimedia Data Mining (MDM/KDD2003), August 2003, Washington DC.
• International Conference on Computers and Information Technology, December 2002, Dhaka, Bangladesh.
• ACM Third International Workshop on Multimedia Data Mining (MDM/KDD2002), July 2002, Alberta, Canada.
• International Conference on Computers and Information Technology, December 2001, Dhaka, Bangladesh.
• ACM Second International Workshop on Multimedia Data Mining (MDM/KDD2001), August 2001, San Francisco, USA.
• International Workshop on Parallel and Distributed Multimedia Processing & Retrieval, June 2001, Las Vegas, USA.
• Program Committee Member of ACM 2001 Symposium on Applied Computing, March, 2001, Las Vegas, USA.
TUTORIAL:

- Half Day Tutorial, “Data Stream Mining Challenges and Techniques”, *The 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Shenzhen, China, May 2011.

SESSION CHAIR:

- *The 16th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Kuala Lumpur, Malaysia, May 2012.
- *The 15th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Shenzhen, China, May 2011.
- 2010 *IEEE International Conference on Data Mining (ICDM 2010)*, Dec. 2010, Sydney, Australia.
• 14th Pacific-Asia Conference on Knowledge Discovery and Data Mining, 21-24 June, 2010, Hyderabad, India.
• IEEE International Conference on Intelligence and Security Informatics (ISI-2010), May 2010, Vancouver, Canada.
• 15th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, July 2009, Paris, France.
• 2008 IEEE International Conference on Data Mining (ICDM 2008), Pisa, Italy, December, 2008.
• 16th IEEE International Conference on Tools with Artificial Intelligence (ICTAI), November 2004, Boca Raton, Florida.
• Bioinfo-9 Session (Clustering Algorithms), 5th IEEE Symposium on BioInformatics and BioEngineering, March 2003, Bethesda, Maryland.
• International Conference on Computers and Information Technology, December 2001, Dhaka, Bangladesh.

PANELIST:

• IEEE International Conference on Intelligence and Security Informatics (ISI-2011), June, 2011, Beijing, China.
• IEEE International Conference on Intelligence and Security Informatics (ISI-2009), June 8-11, 2009, Dallas, Texas, U.S.A.

INVITED TALKS:

• Data Stream Mining and its Applications, at Living Analytic, Singapore, joint research initiative between Singapore Management University (SMU) and Carnegie Mellon University (CMU), June 2012.
• Novel Class Detection over Stream Data, UAE University, May 2012.
• Stream Mining, Sandia National Laboratory, New Mexico, Feb 2012
• Novel Class Detection, *IUPUI : Indiana University-Purdue University Indianapolis*, Feb 2012.
• Data Mining research, University of North Carolina at Greensboro, NC, November, 2011.
• Stream Mining and its Applications, *Information Sciences Institute (ISI), University of Southern California (USC)*, California, January 2011.
• Ontology Alignment, *Department of Computer Science, University of California Los Angeles (UCLA)*, California, January 2011.
• Data Stream Mining: Challenges and Techniques, 22th *International Conference on Tools with Artificial Intelligence (ICTAI 2010)*, October 27-29, 2010, Arras, France.
• Stream Mining and Its Applications, *Institute for Infocomm Research, Singapore* and *University of Sains Malaysia (USM)*, Penang, Malaysia, August 2010.
• Novel Class Detection for Stream Mining Data, *Bangladesh University of Engineering and Technology (BUET)*, Dhaka, Bangladesh, and *United International University (UIU)*, Bangladesh, July 2010.
• Stream Mining and Text Mining at *Boeing, Seattle*, November 2009.
• Stream Mining, *Bangladesh University of Engineering and Technology (BUET)*, April 2009.
• Multimedia Mining, *University of Lille, France*, December, 2008.
• GIS Data Integration at *Raytheon, TX*, 2008.
• Intrusion Detection at *Rockwell Collins, TX*, 2008.
• Text Mining at *NASA*, California, 2007.

**ANNUAL PROGRAM REVIEW MEETING:**

• Aviation Safety Program Annual Technical Meeting, May 10-12, 2011, St. Louis, Missouri.
• Geo-Spatial Data Integration at *MURI Meeting, Stanford University, California*, October 2009.
• Semantic Web Service for Geo Spatial Data at *NGA meeting, University of Minnesota*, August 2010 & September, 2007.

**REVIEWER:**

• Invited Reviewer of Book, *Database Systems* by Elmasri and Navathe, Addison, Wesley.
• Invited Reviewer of *IEEE Transactions on Neural Network*, TNN.
• Invited Reviewer of *Journal of Machine Learning Research*.
• Invited Reviewer of *IEEE Intelligent Systems*.
• Invited Reviewer of ACM/Springer *Multimedia Systems Journal*.
• Invited Reviewer of *IEEE Transactions on Knowledge and Data Engineering*, TKDE.
• Invited Reviewer of *IBM Systems Journal*.
• Invited Reviewer of *ACM Transactions on Internet Technology*.
• Invited Reviewer of *VLDB Journal*, ACM/Springer Publisher.
• Invited Reviewer of *IEEE Transactions on Dependable and Secure Computing*.
• Invited Reviewer of *IEEE Transactions on Systems, Man and Cybernetics - Part A*.
• External Reviewer of *ACM Transactions in Asian Language and Info Processing*.
• Invited Reviewer of *International Journal of Cooperative Information Systems (IJCIS)*.
• External Reviewer of *International Journal of Knowledge and Information Systems (KAIS)*, Springer-Verlag.
• Invited Reviewer of *Information and Software Technology*, Elsevier Publisher.
• Invited Reviewer of *Geoinformatica Journal*, Springer.
• External Reviewer of *Research Grant* at City University of Hong Kong, Hong Kong.

**GRANTS:**

**As a Principal Investigator**

**Research Grants**

• “Situational Awareness of Topic Drift and Birth-Death in Cyber,” with Sandia National Laboratories, *DOE*, 180K (UT Dallas share), Sept 2012-August 2015.
• “MRI: Development of an Instrument for Assured Cloud Computing,” National Science Foundation (NSF), Oct 2012-September, 2015, $300,000. (PI: Latifur Khan, co-PI: Kevin Hamlen, and Murat Kantarcioglu)

• “Scalability Issue for Large CDR Dataset”, Tektronix, $35,000 (gift). (PI: Latifur Khan)

• “Malicious Behavior Pattern Extrapolation”, Raytheon, April 2011 - June 2012, $100,000. (PI: Latifur Khan)


• “Prototype Geospatial Data Integration Framework for Police Blotter Crime Analysis”, Raytheon, July 2007 - December 2007, $100,000. (PI: Latifur Khan, Co-PI: Bhavani Thuraisingham)


• “Spatio-Temporal Pattern Mining for Multi-Jurisdiction Multi-Temporal Activity Datasets”, 2007, NGA University Research Initiatives (NURI), September 2007 – August 2011, $150,000. (PI: Latifur Khan, Co-PI: Bhavani Thuraisingham)

• “Ontology Matching and Mapping”, National Science Foundation, September 2007 - August 2009, $212,000. (PI: Latifur Khan, Co-PI: Bhavani Thuraisingham)


**Education Grants**

• “Travel Grant for International Symposium on Spatial and Temporal Databases (SSTD),” NSF, March, 2011—June, 2011, $21,000.00 (PI: Latifur Khan)

• “Training Students for Careers in Information Assurance”, National Security Agency, October 2010 – Nov. 2011, $44,000 (PI: Latifur Khan, Co-PI: Kamil Sarac)

**Equipment Grant/Infrastructure Grants**

• “Ontology-based Information Selection and Storing XML data into Databases,” SUN Academic Equipment Grant Program, August 2002, $87,265.

As a Co-Principal Investigator/Senior Personnel

Research Grants


- “Semantic Approach to Behavior based IDS and Its Applications,” MINI MURI: Air Force Office of Scientific Research,” July 2012 – June 2016, $965,758 (selected for funding). (PI: Bhavani Thuraisingham, Co-PI: Latifur Khan, Kevin Hamlen, Zhiqiang Lin; in the proposal Latifur Khan contributed equally with the PI and co-PIs and this is a 4-way 25%-25% 25%-25% collaboration between the PI and Co-PIs)

- “TC: Small: Collaborative: Protocols for Privacy-Preserving Scalable Record Matching and Ontology Alignment”, National Science Foundation (NSF), Sept 2010 - July 2013, $259,674. (PI: Murat Kantarcioglu, Co-PI: Latifur Khan, Bhavani Thuraisingham; Latifur Khan contributed equally with the PI and second Co-PI: This is a 3-way 33%-33%-33% collaboration between the PI and Co-PIs)

- “Reactively Adaptive Malware: Attacks and Defenses”, *Air Force Office of Scientific Research,* March 2010 – Feb. 2013, $ 450,000. (PI: Kevin Hamlen, Co-PI: Latifur Khan, in the proposal Latifur Khan contributed equally with the PI and this is a 50%-50% collaboration between the PI and Co-PI)

- “CT-T: COLLABORATIVE RESEARCH: A Semantic Framework for Policy Specification and Enforcement in a Need to Share Environment “, *National Science Foundation*, September 2007 - August 2009, $590,000. (PI: Bhavani Thuraisingham, Co-PI: Latifur Khan, Murat Kantarcioglu; Latifur Khan contributed equally with the PI and second Co-PI: This is a 3-way 33%-33%-33% collaboration between the PI and Co-PIs)

- “Information Operations Across Infospheres”, *Air Force Office of Scientific Research*, January 2006 - December 2008, $300,006. (PI: Bhavani Thuraisingham, Co-PI: Latifur Khan; In the proposal Latifur Khan contributed equally with the PI, this is a 50%-50% collaboration between the PI and Co-PI)

- “Design and Development of Semantic Web and Data Mining Technologies for Geospatial Data”, Raytheon, June 2006 – Nov. 2009, $400,000. (PI: Bhavani Thuraisingham, Co-PI: Latifur Khan, in the proposal Latifur Khan contributed equally with the PI and this is a 50%-50% collaboration between the PI and Co-PI)


• TC: Large: Collaborative Research: Privacy-Enhanced Secure Data Provenance, National Science Foundation (NSF), Sept 2011 - July 2016, $ 912,068.00. (PI: Murat Kantarcioglu, Co-PI: Bhavani Thuraisingham; Senior Personnel: Latifur Khan)


**Education Grants**

• “Scholarship for Service”, *National Science Foundation*, 2010 – 2013, $1.8 million. (PI: Kamil Sarac, Co-PI: Bhavani Thuraisingham, Murat Kantarcioglu, Edwin Sha, Senior Personnel: Latifur Khan)


**Workshop Grants**


• “Intelligence and Security Informatics”, *National Science Foundation*, $10,000. (PI: Bhavani Thuraisingham, Co-PI: Latifur Khan)

**PATENT**

• “Systems and Methods for Detecting a Novel Data Class”, U.S. Patent and Trademark Office (USPTO) (pending)

• “Systems and Methods for Determining User Attribute Values By Mining User Network Data and Information,” U.S. Patent and Trademark Office (USPTO) (pending)
RESEARCH INTERESTS

Big Data Analytics and Management, Data Mining, Semantic Web, Multimedia Information Management, Cloud Computing, Malware Detection, and Database Systems.

PUBLICATIONS

Disclaimer: Impact Factor for a journal is either found in the journal’s website or other relevant website. For some journals, no impact factor information is traced. Hence, no impact factor information is reported.

Refereed Journal Publications

Published:

1. “Optimized ontology-driven Query Expansion using Map-Reduce framework to Facilitate Federated Queries.”
   Neda Alipanah, Latifur Khan, Bhavani M. Thuraisingham

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140. “A Knowledge-based Approach to Detect New Malicious Executables”
Mohammad Masud, Latifur Khan, and Bhavani Thuraisingham

141. “Improving Image Annotations using Fuzzy Pruning and Association Rule Mining”
Latifur Khan

Muhammad Abedin, Syeda Nessa, Latifur Khan, Bhavani Thuraisingham

143. Access control, confidentiality and privacy for video surveillance databases
Bhavani M. Thuraisingham, Gal Lavee, Elisa Bertino, Jianping Fan, and Latifur Khan

144. “Email Worm Detection Using Naïve Bayes and Support Vector Machine”
Mohammad M. Masud, Latifur Khan, Ehab Al-Shaer

145. “Analysis of Firewall Policy Rule Using Data Mining Techniques”
Kororsh Golnabi, Richard Min, Latifur Khan and Al-Shaer Ehab

146. “A Framework for Image Classification”
Mamoun Awad, Yohan Jin, Latiur Khan, George Chen, and Fehmi Chebil

147. “Image Annotations By Combining Multiple Evidence & WordNet”
Yohan Chin, Latifur Khan, Lei Wang, and Mamoun Awad

148. “Improving Image Annotations using WordNet”
Yohan Chin, Lei Wang, and Latifur Khan
149. “A Framework for a Video Analysis Tool for Suspicious Event Detection”  
Gal Lavee, Latifur Khan, and Bhavani Thuraisingham  
In Proc. of Sixth International Workshop on Multimedia Data Mining in conjunction with  
KDD 2005: The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Chicago, IL, USA, August 2005 (2005), Page 79 - 84.

150. “Message Correlation in Automated Communication Surveillance through Singular Value Decomposition”  
Ryan Layfield, Latifur Khan, and Bhavani Thuraisingham  
In Proc of Sixth International Workshop on Multimedia Data Mining in conjunction with  
KDD 2005: The Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, Chicago, IL, USA, August 2005 (2005), Page 85 - 88.

151. “Dependable Real-time Data Mining”  
Bhavani Thuraisingham, Latifur Khan, Chris Clifton, John Maurer, and Marion Ceruti  

152. “A Link-based Privacy Preserving Data Mining Framework”  
Li Liu, Latifur Khan, Bhavani Thuraisingham, and Chris Clifton  

153. “Link Analysis of Social Activity and Suspicious Topic Propagation”  
Ryan Layfield, Latifur Khan, and Bhavani Thuraisingham  

154. “Suspicious Event Detection in Surveillance Video”  
Gal Lavee, Lei Wang, Latifur Khan, and Bhavani Thuraisingham  

155. “Automatic Image Annotation and Retrieval using Weighted Feature Selection”  
Lei Wang, Li Liu, Latifur Khan, and Weili Wu  

156. “Automatic Image Annotation and Retrieval Using Subspace Clustering Algorithm”  
Lei Wang, Li Liu, and Latifur Khan  

Mamoun Awwad, Latifur Khan, Farokh Bastani, and I-Ling Yen  
In Proc. of the 16th IEEE International Conference on Tools with Artificial Intelligence, Boca Raton, Florida, November 2004 (2004), Page 663-667. (Acceptance Rate: 30%)

158. “Automated Test Data Generation Using MEA-Graph Planning”
Manish Gupta, Farokh B. Bastani, Latifur Khan, and I-Ling Yen

159. “Real-time Classification of Multivariate Motion Data Using Support Vector Machines”
Chuanjun Li, Punit R. Kulkarni, Li Liu, B. Prabhakaran, and Latifur Khan

160. “A Framework for Image Annotation Using Semantic Web”
Ahmed Bashir and Latifur Khan

161. “Effective Intrusion Detection Using Support Vector Machines”
Latifur Khan, Mamoun Awad, and Qing Chen

162. “Hybrid DNA Sequence Similarity Scheme for Training Support Vector Machines”
Mamoun Awad and Latifur Khan
In Proc. of the International Conference on Computer and Information Technology, Dhaka, Bangladesh, December 2003 (2003), Page 247-251. (Acceptance Rate: 55%)

163. “Automatic Software Clustering Based On a New Hierarchical Algorithm”
Lei Wang, Latifur Khan, and I-Ling Yen

164. “A New Hierarchical Approach for Image Clustering”
Lei Wang, Mohammad Bayan, Latifur Khan, and Vijay Rao

165. “Hierarchical Clustering of Gene Microarray Expression Data”
Feng Luo, Kun Tang, and Latifur Khan
In Proc. of Workshop on Clustering High Dimensional Data and its Applications in Conjunction with the Third SIAM International Conference on Data Mining (SDM 2003), San Francisco, CA, May 2003 (2003), Page 6 - 17.

166. “Intrusion Detection Using Clustering Approaches”
Latifur Khan

167. “Hierarchical Clustering of Gene Expression Data”
Feng Luo, Kun Tang, and Latifur Khan
In Proc. of 3rd IEEE International Symposium on Bio-informatics and Bioengineering, Bethesda, Maryland, March 2003 (2003), Page 328 - 335. (Acceptance Rate: 44%)

168. “Ontology Construction for Information Selection”
Latifur Khan and Feng Luo  

169. "Automatic Ontology Derivation Using Clustering for Image Classification”  
Latifur Khan and Lei Wang  

170. "Effective Management of Location Dependent Continuous Queries in Mobile Environment”  
Latifur Khan and Manish Gupta  

171. “Ontology-based Image Classification Using Neural Networks”  
Casey Breen, Latifur Khan, Arun Ponnusamy, and Lei Wang  

172. “Object Boundary Detection for Ontology-based Image Classification”  
Lei Wang, Latifur Khan, and Casey Breen  
In Proc. of Third International Workshop on Multimedia Data Mining in Conjunction with Eighth ACM SIGKDD, Edmonton, Alberta, Canada, July 2002 (2002), Page 51 - 61. (Acceptance Rate: 54%)

173. “Using Blue tooth to Facilitate Communication in a Disaster Relief Scenario”  
Mohammad Mirza and Latifur Khan  
In Proc. of International Conference on Wireless Networks (ICWN’02), Las Vegas, June 2002 (2002), Page 86 - 96. (Acceptance Rate: 48%)

I-Ling Yen, J. Goluguri, Farokh Bastani, Latifur Khan, and John Linn  

175. “Change Detection in XML Documents”  
Latifur Khan and Yan Rao  

176. “A Performance Evaluation of Storing XML Data in Relational DBMS”  
Latifur Khan and Yan Rao  
In Proc. of ACM 3rd International Workshop on WEB Information and Data Management (WIDM), Georgia, November 2001 (2001), Page 31 - 37. (Acceptance Rate: 32%)

I-Ling Yen, Latifur Khan, Balakrishnan Prabhakaran, Farokh Bastani, and John Linn  
In Proc. of The Thirteenth IEEE International Conference on Tools with Artificial Intelligence, Dallas, TX, November 2001 (2001), Page 314 - 324. (Acceptance Rate: 51)
178. “Effective Retrieval of Audio Information from Annotated Text Using Ontologies”
Latifur Khan and Dennis McLeod

179. “Disambiguation of Annotated Text of Audio using Ontologies”
Latifur Khan and Dennis McLeod

180. “Audio Structuring and Personalized Retrieval Using Ontologies”
Latifur Khan and Dennis McLeod

181. “Improving the Performance of Audio-Based Similarity Queries with Clustering”
Cyrus Shahabi, Mohammad Alshayeji, Ning Jiang, and Latifur Khan

182. “Structuring and Querying Personalized Audio Using Ontologies”
Latifur Khan

183. “Selective Placement and Replication Strategies for Storing Audio Clips in a Naval Application”
Cyrus Shahabi and Latifur Khan

184. “Run-Time Optimization of Join Queries for Distributed Databases over the Internet”
Cyrus Shahabi, Latifur Khan, Dennis McLeod, and Vishal Shah

185. “Improving the Precision of Lexicon-to-Ontology Alignment Algorithms”
Latifur Khan and Eduard Hovy

Seminars/Talks

- Stanford University, California
- Information Sciences Institute (ISI); USC
- Southern Methodist University (SMU)
- UT Southwestern Medical Center
- IUPUI : Indiana University-Purdue University Indianapolis
- National University of Singapore (NUS)
- Nanyang Technical University (NTU), Singapore
- Institute for Infocomm Research (FR), Singapore
• Singapore Management University, Singapore
• SAP Research Center, Singapore
• UAE University, UAE
• Bangladesh University of Engineering and Technology (BUET)
• USM, Malaysia
• Nokia
• Boeing
• Tektronix
• Alcatel

ADVISOR

Professor Dennis McLeod, Department of Computer Science, School of Engineering, University of Southern California (USC), Los Angeles, California, USA.

ADVISEE

Post-doc:

Dr. Mamoun Awad (2006 - 2007)
Dr. Chuan Li (2006)
Dr. Mohammad Masud (2010 - 2011)

Ph.D. Students

1. Satyen Abrol (Expected Graduation Date: Spring 2013; VMware)
2. Brandon Parker (Expected Graduation Date: Spring 2014)
3. Ahmad Mustafa
4. Justin Sahs
5. Ridwanur Rahman
6. Ahsanul Haque
7. Khaled Al-Naami
8. M. Solaimani
9. Mohammed Iftekhar (co-advised)

MS Thesis

1. Sheikh Muhammad Qumruzzaman (Expected Graduation Date: May 2013, CISCO)
2. Chowdhury Yeameen, (Expected Graduation Date: May 2013, Amazon)

Graduated

Ph.D.

1. Feng Luo (Ph.D. Summer 2004; Dissertation Title: Mining Gene Microarray Expression Profiles; Assistant Professor, Clemson University, USA since January 2006).

2. Mamoun Awad (Ph.D. Fall 2005; Dissertation Title: Effective Data Mining for Intrusion Detection and WWW Prediction; Assistant Professor, University of UAE, Al-Ain, since September 2006).
3. Lei Wang (Ph.D. Fall 2006; Dissertation Title: *Automatic Image Annotation and Mining*, Microsoft at Redmond, USA).

4. Mohammad Mehedy Masud (Received the *Louis Beecherl Jr. Graduate Fellowship* at UTD, Ph.D. Fall 2009; Dissertation Title: “*Adaptive Classification of Scarcely Labeled Evolving Data Stream*”, Assistant Professor, University of UAE, Al-Ain, since January 2012).

5. Qing Chen (PhD. Fall 2010; Dissertation Title: *Data Stream Classification Techniques for Multiple Novel Classes and Dynamic Feature Spaces*, Software Development Director, China National Petroleum Company (CNPC), Richfit IT LLC, Beijing, China).

6. Arshad Ul Abedin (co-advised; PhD. Spring 2011; Dissertation Title: *Automatic Cause Identification From Aviation Safety Incident Reports*; Member of Technical Staff, BloomReach, Inc., Mountain View, California).

7. Mohammad Farhan Husain, (co-advised; PhD. Spring 2011; Dissertation Title: *Data Intensive Query Processing for Semantic Web Data Using Hadoop and MapReduce*, Amazon; Seattle, Washington, June 2011)

8. James McGlothlin, (PhD. Fall 2011; Dissertation Title: *Efficient Semantic Web Knowledge Management*; Fusion Consulting, Texas, December 2011)


10. Sunitha Ramanujam, (co-advised; PhD. Fall 2011; Dissertation Title: *Toward An Integrated Semantic Web: Interoperability Between Data Models*).


12. Neda Alipanah, (co-advised; PhD. Spring 2012; Dissertation Title: Federated Query Processing Using Ontology Structure and Ranking in a Service Oriented Environment”, Post-Doctoral Researcher, Division of Biomedical Informatics, University of California, San Diego, June 2012).

13. Mohammad Salim Ahmed, (PhD. Summer 2012; Dissertation Title: “*Clustering Guided Multi-Label Text Classification*”, Member of Technical Staff, BloomReach, Inc., Mountain View, California).

M.S.

1. Jason Switzer, (M.S. Thesis: *Semi-supervised Subjectivity Classification and application to Jargon Heavy Corpora*).


3. Ahmed Bashir (M.S. Thesis: *A Framework for Image Annotation using the Semantic Web*)
4. Manish Gupta (M.S. Thesis: *A Distributed For Handling Location Dependent Continuous Queries in Mobile Environment*)

5. Mohammad Mirza (M.S. Thesis: *Data Management in a Disaster Relief Scenario Using Bluetooth*)

6. Casey Breen (M.S.)

7. Rajesh Bhairampally (M.S.)

8. Yan Rao (M.S.)

9. Greg Hellings (M.S.)

**Anson L. Clark Program and PISD/Hi-TECCC Program**

1. Ryan A Watts, Summer 2007

2. Shoel Sheikh, Summer 2009

3. Adam Stutsman, Summer 2010

4. Zackary Weger, Summer 2011

5. William Szendrey, Summer 2012

6. Jeffrey Chang, Summer 2012

**Research projects for Senior Design**

1. Nate Diamond, David Evans, Keith Ripley, Justin Sahs, “Using Machine Learning to Identify Malicious Android Applications,” sponsored by Ball Aerospace, Fall 2011 (**Best project**)  

2. Yasser Aboudkhil, Mark Jackson, Lude Jin, Duc Le, Ivan Oropeza, Resource-Constrained Data Mining, sponsored by Ball Aerospace, Spring 2012

3. Charles Smith, Sara Tucker, Michael Johnston, Caleb Dean, Malware Detection using Data Mining, sponsored by Raytheon, Fall 2012
Professional Membership

ACM Life Time Member (Distinguished Scientists)
Senior Member, IEEE
Member, SIAM

Prototypes/Tools Developed with Students

1. Data Mining Toolkit for Malware Detection, 2005 – 2010
   Mehedy Masud, Latifur Khan, Bhavani Thuraisingham
   Developed data mining algorithms using WEKA and other tools to detect buffer overflow, and malicious code.

2. Stream Mining Tools, 2008 – 2010
   Mehedy Masud, Latifur Khan, Bhavani Thuraisingham with Jiawei Han et al
   Developed a stream mining algorithm for novel class detection. The tool will be distributed for external users.

3. Ontology Alignment in Geospatial Data, 2007 – 2010
   Jeff Partyka, Latifur Khan, Bhavani Thuraisingham
   Developed ontology alignment algorithms for integrating heterogeneous geospatial database systems. The algorithms were integrated into Intelligence Community’s Blackbook.

4. Translators and Mappings from Relational to RDF Data and Vice Versa, 2007 – 2010
   Sunitha Sriram, Latifur Khan, Bhavani Thuraisingham
   Developed a tool for use by relational database users and RDF users to carry out translations. Tool will be distributed to external users.

5. TweetHood, 2010 – Present
   S. Abrol, L. Khan, B. Thuraisingham
   Location aware tweet mining

   Farhan Husain, Pankil Doshi, Latifur Khan, Bhavani Thuraisingham
   Develop a cloud computing platform with Hadoop and MapReduce and implement secure federated query processing and optimization algorithms on top of this platform.

7. SPARQL Query Optimizer, 2009 – 2010
   Farhan Husain, Latifur Khan, Bhavani Thuraisingham
   This system is developing a SPARQL query optimizer for the Hadoop/MapReduce framework.

8. DGSOT: Dynamical Growing Self Organizing Tree
   Feng Luo, and Latifur Khan
   Developed a hierarchical clustering algorithm and tested for Gene expression dataset.

Blackbook Enhancements and GOTS (Government Off the Shelf)

Geospatial Proximity Algorithm, 2008 – 2010
Sonia Chib, Bhavani Thuraisingham, Jyothsna Rachapalli, Latifur Khan
Implemented geospatial proximity algorithms using Google maps for Blackbook users.
Open Source Software at the University of Texas at Dallas

1. SCRUB tool
   http://sourceforge.net/projects/scrub-tcpdump/

2. JENA Contributions, Very Large RDF Graphs
   http://jena.sourceforge.net/contrib/contributions.html
   http://cs.utdallas.edu/semanticweb/jenaextension.html

Tool Repositories developed and hosted at UTD

Data Mining Tools
http://dml.utdallas.edu/Mehedy/

Semantic Web Tools
http://cs.utdallas.edu/semanticweb/index.html

Secure Cloud Repository
http://cs.utdallas.edu/secure-cloud-repository/
WORK WITH UTD TECHNOLOGY TRANSFER OFFICE

The University of Texas at Dallas

**Patent Application:** Systems and Methods for Detecting a Novel Data Class
UTD-10-017 (Application Number 61/376,427)

**Intellectual Property Disclosures**

<table>
<thead>
<tr>
<th>Application Number</th>
<th>Description</th>
<th>PIs</th>
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</thead>
<tbody>
<tr>
<td>09-037</td>
<td>Policy Management for Assured Information Sharing in a Coalition Environment</td>
<td>Bhavani Thuraisingham, Latifur Khan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Murat Kantarcioglu</td>
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<tr>
<td>10-017</td>
<td>Classification and Novel Class Detection in Concept-Drifting Data Streams under Time Constraints</td>
<td>Latifur Khan</td>
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<td></td>
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<td>Mohammad Mehy Masud (UTD post-doc)</td>
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<td></td>
<td>Bhavani Thuraisingham</td>
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<tr>
<td>10-054</td>
<td>Agglomerative Clustering Using Label Propagation for Location</td>
<td>Latifur Khan</td>
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<td>S. Abrol</td>
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<td>B. Thuraisingham</td>
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</tbody>
</table>
Banks P. Miller

School of Economic, Political and Policy Sciences
Political Science Program
Public Policy & Political Economy Program
The University of Texas at Dallas
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Richardson, TX 75080

Phone: (972) 883-2930
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Email: millerb@utdallas.edu
Homepage: http://bankspmiller.weebly.com

Academic Appointments

The University of Texas at Dallas, Political Science & Public Policy

  Associate Professor, September 2015 -
  Assistant Professor, August 2009 - August 2015

Administrative Appointments

  Program Head, Political Science, 2018-
  Program Head, Public Policy and Political Economy, 2018-
  Director of Graduate Studies & Associate Program Head, Political Science, 2014-2018

Education

  Ph.D., Political Science, Ohio State University, 2009.
  J.D., University of Texas School of Law, 2004.

Research

Peer-Reviewed Publications

Books


Articles


Other Publications


**Work in Progress**

Benjamin Newman and Banks Miller. Prosecutorial Discretion in Immigration Cases [multiple projects].

Banks Miller and Brett Curry. U.S. Attorneys in Context [multiple projects].

Banks Miller and Brett Curry. The Wealth of Federal Judges [multiple projects].

Banks Miller, Jennifer Holmes, and Linda Keith. Ex Ante Discretion in the U.S. Refugee System.

**Data**


**Fields of Research & Teaching Interest**

Judicial Politics, Judicial Decision Making, Lawyers, & Legal Policy

**Presentations (Conference and Invited)**


"Substantive/Descriptive Representation on the Bench: How Does the Public View Decisions Based on the Race of the Judge?," with Nancy Scherer. Presented at the 2015 American Political Science Association Conference.


"Repeat Campaign Contributors and Decision Making in the U.S. Supreme Courts," with Bennet Min and Brett Curry. Presented at the 2013 Midwest Political Science Association Conference.


"Judicial Disqualification and Campaign Contributions in the U.S. States: The Case of Alabama." Presented at the 2011 American Political Science Association Conference.


"Understanding Subject Matter Expertise on the D.C. Circuit Court of Appeals," with Brett Curry. Presented at the 2010 Midwest Political Science Association Conference.


"State Solicitors in State Litigation." Presented at the 2008 American Political Science Conference.


"State Success in State Supreme Courts." Presented at the 2008 Midwest Political Science Association Conference.

"Reassessing the Voting Behavior of Minority and Female Judges on the Federal Bench," with Nancy Scherer and Brett Curry. Presented at the 2008 Midwest Political Science Association Conference.


Teaching Experience

Instructor, Law & Courts Proseminar (graduate), UT Dallas 2011-2018
Instructor, Judicial Politics (undergraduate), UT Dallas 2010-2016
Instructor, Introduction to American Government (undergraduate), UT Dallas, 2010-2013
Instructor, Constitutional Law (undergraduate), UT Dallas, 2019-
Instructor, Constitutional Law (graduate), UT Dallas, 2009-2015
Instructor, Law & the Policy Process (graduate), UT Dallas, 2009-2016
Instructor, Law, Science, & Policy, UT Dallas, (undergraduate), 2015-17

Professional Activities & Service

Chair, Comparative judicial politics faculty search, 2017.
Chair, Judicial politics faculty search, 2016.
Member, American politics faculty search, 2016.
Director of Graduate Studies & Associate Program Head, Political Science Program, UT Dallas, 2014-2018.
Program Committee, Political Science Program, UT Dallas, 2009-2011, 2013-.
Committee on the Core Curriculum, UT Dallas, 2016-2018.
Intellectual Property Advisory Committee, UT Dallas, 2015-.
Auxiliary Services Committee, UT Dallas, 2014-2015
Committee on Effective Teaching, EPPS, UT Dallas, 2010-2012.
Field Exam Committee (Law & Courts); Core Exam Committee (Political Science).
Referee for Social Science Research Council Pre-Dissertation Proposal Development Fellowship competition (SSRC DPDF), 2015-2016.
Grants

*EPPS Alumni Council Research Grant*, UT Dallas, to gather data on the decision making of the Board of Immigration Appeals. Spring 2015.

*EPPS Alumni Council Research Grant*, UT Dallas, to gather data on campaign contributions to state supreme court judges. Summer 2012.

*Dean’s Seed Grant*, UT Dallas, to gather data on Immigration Judges and Asylum Officers from the federal government. Fall 2011.

*Catalyst Grant*, UT Dallas, to study the link between judicial decision and campaign contributions. Summer 2010- Summer 2011.

Awards & Honors

Special Faculty Development Assignment, UT Dallas (awarded for Spring 2018 semester)

University of Texas System, Regents Outstanding Teaching Award, UT Dallas-EPPS Nominee, Tenure-track faculty, 2012.


APSA Travel Grant, American Political Science Association, 2008.

Prestage-Cook Travel Grant, Southern Political Science Association, 2008.

Dissertation Improvement Grant, Alumni Grants for Graduate Research and Scholarship, Ohio State University, 2008.

Graduate Fellow, American Academy of Political and Social Science, 2007-2008.

University Fellowship, The Ohio State University, 2004-2005.


Dean’s Achievement Award, University of Texas School of Law, Social Science and the Law, 2004.

Professional Memberships

Member, Center for Interdisciplinary Law and Policy Studies, Moritz College of Law, The Ohio State University, 2004-2009

Member, State Bar of Texas (inactive), 2004-

Member, American Political Science Association, 2004-; Southern Political Science Association, 2007-; Midwest Political Science Association, 2006-
References

Lawrence Baum
Professor Emeritus, Department of Political Science
2127 Derby Hall, 154 N. Oval Mall
The Ohio State University
Columbus, OH 43210
baum.4@osu.edu
614-292-6088

Paul Collins
Professor of Legal Studies and Director of Legal Studies
Thompson Hall 238
University of Massachusetts, Amherst
Amherst, MA 01003
pmcollins@legal.umass.edu
413-545-4079

Robert Howard
Professor of Political Science, Department of Political Science
38 Peachtree Center Avenue, 1036 Langdale Hall
Georgia State University
Atlanta, GA 30303
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404-413-6163

Last updated: February 1, 2019
Curriculum Vitae

Bhavani Thuraisingham, Ph.D.

June 2010

1. Biography
2. Major Awards
3. Research Statement
4. Resume Summary
5. Industry/Government Experience
6. Teaching (Academic and Professional)
7. Academic Research Supervision
8. Research Funding
9. Publications List (Authored works, e.g., Journals, Conferences, Books)
10. Edited Works (e.g., Books, Proceedings, Journals)
11. Technical Reports
12. Presentations (e.g., Keynote addresses, panels)
13. Discussion of Publications
14. Systems/Prototypes/Products/Open Source Software
15. Intellectual Property and Patents
16. Professional Activities
17. Media Reports
18. Sample papers (pdf files)
19. Research Centers and Affiliated Labs

1
Section 1: Biography

Dr. Bhavani Thuraisingham is the Louis A. Beecherl, Jr. Distinguished Professor in the Erik Jonsson School of Engineering and Computer Science at The University of Texas at Dallas (UTD) effective September 2010. She joined UTD in October 2004 as a Professor of Computer Science and Director of the Cyber Security Research Center which conducts research in data security and privacy, secure networks, secure languages, secure social media, data mining and semantic web. She is an elected Fellow of three professional organizations: the IEEE (Institute for Electrical and Electronics Engineers), the AAAS (American Association for the Advancement of Science) and the BCS (British Computer Society). She is the recipient of numerous prestigious awards including the IEEE Computer Society’s 1997 Technical Achievement Award for “outstanding and innovative contributions to secure data management.” She was quoted by Silicon India magazine as one of the leading seven technology innovators of South Asian origin in the USA in 2002. She served as IEEE Distinguished Lecturer between 2002 and 2005.

Prior to joining UTD, Dr. Thuraisingham was an IPA (Intergovernmental Personnel Act) at the National Science Foundation (NSF) in Arlington, VA, from the MITRE Corporation for three years. At NSF she established the Data and Applications Security Program and co-founded the Cyber Trust theme and was involved in interagency activities in data mining for counter-terrorism. She worked at MITRE in Bedford, MA between January 1989 and September 2001, first in the Information Security Center and later as a department head in Data and Information Management as well as Chief Scientist in Data Management in the Intelligence and Air Force centers. At MITRE she led team research and development efforts on secure data management and real-time data management for NSA, AFRL, SPAWAR, CECOM and CIA. She also served as a technical consultant in information security and data management to the Department of Defense, the Department of Treasury and the Intelligence Community for over 10 years and served as an expert consultant to the Department of Justice in 2001. Thuraisingham’s industry experience includes six years of research and development as well as technology transfer at Control Data Corp. and Honeywell Inc. in Minneapolis, MN. While in industry and at MITRE, she was an adjunct professor of computer science and member of the graduate faculty first at the University of Minnesota and later at Boston University between 1984 and 2001. She also worked as visiting professor soon after her PhD, first at the New Mexico Institute of Technology and later at the University of Minnesota between 1980 and 1983.

Dr. Thuraisingham’s research interests are in data security and data mining for counter-terrorism. Her work in information security and information management has resulted in over 100 journal articles, over 200 refereed conference papers and workshops, three US patents and several IP disclosures. She is the author of ten books in data management, data mining and data security including one on data mining for counter-terrorism and another on Database and Applications Security and is completing her eleventh book on Data Mining Tools for Malware Detection. She has given over 70 keynote presentations at various technical conferences and has also given invited talks at the White House Office of Science and Technology Policy and at the United Nations on Data Mining for counter-terrorism. She serves (or has served) on editorial boards of leading research and industry journals including several IEEE and ACM Transactions, the VLDB Journal, and also serves as the Editor in Chief of Computer Standards and Interfaces Journal. She has contributed to multiple standards activities including Navy’s Next Generation Interface efforts, Object Management Group’s Real-time computing and C4I efforts, and more recently the Open Geospatial Consortium’s semantic web efforts. In addition, she has been an instructor at AFCEA’s (Armed Forces Communications and Electronics Association) Professional Development Center since 1998 and has served on panels for the Air Force Scientific Advisory Board and the National Academy of Sciences including one on protecting children from inappropriate content on the Internet chaired by Hon. Dick Thornburgh in 2000. She is continuing with these efforts and recently participated in an EastWest Institute 1st Worldwide Security Summit panel on protecting our children in cyberspace.

During her six years at UTD, Dr. Thuraisingham has established and leads a strong research program in Intelligence and Security Informatics which now includes 5 core professors and the team has generated
Dr. Thuraisingham received her BS degree in Mathematics and Physics with first class at the University of Ceylon, her M.Sc degree in Mathematical Logic at the University of Bristol, UK and her PhD degree in Theory of Computation at the University of Wales, UK. She has also received a number of professional qualifications to enhance her 30 year career since 1980 including an MS in Computer Science focusing in computer systems and networks at the University of Minnesota, Java Development Certification from Learning Tree International, and the Certificate in Terrorism Studies at St. Andrews University, Scotland.

Dr. Thuraisingham is the founding president of “Bhavani Security Consulting, LLC” a company providing services in consulting and training in Cyber Security and Information Technology. She is also the founder and a member of the board of directors of “Infosec Analytics, LLC”, a spin-off company from UTD developing tools in malware detection and information sharing.

She promotes Math and Science to high school students as well as to women and underrepresented minorities. She has given featured addresses at conferences sponsored by WITI and SWE and received the 2001 Women of Color Research Leadership Award from Career Communications Inc. Articles on her efforts, her vision as well as her team’s research have appeared in multiple magazines including the Dallas Morning News, the Boston Globe, ABC News, D Magazine, MITRE Matters and the DFW Metroplex Technology magazine. She has also appeared in DFW Television giving her opinions on cyber security.

Section 2: MAJOR AWARDS

EXTERNAL

- 2010 Research Leadership Award for Outstanding and Sustained Leadership Contributions to the Field of Intelligence and Security Informatics presented jointly by the IEEE Intelligent Transportation Systems Society’s Technical Committee on Intelligence and Security Informatics in Transportation Systems and the IEEE Systems, Man and Cybernetics Society’s Technical Committee on Homeland Security


- Recipient of IEEE Computer Society’s 1997 Technical Achievement Award for contributions to secure distributed database management. As cited by IEEE, “this award is given to individuals who have made outstanding and innovative contributions in the field of computer and information science and engineering within the past 15 years”.

over $12 million in research funding from agencies such as NSF, AFOSR, IARPA, NGA, NASA, ONR, ARO and NIH as well as corporations such as Raytheon Inc. The research projects include an NSF Career Grant, an AFOSR Young Investigator Program Award, a DoD MURI Award on Assured Information Sharing, and an NSF Scholarship for Service Award. Her current focus includes three activities: (i) studying how terrorists and hackers function so that effective and improved solutions can be provided (ii) initiating interdisciplinary programs integrating social sciences and information sciences and (iii) transferring the technologies developed at the university to commercial development efforts. She is also instrumental in establishing UTD’s MS Track in Information Assurance and is a Co-PI of the $1.7 million NSF Scholarship for Service Award in Cyber Security. She teaches courses in data and applications security, trustworthy semantic services and digital forensics and collaborates with the DFW corporations as well as North Texas Regional Computer Forensics Laboratory for student projects. She also writes motivational articles including one on CS Careers in the Global Economy.
- Recipient of Career Communication Inc.’s National 2001 Woman of Color Technology Research Leadership Award

- Featured in SiliconIndia’s May 2002 issue as one of the top seven technology innovators (the only woman) in USA of South Asian origin (others are from Stanford, Berkeley, MIT, NASA, PARC and HP Labs). The innovation was for data and web security.

- Recipient of IEEE’s 2003 Fellow Award for Contributions to Secure Systems involving databases, distributed systems and the web. As stated by IEEE, “each year, following a rigorous evaluation procedure, the IEEE Fellow Committee recommends a select group of recipients for one of the Institute's most prestigious honors, election to IEEE Fellow”.

- Recipient of AAAS (American Association for the Advancement of Science) 2003 Fellow Award for “Outstanding and Innovative Contributions to Secure Database Systems and Secure Web Information Systems”

- Recipient of British Computer Society (BCS) 2005 Fellow Award for contributions to information technology

- IEEE Distinguished Lecturer, 2002-2005

**INTERNAL**

- Louis A. Beecherl, Jr. Distinguished Professorship in the Erik Jonsson School of Engineering and Computer Science, The University of Texas at Dallas, 2010

- MITRE Program Achievement Awards 1997 (AWACS), 2002 and 2005 (IRS Research Credit)

- MITRE Director’s Awards 1997 (Data Mining), 1997 (Distributed Objects)

- MITRE Author of the Month Award (1997, 1999)

- Honeywell Computer Sciences Center Employee of the Month Award (April 1987)

- Control Data Corporation, Arden Hill Programming Division, CDCNET Award (September 1985)

- NSF Program Awards (ITR 2003, Cyber Trust 2005)
Section 3: RESEARCH STATEMENT

My research combines theory and practice. I have utilized my PhD research in theory of computation and complexity theory with my systems expertise in industry to develop prototypes based on fundamental principles. My research in secure systems utilized the non interference principles to design the Lock Data Views System in the mid 1980s. This is one of the first two secure relational database systems designed. Our techniques for secure query processing, update processing, and metadata management were incorporated into the early commercial products such as Trust Oracle, Secure Sybase, Secure Ingres and Secure Informix in the early 1990s. I then developed secure distributed database systems and secure object oriented systems utilizing the Bell and La Padula security principles as well as the non interference principles. The work that I received several awards was for the inference problem. I first proved that the inference problem was unsolvable and then designed and developed prototype inference controllers for specific classes of the problem. I also designed and developed secure database systems based on logic that I designed called NTML (Nonmonotonic Typed Multilevel Logic). I was among the first to develop secure dependable systems that integrated real-time processing with security techniques in the late 1990s.

After spending three years at the National Science Foundation and establishing programs in data and application security, I joined UTD in October 2004. At UTD I have developed two areas (i) Cyber Security, in particular Data and Applications Security and (ii) Information Management. In the area of Data and Applications Security, I have focused on four areas. (a) Assured information sharing: My team in the CS department collaborates with the School of Management and Economics and Policy Sciences to develop an interdisciplinary approach for incentive based information sharing. (b) In addition, we have also explored research issues in secure and private social networks. (c) We also developed novel data mining and data integration techniques. (d) Policy management based on semantic web technologies. (e) Data mining tools for security applications. Notable among these tools are those based on novel class detection for stream mining. In the area of Information Management, our focus has been on developing technologies for national security in two major areas. (a) We have designed ontology alignment algorithms critical for homeland security applications and (b) developed geospatial data management and mining techniques. In addition to data security and information management, my team has also focused on secure cloud computing and in-line reference monitors. In addition to collaborating with two of my colleagues and contributing to assured information sharing as well as to the data mining tools, my main research has been on policy management based on semantic web technologies. Our goal is to build inference controllers based on RDF data engines and RDF reasoning engines. Essentially, this research extends my earlier work on the inference problem utilizing semantic web technologies. I have also developed prototypes for policy management in a coalition environment.

We are developing a multi-pronged approach to research. Our major goal is to publish papers in the most prestigious journals and conferences. Since 2005, I have papers published in IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Dependable and Secure Computing, ACM Transactions on Information and Systems Security, IEEE Transactions on Systems, Man and Cybernetics, and Very Large Database Journal. Prestigious conferences include IEEE Conference on Data Mining (ICDM) and ACM Conference of Access Control and Models (SACMAT). My team has published several more papers in IEEE as well as in ACM Transactions. Our second goal is to build systems. We have developed several prototypes and tools and have published open source software. These tools are being utilized by our colleagues around the world. Our third goal is to disclose inventions, develop intellectual property and start spin-off companies. This is something we started in 2009. Our fourth goal is to contribute to standards and we participate in W3C and OGC standards.

Since October 2005, my team has generated over $12 million in research funding including a DoD MURI, NSF Career, AFOSR YIP and NSF SFS. Our sponsors include AFOSR, NSF, IARPA, NGA, NASA,
ONR and NIH. Our major corporate sponsor is Raytheon. In 2010, I am working toward expanding the corporate sponsor base and we are having discussions with Lockheed, Rockwell and IBM among others.
Section 4: RESUME SUMMARY

Name: Dr. Bhavani Thuraisingham
Work Address: Department of Computer Science, University of Texas at Dallas, Richardson, Texas
Phone: 972-883-4738; Fax: 972-883-2349
Email: Bhavani.thuraisingham@utdallas.edu
URL I: http://www.utdallas.edu/~bxt043000/ URL II: www.dr-bhavani.org

I. EDUCATION
Ph.D. in Theory of Computation and Computability Theory; University of Wales, Swansea, United Kingdom, July 1979 (at age 24). Thesis: Decision Problems for System Functions
Advisors: Dr. Roger Hindley (Swansea), Dr. John Cleave (Bristol) – received most of the supervision at University of Bristol and submitted thesis at University of Wales, Swansea due to residency requirements
M.S. in Computer Science, University of Minnesota, March 1984 (G.P.A. 4.0/4.0); Specialized in: Databases, Networks, Operating Systems. Dissertation: Transport Layer for a Token Ring Network, Advisor: Dr. William Munroe
M.Sc. in Mathematical Logic and Foundations of Computer Science; University of Bristol, United Kingdom, January 1977; Thesis: Construction of a Universal Partial Recursive Functional; Advisors: Dr. John Cleave and Prof. John Shepherdson
B.Sc. in Pure Mathematics, Applied Mathematics, and Physics; University of Ceylon, August 1975 (First Class and First in order of merit)
Higher Doctorate: D.Sc. Preparing published work to be submitted to the degree of D.Sc (Doctor of Science) at the University of Bristol in England, 2010. D.Sc. is beyond Ph.D. (usually known as Higher Doctorate) and awarded by British universities to alumni who have made outstanding research contributions in their field. University of Bristol is consistently rated among the top five universities in the U.K.

CERTIFICATION PROGRAMS (with exams)

PROFESSIONAL EDUCATION
2. US Intelligence Community, AFCEA 1994
3. Cybil Programming Language, Control Data Institute, 1984

II. HONORS AND AWARDS
External: Recipient of 2010 Research Leadership Award for Outstanding and Sustained Leadership Contribution to the Field of Intelligence and Security Informatics; Recipient of IEEE’s 2003 Fellow Award for Contributions to Secure Systems involving databases, distributed systems and the web; Recipient of AAAS (American Association for the Advancement of Science) 2003 Fellow Award; Recipient of British Computer Society (BCS) 2005 Fellow Award; Recipient of IEEE Computer Society’s 1997 Technical Achievement Award for outstanding and innovative contributions to secure distributed database management; Featured in SiliconIndia magazine (May 2002) issue as one of seven prominent technology innovators (the only woman) in the USA of South Asian origin; Recipient of Career Communication Inc.’s National 2001 Woman of Color Technology Research Leadership Award Best paper award, IEEE Conference on Systems Sciences, 1988.
Internal: Louis A. Beecherl, Jr. Distinguished Professorship 2010; MITRE Corporation’s Program Achievement Award (distributed real-time systems) 1997; IRS Program Award 2002 and 2005; Director Awards for data mining and distributed objects 1998.

III. SIGNIFICANCE OF RESEARCH
My early research was on theory of computation and in particular, recursion theory. This research was carried out as visiting professor at the New Mexico Institute of Technology and at the University of Minnesota for three years. It resulted in several journal publications including in the Journal of Computer and Systems Sciences. Since 1985, my research has focused on data security. This research was carried out initially at Honeywell Inc., as well as the University of Minnesota as adjunct faculty of computer science for over four years. I continued with this research at the MITRE Corporation starting in 1989. Significant contributions include design and development of Lock Data Views Relational Database System, design and development of secure distributed database system, design and development of techniques to handle the inference problem, design of NTML: a Non Monotonic Logic for Secure Data and Knowledge Based Systems, design and development of secure multimedia and object systems, and the design and development of an object-based real-time data manager and middleware for next generation real-time command and control systems. I also used my background in theory and proved that the inference problem was unsolvable. This work has been quoted by Dr. John Campbell of NSA as a significant development in database security in 1990. My main research now is focusing in four major areas: Assured Information Sharing; Securing the Semantic Web, Secure Geospatial Data Management; Knowledge Discovery/Data Mining for security applications and their privacy implications. I focus on developing sound theories and then build highly assured systems that are founded on theories that result in prototypes, some of which are transferred to operational systems and products.

IV. WORK EXPERIENCE
(i) The University of Texas at Dallas, Richardson, TX (October 2004 – Present): In October 2004, I joined the University of Texas at Dallas as Tenured Full Professor of Computer Science and Director of the Cyber Security Research Center at the Erik Jonsson School of Engineering and Computer Science. This is my first tenure track faculty appointment. Over the past 5 years, I have hired and mentored several junior faculty in Cyber Security in general and Data Security, in particular. Together we have secured competitive research funding of over $12 million from several federal agencies including Air Force Office of Scientific Research, National Science Foundation, National Geospatial Intelligence Agency, National Aeronautical and Space Administration, and Intelligence Advanced Research Projects Agency. This funding also includes a prestigious DoD MURI award. In addition, we have established a close research collaboration and partnership with Raytheon Corporation in DFW. Together we have about 30 Ph.D. students; I graduated my first student in 2007. Due to our efforts, we were in the first group of universities to receive the NSA/DHS Center for Excellence in Research Award in 2008. My team has significantly enhanced UTD’s education program in Information Assurance by introducing several courses including Data and Applications Security, Digital Forensics, Trustworthy Semantic Web, Biometrics, Privacy, Knowledge Discovery, Cryptography and Secure Programming Languages. UT Dallas is one of the top universities in the world in data security education.

IPA, Position: I was the Director of Cyber Trust, Data and Applications Security, Information and Data Management.
As an IPA from the MITRE Corporation at NSF for three years, I managed programs in Information Management, Sensor Networks, Data and Applications Security and Cyber Trust. In addition, I initiated the program in data and applications security and made it a focus area.

(iii) The MITRE Corporation, Bedford, MA (January 1989 – October 2004): My 15 plus years experience at MITRE has given me the opportunity to work on research, development and technology transfer projects. I secured research funding from a number of sponsors including the Air Force, Navy, Army, NSA, and CIA as well as consulted for the IRS. I led team research efforts and designed and
developed algorithms and prototypes for secure distributed database systems, secure object systems and secure deductive systems. I proved that the inference problem was unsolvable and developed solutions to limited aspects of this problem. We also developed distributed object-based real-time systems and transferred the technology to the AWACS program. Additionally, I built MITRE’s programs and gave them international visibility in data mining and data security. For 4 years, I managed a department of about 28 staff. I am currently a consultant to IRS through MITRE on the software research credit program.

(iv) Honeywell Inc., Golden Valley, MN (Jan. ‘86 - Jan. ‘89) Position: Principal Research Scientist / Engineer, Corporate Systems Development Division. I conducted research, development, and technology transfer activities in database security, data management, distributed processing, information systems, process control systems, payoff modeling, and AI applications. In addition to reports and proprietary documents, papers were also published in refereed journals and conferences. Work was carried out for Honeywell internal divisions, as well as for the Air Force and NASA.

(vi) Control Data Corporation, Arden Hills, MN (Dec ’83 - Jan ‘86) Position: Senior Programmer/Analyst, Arden Hills programming Division. I was involved in the design and development of the CDCNET (Control Data Communications Network) product. Company proprietary documents were also written. Specifically, I was responsible for the design and development of transport, network, session layers as well as several other components of the network. Details are given under the Industry Experience section.

V. RESEARCH ACCOMPLISHMENTS


Research Contracts/Grants

UT Dallas: Over $12 million in grants and contracts by my team in assured information sharing, geospatial information management, semantic web, data mining for security applications, and secure grids. Sponsors include AFOSR, IARPA, NSF, NASA, NGA, ONR, NIH and Raytheon.

MITRE: I initiated and led several research projects for various sponsors including Navy (secure distributed databases, secure objects, inference problem/NTML), Army (inference problem, security constraint processing), Air Force (secure distributed databases and real-time databases/middleware), and National Security Agency (secure federated databases, designing secure systems and applications). Each project that I led consisted of about three – five staff, a third with Ph.D.’s and half with MS degrees; also included students from Carnegie Mellon University, Cornell, University of Rhode Island and North Eastern University.

Prototypes and Products: UTDallas: My students are implementing several prototypes in secure data, information and knowledge management systems, data mining tools for security applications, geospatial semantic webs and social network tools. Some tools were transferred to the Raytheon program and we are having discussions on commercializing the data mining tools. Other: Developed parts of the CDCNET product at Control Data Corporation (extensive implementation in Cybil language). Oversaw the implementation of expert process control system XIMKON at Honeywell as well as Network operating system and students’ implementations at University of Minnesota (mostly C). Supervised very closely the implementation of several prototypes based on my designs at MITRE. These included secure distributed database system prototypes, database inference controller prototypes for query, update, and database design, multimedia system prototypes simulating security features, active real-time data management prototype, and real-time data management hosted on an infrastructure for real-time applications and data/text mining and knowledge management prototypes.

Educational Activities: I have promoted Math and Science among high school students (e.g., talks at UTD), women (SWE, WITI) and disadvantaged minorities (Career Communications). At NSF, I was
actively involved in the Math Science Education Partnerships between universities and high schools. I have been involved in tutorials at numerous conferences since 1987, AF/Army/Navy Bases since 1992, and AFCEA (Armed Forces Communications and Electronics Association) since 1998.

VI. PROFESSIONAL ACTIVITIES


My education and work has been influenced a great deal by my personal life. My personal statement “From Industry to Government to Academia can be found under the section “Motivational Articles” on my UTD web site.
Section 5: INDUSTRY EXPERIENCE


Technical Positions:
* Information Technology Consultant (October 2001 – June 2005)
* Chief Scientist/Engineer in Data Management, Information Technology Directorate (May 1999 – Sept. 2001)
* Senior Principal Scientist/Engineer, Advanced Information Systems Center (Sept. 1996 – May 1999)
* Principal Scientist/Engineer, Advanced Information Systems Center (March 1995 - Sept. 1996)

Management Positions:

Leadership/Coordination Positions:
* Head, MITRE’s Corporate Research and Development Initiative in Evolvable Interoperable Information Systems (March 1996 - September ’97, budget approximately $4 million)
* Head, MITRE’s Corporate Research and Development Initiative in Data Management (Sept. 1994 - March 1996, budget approximately $1 million)
* Co-Director, MITRE Database Specialty Group (Oct 1993 - Dec 1995)

Technical: My sixteen years experience at MITRE gave me the opportunity to work on research, development and technology transfer projects. I have worked for a number of sponsors including the Air Force, Navy, Army, NSA, CIA and IRS. I have worked with not only researchers and defense contractors, but also with Fortune 500 corporations in Information Technology. A summary of my technical accomplishments is listed below.

Information Security: Between January 1989 and August 1992, my work focused entirely on Information Security. I initiated and lead various database and object security projects for the Army, Navy, Air Force, and the National Security Agency. The topics included secure distributed/federated database management, inference problem, secure multimedia/object-oriented data management, and secure client-server computing. I designed and supervised the implementation of a prototype secure distributed database system that connected database systems in Bedford, MA, McLean, VA, and Fort Monmouth, NJ, the first developed. I also designed centralized and distributed database inference controllers and supervised the implementation of these systems. In addition, I designed a secure object/multimedia database system and supervised its implementation. Other contributions include the proof of the unsolvability of the inference problem, use of conceptual structures to design secure database applications and the development of a logic for secure data and knowledge base management systems. Since August 1992 I have been working part-time on Information Security. My focus has been on the inference problem, object security, and privacy issues for data mining. I led a team project to investigate security for distributed object systems and this work impacted the security standards for the Object Management Group. I provided technical direction to DoD projects in database security between March 1991 and September 1996, was a consultant to NSA and mentored junior staff there. Between 1996 and 2001, I continued to work in Information Security by providing direction on the Inference problem to the Air Force and also examining security issues for XML and web information systems.

Data Management, Real-time Systems and Object Technology: My work in data management at MITRE began around August 1992. Since then I have initiated and led projects in real-time database
management and distributed object management for evolvable real-time command and control systems, massive multimedia data management for Intelligence applications, and distributed object management for heterogeneous database integration. In addition, I have initiated and contributed to projects in data mining and warehousing. As part of my work, I have provided direction in data management to the Department of Defense and the Intelligence community. In particular, between October 1993 and March 1999, I was the lead in providing technology direction for the Intelligence Community initiative on Massive Digital Data Systems. Based on results of this effort, and together with the CIA sponsor, we began discussions with DARPA on data mining in December 1997 and these discussions eventually led to the EELD program at DARPA. Also between October 1993 and September 1999, I was part of a team providing direction for next generation real-time data management and object systems for the AWACS project. For this work I received the MITRE Program Achievement award in 1997. For the work in data mining and distributed objects, I received two MITRE Director awards in 1997.

Consulting in Information Technology (IRS): Between January 1999 and September 2001, I consulted for the Internal Revenue Service by interviewing various Fortune 500 corporations on their research and development tax credits. This work utilized my extensive experience in Computer Science and Information Technology. It also enabled me to obtain an excellent understanding of the internal details of databases, ERP, and e-commerce software. Initially my work focused on banking and financial industries, later I worked in other industries such as Telecommunications. Between May 2000 and July 2001, I worked with a major Fortune 100 corporation and the IRS jointly to determine the products that would qualify for research tax credit. For this effort, I reviewed numerous products that this company worked on during FY00 which made me intimately familiar with the commercial products of a major corporation in the US in Information Technology. This work was reported in the Wall Street Journal in December 2000 and also claimed by the IRS as a success story in a major IRS and Fortune 100 meeting in February 2001. As a result of this work, I received the MITRE Program Achievement awards in 2002 and 2005.

Consultant to Air Force: In May 1999 I was appointed chief scientist/engineer in data management in MITRE’s Information Technology Directorate and in this position provide data management direction for MITRE’s programs for the Air Force. In addition, I oversaw the information technology technical work in the directorate in the following areas: information management, e-business and web computing, real-time computing, and decision support. I also consulted on MITRE's corporate initiatives in knowledge management and e-business. Between January 2001 and September 2001, I was Vice Chair of the Database Migration Panel to the AF Scientific Advisory Board (SAB).

Other Consulting: In the 1990s, I consulted on several MITRE projects involving information and data management sponsored by the Intelligence Community, NASA (EOS project) and FAA.

Other Information: My work has resulted in IEEE Computer Society’s 1997 Technical Achievement Award, IEEE’s 2003 Fellow Award, AAAS 2003 Fellow Award, British Computer Society’s 2005 Fellow Award, over 300 publications including over 70 journal articles, 3 software patents and 10 books (9 published and 1 in preparation). I give tutorials to sponsors at conferences, and at the MITRE Institute in relational database management, distributed database management, heterogeneous database integration, real-time data management, secure data management, object-oriented database management, and data mining. I have also participated in standards efforts including Department of the Navy’s Database Interface Standard and Object Management Group’s real-time and C4I standards. I have given over 150 professional presentations including 30 keynote/featured addresses at major conferences. In addition, I participated in panels at the National Academy of Sciences and the Air Force Scientific Advisory Board.
Leadership, Coordination: Between March 1996 and September 1997, as head of the Evolvable Interoperable Information Systems (EIIS) Initiative at MITRE reporting to the Vice President of Research and Technology, I was responsible for research in data management, real-time systems, software reverse engineering, economic analysis for information system evolution and interoperation, and object technology and architectures. I worked with the leaders in each of these areas. Prior to this responsibility, I led the corporate initiative in data management from September 1994 to March 1996 (which is part of EIIS). As a co-director between October 1993 and December 1995, I organized meetings in data management to discuss projects as well as conferences at MITRE. Between October 1995 and May 1999, I was actively involved in promoting object technology within MITRE. In this role, I was part of a MITRE team working in distributed object management and object-oriented frameworks, designing patterns, attending Object Management Group meetings and participating in the real-time SIG at OMG. I introduced real-time issues for the common object request broker architecture at Object World West 1995, founded the C4I SIG at OMG in 1996, and organized object technology conferences at MITRE. I have also provided technology advice to MITRE's e-business initiatives.

Management: Between June 1995 and May 1999, as a department manager reporting to the Director of the Division, I developed the skills in my department of about thirty people in relational data management, object-oriented data management, distributed object management, distributed database management, heterogeneous database integration, multimedia data management, data warehousing, migrating legacy databases, data mining, web technology, data security, and knowledge management. I formed four groups in my department each focusing on a subset of the above technologies with security cutting across all areas. I initiated and continued projects each year at MITRE totaling 3 - 4 staff years. I was actively involved in mentoring staff and helping them in leadership and coordination positions such as providing direction for MITRE's research as well as organizing internal conferences in data management and object technology. Between May 1999 and September 2001, as chief engineer, I had oversight of the technical work in MITRE's Information Technology Directorate for about 200 staff.


IPA Position from the MITRE Corporation: Director of Information Cyber Trust, Data and Applications Security, Information and Data Management

I completed a three year IPA from the MITRE Corporation at the National Science Foundation. At NSF, during 2002, I was program director for information and data management. This is approximately a $10 million program a year and funds research in various aspects of information and data management including data mining, information retrieval and information systems. I also participated in inter-directorate (CISE, BIO GEO) activities on providing direction in Bioinformatics and Geoinformatics. In addition, I was involved in the Math Science Partnership program with the Education Directorate. During 2003 I initiated a new program in Data and Applications Security ($2 million/year) and also managed the Information Management component of ITR (approximately $50million) and Information Management for the Sensor Initiative (approximately $2 million). During 2004 I was one of four founding directorates of NSF’s Cyber Trust Theme (approximately $30 million) and continued to manage the Information Management component of ITR.

During 2002 and 2003, I supported the Department of Health and Human Services on planning for information technologies to combat bioterrorism as part of the States Bioterrorism Initiative. In 2004 I participated in an Interagency study on Hard Problems in Cyber Security and completed a draft in September (a version was later published by the government in 2006). The study report was used by agencies to fund future research in Information Security. Beginning in October 2001, I have been very active in counter-terrorism related research especially on the use of data mining. I gave talks not only at conferences, but also at the White House Office of Science and Technology Policy and the United Nations and participated in National Academy of Science activities in this area. I was a member of interagency
planning on data mining for counter-terrorism. As an IPA, I also conducted research at MITRE, focusing on privacy, secure semantic web and secure sensor information management.

http://www51.honeywell.com/honeywell/  
Position: Principal Research Scientist / Engineer, Corporate Systems Development Division  
I conducted research, development, and technology transfer activities in database security, data management, distributed processing, information systems, process control systems, payoff modeling, and AI applications. In addition to reports and proprietary documents, papers were also published in refereed journals and conferences. Work was carried out for Honeywell internal divisions as well as for the Air Force and NASA. Specific projects included the following: Design of a Multilevel Secure Database Management System (Rome Laboratory); Development of Engineering Information Systems (Wright Laboratory); Design of a Distributed Data Dictionary System (Honeywell’s Residential Control Division); AI Applications in Process Control Systems (Honeywell Industrial Automation Systems Division); Design of a Network Operating System for a Multicompatible Network Interface Unit (NASA); Development of a Payoff Model of Alternative Communication Strategies (Honeywell Corporate); Design of Innovative Software Architectures for Industrial and Buildings Control Systems (Honeywell Building Controls Systems); and Design of Knowledge Transformation Strategies (Honeywell Industrial Automation Systems Division).

IV. Control Data Corporation, Arden Hills, MN (December 1983 - January 1986)  
http://en.wikipedia.org/wiki/Control_Data_Corporation  
Position: Senior Programmer/Analyst, Arden Hills Programming Division  
I was involved in the design and development of the CDCNET (Control Data Communications Network) product. Company proprietary documents were also written. Specifically, I was responsible for the following: design, development and testing of CDCNET Transport layer (Generic and Xerox transport protocols); design, development and testing of the first version of the CDCNET session layer, which enabled the ASYNC Terminal Interface Program to communicate with the Cyber 170 Gateway; design, development and testing of X25 support for CDCNET, which would enable CDCNET to communicate with an X25 Network; development and testing of CDCNET Network Layer; implementation of the Intranetwork layer, which supported HDLC, Ethernet and MCI Networks; design, and development and testing of a set of command processors (transport Status command processor), which gathered information about the Transport connections, and also a set of command processors to configure an MCI network; development and testing of CDCNET memory management unit, which was responsible for releasing the buffers depending on the congestion; acting as the Task Lead for testing CDCNET with other Cyber products. (Official start date of January 1984; consulted in December 1983)

V. Bhavani Security Consulting (June 2005 – Present)  
www.dr-bhavani.org  
I am the founding president of Bhavani Security Consulting, a consulting and training company. I consult for the Department of Treasury through a contract from the MITRE Corporation on corporate research credit as well as being an expert witness in software. I also handle patent litigation cases as an expert witness. I teach AFCEA (Armed Forces Communications and Electronics Association) courses in data management, data mining for counter-terrorism and data security. Through AFCEA, I teach classes at Air Force bases including at Offutt, Eglin, Lackland, Edwards and Kirkland. I consult for corporations in technology futures and write books on data management and data security.

VI. Knowledge Discovery and Security Informatics [start-up for Small Business Innovation Research (SBIR), 2009]  
A spin-off company based on UT Dallas research, focusing on data security, geospatial data management, data mining and social networking. Partners: Dr. Latifur Khan and Dr. Murat Kantarcioglu
Taught high school students Mathematics and prepared them for GCE OL and GCE AL exams. http://www.personal-tutors.co.uk/home.html

Section 6: TEACHING EXPERIENCE

I. Academic Teaching Experience (1980 – Present)

Current (2004 – Present)
The University of Texas at Dallas
Position: Professor of Computer Science and Director of Cyber Security Research Center

- Biometrics, Fall 2005, Graduate level
- Data and Applications Security, Spring 2007, Spring 2008 (Information Assurance, Minor Core course) Undergraduate level
- Digital Forensics, Fall 2007, Fall 2008, Fall 2009 (Information Assurance Minor, Core course) Undergraduate level
- Information Assurance, Minor: Data and Applications Security, as well as Digital Forensics, are two of the three mandatory security courses for a minor in Information Assurance at the Undergraduate level. Students work with ENCASE tool and conduct forensics analysis.
- Proposing an education track on Semantic Web

Previous (1980 – 2001)
(i) New Mexico Institute of Technology, Socorro, New Mexico
Dept. Head: Prof. Tom Nartker (now at UNLV)

1. Department of Computer Science
   Theory of Computation
   Ph.D. level course on theory of computation covering topics such as automata theory, complexity theory and recursion theory, using the text book Theory of Computation by Barinard and Landweber
   Date: Fall Semester 1980 (August – December 1980)
   Mathematical Logic for Computer Scientists
   Senior undergraduate/ 1st yr MS level course covering logic, theorem proving. Developed my own lecture notes. References used: Theorem Proving by Chang and Lee, Mathematical Logic by E. Mendelssohn
   Date: Spring Semester 1981 (January – May 1981)

2. Department of Mathematics
   Calculus
Undergraduate level course in calculus
Date: Spring Semester, 1981 (January – May 1981)

(ii) University of Minnesota
Position: Visiting Professor, 1981-1982
Adjunct Professor and Member of the Graduate Faculty, September 1984 – December 1988
Schedule Coordinator: Prof. Sartaj Sahni (now at University of Florida)

1. Department of Computer Science
   Fortran Programming
   Undergraduate course in FORTRAN programming

   Basic and Advanced Assembly Language Programming
   Junior and senior undergraduate as well as 1st year MS level course in M68000 programming
   Date: Fall 1985, Winter 1986, Spring 1986, Fall 1986

   Algorithms and Data Structures
   Junior undergraduate course in algorithms
   Date: Winter 1987, Winter 1988

   Programming Languages using Scheme
   Junior undergraduate course in Scheme programming and principles
   Date: Spring 1987, Spring 1988

   Discrete Structure of Computer Science
   Junior undergraduate course in Combinatorial mathematics for computer scientists
   Date: Summer I, 1986

   Principles of Programming Languages
   Senior undergraduate/1st year MS level course on principles of programming languages including principles of FORTRAN, Pascal, Algal, Lisp, Prolog, and Smalltalk

   Database Security, Ph.D. level seminar; Date: Fall 1987

2. Department of Mathematics
   Calculus and Algebra
   Undergraduate level courses on calculus and algebra

Boston University
Position: Adjunct Professor of Computer Science, 1999 - 2001
Point of Contact: Linda Goldberg

1. Department of Computer Science
   Advanced Data Management
   Graduate level course which covered relational databases, object databases, distributed databases, heterogeneous databases, migrating legacy databases, data mining, data warehousing, web databases.
Date: Spring Semester 2000, Spring Semester 2001.

II. Professional Teaching Experience (1990 – Present)

Position: Instructor
Schedule Coordinator: Phil Trudeau

Courses taught:
Database Security (Four two hour lectures, 1990)
Introduction to Databases (3 hour, 10 week course, 1992, 1993)
Heterogeneous Database Integration (1 day course taught several times in 1993 - 1994)
Object Databases (1 day course taught several times in 1993 - 1994)
Real-time Databases (1 day course taught several times in 1994)
Data Management Systems Evolution and Interoperation (2 day course taught several times in 1997 - 1999), based on my book
Data Mining (1 day course taught several times in 1998 - 2000), based on my book

Through the MITRE Corporation, I taught courses to several government agencies (1992 - 2000)
Topics: secure databases, data management and data mining, (based on my books)
US Government (DoD and Intelligence)
 Agencies: Air Force (ESC, AIA, SPACECOM), Navy (SPAWAR, NRD), Army (CECOM),
 Other: DISA, DISA/JPO, NSA, EUCOM

(ii) AFCEA Professional Development Center (1998 – Present)
Position: Instructor
Schedule Coordinator: Ann Beckham

Courses Taught (all courses based on my books – see publications)
Data Management (3 day course in September 1998, June 1999)
Data Management, Data Mining and E-Commerce (3 day course in October 2000)
Knowledge Management through Semantic Web and Social Network (April 2008, October 2009, April 2010)
Data Mining for Counter-terrorism (3 day course, June 2010)

Data Management, Information Management and Knowledge Management: to the Air Force through AFCEA (3 day course)
Offutt AFB, October 2004
Eglin AFB, March 2005
Lackland AFB, August 2006
Edwards AFB, June 2006
Kirkland AFB, September 2006
(iii) University of California, San Diego (2008)

Security for Service Oriented Architecture portion of the Certificate Course on Systems Engineering, offered at UCSD under the directorship of Prof. Hal Sorenson. This course was also taught as part of the Architecture course at AFCEA under the directorship of Prof. Alex Levis.

**NSF Scholarship for Service (SFS) Award**

In January 2010, I worked with my colleagues and submitted a proposal to the NSF SFS Program which was subsequently awarded. I visited several universities (e.g., NYU Poly, Mississippi State and University of Tulsa) to learn from their successful experiences to put together this proposal.
Section 7: ACADEMIC RESEARCH SUPERVISION

For details of the projects, please see the project web site at http://utdallas.edu/~ppd081000/

Current: (October 2004 – Present)

The University of Texas at Dallas

Ph.D. Students Graduated:
Li Liu, (2004 - 2008) Privacy Preserving Data Mining; May 2008 (Senior Security Strategist at EBay)

MS Students with Thesis Graduated (supported as RAs):
Gal Lavee (Graduated December 2005) – Suspicious Event Detection, Ph.D. at Technion-Israel
Vibha Sethi (Graduated August 2006) – Secure Sensor Networks, Motorola
Abinthan (Graduated May 2007) – Fingerprinting Biometrics and RFID, Oracle
Srinivasan (Graduated May 2007) – Trust Management for Assured Information Sharing, Hewlett Packard
Pavan Chittamala (Graduated May 2007) – Geospatial Data Management - Microsoft
Jungin Kim (Graduated August 2007) Dependable Information Management, Samsung Korea
Ganesh Subbiah (Graduated December 2007) Trust Negotiation for Semantic Web, ESRI
Yashashwini Harshakumar (2007), Assured Information Sharing, Amazon
Sonia Chib (2009) Geospatial Proximity for Blackbook, Will be joining ESRI
Pranav Parikh (2009) Secure Amazon.com Web Services, Will be joijning Yahoo in July 2010
Pankil Doshi, (2010), Sparql over Hadoop, Working for a multimedia company in Florida.

Ph.D. Students (supported as RAs):
Wei-She (2006) Secure ERP Systems and SOA (completion, 2010)
Jeff Partyka (2007) Geospatial Data Management (completion 2011)
Jyothsna Rachapalli (2009) Ontology Alignment and Development for NVD
Amy Tan (2007) – Data Mining
Alam Ashraful (2005) Geospatial Data Management (part-time working at AT&T)
Parveen Pallabi (2010) – Exploring research topics

Other Ph.D. students I have sponsored and/or mentored:
Mehedy Masud, Defended Thesis, October 2009
Sunitha Sriram, proposal Defense, November 2009
Jeff McGlothlin, 2007 - Present

Non Thesis MS Students (supported as Students Workers/RAs):
Parveen Pallabi (2005 -2006) Face Recognition, RFID, Graduated, Texas Instruments
Alam Ashraful (2006) Secure Geospatial Data Management, Graduated, AT&T
Dilshad Cavus (2006) Data Mining for Assured Information Sharing
Ramaya Krishnan (2007) Secure Motion Management
Other non-Thesis MS Students on IARPA Projects:

**Geospatial Proximity Team**

**Lucene & Hadoop Model Team**

**SPARQL over Hadoop Team**

**Variable Ontology Team**

**Semantic Support and Software Professionalization Team**
Pralabh Kumar (2008 - 2010), Sharath Jagannath (2008 - 2010)

**CVE/NVD on Blackbook (Collaboration with NIST on the NVD Project)**
Aniruddh Bajirao (2008 - 2009)

Post-doctorate:
Dr. Mamoun Awad: (February 2006 – August 2006) Assured Information Sharing, Ph.D. UT Dallas
Dr. Chuan Li, (September 2006 – December 2006) Geospatial Data Mining, Ph.D. UT Dallas
Dr. Ebru Celikel, (June 2006 – June 2007) Risk-based Access Control, Ph.D. Turkey
Dr. Greg Lee (August 2007 – July 2009) Surgical/Secure Robots, Ph.D. University of Washington, Seattle
Dr. Mehey Masud (2010 –) Malware Detection

**Research Scientist** 2010 - , Irinia Sakharova

**Thesis Committees:** Serving/served on numerous internal and external MS and Ph.D. Committees since joining UT Dallas. External committees include University of Milan (2005 - 2009), University of Ottowa (2006), University of Maryland, Baltimore County (2005 - 2007).

Research is proceeding in the following areas: Data and Applications Security and Privacy (Assured Information Sharing, Secure Geospatial Data Management, Data Mining for Security Applications, Secure Grid, Storage and Web Services, Secure Social Networks) and Information Management (Semantic Web, Information Integrating). Topics include the following:

I. **Data Security and Privacy**

**Area 1: Assured Information Sharing**
Trustworthy partners experimentation, semi-trustworthy partners and game theory, untrustworthy partners and worm detection, agent-based trust management, peer-to-peer trust management, data integrity and provenance, risk-based access control and data sharing

**Area 2: Secure Geospatial Data Management**
Secure geospatial semantic web and web services, geospatial data management for emergency preparedness, privacy for geospatial data

**Area 3: Secure Semantic Web and Social Networks**
Policy management, inference control, security and privacy for social networks

**Area 4: Data Mining for Security Applications**
Intrusion, buffer overflow and worm detection, automatic face recognition and RFID technologies, data mining for surveillance applications, secure robots for disaster recovery, data mining for fault detection, privacy preserving data mining

**Area 5: Secure Grid, Clouds, and Web Services**
Accountability for grids, delegation-based model for secure web services

**Other: Complexity Theory**
Examining complexity results for sensor networks and security problems.

**II. Information Management**
Ontology Alignment for Semantic Web, Geospatial Data Mining, Knowledge Management, Managing Large RDF graphs, Query Processing in Clouds, Geospatial Data Mining


**New Mexico Institute of Technology**
While I taught courses in theory of computation and Mathematics Logic, I conducted research in Complexity theory and published several journal papers including ones in the *Journal of Computer and Systems Sciences* and the *Notre Dame Journal of Formal Logic*. I developed a concept called System Function Language in 1981 which was published later in 1993 in the *Journal of Mathematical Logic*.

**University of Minnesota**
As member of the graduate faculty, together with Prof. Wei-Tek Tsai (now at Arizona State University), I co-supervised the following students from 1984 to 1988.

**Tom Keefe, Ph.D.**
Secure query processing and SODA system (several journal and conference papers, see publications – *IEEE Computer Computers and Security*)

**K. Hwang, Ph.D.**
Distributed system and networks; Conference paper in *IEEE Local Area Networks* 1987

**S. Chen, Ph.D.**
Fault Tolerant Distributed Systems
Paper in *IEEE Transactions on Software Engineering*

**D. Thomsen, M.S.**
Prototyping secure database systems
Journal paper and conference papers (e.g. *Computers and Security*)

**Other Research:** While I worked in the Mathematics Department in the early 1980s, I conducted research with Prof. Marian Pour-El on Algorithmic Information Theory and gave seminars at the University.

**The MITRE Corporation**
Collaborated with universities and supervised many students for senior undergraduate research projects and graduate MS level students. In particular, collaborated with the following universities:

**Carnegie Mellon University**
Amiel Kamon: Secure Distributed Query Processing, research funded by Navy-SPAWAR, senior undergraduate, Summer 1989
Jonathan O’Keefe: Constraint Processing in Secure Databases systems, research funded by Navy-SPAWAR (papers and patents) Summer 1990, Winter 1991, senior undergraduate
Cornell University
David Foti: Secure Distributed Databases, research funded by Army – CECOM, Summer 1992, undergraduate

Northeastern University
Gary Gengo: MS
Active Real-time Data Management, research funded by Air Force (ESC) 1994

University of Rhode Island
Jointly with Professor Victor Wolfe supervised the following students
Roman Ginis: senior undergraduate (1996) Research on Real-time Data Management, research funded by Air Force (ESC)

Massachusetts Institute of Technology
Co-supervised MS students with Prof. Amar Gupta in secure e-commerce, 2000-2001
(Journal paper in Knowledge management journal and conference papers)

University of Milan, Italy
(Journal paper in TKDE and conference papers, e.g., EDBT)

Thesis Committees
In addition to serving on the committees of many of the students I supervised, I also served on the committee for Ph.D. thesis at University of Minnesota, Latrobe University, Australia and University of Milan, Italy (1999 – 2004).
Section 8: RESEARCH FUNDING

I have obtained research funding at the University of Texas at Dallas, The MITRE Corporation, and Honeywell Inc. My team at UT Dallas has brought in over $10m in grants and contracts since October 2005.

The University of Texas at Dallas (October 2004 – Present)

   Topic: *Information Operations Across Infospheres: Assured Information Sharing*
   Subcontract to UTSA
   Amount: $300,000

   Topic: *Geospatial Data Management Equipment Grant*
   PI: D. Harris
   Amount: $50,000

   Topic: *Geospatial Semantic Web Research, Data Mining and Security*
   Raytheon University Research Program
   Amount: $400,000

   Topic: *Geospatial Semantic Web Development for Security Applications*
   PI: L. Khan
   Amount: $100,000

   Topic: *System Integrity Control*
   Subcontract from Purdue University
   PI: M. Kantarcioglu
   Amount: $150K

   Topic: *A Semantic Framework for Policy Specification and Enforcement*
   Response to Program Solicitation: 07-500
   Collaboration with UMBC and UTSA
   Amount: $590,000

7. **The National Science Foundation**, 2007 – 2008 (PI)
   Topic: *Data and Applications Security Workshop*
   Amount: $50,000

8. **National Geospatial Intelligence Agency**, 2007 – 2010 (co-PI)
   Topic: *Geospatial Data Mining for Crime Analysis*
   Response to Program Solicitation NURI-007
   Subcontract from University of Minnesota
   PI: L. Khan
Amount: $150,000

   Topic: Data Mining of Fault Reports
   Response to BAA: NASA
   Subcontract from University of Illinois, Urbana Champaign
   PI: L. Khan
   Amount: $360,000

    Topic: Assured Information Sharing
    Multi-university research initiative (MURI) funded by the DoD/AFOSR
    Response to BAA: MURI 2007 (Subcontract from UMBC)
    Amount: $1 million

    Topic: Secure Grid Information Management
    Multi-university research initiative (MURI) funded by the DoD
    Subcontract to the University of Texas at Arlington and Purdue University
    Amount: $2.2 million

    Topic: Novel Semantic Framework for Knowledge Discovery and Dissemination
    Response to BAA: KDD
    Amount: $550,000

    Topic: Secure Social Networks
    Subcontracts to UTA; Purdue; Collin County, Tx
    Amount: $1.5 million

14. National Science Foundation, 2009 (PI)
    Topic: Intelligence and Security Informatics (Student Scholarships)
    Amount:$10,000

    Topic: Malware Detection (Senior Personnel)
    PI: Kevin Hamlen, co-PI: Latifur Khan
    Amount: $450,000

16. National Science Foundation, 2009 (co-PI)
    Topic: Secure Peer to Peer Data Management
    PI: Kevin Hamlen
    Amount: $80,000

    Topic: Data and Applications Security
    Part of technology funds awarded to UT Dallas by Texas Instruments and State of Texas

**Awards Received by Team (October 2007 – Present)**

Kevin Hamlen: Air Force Young Investigator Award, 2007
The MITRE Corporation (January 1989 – 2004)
MITRE is a Not-for-Profit federally funded research and development center and therefore the research projects that are externally funded are internally completed. One staff year is approximately $200,000.

I. Principal Investigator for the following research projects at MITRE:

1. Secure Distributed Data Management
   US Navy, SPAWAR, FY89 (1 staff year)
   Team members: Bhavani Thuraisingham, Amiel Kamon
   USAF Rome Air Development Center, FY90, FY91, FY92 (1 staff year/yr)

2. Inference Problem/Constraint Processing
   US Navy, SPAWAR, FY90 (1.5 staff years)
   Team Members: Bhavani Thuraisingham, William Ford, Marie Collins, Jonathan O’Keeffe
   US Army CECOM, FY91 – FY95 (1.5 staff years/yr approx.)
   Continued to work on project FY96 and 97
   Team Members: Bhavani Thuraisingham, William Ford, Harvey Rubinovitz, Marie Collins, David Foti
   US AirForce, FY99 (1 staff year)
   Team Members: Bhavani Thuraisingham, Harvey Rubinovitz

3. Secure Multimedia/Object Database Management
   US Navy SPAWAR, FY91 – FY93 (2 staff years/yr approx.)
   Continued to work on project FY94, FY95
   Team Members: Bhavani Thuraisingham, William Herndon, Arnon Rosenthal, Richard Graubart, Jim Williams

4. Secure Client Server Computing
   US Army CECOM, FY94 (1 staff year)
   Investigated security issues for client-server computing and identified security for object request brokers.
   Team Members: Bhavani Thuraisingham, Brian Kahn

5. Research Directions in Database Security, Special topics in Database Security
   (Secure Federated Data Management, Foundations of Inference Problem, Data Mining and Privacy)
   NSA FY91 (0.5 staff year), FY92 (1.5 staff years), FY93 – FY95 (0.5 staff year/yr), FY96 (1 staff year).
   Project continued under Dr. Chris Clifton, FY97
   Team Members: Bhavani Thuraisingham, Mark Nadel, Leonard Monk, Chris Clifton
   NSA Team Members: Leonard Binns, Don Marks, Peter Sell

6. Research Directions in Massive Digital Data Systems (MDDS), Data Mining for Text Databases
   CIA MDDS FY93 – FY99 (1.5 staff year/yr)
   Text mining (initiated project for 2 staff years/yr in FY96 – subcontractor: Stanford University, project managed by Dr. Chris Clifton and continued until FY99)
Team Members: Bhavani Thuraisingham, Maria Zemankova, Beth Lavender, Henry Bayard, Marcia Kerchner, Manette Lazar, Chip Paradise, Chris Clifton, Arnon Rosenthal

7. **Research in Real-time Data Management and Real-time Middleware**  
   USAF Rome Lab, FY93 – FY99 (Principal investigator for Real-time Data Management portion of project: 2 staff year/yr). Part of larger project, approx. 5 – 7 staff year/yr managed by John Maurer)  
   Team members: Bhavani Thuraisingham, Alice Shafer, Gary Gengo, Mike Squadrito, Roman Ginis, Victor Fay-Wolfe, Steve Wohlever, Eric Hughes

8. **Research Directions in Data Management**  
   MITRE Research FY95 – FY97 (1 staff year/yr)  
   Team Members: Bhavani Thuraisingham, Barbara Blaustein, Arnon Rosenthal, Len Seligman, Penny Chase, Tom Mowbray

9. **XML Security**  
   Part of independent research from NSF IPA (20% of my time, FY02 – FY04)

II. Other Research Analysis/Technology Transfer Projects:

1. Treasury research credit (evaluated research conducted by Fortune 100 corporations FY99 – FY01), work report in Wall Street Journal, December 2000. Part of a team instrumental in bringing this project to MITRE FY99 – FY01.

2. Technology Transfer to Services: (i) **Air Force**: AWACS project; Secure Distributed Query processing – IMOM Application (ii) **Navy**: Inference problem analysis for operational systems; and (iii) **Army**: Technology transfer of secure distributed database research

III. Research Management

1. **MITRE**: As Department Head of MITRE, managed budget of approx. $5 million/yr for 4+ years.
2. **MITRE**: As head of MITRE’s research in IT, managed a budget of approx. $4 million/yr for 3 years.
3. **CIA**: As manager of fifteen research projects for CIA, managed a budget of approx. $3 million/yr for 6 years.

**Honeywell Inc. (1986 – 1989)**

1. **Air Force, Response to BAA: Secure Distributed Data Views**  
   As project contributor, worked on proposals for various research projects and contributed to projects, e.g., Secure Distributed Data Views (SDDS), RADC. Became the principal investigator during the 2nd year of the three year SDDS project. (January 1986 – December 1988); managed 3 staff years/yr  
   Team Members: Pat Dwyer, Emanual Oneugbe, Paul Stachour, Tom Haigh, Earl Boebert, Blair Dillaway

2. **Air Force, Response to BAA: Engineering Information Systems** As project contributor, led the data modeling part of the project for Engineering Information Systems; project funded by Wright Patterson AFB (October 1987 - December 1988); managed 2 staff years /yr (Team member: Venkat Venkatraman)
3. **NASA, Response to BAA:** Distributed Systems Project contributor on the distributed systems project for NASA; principal investigator of the Network Operating Systems portion of the project (November 1986- October 1987); managed 2 staff year/yr

4. **Internally funded research projects:**
   
   **Distributed Data Dictionary Systems:** Honeywell’s Residential Controls Division, 1986 – 1987
   Team members: Krishna Mikkileneni, Hongjun Lu

   Team members: Ferit Konar, Paul Felix

   **Expert Systems for Network Management:** Honeywell Building Controls Division, 1987 – 1988


   **Cost Modeling of Software Strategies,** Honeywell Corporate, 1987 – 1988
   Team member: Ron Crowe

   **Heterogeneous Knowledge Integration,** Honeywell Industrial Automation Systems Division, 1988 – 1989

**Infrastructure Development Funding**

I have supported my colleagues in the NSF Capacity building efforts for 2007 (Murat Kantarcioglu), 2008 (Kevin Hamlen) and 2010 (Latifur Khan). In 2009, I was a co-PI on an NSF MRI proposal (under stimulus funds) on secure cloud computing. Our proposal was rated Highly Competitive, however, because our budget was over $2 million and severe restrictions for stimulus funding were placed on MRI, our proposal was not funded. The MRI funding under stimulus funding is expected to be less than 5%. We will be submitting a version of this proposal for DURIP in September 2010. In addition to research funding, my goal is to also obtain funding for education and infrastructure development.

**Research Proposals Submitted/Planned**

For 2010 we have submitted or are planning to submit several proposals including the following:

1. **IARPA – KDD:** We teamed with IBM, MIT, UMBC and Intervise and submitted a $16 million proposal to IARPA for the KDD program. The UT Dallas portion is $2 million for four years. (submitted February 2010)
2. **IARPA-ALADDIN:** We are discussing team arrangements with Honeywell, UIUC and UCI. The BAA is not out yet for this program.
3. **ONR:** We prepared a white paper with Rockwell to submit to ONR’s Network Defense BAA, (March 2010)
4. **AFOSR:** Proposal to build trusted application in untrusted platforms (May 2010)
5. **ARO:** Submitted a white paper on Adversarial Learning. Received feedback and addressing comments. (November 2009)
6. **DHS:** Discussions with UTEP to submit proposals via their DHS Center.
7. **DHS:** Discussions to submit a white paper on Incidence Response.
8. Planning for a Center scale Trust Computing proposal with Purdue.

10. Focusing on funding opportunities with Raytheon, Rockwell, Lockheed, Ball Aerospace and Walmart.
Section 9. PUBLICATIONS
Authored Works (Journals, Conferences, Books, etc.)

I. JOURNAL PAPERS

Data and Applications Security


59. *Classification and Novel Class Detection in Concept-Drifting Data Streams under Time Constraints*, Accepted and to appear in IEEE Transactions on Knowledge and Data Engineering, 2010 (co-authors: M. Masud, L. Khan, J. Han).


62. Secure Data Objects Replication in Data Grid, IEEE Transactions on Dependable and Secure Computing, January 2010 (co-authors: Manghui Tu, Peng Li, I-Ling Yen, Bhavani Thuraisingham, and Latifur Khan)

Distributed Systems/Data Management/ AI Applications/Real-time Systems


80. A Scalable Clustering Method Based on Density, WSEAS Transactions on Computing Research, 2008 (co-authors: L. Khan and S. Bereg).


Computability/Complexity Theory


II. CONFERENCES PAPERS

Data and Applications Security


33. Security and Integrity Constraint Processing in a Multilevel Secure Distributed Environment, MILCOM 93, October 1993 (classified session) (co-authors: A. Abreu, H. Rubinovitz, M. Collins).


36. Security and Integrity in Distributed Database System, Database Colloquium 93, San Diego, CA, August 1993 (co-authors: D. Small, D. Goldsmith) (proceedings available in electronic media.)


64. *Privacy Preserving Data Mining*, Proceedings IEEE ICDM Workshop on Privacy preserving Data Mining, Houston, TX, 2005.


82. Delegation-Based Security Model for Web Services, HASE 2007: 82-91 (co-authors: Wei She, I. Yen).


88. The SCRUB Security Data Sharing Infrastructure, NOMS 2008: 630-644 (co-authors: Y. Yurick et al) (also software available as Opensource).


92. Accountability for Grid, DOE Conference on Cyber Security, Knoxville, TN, (co-author: E. Bertino)


100. Privacy Preserving Decision Tree Mining from Perturbed Data, HICSS 2009: 1-10, Nominated for best paper award (co-authors: Li Liu and Murat Kantarcioglu).

101. The SCIFC Model for Information Flow Control in Web Service Composition ICWS 2009 (co-authors: W. She, I. Yen, E. Bertino).


Real-time Processing: Objects, Data Management and Networks


136. *Classification and Novel Class Detection in Data Streams with Active Mining*, To appear in the 14th Pacific-Asia Conference on Knowledge Discovery and Data Mining, 2010 Hyderabad, India. (co-authors: Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han).

**Data Management and Mining/Geospatial information systems/Semantic Web**


164. Text Mining and Visualization, Proceedings of the KDD Workshop on Data Mining and Visualization, Newport Beach, CA, August 1997 (also in IEEE Visualization workshop, October 1997).


184. *Social Network Classification Incorporating Link Type*, ISI 2009 (co-authors: Raymond Heatherly and Murat Kantarcioglu).


187. *Integrating Novel Class Detection with Classification for Concept-Drifting Data Streams*, PKDD, September 2009 (co-authors: M. Masud et al).


III. BOOKS AUTHORED

Series 1: Data Management, Data Mining, Data Security for Technical Managers

9. *Secure Service Oriented Architectures*, CRC Press, expected publication Summer 2010

Series 2: Research from PhD/MS Thesis of Students


IV. BOOK CHAPTERS (not including reprints from conference proceedings)


V. TECHNICAL ARTICLES (not including panel presentation papers in proceedings)


22. *Data Mining for Security Applications and Its Privacy Implications*, Lecture Notes in Computer Science, Springer Verlag, (Based on keynote address at SIGKDD workshop 2008).

VI. MITRE JOURNALS


Section 10: EDITED WORKS

I. JOURNAL SPECIAL ISSUES EDITED


II. BOOKS EDITED


### III CONFERENCE AND WORKSHOP PROCEEDINGS EDITED


### IV WORKSHOP AND SPECIAL SESSION REPORTS


**V. MITRE Publications Edited**

1. Special Issue Editorial, Edge Data Mining Issue, MITRE, 2000

### Section 11: TECHNICAL REPORTS

**I. TECHNICAL REPORTS at the University of Texas at Dallas**

<table>
<thead>
<tr>
<th>Report No.</th>
<th>Title</th>
<th>Authors</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTDCS-5-05</td>
<td>Data Mining Techniques for Biometrics Systems</td>
<td>Latifur Khan Bhavani Thuraisingham</td>
<td>2/05</td>
</tr>
<tr>
<td>UTDCS-39-05</td>
<td>Uncertainty: An Extra Layer of Security For Unauthorized Traffic Based Web Services</td>
<td>Parag Agarwal B. Prabhakaran Bhavani Thuraisingham</td>
<td>12/05</td>
</tr>
<tr>
<td>UTDCS-02-06</td>
<td>Dependable and Secure TMO Scheme</td>
<td>Jung-In Kim Bhavani Thuraisingham</td>
<td>1/06</td>
</tr>
<tr>
<td>UTDCS-03-06</td>
<td>Geography Resource Description Framework (GRDF) and Secure GRDF (S-GRDF)</td>
<td>Ashraf Ali Bhavani Thuraisingham</td>
<td>1/06</td>
</tr>
<tr>
<td>UTDCS-04-06</td>
<td>An Adaptable Perturbation Model of Privacy Preserving Data Mining</td>
<td>Li Liu Bhavani Thuraisingham Murat Kantarcioglu Latifur Khan</td>
<td>1/06</td>
</tr>
<tr>
<td>UTDCS-05-06</td>
<td>Face Recognition Using Various Classifiers: Artificial Neural Network, Linear Discriminant and Principal Component Analysis</td>
<td>Pallabi Parveen Bhavani Thuraisingham</td>
<td>1/06</td>
</tr>
<tr>
<td>UTDCS-06-06</td>
<td>Administering The Semantic Web: CPT: Confidentiality, Privacy and Trust Management</td>
<td>Nathalie Tsybulnik Bhavani Thuraisingham</td>
<td>2/06</td>
</tr>
<tr>
<td>UTDCS-13-06</td>
<td>On the Complexity of the Privacy Problem in Databases</td>
<td>Bhavani Thuraisingham</td>
<td>3/06</td>
</tr>
<tr>
<td>UTDCS-14-06</td>
<td>Inference Control for Document Release and Dissemination</td>
<td>Bhavani Thuraisingham</td>
<td>3/06</td>
</tr>
<tr>
<td>UTDCS-15-06</td>
<td>Individually Adaptable Perturbation Model for Privacy Preserving Data Mining</td>
<td>Li Liu Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>3/06</td>
</tr>
<tr>
<td>UTDCS-22-06</td>
<td>Design and Implementation of a Secure Social Network System</td>
<td>Ryan Layfield Bhavani Thuraisingham</td>
<td>4/06</td>
</tr>
<tr>
<td>UTDCS-27-06</td>
<td>Detecting New Malicious Executables Using Data Mining</td>
<td>Mohammad M. Masud Latifur Khan Bhavani Thuraisingham</td>
<td>7/06</td>
</tr>
<tr>
<td>UTDCS-32-06</td>
<td>Fingerprint Matching Algorithm Based On Tree Comparison Using Ratios of Relational Distances</td>
<td>Abinandhan Chandrasekaran Bhavani Thuraisingham</td>
<td>7/06</td>
</tr>
<tr>
<td>UTDCS-39-06</td>
<td>A Scalable Clustering Method Based on Density</td>
<td>Kathryn Bean Sergey Bereg Latifur Khan Bhavani Thuraisingham</td>
<td>9/06</td>
</tr>
<tr>
<td>UTDCS-40-06</td>
<td>Detecting Malicious Executables Using Assembly Feature Retrieval</td>
<td>Mohammad M. Masud Latifur Khan Bhavani Thuraisingham</td>
<td>9/06</td>
</tr>
<tr>
<td>UTDCS-44-06</td>
<td>Design and Implementation of Policy Enforcement, Data Sharing and Mining Components for Trustworthy Coalitions</td>
<td>Mamoun Awad Dilsad Cavus Latifur Khan Manjunath Reddy Bhavani Thuraisingham</td>
<td>10/06</td>
</tr>
<tr>
<td>UTDCS-45-06</td>
<td>Design and Simulation of Agent-based Trust Management Techniques for a Coalition Environment</td>
<td>Srinivasan Iyer Bhavani Thuraisingham</td>
<td>10/06</td>
</tr>
<tr>
<td>UTDCS-46-06</td>
<td>Research and Simulation of Game Theoretical Techniques for Data Sharing Among Semi-Trustworthy Partners</td>
<td>Ryan Layfield Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>10/06</td>
</tr>
<tr>
<td>UTDCS-47-06</td>
<td>Defensive Information Operations: DETECTING MALICIOUS EXECUTABLES USING ASSEMBLY FEATURE RETRIEVAL in an Untrustworthy Environment</td>
<td>M. Mehey Masud Latifur Khan Bhavani Thuraisingham</td>
<td>10/06</td>
</tr>
<tr>
<td>UTDCS-48-06</td>
<td>Information Operations Across Infospheres: Volume 1</td>
<td>Bhavani Thuraisingham Latifur Khan Murat Kantarcioglu Marnoun Awad Dilsad Cavus Ryan Layfield Mehey Masud Srinivasan Iyer</td>
<td>10/06</td>
</tr>
<tr>
<td>UTDCS-51-06</td>
<td>A Novel Privacy Preserving Decision Tree Algorithm</td>
<td>Li Liu Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>10/06</td>
</tr>
<tr>
<td>UTDCS-58-06</td>
<td>Face Segmentation for Privacy Preserving Video Surveillance</td>
<td>Sai Chaitanya Bhavani Thuraisingham</td>
<td>11/06</td>
</tr>
<tr>
<td>UTDCS-60-06</td>
<td>A Comparative Study of a Key Agreement Protocol Based on ECC and RSA</td>
<td>Vibha Sethi Bhavani Thuraisingham</td>
<td>11/06</td>
</tr>
<tr>
<td>UTDCS-61-06</td>
<td>RFID Technologies and Their Applications</td>
<td>Abinandhan Chandrasekaran Bhavani Thuraisingham</td>
<td>11/06</td>
</tr>
<tr>
<td>UTDCS-01-07</td>
<td>An Integrated Platform for Secure Geospatial Information Exchange Through the Semantic Web</td>
<td>Bhavani Thuraisingham Alam Ashraful Ganesh Subbiah Latifur Khan</td>
<td>1/07</td>
</tr>
<tr>
<td>UTDCS-02-07</td>
<td>Oracle 10 G XE Tutorial (Product of Oracle Corporation)</td>
<td>Srinivasan Iyer Bhavani Thuraisingham</td>
<td>2/07</td>
</tr>
<tr>
<td>UTDCS-03-07</td>
<td>Geospatial Data Mining for National Security: Land Cover Classification And Grouping for Semantic Assessment</td>
<td>Chuanjun Li Latifur Khan M. Husain Bhavani Thuraisingham Shaofei Chen Fang Qiu</td>
<td>3/07</td>
</tr>
<tr>
<td>UTDCS-33-07</td>
<td>Security for Enterprise Resource Planning Systems</td>
<td>Wei-She Bhavani Thuraisingham</td>
<td>8/07</td>
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<tr>
<td>UTDCS-34-07</td>
<td>Secure Semantic Web Services</td>
<td>Bhavani Thuraisingham</td>
<td>8/07</td>
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<tr>
<td>UTDCS-35-07</td>
<td>Extended RBAC-Based Design and Implementation for A Secure Data Warehouse</td>
<td>Bhavani Thuraisingham Murat Kantarcioglu Srinivasan Iyer</td>
<td>9/07</td>
</tr>
<tr>
<td>UTDCS-39-07</td>
<td>Architecture for a Trusted Computing Base For need-to-share in case of emergencies</td>
<td>Yashaswini Harsha Kumar Bhavani Thuraisingham Latifur Khan</td>
<td>11/07</td>
</tr>
<tr>
<td>UTDCS-40-07</td>
<td>Enforcing Honesty in Assured InformationSharing within a Distributed System</td>
<td>Ryan Layfield Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>11/07</td>
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<tr>
<td>UTDCS-41-07</td>
<td>Data Mining for Defensive Operations</td>
<td>Mohammad Masud Latifur Khan Bhavani Thuraisingham</td>
<td>11/07</td>
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<td>UTDCS-45-07</td>
<td>Information Operations Across Infospheres: Volume 2</td>
<td>Latifur Khan Bhavani Thuraisingham Murat Kantarcioğlu Yashaswini Harsha Kumar Meheyd Masud Ryan Layfield</td>
<td>12/07</td>
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<tr>
<td>UTDCS-01-08</td>
<td>Trusted Computing Base for Assured Information Sharing</td>
<td>Yashaswini Harsha Kumar Bhavani Thuraisingham Latifur Khan</td>
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<tr>
<td>UTDCS-02-08</td>
<td>Delegation-based Security Model For Web Services</td>
<td>Wei She Bhavani Thuraisingham I-Ling Yen</td>
<td>1/08</td>
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<td>UTDCS-05-08</td>
<td>Mining Concept-Drifting Data Stream To Detect Peer to Peer Botnet Traffic</td>
<td>Mohammad M. Masud Jing Gao Latifur Khan Jiawei Han Bhavani Thuraisingham</td>
<td>3/08</td>
</tr>
<tr>
<td>UTDCS-13-08</td>
<td>Content-based Ontology Matching for GIS Datasets</td>
<td>Jeffrey L. Partyka Latifur Khan Bhavani Thuraisingham Neda Alipanah Shashi Shekhar</td>
<td>5/08</td>
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<tr>
<td>UTDCS-18-08</td>
<td>Surgical Haptics and Robotics: Influence of Mismatched Haptic and Visual Display Scales</td>
<td>Gregory S. Lee Bhavani Thuraisingham</td>
<td>7/08</td>
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<td>UTDCS-20-08</td>
<td>Synthesize Virtual World Motions From 2D Video Recognition</td>
<td>Yohan Jin Myunghoon Suk B. Prabhakaran Bhavani Thuraisingham</td>
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<td>UTDCS-22-08</td>
<td>Content-based Ontology Matching For GIS Datasets</td>
<td>Jeffrey Partyka Neda Alipanah Latifur Khan Bhavani Thuraisingham Shashi Shekhar</td>
<td>7/08</td>
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<tr>
<td>UTDCS-23-08</td>
<td>Secure Haptics and Surgical Robotics: Adaptation to Fitts’ Law Performance Measure for Multi-Target Task Comparisons</td>
<td>Gregory S. Lee Bhavani Thuraisingham</td>
<td>8/08</td>
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<td>UTDCS-32-08</td>
<td>A Practical Approach to Classify Evolving Data Streams: Training with Limited Amount of Labeled Data</td>
<td>Mohammad M. Masud Bhavani Thuraisingham Jing Gao Latifur Khan Jiawei Han</td>
<td>10/08</td>
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<tr>
<td>UTDCS-01-09</td>
<td>A Fine Grained Model for Information Flow Control in Web Service Composition</td>
<td>Wei She I-Ling Yen Bhavani Thuraisingham</td>
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<td>UTDCS-03-09</td>
<td>Preventing Private Information Inference Attacks on Social Networks</td>
<td>Raymond Heatherly Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>2/09</td>
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<td>UTDCS-40-08</td>
<td>A Framework for the Relational Transformation of RDF Data</td>
<td>Sunita Ramanujam Anubha Gupta Latifur Khan Steven Seida Bhavani Thuraisingham</td>
<td>12/08</td>
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<tr>
<td>UTDCS-04-01</td>
<td>Building a Temporal Geosocial Semantic Web for Military Stabilization and Reconstruction Operations</td>
<td>Bhavani Thuraisingham Latifur Khan Murat Kantarcioglu</td>
<td>4/09</td>
</tr>
<tr>
<td>UTDCS-13-09</td>
<td>Integrating Novel Class Detection with Classification for Concept-Drifting Data Streams</td>
<td>Mohammad M. Masud Jing Gao Latifur Khan Jiawei Han Bhavani Thuraisingham</td>
<td>6/09</td>
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<td>UTDCS-25-09</td>
<td>DESIGN and Implementation of Restful Web Services for Blackbook</td>
<td>Pranav Parikh Murat Kantarcioglu Latifur Khan Bhavani Thuraisingham</td>
<td>8/09</td>
</tr>
<tr>
<td>UTDCS-36-09</td>
<td>Enhanced Information Flow Control for Service Composition and Its Implementation</td>
<td>Wei She I-Ling Yen Bhavani Thuraisingham Elisa Bertino</td>
<td>09/09</td>
</tr>
<tr>
<td>UTDCS-36-09</td>
<td>Enhanced Information Flow Control for Service Composition and Its Implementation</td>
<td>Wei She I-Ling Yen Bhavani Thuraisingham Elisa Bertino</td>
<td>09/09</td>
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<td>UTDCS-40-09</td>
<td>Cost-based Query Processing for Large RDF Graph Using Hadoop and MapReduce</td>
<td>Mohammad Husain Pankil Doshi Latifur Khan Syeda A. Rizvi Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>11/09</td>
</tr>
<tr>
<td>UTDCS-41-09</td>
<td>Efficient Query Processing for Large RDF Graphs Using Hadoop and MapReduce</td>
<td>Mohammad Husain Pankil Doshi James McGlothlin Latifur Khan Bhavani Thuraisingham Murat Kantarcioglu</td>
<td>11/09</td>
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<td>UTDCS-02-10</td>
<td>Security Issues for Cloud Computing</td>
<td>Kevin Hamlen Latifur Khan Murat Kantarcioglu Bhavani Thuraisingham</td>
<td>01/10</td>
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<td>UTDCS-04-10</td>
<td>Ranking Entities from Multiple Ontologies to Facilitate Federated Queries</td>
<td>Neda Alipana, Julie Rauer Latifur Khan, Steven B. Seida Bhavani Thuraisingham</td>
<td>02/10</td>
</tr>
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<td>UTDCS-02-10</td>
<td>Semantic Web Implementation Scheme for National Vulnerability Common Platform Enumeration Data</td>
<td>Vaiphav Khadlikar Jyothsna Rachapalli Bhavani Thuraisingham</td>
<td>01/10</td>
</tr>
</tbody>
</table>
II. Technical Reports at MITRE


IV. Other Significant Technical Reports


Section 12: PRESENTATIONS
(Keynote addresses, panels, etc.)

I. KEYNOTE/FEATURED PRESENTATIONS


2. *Application of Object Technology in Data Management*, keynote address given at the Plenary session at the AFCEA Database Colloquium, San Diego, CA, August 28, 1995 (following keynote presentation by Ms Diane McCoy, Deputy Director, DISA - abstract published in proceedings).


5. *Data Warehousing, Data Mining, and Security*, also keynote address at PAKDD Data Mining Conference, Australia, April 1998.


7. *Implementing Real-time Object-Oriented Applications*, featured presentation at Object World East, Hynes Convention Center, Boston, MA, May 1996.


12. *Data Mining and Data Warehousing: Developments and Challenges*, featured address at IEEE Engineering Solutions: From Desktop to Internet Conference and Exposition, Hynes Convention Center, Boston, September 1996 (charts in proceedings).


19. *Evolvable Interoperable Real-time Command and Control Systems*, featured address at DoD Database Colloquium, September 1999 (following keynote address by Dr. Marv Langston), (abstract in proceedings).


27. *XML security* (with E. Bertino et al), keynote address at NSF PI Conference, Fort Worth, TX, April 2001.


29. *Data Mining for National Security and Counter-terrorism*, keynote address at the White House, Office of Science and Technology Policy, February 2002.


32. *Web Data Mining and Applications in Counter-terrorism*, keynote address at SIAM Data Mining Conference Workshop on Web Mining, April 2002.

34. *Sensor Web and Sensor Data Management*, keynote address at ISE, San Diego, July 2002. (Received SCSC award for this keynote, abstract in proceedings).


52. *Data Mining for National Security Applications*, keynote address, Pacific Asia Data Mining Conference Workshop, Singapore, April 2006 (proceedings abstract).

53. *Data Mining for Surveillance Applications*, featured address, Pacific Asia Data Mining Conference, Singapore, April 2006 (proceedings abstract).


55. *Data Mining for Cyber Security Applications*, ARES Conference, Vienna, Austria, April 2007.


74. *Secure Semantic Sensor Web and Pervasive Computing*, keynote address, SUTC, Newport Beach, CA, June 2010


II. PANEL PAPERS AND PRESENTATIONS
(some presentations published as proceeding papers)


10. *Approaches to Designing Trusted DBMSs*, Presented at the 18th International Conference on Very Large Databases (VLDB), Vancouver, BC, Canada, August 1992 (Chair: M. Morgenstern).


29. *Future Research in Multimedia Database Semantics*, IFIP 2.6 panel discussion, New Zealand, January 1999 (Chair).


47. *Privacy and Data Mining: Friends or Foes?* KDD Panel, Washington DC, August 2003 (Chair: R. Agrawal).


60. Assured Information Sharing, ACM SACMAT June 2007 (Chair).
64. Directions for Sensor and Pervasive Applications, TRUST, Shanghai, December 2008 (Chair: S. Yau).
65. Women in Cyber Security, Secure Knowledge Management Conference, Dallas, TX, November 2008 (Chair).
67. Intelligence and Security Informatics, ISI, Dallas, TX, June 2009 (Panel Chair)

III. CONFERENCE/WORKSHOP PRESENTATIONS (Informal or no Proceedings)

Data and Applications Security


**Distributed Systems Management/AI Applications/Real-time Processing**


**IV. SIGNIFICANT EXTERNAL TECHNOLOGY EXCHANGE MEETINGS AND PRESENTATIONS**


18. *Data Warehousing, Data Mining and Security* (version of IFIP 1996 keynote), seminars at IBM Zurich and University of Zurich, 1996.


24. *Seminars on Data and Applications Security and XML Security*, Wright State University, February 2003; University of Illinois, Urbana, Champagne, April 2003; George Mason University, April 2003; University of Texas at Dallas, November 2003; University of Minnesota, December 2003.


34. Data Security Research at UTD, Raytheon Corporation, January 2006.


41. Data Mining for Buffer Overflow, Seminar series, Purdue University (February 2007); Polytechnic University New York, August 2007.


54. Information and Security Analytics at UTD, presentation at Wright State University, November 2009.


56. Cyber Security Research and Education at UTD, Mississippi State University, January 2010.

57. Data Mining for Malware Detection, University of Arizona, February 2010.

58. Dallas – Ideal city for a technology conference, Presented to the IEEE Data Engineering Steering Committee, March 2010 (co-author: Rhonda Walls)

59. Assured Information Sharing: Malicious Code Detection, University of Louisville, March 2010

V. MITRE SYMPOSIA AND TECHNOLOGY EXCHANGE MEETINGS


7. Data Management for Workflow Computing, Presented at the MITRE Symposium on Databases for the 90s, McLean, VA, June 16, 1994 (Abstract and presentation in proceedings; co-author: B. Lavender).


**VI. TUTORIALS**

**Conference Tutorials**


**Department of Defense and Other Agencies**


2. *A Seminar on Secure Database System*, Full-day tutorial presented to the Dept. of the Navy NCCOSC, San Diego (January 1993, June 1993); Versions also presented to the U.S. Air Force AFCSC (June, August, September, 1991 - San Antonio, TX).


**MITRE Tutorials** (excludes informal tutorial presentations at MITRE)


5. *A Course in Database Management Systems*, Presented at the MITRE Institute, Bedford, MA, Fall 1992 and Fall 1993 (videotapes and lecture notes available).


**VII: University of Texas at Dallas Conference Presentations (Sample)**


**VIII: University of Texas at Dallas Presentations to Visitors to UTD**
Knowledge Discovery and Security Informatics at UTD

- *Open Geospatial Consortium*, April 2006
- *Freshman Class*, August 2007
- *IARPA*, September 2007
- *IAB Meeting*, November 2008
- *DFW Teachers*, June 2009
- *Lockheed Martin*, January 2010
- *L-3 Communications*, January 2010
- *Ball Aerospace*, February 2010
Section 13. DISCUSSION OF RESEARCH AND PUBLICATIONS

1. Introduction:

In this note I describe the research I have carried out since I started my professional career in August 1980 after my PhD. I first describe my research focus at the University of Texas at Dallas (UTD) since October 2004, and then describe my research contributions to computer science from 1980-2004. Research at UTD is focusing in 2 major areas: Data Security and Privacy (Assured Information Sharing; Secure Geospatial Data Management and Secure Social Networks) and Information Management (Semantic Web, Data Mining). In particular, we are developing novel data mining techniques and secure semantic web technologies to solve problems mainly for cyber security and national security.

My prior research, mainly carried out in industry, has focused on computability theory, data security, data management, distributed systems and data mining and is discussed in section 3. It shows the depth and breadth of my work and explains how they all fit together. My research spans from theory to system design, modeling and implementation to application design to technology transfer to big-picture/vision. I have discussed my research in five areas (Computability Theory, Information Security, Distributed Systems and Real-time Objects, Data Management, and Homeland Security).

My main research area since 1985 has been in Data/Information Security and still continues. My research has resulted in over 90 journal papers, over 200 conference/workshop papers, over 70 keynote presentations, 3 patents and 11 books (9 published, 2 in preparation).

A. Research at the University of Texas at Dallas
   (October 2004 – Present: Data and Applications Security, Information Management)

Research is proceeding in two main areas: Data and Applications Security and Privacy, and Information Management.


I. Data and Applications Security

Area 1: Assured Information Sharing: Funding from AFOSR, NSF (2004 -Present)

In the area of assured information sharing, the goal is for organizations to share data and at the same time enforce policies. We are investigating confidentiality, privacy, trust, integrity, provenance, standards and infrastructure aspects. In particular, we are examining three scenarios. In the first scenario, we assume that the partners of a coalition are trustworthy (e.g., US, UK, Australia). However, each partner may want to enforce various security policies. We are investigating the use of Ravi Sandhu’s RBAC and UCON policies for such a scenario, carrying out data mining and conducting experimental studies as to the amount of information that is lost by enforcing policies. We are also investigating ways to transfer our technologies to programs such as DoD’s NCES (Network Centric Enterprise Services).

In the second scenario, we assume that the partners are semi-trustworthy. In this case, we want to play games with the partners and extract as much information as possible without giving out information about ourselves. We are using results from game theory to formulate strategies for such a scenario and have obtained some interesting simulation results. In the third scenario, we assume that the partners are untrustworthy. Here, we apply data mining to defend our systems from virus and worms and at the same time try to probe into our partners’ systems.
This research has now resulted in a MURI project. We are investigating incentive-based information sharing and risk-based access control.

**Area 2: Secure Geospatial Data Management: Funding from NGA, Raytheon**

In the area of secure geospatial data management, we are developing technologies for geospatial semantic web and data mining. We are specifying extensions to GML for access control policies, as well as developing ontologies for geospatial data. Using these ontologies, we are conducting data mining. In addition, we are also developing geospatial web services. Finally, we are developing a new language called GRDF (Geospatial Resource Description Framework) and Secure GRDF for a geospatial semantic web. While we are developing various pieces of technologies, our goal is to work through standards organizations such as OGC (Open Geospatial Consortium) and corporations such as Raytheon to transfer our research to standards and operational programs. We are members of both OGC and USGIF. We are also members of UTD’s Geosciences program.

**Area 3: Data Mining Applications in Security, Funding from Texas Enterprise Funds, NASA, AFOSR (2007 - Present)**

Our main research in data mining applications is to develop tools for intrusion detection and malicious code detection. In addition, we are also developing tools for fault detection. We have also applied data mining for surveillance and biometrics. In the area of surveillance and biometrics, our goal is to develop technologies for detecting suspicious events. We developed a surveillance system to detect suspicious events. We identified normal events and used data mining techniques and determined whether an event is suspicious. In the area of biometrics, we developed tools for face recognition and fingerprint detection. In addition, we are conducting research on integrating robotics and security.

**Area 4: Secure Grid and Web Services AFOSR (2008-Present)**

Here we are developing a delegation model for web services. In addition, we are developing algorithms for secure storage of grid systems, as well as accountability policies for grid systems.

**Area 5: Secure Social Networks, Funding from AFOSR (2008 - Present).**

Here we are applying semantic web technologies to represent social networks and investigate security and privacy (jointly with University of Insubria).

**Area 6: Complexity Theory (2008 - Present)**

My PhD research, as well as early research in my career, was in computability theory (please see section 3). After 25 years, I have gotten back into the field of co-advising students on complexity theory for sensory networks and security. This is more of a hobby at present.

II. Information Management

**Semantic Web: Funding from IARPA (2007 - Present)**

Our research is in semantic web applications for social networks, as well as knowledge management. We are conducting research in enhancing JENA, building query techniques with Hadoop, as well as investigating security for semantic web and social networks. We are also exploring security for semantic web and privacy for social networks.

**B. Research Contributions to CS (August 1980 – September 2004)**

Research is proceeding in five main areas: Computability Theory, Data Security; Distributed Processing, Data Management and Information Technologies for Homeland Security.

**Publications:** Several journal publications including IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Software Engineering, IEEE Transactions on Parallel and Distributed Processing, Journal of Computer and Systems Sciences, Notre Dame Journal of Formal Logic, Computers
Area 1: Computability Theory
Much of my research in the early 1980s was on computability theory. I studied various decision problems for combinatorial systems such as systems functions and proved several results on the unsolvability and the complexity of the problems. I also invented the concept of an N-cylinder and this enabled me to give several counter-examples for the complexity problems. I have also applied the results in these papers to my work on the complexity of the inference problem. This complexity work was stated by NSA (National Security Agency) to be a significant development in database security in 1990 (Proceedings National Computer Security Conference). I am now applying the results to the privacy problem. Several papers were published in the Journal of Computer and Systems Sciences, Notre Dame Journal of Formal Logic between 1980 and 1993.

Publications: Number of Journal Papers: 9; Number of Technical Articles: 1.

Area 2: Information Security
My research in information security and secure database systems started in 1985 and still continues. Around 70% of my publications are in this area. This work has had a major impact on the research community, as well as on the commercial and government communities. I have been invited to give numerous keynote addresses on my research, as well as advice to the government on information security. My earlier contributions have been on secure relational databases, secure object databases, secure distributed databases and the inference problem. My research in the early 2000s was on secure XML databases, privacy constraint processing, and secure sensor information management. My current research is discussed in section 2. A summary of my research between 1985 and 2004 is given below.

Secure Relational Systems: In the mid to late 1980s I was part of a team at Honeywell designing one of the prominent secure relational database systems. This system was called Lock Data Views (LDV) built on top of LOCK secure operating system. Issues investigated in this research had an impact on some of the commercial products that were emerging in the late 1980s and early 1990s. We developed a security policy, security model and designed modules for query, update, and metadata management. We also developed a multilevel relational data model.

Secure Objects: I investigated security for object database systems based on MCC’s ORION. I was one of the first to carry out such an investigation. This work had a major impact on the secure database research community. Subsequently I published a policy, model and design of a system. I also examined the use of object models for designing secure systems.

Secure Distributed Databases: In the early 1990s I led a team and conducted research on secure distributed database systems. Algorithms for secure query processing and transaction management were designed. Prototypes were implemented. We connected systems in Massachusetts, Washington DC and New Jersey and built applications. This was a very novel idea at that time. Simulation studies were also carried out on secure query and transaction processing.

Inference Problem/Secure Deductive Databases: I was one of the first to conduct research on the inference problem and deductive databases and also created a logic for secure databases called NTML (Nonmonotonic Typed Multilevel Logic). I also proved that the inference problem is unsolvable and this work was cited as one of the significant developments in database security in 1990 by Dr. John Campbell of NSA in the Proceedings of the 1990 National Computer Security Conference. I was successfully able to use my research on computability theory to study the complexity of the inference problem. I also led a team that conducted research on security constraint processing and designed and developed systems to process constraints. We extended the prototypes to work in a distributed environment.

Emerging Security Technologies: More recently my research has been on secure web data management. In particular I have examined security for XML databases and the semantic web. I am also investigating designs for privacy constraint processing which is along the lines of my work on the inference problem. I am exploring some new directions such as security for sensor information systems.
Other Information: Some of my research in secure databases was carried out in collaboration with the University of Minnesota in the 1980s and I supervised MS and PhD students there. At MITRE I had students working on my projects in secure databases from CMU and Cornell. I have also collaborated with the University of Milan and supervised a PhD student. I mentored junior staff at the NSA at the request of the chief between 1991 and 1997 and wrote joint papers. I also reviewed university research proposals for NSA in this area between 1991 and 1996. I invented three US patents for MITRE on database inference control and have authored a very comprehensive book in database and applications security. I served on the editorial board of the Journal of Computer Security for ten years and now serve on the editorial boards of two of the major journals in security: ACM Transactions on Information Systems Security and IEEE Transactions on Dependable and Secure Computing. In addition, I serve on the editorial and advisory boards of four other security journals. My research in secure databases has also resulted in being elected a Fellow of both IEEE AAAS and the British Computer Society. I received the IEEE CS 1997 Technical Achievement award for this work and was also quoted by Silicon India as one of top seven technology innovators of South Asian origin (other six are from Stanford, Berkeley, MIT, NASA, HP Labs and PARC). Several articles have appeared in IEEE Computer, IEEE Transactions on Knowledge and Data Engineering, ACM OOPSLA, Journal of Object-Oriented Programming, Computers and Security Journal, Data and Knowledge Engineering, and Journal of Systems and Software.

Publications: Number of Journal Papers: 38; Number of Conference Papers: 55; Number of Technical Articles: 11; Number of Book Chapters: 4; Number of Books 1, Number of Books Edited: 4; Number of Journal Special Issues Edited: 5 (in addition, numerous technical reports from Honeywell, MITRE and University of Minnesota; keynote and panel presentations, edited conference proceedings, and workshop/special session reports).

Area 3: Distributed Systems and Real-time Objects

Distributed Systems: I believe strongly that to carry out security research one needs a good understanding of systems. Therefore, while conducting security research since 1985, I have also worked in systems including database systems, distributed systems and networks. Some of my early work with the University of Minnesota in the 1980s was on distributed fault tolerant systems. We worked on binary tree task models for fault tolerant computing. I supervised PhD students in this area. While at Honeywell I spent part of my time designing a network operating system for space station networks. Prior to Honeywell I had over 2 years of product development experience with CDCNET at Control Data Corporation.

Survivable Real-time Object Systems: Between 1993 and 2000 I worked with a team at MITRE and the University of Rhode Island conducting research for next generation AWACS (Airborne Warning and Control System). My goal was to integrate my security research with real-time processing and fault tolerance techniques to build survivable systems. We designed and developed an infrastructure and data manager based on objects for next generation AWACS and transferred the technology to Air Force programs. We also investigated aspects of integrating security, real-time processing and fault tolerance issues. I led the real-time information management part of the project and also helped found the real-time object request broker group at the Object Management Group. We were the first to propose real-time aspects for Object Request Brokers in 1994. We continued our investigation on real-time CORBA and also investigated scheduling for real-time middleware. We also designed and developed new concurrency control algorithms for real-time object databases. This research had a major impact not only on Air Force programs but also on other DoD programs. We influenced the standards community, the commercial community (for real-time CORBA) and the research community (e.g., real-time concurrency control). I also supervised MS and PhD students in this area from University of Rhode Island and North Eastern University. Several papers on fault tolerant and real-time computing were published including articles in IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Software Engineering, IEEE Symposium of Object-Oriented Real-time Computing, Real-time Systems Journal, IEEE Network, VLDB Conference, and Computer Systems.
Science and Engineering. *I am continuing to combine my research in security and real-time computing to investigate properties of survivable dependable systems and serve on the editorial board of newly formed journal IEEE Transactions on Dependable and Secure Computing.*

**Publications:** Number of Journal Articles: 5; Number of Conference Papers: 24; Number of Technical Articles: 1 (in addition numerous technical reports from MITRE, University of Minnesota, and University of Rhode Island and keynote/panel presentations in this area).

**Area 4: Data Management**

**Research and Technology Transfer in Data Management:** During the mid to late 1980s while at Honeywell Computer Sciences Center, I worked with a team on a number of research projects funded by the commercial divisions. In one effort we developed an application generator toolkit to help the residential control division programmers develop database applications. In another effort we explored the use of expert systems technology for designing process control systems such as Honeywell’s TDC3000 for Industrial Automation division. We also designed and developed a distributed data dictionary system for Honeywell’s Residential control division. While my main research has been in data and applications security, I have a solid background in database systems, as I believe strongly that to conduct security in data management, one needs a good understanding of database systems.

**Data, Information and Knowledge Management:** At MITRE, in the mid to late 1990s and early 2000, I managed a research group in Information Management (which included data management, multimedia, information management, data mining and knowledge management) for several years. I also advised the government and MITRE on data/information management and wrote five books in the field for technical managers. I managed university research programs for the Intelligence Community for six years. Several journal and conference papers were published in Knowledge and Process Management Journal, Computer Standards and Interface Journal and IEEE Data Engineering Conference. I also served on the editorial board of IEEE Transactions on Knowledge and Data Engineering for four years. *Having a strong systems background has helped my security research a great deal as security is not a stand-alone field and has to be integrated with systems.*

**Publications:** Number of Journal Papers: 11, Number of Conference Papers: 36; Number of Technical Articles: 2; Number of Book Chapters 7; Number of Books Edited: 2 (in addition numerous technical reports, keynote/panel presentations, edited conference proceedings and workshop/special session reports in this area).

**Area 5: Information Technologies for Homeland Security**

Since 9/11 I have been very active at NSF on interagency research in Homeland security. In particular, I have set the direction for data mining for counter-terrorism and gave keynote presentations at the White House and the United Nations. I consulted for DHHS (Health and Human services) on Bioterrorism. I am also very aware of privacy concerns and as part of my research on Information security I am addressing privacy. I will continue to contribute to homeland security areas. *I am using my expertise in areas such as data security, real-time systems and data mining and theory to investigate problems in national security.*

**Publications:** Number of Keynote Presentations 4; Number of Panel Papers: 5; Number of Technical Articles: 2; Number of Book Chapters 1; Number of Books 1 (*Web Data Mining and Applications in Business Intelligence and Counter-terrorism, 2003*)
Section 14. SOFTWARE SYSTEMS/ PROTOTYPES/ PRODUCTS DEVELOPED

Control Data Corporation

CDCNET, 1983-6
Transport, Session and Network Layers as well as Memory Management Algorithms and Command Processors for CDCNET. Release 1 December 1985
Approx 60 members in the CDCNET Team

Honeywell Inc.

1. **Lock Data Views** 1986 - 1988
   Paul Stachour, Bhavani Thuraisingham, Pat Dwyer, Emmanuel Onuegbe, Tom Haigh, Dick O’Brien
   Designed a Multilevel Secure Relational Database System Design Contract from RADC
   (implementation contract was awarded to Honeywell using Oracle in 1989, but I did not work on this).

   Krishna Mikkilineni, Hongjun Lu, Bhavani Thuraisingham, Cho-Li Ho
   Designed and implemented a system for Honeywell Divisions using NIST IRDS System.

3. **Network Operating System**, 1987
   Bhavani Thuraisingham, Tammy Chan, Pat Gonia
   Designed a Network Operating System as part of MCNIU network for NASA (implementation contract was also awarded, but I did not work on this).

   Ferit Konar, Paul Felix, Bhavani Thuraisingham
   Designed and implemented a expert process control system .

The MITRE Corporation

1. **Multilevel Secure Data Management System**, 1989
   Amiel Kamon, Bhavani Thuraisingham
   Prototype system developed using Sybase for the backend system and SUN Unix for front-end.
   Security at the front-end was simulated.

2. **Inference Control during Query Processing**, 1989 -1990
   William Ford, Bhavani Thuraisingham, Jonathan O’Keeffe
   Secure Sybase running on Ultrix for MLS/DBMS and built inference controller for query processing as an application.

3. **Inference Control during Update Processing**, 1990
   Marie Collins, Bhavani Thuraisingham
   Secure Sybase running on Ultrix for MLS/DBMS and built inference controller for update processing was built as an application.

   Marie Collins, Bhavani Thuraisingham
   Used CLIPS expert system and implemented in COOL.
   Harvey Rubinovitz, Bhavani Thuraisingham
   Built Secure Distributed Processor DQP that connected multiple Secure Sybase Server running on Ultrix operating system.

   Harvey Rubinovitz and Bhavani Thuraisingham
   Simulation tool was developed to simulate multiple secure concurrency control algorithms and compare performance.

   Marie Collins, Harvey Rubinovitz and Bhavani Thuraisingham
   Implemented a multilevel multimedia system on the MAC environment. Simulated security features for text image, audio, animation and video.

   Harvey Rubinovitz and Bhavani Thuraisingham
   Simulated security features for Object Store Object DBMS. Implementation in C++.

    Harvey Rubinovitz, Bhavani Thuraisingham, David Foti
    Utilized the DQP and built a distributed inference controller for query processing. Utilized Secure Sybase Server on Ultrix.

    Harvey Urbanity and Bhavani Thuraisingham

    Harvey Rubinovitz, Marie Collins and Bhavani Thuraisingham,
    Implemented a system with Army MCS application utilizing the distributed constraint processor.

12. **Active Real-time Data Manager**, 1994
    Gary Gengo, Bhavani Thuraisingham
    Using ZIP-RTDBMS, built a rule processor for processing rules in real-time.

    Peter Krupp, Bhavani Thuraisingham, John Maurer, Mike Squadrito
    Developed an ORB-based infrastructure on Lynx operating system for command and control applications with AWACS as an example.

    Mike Squadrito, Victor Wolfe, Bhavani Thuraisingham, Peter Krupp
    Developed a main memory data manager and concurrency control algorithms for real-time applications hosted on the infrastructure.

    Mike Squadrito, Roman Ginis, Peter Krupp, Bhavani Thuraisingham
    Designed and implemented an adaptive component based infrastructure for real-time applications.
University of Texas at Dallas

1. **Suspicious Event Detection and Surveillance**, 2004 - 2005
   Gal Lavee, Bhavani Thuraisingham, Latifur Khan
   Developed a system for detecting suspicious events. Developed a distance matrix to identify events that are similar.

   Meheddy Masud, Latifur Khan, Bhavani Thuraisingham
   Developed data mining algorithms using WEKA and other tools to detect buffer overflow, and malicious code.

   Yashaswini Harshakumar, Bhavani Thuraisingham, Latifur Khan
   Using Oracle database systems and XACML policies implemented assured information sharing prototype.

   Alam Ashraful, Farhan Hussein, Latifur Khan, Bhavani Thuraisingham
   Develop a prototype for implementing security policies in heterogeneous geospatial data management systems.

   Chuan Li, Latifur Khan, Bhavani Thuraisingham
   Developed tool for classifying geospatial data.

   Jeff Partyka, Latifur Khan, Bhavani Thuraisingham
   Developed ontology alignment algorithms for integrating heterogeneous geospatial database systems. The algorithms were integrated into Intelligence Community’s Black book.

   Meheddy Masud, Latifur Khan, Jiawei Han, Bhavani Thuraisingham
   Developed a stream mining algorithms for novel class detection. The tool will be distributed for external users.

8. **Translators and Mappings from Relational to RDF Data and Vice Versa**, 2007 - 2009
   Sunitha Sriram, Latifur Khan, Bhavani Thuraisingham
   Developed a tool for use by relational database users and RDF users to carry put translations. Tool will be distributed to external users.

   Li Liu, Murat Kantarcioğlu, Bhavani Thuraisingham
   Developed a tool based on decision tree for privacy preserving data mining.

    Ryan Layfield, Murat Kantarcioğlu, Bhavani Thuraisingham
    Simulated algorithms for information sharing using game theory concepts for bioterrorism and insecurity.

Farhan Hussein, Pankil Doshi, Latifur Khan, Bhavani Thuraisingham
Develop a cloud computing platform with Hadoop and Mapreduce and implemented secure federated query processing and optimization algorithms on top of this platform.

12. Inference Controller for Semantic Web, 2009
Tyrone Cadenhead, Murat Kantarcioğlu, Bhavani Thuraisingham
Prototype developed for Policy Management using descriptive logic base inference controllee.

Ganesh Subbiah, Latifur Khan, Bhavani Thuraisingham, Alam Ashraful
Developed a system called DAGIS to answer geospatial semantic queries. Implemented an access control module for DAGIS.

Abinathan, Bhavani Thuraisingham
Implemented a novel fingerprinting matching algorithm and associated system.

Parveen Pallabi and Bhavani Thuraisingham
Developed a system that detects facial features using neural networks. The algorithm combines SVM and ANN and uses Dempster-Shafer theory for fusing the results.

Mamoun Awad, Latifur Khan, Bhavani Thuraisingham
Simulated policy management in information sharing algorithms and determined the amount of information that would be lost by enforcing policies. This would give guidance to the decision makers of the policies that need to be enforced.

Ryan Layfield, Bhavani Thuraisingham, Latifur Khan
Developed a prototype secure social network system and analyzed the properties using the Enron data set.

18. Secure Web Services, 2007 - 2010
Wei-She, I-Ling Yen, Bhavani Thuraisingham
Implemented a delegation model for secure web services.

19. Access Control Model for Social Networks, 2009 - 2010
Raymond Weatherly, Murat Kantarcioğlu, Barbara Carminati, Elena Ferrari
Prototype being developed for a system of a secure social network using a novel access control model.

In progress.
Blackbook Enhancements and GOTS (Government Off the Shelf)

1. **Geospatial Proximity Algorithm, 2008 - 2009**
   Sonia Chib, Bhavani Thuraisingham, Jyothsna Rachapalli, Latifur Khan
   Implemented geospatial proximity algorithms using Google maps for Blackbook users.

2. **REST Interface and Integration of Amazon.com Web Services into Blackbook, 2008 - 2009**
   Pranav Parikh, Murat Kantarcioglu, Bhavani Thuraisingham
   Implemented the REST Interface to Black book. Then using this interface integrated Blackbook with Amazon.com webs services for query processing.

3. **MALLET/Blackbook Integration, 2009 - 2010**
   Pralav, Bhavani Thuraisingham
   Developed a professionalization service for the MALLER Machine learning algorithms and integrated into Blackbook.

4. **NIST NVD Ontology Management, 2009**
   Developed an ontology based system for specifying the data in the NIST NVD Databases
   Jyothsna Rachapalli, Vaibhav Khadilkar, Bhavani Thuraisingham, NIST

Open Source Software at the University of Texas at Dallas

- SCRUB tool

  - JENA Contributions, Very Large RDF Graphs
    2. [http://jena.sourceforge.net/ contrib/contributions.html](http://jena.sourceforge.net/ contrib/contributions.html)
       [http://cs.utdallas.edu/semanticweb/jenaextension.html](http://cs.utdallas.edu/semanticweb/jenaextension.html)

Tool Repositories developed and hosted at UTD

- Data Mining Tools
  [http://dml.utdallas.edu/Mehedy/](http://dml.utdallas.edu/Mehedy/)

- Anonymization Tools

- Semantic Web Tools
Section 15: INTELLECTUAL PROPERTY AND PATENTS

1. The MITRE Corporation


Status my of patents: In 2003 former Microsoft CTO Nathan Mvhrvold’s company (Intellectual Ventures) wanted to purchase 4 patents from MITRE. Three of them were mine. MITRE also as a bonus gave them additional patents together with the 4 must have patents for $2m approx. Each of the inventors was given $7K.

2. The University of Texas at Dallas

Intellectual Property Disclosures

<table>
<thead>
<tr>
<th>Disclosure Number</th>
<th>Title</th>
<th>PIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>09-037</td>
<td>Policy Management for Assured Information Sharing in a Coalition Environment</td>
<td>Bhavani Thuraisingham, Latifur Khan, Murat Kantarcioglu</td>
</tr>
<tr>
<td>10-017</td>
<td>Classification and Novel Class Detection in Concept-Drifting Data Streams under Time Constraints</td>
<td>Mohammad Mehedy Masud, Bhavani Thuraisingham</td>
</tr>
<tr>
<td>10-019</td>
<td>Biological Weapon Attack Simulation Using Social Network and Game Theoretic Modeling</td>
<td>Ryan Layfield (former PhD Student), Bhavani Thuraisingham</td>
</tr>
</tbody>
</table>

Based on this disclosure, we are starting a spin-off company with UTD titled: “Security and Information Analytics” in March 2010. The company founder is Bhavani Thuraisingham and major share holders will be UTD, Latifur Khan, and Murat Kantarcioglu and minor share holders
will be Mehey Masud and Ryan Layfield.
Section 16: PROFESSIONAL ACTIVITIES

Editor-in-Chief


Editorial Boards

IEEE Transactions on Knowledge and Data Engineering, 1996 – 2000
Computer Standards and Interfaces, 1993 – 2005
IEEE Transactions on Secure and Dependable Computing, 2004 –
Journal of Distributed Sensor Networks, 2004 –
Journal of Computer Science and Network Security, 2006 –
Journal of Information Security and Privacy, 2006 –
Very Large Database Journal, 2007 –

Advisory Boards

Purdue University, Computer Science Department, 2004 – 2006
Journal of Privacy Technologies, 2004 –
Journal of Computer Security, 2000 –
IASTED, 2001 – 2004

General Conference Chair/Co-Chair

IEEE WORDS Conference, Rome, Italy, January 2001
IFIP Data Integrity and Control Conference, Warrenton, VA, November 2005
Intelligence and Security Informatics, ISI, San Diego, CA, May 2006
Secure Knowledge Management, Dallas, TX, November 2008
Intelligence and Security Informatics, ISI, Dallas, TX, June 2009
NSF Workshop on Data and Applications Security, Arlington, VA, February 2009

Program Chair/Co-Chair

1. IFIP Database Security Conference, Vancouver, Canada, August 1992 (Chair)
2. ACM OOPSLA Conference Workshop on Secure Object, Washington DC, Sept 1993 (Co-chair)
4. ACM OOPSLA Conference Workshop on Objects in Healthcare, Portland, OR, October 1994 (Co-chair)
6. ACM OOPSLA Conference Workshop on Objects in Healthcare, Austin, TX, October 1995 (Co-chair)
8. IEEE Metadata Conference, Silver Spring, MD, April 1996 (Founding Chair)
9. ACM OOPSLA Conference Workshop on Objects in Healthcare, San Jose, CA, October 1996 (Co-chair)
10. Federal Data Mining Symposium, Washington DC, December 1997 (Founding Co-Chair)
11. IEEE Multimedia Database Workshop, Dayton, OH August 1998 (Co-chair),
12. IEEE COMPSAC Conference, Vienna, Austria, 1998 (Co-chair)
13. IEEE WORDS Workshop, Santa Barbara, CA, January 1999 (Chair)
14. IEEE ISORC, Newport Beach, CA, March 2000 (Co-chair)
15. IFIP Database Security Conference, Amsterdam, Netherlands, August 2000 (Primary Co-chair)
16. CODATA Symposium on Integrating Heterogeneous Data, Stressa Italy, October 2000 (Co-chair)
17. IEEE ISADS Conference, Dallas, TX, March 2001 (Chair)
19. IEEE ISORC, Korea, April 2006 (Co-chair)
20. ACM SACMAT Conference, Sophia Antipolis, France, June 2007 (Chair)
21. ICDE Secure Semantic Web Workshop, Mexico, April 2008 (Co-chair)
22. ICWS Security Workshop, Los Angeles, CA, July 2009 (Co-chair)
23. PASSAT, Vancouver, Canada, August 2009 (Chair)
24. Indo-US Summit in Infrastructure Security, Bangalore, January 2010 (Co-Chair)

Program Vice Chair and/or Special Roles
1. IEEE ICDE Conference, Mexico, 2008, Vice Chair for Security
2. IEEE ICDE Conference, Sydney, 1999, Panel Chair

Program Committee Member (Sample, not a complete list)
1. IEEE Local Area Networks Conference, Minneapolis, MN, October 1987
2. ACM Computer and Communications Security Conference, Fairfax, VA, November 1994
5. IEEE ICECCS Conference, Ft. Lauderdale, FL, October 1995
6. ACM SIGMOD Conference Workshop on Data Mining, Montreal, Canada, June 1996
7. Pacific Workshop on Distributed Multimedia Systems, Hong Kong, June 1996
8. IEEE ICECCS, Montreal, Canada, October 1996
9. IEEE WORDS Workshop, Newport Beach, CA, February 1997
11. Pacific Workshop on Distributed Multimedia Systems, July 1997
13. IEEE COMPSAC, Bethesda, MD, August 1997
15. IEEE ICDE, Orlando, FL, February 1998
16. IEEE ISORC, Kyoto, Japan, April 1998
17. PAKDD, Melbourne, Australia, April 1998
20. ASSET, Dallas, TX, March 1999
21. IEEE ISADS, Tokyo, Japan, March 1999
22. DASFAA, Taiwan, April 1999
23. Federal Data Mining Symposium, McLean, VA, March 1999
24. IEEE COMPSAC, Tempe, AZ, October 1999
26. E-Commerce and Web-based Information Systems Workshop, San Jose, CA, April 1999
27. PAKDD, Beijing, China, April 1999
29. PAKDD, Kyoto, Japan, April 2000
30. ACM CCS Workshop on E-Commerce Security, Athens, Greece, November 2000
31. IEEE ISORC, Magdeberg, Germany, May 2001
32. IEEE COMPSAC, Chicago, IL, October 2001
33. International Workshop on Multimedia Middleware, Ottawa, Canada, November 2001
34. IEEE FTDCS, Bologna, Italy, November 2001
35. IEEE WORDS, San Diego, CA, January 2002
36. IASTED Applied Informatics, Innsbruck, Austria, February 2002
37. PAKDD Workshop on Rough Sets and Data Mining, Taiwan, May 2002
38. IEEE ISORC, Washington DC, May 2002
40. ACM SACMAT, Monterey, CA, June 2002
41. Second Semantic Web Symposium, Sardinia, Italy, June 2002
42. IEEE COMPSAC, Oxford, UK, August 2002
43. COOPIS, Irvine, CA, October 2002
44. IEEE ICTAI 2002, Crystal City, VA, November 2002
45. IFIP Integrity and Control Conference, Bonn, Germany, November 2002
46. NSF/NIJ Symposium on Security Informatics, Tucson, AZ, June 2003
47. IASTED Applied Informatics, Innsbruck, Austria, February 2003
48. IEEE ISADS, Pisa, Italy, April 2003
49. IEEE ISORC, Japan, May 2003
50. IFIP Data Security, Colorado Springs, CO, August 2003
51. IEEE WORDS 2003F, Capri Island, Italy, October 2003
52. IFIP Integrity and Control Conference, Lausanne, Switzerland, November 2003
53. ACM Computer and Communications Security, Washington DC, October 2003
54. IEEE ICTAI, Sacramento, CA, November 2003
55. IEEE COMPSAC, Dallas, TX, November 2003
56. IFIP Database Security Conference, Estes Park, CO, August 2003
57. IEEE ISORC, Vienna, Austria, May 2004
58. NSF/NIJ Symposium on Security Informatics, Tucson, AZ, June 2004
59. ACM SACMAT, Yorktown Heights, NY, June 2004
60. ACM SIGMOD Workshop on Databases in Virtual Organizations, Paris, France, June 2004
61. IFIP Database Security Conference, Sitges, Spain, July 2004
62. DEXA Workshop on Web Security, Zaragoza, Spain, August 2004
63. DEXA Workshop on Trust and Privacy in Digital Business, Zaragoza, Spain, August 2004
64. IEEE COMPSAC, Hong Kong, September 2004
65. IEEE SRDS, Florianapolis, Brazil, October 2004
66. IEEE ISADS, Chengdu, China, March 2005
67. IEEE ICDE, Tokyo, Japan, April 2005
68. ACM SACMAT, Stockholm, Sweden, June 2005
69. ACM SIGMOD, Baltimore, MD, June 2005
70. IEEE Distributed Systems in Sensor Systems, Marina del Rey, CA, July 2005
71. IFIP Database Security Conference, Storrs, CT, August 2005
72. Privacy in Data Mining Workshop, November 2005
73. ACM SACMAT, Lake Tahoe, CA, June 2006
74. ACM SIGKDD, Philadelphia, PA, August 2006
75. IFIP Database Security Conference, Sophia Antipolis, France, August 2006
76. IEEE COMPSAC, Chicago, IL, September 2006
78. ISWC, Montreux, Switzerland, October 2006
79. CIKM, Arlington, VA, November 2006
80. Privacy in Data Mining Workshop, December 2006
81. ACM SIGKDD, San Jose, CA, August 2007
82. AAAI, Vancouver, BC, Canada, July 2007
83. IEEE POLICY, Bologna, Italy, June 2007
84. IFIP Database Security Conference, Redondo Beach, CA, July 2007
85. IEEE POLICY, Palisades, NY, June 2008
86. ACM SACMAT, Estes Park, CO, June 2008
87. ASIACCS, Sydney, Australia, March 2009
88. IEEE ICDE, Shanghai, China, March 2009
89. ACM SACMAT, Stresa, Italy, June 2009
90. ICWS, Los Angeles, CA, July 2009
91. DHS/CPS Workshop, 2009
92. IEEE Globecom, Honolulu, HI, November – December, 2009
93. IEEE ACSAC, Honolulu, HI, December 2009

(I am compiling a list of all conferences I served as program committee member)

Other Boards and Activities
1. Member, National Academy Panel on Protecting Children from Inappropriate Content on the Internet, 2000 (Chair, Hon. Dick Thornburgh)
2. Vice Chair, AF SAB Panel on Migrating Legacy Databases, 2000
3. Member, National Academy Workshop on GIS, 2001 (participated from NSF)
4. Member, National Academy Panel on Information Fusion and Counter-terrorism, 2002 (participated from NSF; Chair: T. Mitchell)
5. Member, Curriculum Committee, K-6, 7-12, USGIF, 2006 (Geospatial Intelligence)
8. Reviewer for numerous journals and conferences including IEEE Computer, IEEE TSE, IEEE TKDE, ACM TODS
9. Steering committee for conferences and workshops
10. Session chair for numerous conferences and workshops (100+)

Internal Activities
CS Department Head Search Committee Chair, 2008 – 2009
CS Faculty Search Committee, 2005 – Present
University, Science School Dean Search Committee, 2006 – 2007
University, Vice President for Business Search Committee, 2005 – 2006
Section 17: SELECTED MEDIA REPORTS

Television Interviews

Cyber Security

Facebook Privacy

External Articles

Thuraisingham receives IEEE Computer Society’s 1997 Technical Achievement Award; IEEE Computer Magazine, October 1997
http://ieeexplore.ieee.org/xpl/tocresult.jsp?isYear=1997&isnumber=13587&Submit32=Go+To+Issues

Managing the Web, Silicon India, May 2002 (on Leading Seven Technology Innovators of South Asian Origin in USA)
http://www.siliconindia.com/magazine/displaydetail.asp?article_id=1578


Taking a Byte out of Cyber Crime,

Dr. Bhavani Thuraisingham, AFCEA-PDC Instructor Profile,
SIGNAL Magazine, February 2005

University of Texas at Dallas, Sample faculty profile, June 2005, December 2005
http://www.utdallas.edu/profiles/thuraisingham.html

The Terrorist Hunter, D-Magazine, July 2005 (Monthly Magazine for DFW)
http://dmagazine.com/article.asp?articleid=874

Cyber Security, DFW Metroplex Technology Magazine, January 2006

Lonely at the Top, Dallas Morning News Education Supplement, February 22, 2006

The Semantic Web, Deep in the Heart of Texas, Semanticweb.com, November 19, 2008
Air Safety Data Mining Research Ongoing (Aviation Safety Week), July 14, 2008
http://findarticles.com/p/articles/mi_m0UBT/is_27_22/ai_n27916054/

Assured Information Sharing
Seminar at Purdue University, Video Presentation
http://www.cerias.purdue.edu/news_and_events/events/security_seminar/flash.php?uid=ckjq5ef1oaga6g2kquu4217350@google.com

UTDallas Press Releases

Latest Computer Threat Could Be Worst Yet

Cyber Security Center Offers Data Mining Tools

Project Seeks to Safeguard Privacy of Genomics Data

Researchers Help Ensure Security of Military Logistics

Prof Warns of Risks Hiding on Social Network Sites

Smarter Searches: Technology Merges Images, Data and Knowledge

Advances in Data Safety Drawing Wider Attention

NSF Award Funds Data-Privacy Research Project

NSF Grants to Help Create Next-Generation Web
http://www.utdallas.edu/news/2008/10/08-003.php

Security Researcher Lands Defense Scholarship

Prof Gives Keynote Speech on Data Mining and Privacy

UT Dallas Leads $2.2 Million Effort to Build Secure Information Grid for the U.S. Air Force
Data Mining for Flight Safety

UT Dallas Researchers to Play Key Role in $7.5 Million Department of Defense MURI

Researcher Lands Computer Security Grant from Air Force

Cyber Security Research Center at UT Dallas Tops $1 Million in Funding

Cyber Security Conference Planned For April 20-21 at U. T. Dallas
Symposium to Feature Leading Researchers, Policymakers

Cyber Security Expert Joins the University of Texas at Dallas

MITRE Articles

1. MITRE Matters Short Write-ups on Achievements
   MITRE has a strong showing at AFCEA DoD Database Colloquium

2. Patent awards, MITRE Matters
   September 1995, November 1996

3. Author of the Month, MITRE Matters
   July 1997, April 1999

4. Uniquely MITRE, MITRE Matters June 2000 (feature article)

5. I Really Want to be Challenged; MITRE Matters February 2003 (feature)

6. MITRE Internal News Releases on IEEE Fellow, AAAS Fellow among others
SECTION 18. SAMPLE PAPERS


26. A Practical Approach to Classify Evolving Data Streams with Limited Amount of Labeled Data. ICDM 2008: 929-934, Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, Bhavani M. Thuraisingham


SECTION 19. Cyber Security Research Center and Affiliated Labs

Cyber Security Research Center (Bhavani Thuraisingham)
http://csepi.utdallas.edu/
http://csarc.utdallas.edu/

Data Security and Privacy Lab (Murat Kantarcioglu)
http://cs.utdallas.edu/dpal/project.htm

Data Mining Lab (Latifur Khan)
http://www.utdallas.edu/~lkhan/DMLab.html

Secure Systems and Languages Lab (Kevin Hamlen)
http://www.utdallas.edu/~hamlen/index.html

Security Analysis and Information Assurance Lab
Cloud Computing Lab
Digital Forensics Lab
http://csarc.utdallas.edu/saial_lab.htm
Appendix H. Curricula Vita for Support Faculty
Zulfi Ahmed
Global CISO & SVP Information Security, MetLife

JOB OBJECTIVE
Provide security, technical and cyber risk leadership at an executive level

SUMMARY OF QUALIFICATIONS
- Twenty five years of global IT and Security experience in managing risk, operations and infrastructure.
- Served as CISO in Fortune 50 companies (MetLife, PepsiCo, CVS/Caremark) for last 15+ years
- Develop global multi-year security strategy addressing risks and mitigation approach.
- Develop and implement internal controls for security and disaster recovery globally
- Establish executive level Security Council to align security with business objectives.
- Establish Global Privacy Council to address data and privacy risks
- Led EU Safe Harbor, PCI and HIPAA certifications
- Develop and re-engineer Security Architecture team.
- Establish and lead Information Security and Disaster Recovery Organization.
- Currently leading a global team of 87 security professionals.
- Sourcing experience of Information Security functions to Indian based providers
- Steering committee lead and member for PCI, HIPAA Security and SOX efforts.
- Robust record of success in achieving complex objectives.
- Management of IT and security integration efforts in three major multi-billion dollar acquisitions.
- Develop security capabilities to support digital, cloud and mobile platforms and data proliferation

PROFESSIONAL EXPERIENCE
February 2014- Present
MetLife, Fortune 50 global organization
SVP/Global CISO
- Lead MetLife’s global IT Security function for 47 countries and manage a budget of $87M.
- Develop a global roadmap with complex security and privacy requirements in the financial sector
- Conduct a global PCI assessment to protect credit cards and meet PCI-DSS
- Develop security requirements to meet financial regulatory requirements (for SIFI Federal compliance)
- Ensure SSAE-16, HIPAA and SOX compliance
- Responsible for reporting to the Audit Committee/MetLife Board and made Board level presentations
- Develop risk based reporting capturing critical security KPIs
- Transform and consolidate IT Security team from several US based locations to Raleigh, NC
- Develop Cloud and Mobile Security Architecture to support Cloud services for Digital Program

2007- 2014
PepsiCo, Fortune 50 global organizations
Global CISO
- Establish multi-year security strategy for PepsiCo at a global level for 280,000 employees
- Include sector security requirements for AMEA, LA, and Europe in the security strategy, prioritize risks, and develop tactical implementation plan
- Lead transformation of security during several large mergers and divestitures
- Establish PepsiCo Security Council consisting of PepsiCo Executives representing key segments of business, compliance, audit, and legal offices
- Establish PepsiCo Privacy Council to address data privacy issues and develop mitigation plans
- Implement a robust security program around Identity Management, Policies and Hardening Standards, Infrastructure Security, SAP Security, and Controls and Privacy
- Develop secure Mobility solutions for a worldwide program for a Mobile work-force
- Develop and implement Cloud strategy for PepsiCo
- Develop and implement Sourcing strategy for PepsiCo Information Security team to reduce cost
- Currently developing security metrics, SLAs, and vendor requirements for a major transformation effort to the tune of $1B
- Design, develop, and implement a robust, metric driven Defense in Depth program to protect PepsiCo’s information assets
- Develop and implement an application security program and portfolio of tools and processes to assess and mitigate high risk applications
- Establish guidelines and solutions for third parties to access PepsiCo systems in a secure manner
- Manage a staff of 123 employees, on-shore, and off-shore contractors, and a budget of $15MM

2000 – 2007:

**CVS | Caremark, $75 billion Fortune 20 Healthcare Corporation, Irving, Texas**

**VP and CISO**

- Manage CVS | Caremark’s security organization, provide strategic direction and vision. Member of SOX PMO, PCI, Privacy, and Internal Controls Steering Committees.
- Responsible for $12 million budget.
- Develop Security Organization’s portfolio and staff it. Develop best practices security policies and procedures to support PCI, HIPAA, and SOX.
- Establish HIPAA Security program for CVS | Caremark.
- Evaluate and establish an Identity Management program for ID provisioning.
- Lead CVS | Caremark through Payment Card Industry (PCI) compliance program.
- Develop Defense in Depth security strategy.
- Selected and led cross-functional teams from several functional areas delivering synergies and consolidating security teams.
- Support IT development units with a staff of 1,100 with a robust infrastructure.
- Led team with a record of zero security incidents for a high impact e-commerce business with one million daily hits on its web sites.
- Develop security tactical programs to support security policies and business.
- Lead geographically distributed staff and support business units across 70 locations.
- Negotiate several IT multi-million vendor contracts.
- Establish strict quality controls initiatives to provide 99.999% infrastructure availability.
- Establish zero-defect program corporate wide to improve system performance.
- Define performance metrics for business to measure IT performance.
- Reduce cost of network infrastructure by various consolidation initiatives.

1996 – 2001:

**Protection One Alarm Services, Largest Security Alarm Corporation, Irving Texas**

**Director Information Technology and Information Security**

- Manage the IT and Security organization through two large acquisitions.
- Lead staff of 45 security and technology professionals.
- Manage 6 data centers in US and Canada supporting company’s real time operation.
- Provide technical leadership to UNIX Administrators, DBA, and MS professionals.
Re-organize IT and security teams to support business process changes.
Improve performance of infrastructure increasing customer satisfaction.
Establish procedures to conduct daily and weekly conference calls to monitor performance and security readiness.
Implement tools to monitor security, system performance, automate alerts, and increase efficiency.
Re-engineer technology processes to deliver high quality of service to the business.
Design, support LANs and WANS using T1-T3 Frame Relay.

1991 – 1996:
Mobil Oil Corporation, Fortune 20 Oil corporation, Dallas, Texas
Technical Lead, Systems Manager
- Manage the technical team to support real time pipeline operation.
- Lead team of programmers to develop SCADA applications.
- Develop and support systems and software for nation wide pipeline system moving crude, gas, and NGL across 25,000 miles of pipelines.
- Provide technical leadership to DBAs and UNIX Administrators.

1986 – 1991:
University of Texas – Pan American, Edinburg, Texas
Technical and Support Specialist
- Provide technical support to staff and students.
- Write and develop programs to assist Professors with Research.
- Assist staff with technical projects.
- Provide system programming support to developers.

TECHNOLOGIES
- AIX/Solaris, Windows, Guardian, OS400, ACF2, RACF, Firewalls, VPN.
- IBM, Sun, CISCO, VAX, DEC, iSeries, HP NS (TANDEM), Exchange.
- C, COBOL, FORTRAN.
- VPN, Ethernet, Token Ring, X-window, Linux, Korn shell, TCP/IP.

EDUCATION
- MBA University of Texas-Pan American at Edinburg, TX, 1989, GPA 3.8.
- B.E. Mechanical Engineering, NED University of Engineering and Technology, Karachi, Pakistan, 1984, Top 10 in graduating class of 240.
- Attended MetLife sponsored executive leadership training at Harvard Business School.

CERTIFICATIONS
- IBM Certified AIX/UNIX Administrator.
- MCP/Windows.

TECHNICAL TRAINING
- Sybase DBA training, Logical Database Design, IBM Technical End user for UNIX/AIX.
- IBM System Administration UNIX/AIX, IBM Advanced System Administration AIX.
- IBM Basic TCP/IP for UNIX/AIX, IBM Advanced TCP/IP networking for UNIX/AIX.
• DEC/VAX operator training for VMS, DEC/VAX technical user training for VMS, SAS.
• SPSSx, OS/2 LAN, TANDEM system management, TANDEM operations.
• NT Administration, Scanner programming.

PUBLICATIONS

• Several Technical Publication in UNIX journals (AIX Update).
• Invited to speak at International UNIX Conference.
• Invited to speak at Burton Group Conference on Identity Management.
• 100 other publications on various topics.
• Write columns for Dallas Morning News.

EXTRA-CURRICULAR

• Serve in the UT-Dallas Advisory Board
• Teaching Graduate class on Cyber in UT-Dallas
• Won CSO award in 2014 for IT Risk management
• President Samaritan Inn, largest homeless shelter in Collin County, McKinney.
• Ex-Board member Hope’s Door, Woman’s Abuse shelter, Collin County, Plano.
• Ex-Board member, Volunteer Center of Collin County, Plano
• Speaker at National CISO events
• Served on panels at CISO events
• Nominated in 2011 and 2012 for the National CISO of the year Award
• Recognized by IBM for implementation of Database Security Strategy at PepsiCo

INDUSTRY RECOGNITION

• Recognized as the #9 CISO nationwide in 2012
• Recognized in the Global 100 in 2017
• Speaker at several industry conferences
• Nominated for Information Security Executive Award - 2011
Curriculum Vitae
Atanu Lahiri

University of Texas-Dallas
Mail: 800 W Campbell Road, #SM33
Richardson, TX 75080
Email: atanu.lahiri@utdallas.edu

• Jindal School of Management
• Mobile: +1 414-350-0855
• Fax: +1 972-883-2089
• WWW: http://jindal.utdallas.edu/faculty/atanu-lahiri

Educational History
• Ph.D., Simon Business School, University of Rochester, 2010
  o Major: Business Administration
• M.S., Simon Business School, University of Rochester, 2007
  o Major: Management Science
• P.G.D.M., Indian Institute of Management (IIM) Kolkata, 1997
  o Major: Management Information Systems
• B. Tech., Indian Institute of Technology (IIT) Kanpur, 1995
  o Major: Electrical Engineering

Employment History
• Associate Professor at the University of Texas-Dallas (2018-present)
• Assistant Professor at the University of Texas-Dallas (2014-2018)
• Assistant Professor at the University of Washington-Seattle (2010-2014)
• Project Manager at Eastman Kodak Company, Rochester, NY (2002-2004)
• Consultant at Miller Brewing Company, Milwaukee, WI (1998-2002)
• Associate Consultant at Price Waterhouse Associates India (1997-1998)

Recognitions and Honors
• Best Paper with a Doctoral Student, Conference on Health IT and Analytics (CHITA), 2017
• Runner up for Best Paper, Workshop on Information Systems and Economics (WISE), 2015
• Best Paper with a Doctoral Student, Conference on Information Systems and Technology (CIST), 2015
• Andrew V. Smith Research Excellence Award from the Foster School, 2013
• Fellowship for Doctoral Research from University of Rochester, 2004
• Inducted in the Honor Roll of IIM Calcutta for Outstanding Academic Achievement, 1997

Professional Certifications
• Microsoft Certified Project Specialist, 2002
• SAP Certified Consultant, 2000
• Sun Certified JAVA Programmer, 2000

Professional Memberships
• Member of INFORMS and its eBusiness Section
• Member of Beta Gamma Sigma
### Journal Articles

   - Runner-up for Best Paper at WISE 2015
   - Best Paper with a Doctoral Student at INFORMS CIST 2015
   - Featured in the *London School of Economics Business Review* on 14th Sep, 2018
   - Featured in numerous blogs on TorrentFreak and Reddit, as well as BBC Radio
   - Featured in the INFORMS Editor’s Cut on Securing Information in a Digital World
    - Mentioned on the Foster School website; cited by blogs such as tech-dirt and digital-digest
    - Featured in the INFORMS Editor’s Cut on Healthcare in the Age of Analytics
    - Mentioned in the January/February 2010 issue of AACSB’s BizEd
Book Chapters

Ongoing Work
   • Best Paper with a Doctoral Student at CHITA 2017

Articles in Conference Proceedings (Excludes conferences with unpublished proceedings)
   • Nominated for best paper in Organizational Systems and Technology
   • Nominated for best paper in Organizational Systems and Technology
Invited Research Seminars (List doesn’t include presentations at the employer institution)


2. The DLC Strategy: Go Vertical in a Horizontal Market? Jindal School of Management, University of Texas at Dallas, February 21, 2014.


Conference Presentations (List doesn’t include presentations by co-authors)


11. Revisiting the Incentive to Tolerate Illegal Distribution of Software Products, 44th Hawaii International Conference on System Sciences, Koloa, Hawaii, January 4-7, 2011.


**Classroom Teaching**

- **Jindal School of Management, University of Texas-Dallas:**
  - MIS 6309: Business Data Warehousing, MS-ITM/MBA Elective
  - MIS 6330: Information Technology Security, MS-ITM Elective
  - MIS 6311: Cybersecurity Fundamentals, MS-ITM Elective

- **Foster School of Business, University of Washington:**
  - IS 410: Business Data Communications, Undergraduate IS Option.
  - MSIS 512: Information Security in a Networked World, MSIS Core
  - MSIS 579: Cloud Computing, MSIS Elective.

- **Simon Business School, University of Rochester:**
  - GBA 462: Core Statistics, MS-Finance Core
  - CIS 401: Information Systems for Management Lab, MBA Core
  - GBA 411: Framing and Analyzing Decision Problems Lab, MBA Core
  - APS 411: Applied Statistics and Data Analysis Lab, MBA Core

**Doctoral Advisement**

- **Dissertation Co-chair**
  - Antino Kim, graduated in 2016
    - Title: Essays on the Issue of Piracy in the Market of Information Goods
    - Placement upon graduation: *Kelley School of Business, Indiana University, Bloomington, IN*
Danish H. Saifee, graduated in 2018
- Title: Essays on Health Information Technology, Social Media, and Care Quality
- Placement upon graduation: Culverhouse College of Business, University of Alabama, Tuscaloosa, AL

**Dissertation Committee Member**
- Lusi Li, graduated in 2017
- Chenzhang Bao, graduated in 2019
- Geng Sun, graduated in 2019

**Internal Service**
- **Jindal School of Management, University of Texas-Dallas:**
  - Course Coordinator for MIS 6309 at the Jindal School, 2015–
  - Member of Information Security Advisory Committee at UT-Dallas, 2015–
- **Foster School of Business, University of Washington:**
  - IS Faculty Recruitment Committee, 2013-14
  - Faculty Advisor for the Business Information Technology Society (BITS), 2013–2014
  - IS Curriculum Review Committee Member, 2012

**External Service**
- **Leadership:**
  - Co-chair, 8th MIS Leadership Conference, April 11-13, 2019, Dallas, Texas
  - Panelist, POMS Panel on Digital Goods in E-commerce, May 4-7, 2018, Houston, Texas
  - Conference Co-chair, Theory in Economics of Information Systems (TEIS), March 18-19, 2017, Napa Valley, California
  - President, eBusiness Section of INFORMS, 2015
  - Doctoral Consortium Faculty, Americas Conference on Information Systems (AMCIS), Seattle, August 9, 2012
  - Mentor, Doctoral Internationalization Consortium in Information Systems, University of Washington, Seattle, June 16-18, 2011

- **Editorial/Refereeing:**
  - Senior Editor, Electronic Commerce Research and Applications, January 2018–present
  - Associate Editor, Electronic Commerce Research and Applications, June 2013–December 2017
  - Associate Editor, 2016 International Conference on Information Systems (ICIS), Dublin, Ireland, December 11-14, 2016
  - Associate Editor, 2011 International Conference on Information Systems (ICIS), Shanghai, China, December 4-7, 2011
• **Organizational:**
  - Program Committee Member, *INFORMS Conference on Information Systems and Technology (CIST)*, Nashville, TN, November 12-13, 2016
  - Program Committee Member, *INFORMS Conference on Information Systems and Technology (CIST)*, Philadelphia, PA, October 31 – November 1, 2015
  - Track Chair, *eBusiness Cluster, INFORMS Annual Meeting*, San Francisco, CA, November 9-12, 2014
  - Session Chair, *Session on Services, Supply Chain, and IS, POM Annual Meeting*, Atlanta, Georgia, May 9-12, 2014
  - Session Chair, *INFORMS Annual Meeting*, Minneapolis, MN, October 6-9, 2013
  - Session Chair, *eBusiness Cluster, INFORMS Annual Meeting*, Phoenix, AZ, October 14-17, 2012
  - Program Committee Member, *INFORMS Conference on Information Systems and Technology (CIST)*, Charlotte, NC, November 12-13, 2011
  - Program Committee Member, *Workshop on E-Business (WEB)*, St. Louis, MO, December 11, 2010
  - Session Chair, *Annual Decision Sciences Institute (DSI) Meeting*, San Diego, CA, November 20-23, 2010
Appendix J. Letters of Support from Peer Institutions and/or Area Employers
De'Edra S. Williams  
Director – Customer Success – Salesforce  
9442 Whitehurst Drive  
Dallas, Texas 75243  

April 18th, 2019  

To the Texas Higher Education Coordinating Board,  

It is with great enthusiasm that I send this letter in support for the proposed Master of Science degree in Cyber Security, Technology and Policy at the University of Texas, Dallas. As a graduate of the UTD GLEMBA program, I am a proponent of an advanced degree. But more importantly, as a Director in Salesforce’s Customer Success program, I understand the professional value of such a degree. With over 20 years of strategic CRM consulting experience, working with customers across a myriad of industries, regardless of their business, they all require a clear grasp of their cybersecurity threat and work to thwart and/or mitigate those risks to the success of their respective businesses. As a result, I know that it is essential to have people who can identify security gaps, and the pros and cons of different policy and security options.  

This proposed degree is very exciting, especially in its relevance to risk mitigation for all organizations. There is a shortage of cyber professionals who have policy expertise in addition to familiarity with the technical aspects of cyber security who are prepared to serve as analysts or in management roles. It is particularly difficult to find people who have the policy and security acumen, especially as it relates to helping organizations achieve their strategic goals and secure their place an increasingly competitive market. For many companies, the ability to manage their security risks is a competitive advantage. And, they need cyber professionals, with a broad background of experiences who have the ability to combine technical aspects of security, with public policy, business, law and psychology to create effective security policies that support institutional missions.  

I strongly support the proposed program and commend the initiative to develop such an interdisciplinary program. This interdisciplinary cyber policy and technology program would provide a well-rounded pool of talent that companies like ours need.  

Sincerely,  

De'Edra S. Williams  
Director – Customer Success  
Salesforce
April 23, 2019

Dr. Jennifer Holmes  
University of Texas at Dallas  
800 West Campbell Road  
Richardson, TX 75080-3021

Dear Ms. Holmes,

The purpose of this letter is to express support for the proposed Master of Science degree program in Cyber Security, Technology and Policy at the University of Texas, Dallas.

As a senior manager in the banking industry at Comerica Bank specializing in financial and portfolio risk, my role interacts with technology and policy professionals frequently as the industry becomes more technologically advanced and risk dynamics and levels continually evolve in complexity. There is a need for professionals to have both policy and technical expertise to be able to analyze security gaps and distill and communicate complex security and technology information effectively for strategic business decisions.

Lysette Bailey, Comerica’s Chief Information Security and Operational Risk Officer, sees significant value in contributing to expanding the knowledge, awareness, and talent pool regarding cybersecurity, technology, and related risk management, for current and future professional needs. Her experience and perspective views cybersecurity and technology risks as key risks across all industries in today’s environment.

To effectively manage these types of risks and drive value, organizations, including Comerica, have found that they are more successful when their team members have both professional and formal academic knowledge and experience across a multitude of interrelated subject matters that would be offered by this degree program.

Therefore, I strongly support the proposed interdisciplinary program.

Regards,

Mr. Danny Ng

Vice President, Portfolio Risk Analytics
April 26, 2019

To whom it may concern,

I am writing this letter in support of the proposed Master of Science degree in Cyber Security, Technology, and Policy at the University of Texas, Dallas.

In my roles as a security analyst, incident response lead, and director of research and development, I have had the opportunity to lead projects and organizations that relate directly to cyber security operations and analysis. When recruiting young talent, a particular challenge has been identifying candidates with both hands-on analytical and business or managerial experience, allowing them to effectively pursue organizational missions. Being able to access a pool of young talent that is ready to meet these challenges, drawing from the experience and education provided by a formal academic program, would accelerate both the hiring and training process at organizations I have been involved with.

I support the initiative to create a structured program for driving new talent in the cyber security industry.

Sincerely,

Andrew C. Ellis  
Director of Development, Threat Analytics Services  
Cyxtera Technologies
Addendum to this letter of support:
To further the conversation beyond simply supporting Cyber Security, Technology, and Policy degree program offered by the University of Texas, Dallas, I would like to offer additional thoughts on the proposed curriculum. While comparing the curriculum to the stated goal of producing both managers and analysts, I see a mismatch that puts much of the emphasis on producing managers, rather than analysts. This may be the intention of the program, in which case, amending the description may be useful. I've also provided some insight into specific qualities I personally look for in new hire candidates, both as managers and analysts, below.

When hiring analysts, I typically look for:
- **Computer science and programming background**
- **IT administration and network management background**
- Exposure to host-based and network-based security principles
- Understanding of attacker tools, tactics, and procedures
- Hands-on analysis experience

In my previous hiring experience, the most important quality I assessed for potential analysts, was a strong general background in computing. Candidates with software development, IT administration, or network operations backgrounds are easily taught cyber security principles. This, however, leaves new hires in a situation where they were very good technically, but not well suited for larger-scale, strategic problems.

When hiring managers, I typically look for:
- **Previous hands-on analytics experience**
- **Project and problem management**
- Good communication skills and experience writing reports
- Understanding of IT administration, networking, and software development
- Incident response management

In my previous hiring experience, the most important qualities I assessed potential mangers for were hands-on experience and problem management abilities. The vast majority of candidates I see that have hands-on experience are simply looking for management as the next step in their career progression. This often leaves them underprepared for managing people, projects, or incidents as they fall back on technical knowledge. On the opposite end of the spectrum are pure managers, who have little technical background to act as context for the tasks and goals related to projects.

I would be happy to provide additional details on any of these points, should that be valuable to the University in developing this program.

Thank you,
Andrew Ellis
April 26, 2019

Donald A. Hicks, Ph.D.
The University of Texas at Dallas
Box 830688 GR 31
Richardson, Texas 75080

Subject: Proposed Graduate Degree Program for Master of Science in Cyber Security, Technology and Policy

Oncor endorses and supports the establishment of a graduate degree program at The University of Texas at Dallas that will lead to a Master of Science in Cyber Security, Technology and Policy.

Serving the Dallas-Fort Worth urban region and much of North Texas, East Texas, and West Texas, Oncor is the largest electric utility in Texas. Oncor delivers electricity to over 3.6 million premises, thereby serving over 10 million people in Texas. The communities served depend on the reliable delivery of electricity for their economy and welfare.

Cyber security is essential to Oncor’s mission. Our scope includes the protection of our business processes and customer data, as well as the security of power grid control and operations throughout the areas served by Oncor.

We anticipate that this proposed degree program will develop professionals who can adapt and be practitioners in the dynamic field of cyber security. The scope is uniquely suited to the needs of security-intensive organizations.

Oncor offers to provide feedback and guidance from its ongoing experience and the skills it needs from cyber practitioners, as this degree program begins and proceeds. Oncor will consider hosting internships, and also consider graduates for employment as openings and needs arise at Oncor.

Please feel free to share this commitment and support as you seek approval to establish the program.

Malia Hodges
Vice President & Chief Information Officer

Oncor
1616 Woodall Rodgers Freeway
Dallas, Texas 75202
Tel: 1.214.486.3959
oncor.com
April 21, 2019

Dr. Jennifer Holmes
Interim Dean
EPPS
800 W. Campbell Rd, GR 31
Richardson, TX 75080

Dear Dr. Holmes and To Whom It May Concern:

Please accept this letter as expression of my genuine support for the proposed Master of Science in Cyber Security, Technology and Policy degree program.

While this program’s proposal is timely for several reasons, I would like to share insight as a Senior Cybersecurity Consultant for Toyota Motor Credit Corporation. In my role, I have the opportunity to lead initiatives for multiple security domains that realize countermeasures to protect Toyota properties on a global scale. This work informs uncommon perspective which enables me to assess, recommend, and implement solutions in various business fabric spanning people, process, and technology. Accordingly, I am confident in the value of multidisciplinary approaches to cybersecurity as my career is testament to them.

In review of the high-level curriculum discussed with Dr. Clint Peinhardt, I am excited to see this perspective shared in your program proposal. It is my experience that the most effective cybersecurity practitioners are capable of addressing complicated subject matter in business, legal, and technological terms. Not only is this because of growing policy implications for our industry, but this is also due to the innovation needed to stay abreast of an evolving threat landscape. As sophisticated attacks continue to increase in scale and diversity, organizations need more individuals equipped with varied skills and creative minds.

I am confident your proposal aims to cultivate experiences and values which will poise students for success in a field which truly needs them.

Best Regards,

Richard D. Stees
April 12, 2019

Donald A. Hicks, Ph.D.
The University of Texas at Dallas
Box 830688 GR 31
Richardson, Texas 75080

Dear Dr. Hicks,

This letter of support is for the creation of a Master of Science in Cyber Security, Technology and Policy program, an interdisciplinary program at the University of Texas at Dallas. The degree program is intended for individuals who will systematically analyze cyber security and technologies issues, implementation, and analysis, within an interdisciplinary and strategic approach, and according to the mission of the organization. Graduates will be prepared for managerial and analysis positions in a wide array of professional settings in the public and private sectors.

From a community economic development perspective, this type of training is critical in university-community-industry collaboration around public policy/service projects that strengthen regional economies, create jobs and develop data security and privacy solutions for local problems involving commerce, environment, transportation, public health, government, etc. The convergence and analysis of data protection and privacy issues from multiple sources across a variety of disciplines is a growing issue that needs critical thinking from multiple vantage points to solve complex problems.

Our regional economy includes a large technology industry, financial services and healthcare industries and cyber security is a growing issue in these industries, so workforce development to support it is paramount. Our economic development and technology industry association work closely with UT Dallas on workforce development and STEM education initiatives and this project is in line with our local objectives and deserving of our support.

Sincerely,

William C. Sproull
President & CEO
May 1, 2019

Donald A. Hicks, Ph.D.
The University of Texas at Dallas
Box 830688 GR 31
Richardson, Texas 75080

Re: Support of New Graduate (MS) Program at University of Texas – Dallas

Dear Dr. Hicks:

Thank you for the opportunity to support the new graduate program referenced above to be co-designed, developed & delivered by UTD’s School of Engineering & Computer Science (ECS) and the School of Economic Political and Policy Science (EPPS). Sadly, our businesses require the best trained (and most creative) minds to thwart attempts to access and damage information contained in our region’s business systems as evidenced by the multiple national and local stories related to information loss and security breaches.

As you know, our non-profit organization serves health systems, health care providers, community health workers and, by proxy, the public in its attempts to be well, stay well and get well every day. This requires a great deal of information gathering and sharing concerning patients’ protected health information. Cyber security is at the core of our information driven service sector and is paramount not only to keep the public’s trust in its care providers, but also to avoid large regulatory fines and even criminal liability.

In its 2017 report on cybercrime in healthcare, Trend Micro estimated that cyberattacks against hospitals, clinics and doctors cost the U.S. healthcare industry more than $6 billion each year, with an average breach costing a hospital $2.1 million. Investments in thwarting these crimes continue to increase in our sector. The most recent surveys of healthcare leaders indicate that they are increasing cybersecurity spending and are eager to find well-trained experts to assist in cybersecurity efforts. These leaders also share with our Workforce Collaborative that finding such experts is a struggle. Our local region enjoys booming economic growth and population expansion. Healthcare is growing to meet the needs of the burgeoning expansion of people coming to North Texas. Cyber security expertise involves high-paid positions that our industry attempts to attract, but there is a lack of expertise available currently and salary requirements are very competitive across industries.

Please alert us if this program is approved. We will be sure to share the information with our more than 100 hospital members (and their information technology leadership) in North Texas to encourage them to look at your graduates in this field of expertise.

Further, if your program requires internship field time/experience, please let us know. We house a large data asset at the Foundation and would be interested in seeing if our needs match in this regard.
Best of luck in this new endeavor.

Sincerely,

Kristin Tesmer, JD, MBA, FACHE
President
Dallas-Fort Worth Hospital Council Education and Research Foundation
Appendix L

Contents:

1. GAO advertisement for a cyber security analyst
2. Cybersecurity Supply/Demand Heat Map
3. Graduate Survey Results
4. Undergraduate Survey Results
Budget Analysis Division

The Congressional Budget Office is a small nonpartisan agency that provides economic and budgetary analysis to the Congress. CBO’s Budget Analysis Division seeks a cybersecurity analyst in its Defense, International Affairs, and Veterans’ Affairs Cost Estimates Unit.

CBO’s analysts have wide-ranging responsibilities and often contribute significantly to the legislative and budget process by preparing multiyear budget projections and cost estimates for legislation under consideration by the Congress. Their work requires extensive contact with key Congressional staff, agency officials, and other staff members at CBO. The Congress relies on CBO’s analyses to prepare its annual budget plans, evaluate the President’s budget proposals, and measure the potential budgetary consequences of policy proposals.

The cybersecurity analyst prepares estimates of programs to protect the nation’s critical infrastructure and programs to develop, expand, and maintain federal information technology and cybersecurity.

The cybersecurity analyst works closely with Congressional staff as they develop legislative proposals to create or modify cybersecurity programs administered by the Department of Homeland Security (DHS) and other federal agencies, state and local governments, owners and operators of critical infrastructure, and private-sector entities. The analyst’s work involves classified and unclassified information-sharing programs, DHS’s EINSTEIN system and Continuous Diagnostics and Mitigation program, incidence response assistance, risk and vulnerability assessments, and federal training programs, among others.

**Qualifications**
Applicants must hold a graduate degree in public policy, economics, a STEM field, or studies related to cybersecurity. Experience with analyzing the effects of cybersecurity policy is required. This position requires the following:

- Strong skills in quantitative methods;
- Resourcefulness in investigating unfamiliar issues; and
- The ability to clearly explain and defend analytical results orally and in writing to colleagues, Congressional staff, Members of Congress, and the public.

U.S. citizenship is required, as is eligibility to obtain and maintain a top secret security clearance.

**Salary and Benefits**
Salaries at CBO are competitive with those at other organizations and are commensurate with experience, education, and other qualifications. CBO offers [excellent benefits](https://www.cbo.gov/careers) and a collegial, respectful work environment.

**How to Apply**
Please submit a cover letter, résumé, salary history, a one- to two-page writing sample, and contact information for three references at [www.cbo.gov/careers](https://www.cbo.gov/careers). Recent graduates must submit an unofficial copy of academic transcripts. This position may be closed any time after May 20, 2018; incomplete applications will not be considered. This position is covered by the Veterans Employment Opportunities Act of 1998 as made applicable to CBO by the Congressional Accountability Act, as amended.

**Contact**
Nancy Fahey, Washington, DC, 202-226-2628, [careers@cbo.gov](mailto:careers@cbo.gov)
Cybersecurity talent gaps exist across the country. Closing these gaps requires detailed knowledge of the cybersecurity workforce in your region. This interactive heat map provides a granular snapshot of demand and supply data for cybersecurity jobs at the state and metro area levels, and can be used to grasp the challenges and opportunities facing your local cybersecurity workforce.
National level

TOTAL CYBERSECURITY JOB OPENINGS
20,927

TOTAL EMPLOYED CYBERSECURITY WORKFORCE
65,271

SUPPLY OF CYBERSECURITY WORKERS
Very Low

CYBERSECURITY WORKFORCE SUPPLY/DEMAND RATIO

- National average: 2.5
- TX: 3.1

GEOGRAPHIC CONCENTRATION
Low

LOCATION QUOTIENT

- National average: 1.0
- TX: 0.80

TOP CYBERSECURITY JOB TITLES
- Cyber Security Engineer
- Cyber Security Analyst
- Network Engineer / Architect
- Cyber Security Manager / Administrator
- Software Developer / Engineer
- Vulnerability Analyst / Penetration Tester
- Systems Engineer
- IT Auditor
- Cyber Security Consultant
JOB OPENINGS BY NICE CYBERSECURITY WORKFORCE FRAMEWORK CATEGORY

Note: The Investigate category usually has fewer openings than other categories and may not be visible in the chart. To view data for the Investigate category, please hover over the thin line in the bottom right of the visualization.

CERTIFICATION HOLDERS / OPENINGS REQUESTING CERTIFICATION

<table>
<thead>
<tr>
<th>Certification</th>
<th>Certification holders</th>
<th>Openings requesting certification</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>CompTIA Security+</td>
<td>12,678</td>
<td>1,553</td>
<td>8.16</td>
</tr>
<tr>
<td>Certified Information Privacy Professional (CIPP)</td>
<td>384</td>
<td>142</td>
<td>2.70</td>
</tr>
<tr>
<td>Global Information Assurance Certification (GIAC)</td>
<td>4,339</td>
<td>2,345</td>
<td>1.85</td>
</tr>
<tr>
<td>Certified Information Systems Security Professional (CISSP)</td>
<td>6,260</td>
<td>5,690</td>
<td>1.10</td>
</tr>
<tr>
<td>Certified Information Systems Auditor (CISA)</td>
<td>3,168</td>
<td>2,985</td>
<td>1.06</td>
</tr>
<tr>
<td>Certified Information Security Manager (CISM)</td>
<td>992</td>
<td>2,009</td>
<td>0.494</td>
</tr>
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</table>
Q2 - Would you be interested in this degree?

![Bar chart showing the distribution of responses to Q2.]

<table>
<thead>
<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Would you be interested in this degree?</td>
<td>1.00</td>
<td>3.00</td>
<td>1.66</td>
<td>0.80</td>
<td>0.64</td>
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</table>

<table>
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<tr>
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<th>Field</th>
<th>Choice Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
<td>54.72%</td>
</tr>
<tr>
<td>2</td>
<td>Maybe</td>
<td>24.53%</td>
</tr>
<tr>
<td>3</td>
<td>No</td>
<td>20.75%</td>
</tr>
</tbody>
</table>
Q3 - What is your current degree program?

<table>
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<tr>
<th>#</th>
<th>Field</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is your current degree program?</td>
<td>2.00</td>
<td>9.00</td>
<td>6.25</td>
<td>2.44</td>
<td>5.96</td>
<td>52</td>
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<th>#</th>
<th>Field</th>
<th>Choice Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Applied Sociology</td>
<td>0.00%</td>
</tr>
<tr>
<td>2</td>
<td>Criminology</td>
<td>9.62%</td>
</tr>
<tr>
<td>3</td>
<td>Economics</td>
<td>13.46%</td>
</tr>
<tr>
<td>4</td>
<td>GIS</td>
<td>5.77%</td>
</tr>
<tr>
<td>5</td>
<td>IPE</td>
<td>3.85%</td>
</tr>
<tr>
<td>6</td>
<td>Political Science</td>
<td>9.62%</td>
</tr>
<tr>
<td></td>
<td>Department</td>
<td>Value</td>
</tr>
<tr>
<td>----</td>
<td>------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>7</td>
<td>Public Affairs</td>
<td>25.00%</td>
</tr>
<tr>
<td>8</td>
<td>Public Policy</td>
<td>3.85%</td>
</tr>
<tr>
<td>9</td>
<td>Public Policy &amp; Political Economy</td>
<td>28.85%</td>
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Showing Rows: 1 - 11 Of 11

End of Report
Q2 - Would you be interested in a MS in Cyber Security, Technology and Policy degree?

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Showing Rows: 1 - 4 Of 4
Q3 - What is your current degree program?

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End of Report
Appendix M. Cyber Capstone Assessment Plan

*PPPE/PSCI/CS 6xxx Capstone in Cyber Security and Policy
This is the culminating experience for graduating students. Students integrate knowledge from across the curriculum to participate in an experiential learning project or case studies. This capstone project can be a faculty-directed semester-long applied research project or can be a case studies from organizations or local companies. Students create a comprehensive cyber security policy that identifies the risks, the available security and policy options, the sector specific privacy, ethics and legal standards and policies, and promotes institutional resilience in unfamiliar circumstances. Finally, students will have to develop and present a concise policy brief that summarizes their recommendations.

This is a preliminary rubric that will be revised (and additional details will be added to delineate exceeds from meets, etc. in each category) when the two additional faculty are hired. Program faculty will be invited to attend the end of the semester presentations and will use the following proposed rubric. The goal is that on average of the composite scores, 80% of the capstone projects will demonstrate mastery (meets) of the four S.L.O.s

**Capstone in Cyber Security and Policy rubric**

Introduction:

Does the introduction provide sufficient context (or background and overview) of the risk assessment, security plan, and organizational mission? (SLO 4)
Exceeds ☐ Meets ☐ Partially Meets ☐ Does not meet ☐

Assessment and Analysis

Identification of security gaps and potential vectors of cyber attack (SLO 1)
Exceeds ☐ Meets ☐ Partially Meets ☐ Does not meet ☐

Identification of pros and cons of different policy and security options, taking into account organizational mission and constraints. (SLO 1)
Exceeds ☐ Meets ☐ Partially Meets ☐ Does not meet ☐

Are the policy options appropriate for the organization? (SLO 1)
Exceeds ☐ Meets ☐ Partially Meets ☐ Does not meet ☐

Are the security options realistic? (SLO 1)
Exceeds ☐ Meets ☐ Partially Meets ☐ Does not meet ☐
Are the organizational limitations and constraints addressed? (SLO 1)
Exceeds □  Meets □  Partially Meets □  Does not meet □

Identification of sector specific standards and policies: (SLO 2)

privacy
Exceeds □  Meets □  Partially Meets □  Does not meet □

ethics
Exceeds □  Meets □  Partially Meets □  Does not meet □

legal requirements
Exceeds □  Meets □  Partially Meets □  Does not meet □

Assessment of security options in terms of survivability, resilience, and restoration of services and functions  (SLO 3)
Exceeds □  Meets □  Partially Meets □  Does not meet □

Overall
Does the student demonstrate resourcefulness in investigating unfamiliar issues?  (SLO 3)
Exceeds □  Meets □  Partially Meets □  Does not meet □

Does the students communicate complex security and policy information, concepts, or ideas in a confident and well-organized manner?  (SLO 4)

Verbally
Exceeds □  Meets □  Partially Meets □  Does not meet □

Visually
Exceeds □  Meets □  Partially Meets □  Does not meet □

Does the student go beyond summary and draw plausible technical conclusions from the analysis?  (S.L.O. 4)
Exceeds □  Meets □  Partially Meets □  Does not meet □

Are the policy implications clearly articulated? (S.L.O. 4)
Exceeds □  Meets □  Partially Meets □  Does not meet □

For an assessment of a sampling of the final papers ... add the following:
Does the students communicate complex security and policy information, concepts, or ideas in a confident and well-organized manner?  (SLO 4)
<table>
<thead>
<tr>
<th>Exceeds</th>
<th>Meets</th>
<th>Partially Meets</th>
<th>Does not meet</th>
</tr>
</thead>
</table>

Is the writing effective, accurate, and appropriate? (S.L.O. 4)
Exceeds □ Meets □ Partially Meets □ Does not meet □

Do the documentation and formatting adhere to standards of the discipline? (S.L.O. 4)
Exceeds □ Meets □ Partially Meets □ Does not meet □

After the semester, in the context of program meetings, the faculty members will review the rubrics and a sample of written papers to look for patterns of performance (consistent over or under performance) that will inform future curricular changes.
MAIS Fast-Track Proposal

Dr. Jillian M. Duquaine-Watson
March 14, 2019

MAIS Fast Track Admission Requirements

- Senior standing (minimum of 90 credit hours) and completion of at least 36 credits of core courses in the major;
- Completion of upper-level undergraduate course that includes significant research-and-writing project (such as BIS 3320, LIT 3339, PPOL 4300, or equivalent) with final grade of B+ or higher;
- Grade point average of at least 3.5 in coursework at UT Dallas, overall and in major;
- Two letters of recommendation from faculty at UTD who teach both undergraduate and graduate courses;
- Application essay (500 words minimum) detailing student’s interest in the MAIS degree and concentration area(s), as appropriate;
- Approval from the School of Interdisciplinary Studies Fast Track Admissions Committee (includes Dean of IS, Associate Dean of IS, and MAIS Program Head);
- Students applying for the MAIS Fast Track do NOT need to complete the graduate application or the GRE that are required for the MAIS program for non-Fast Track applicants.

Application materials should be submitted to the MAIS Program Head, Dr. Jillian M. Duquaine-Watson, or to the MAIS Administrative Assistant, Ahnna Peavey. Completed applications will be reviewed and admissions decisions will be made by the IS Fast Track Admissions Committee (this includes the Dean of IS, the Associate Dean of IS, and the MAIS Program Head). Fast Track students from IS majors are required to obtain approval from the MAIS Program Head, the Associate Dean of IS, and the Dean of IS before enrolling in graduate courses. In addition, Fast Track students from non-IS majors will need to obtain approval from the Undergraduate Dean of their respective majors before enrolling in graduate courses.

MAIS Fast Track Completion Requirements to Maintain Graduate Status

- Selection of up to 12 hours of graduate coursework, including MAIS 5300: Foundations of Interdisciplinary Inquiry and MAIS 5321: Library Research Skills;
- Completion of all graduate coursework taken as an undergraduate with a grade no lower than a B in each course;
- Graduation (undergraduate) with a grade point average of at least 3.5 overall;
- Admission to the MAIS Program by the Dean of IS, Associate Dean of IS, and MAIS Program Head; at the time of admission, the appropriate number of successfully completed graduate credit hours will be certified and will then be allocated toward the appropriate MAIS degree requirements;
- Successful completion of all MAIS Fast Track requirements.
While in the MAIS Fast Track Program

- Within a single semester, a Fast Track student can take a maximum of 2 graduate classes;
- Students enrolled in the Fast Track program will be evaluated in the same manner as graduate students;
- Graduate courses taken by a Fast Track student will appear on both the undergraduate and graduate transcripts and will count in the cumulative earned hours and GPA for both undergraduate and graduate academic careers;
- Graduate policies apply to all Fast Track students;
- Fast Track students must maintain a cumulative GPA of 3.0 or higher in all graduate coursework;
- Fast Track students may not enroll in graduate level independent study, research, or internship courses—such courses can only be taken after completing the undergraduate degree and fully transitioning to the MAIS program.

If a Fast Track student wishes to delay continuing with the master’s program immediately after completing the bachelor’s degree, the Fast Track student could follow the readmission procedures. A MAIS Fast Track student can only delay the master’s degree continuation for one academic year (two long semesters). If the Fast Track student does not return to the MAIS program within one academic year to resume the MAIS degree requirements, their actions will be interpreted as withdrawing from the university and that student will be dismissed from the MAIS program. If they then wish to resume their MAIS studies at a later date, they will need to formally reapply to the MAIS program.

Proposed Changes to Undergraduate Catalog

In light of the above discussion and if this proposal is approved, it will be necessary to change the text that appears in the undergraduate catalog. More specifically, the following text will need to be deleted from the IS undergraduate page:

Fast Track Option

The Fast Track option enables qualified senior undergraduate students to include master's level courses in their undergraduate degree plans as they work towards a master's degree at UT Dallas. Admission into a Fast Track program is open to senior undergraduate students, 90 or more earned hours and core complete. Each Fast Track program may have additional admission requirements and deadlines; therefore, seniors interested in a Fast Track program should consult their academic advisor or Associate Dean of Undergraduate Studies and graduate advisor in their intended master's program. For more information on the programs, please review Fast Track Programs.

Consequently, the following text would be added:

The Fast Track Program permits qualified undergraduate students to begin work on the MAIS (Master of Arts in Interdisciplinary Studies) degree before completing their bachelor’s degree.

As a Fast Track student, a qualified senior may take up to 12 credit hour maximum of approved graduate courses—including MAIS 5300: Foundations of Interdisciplinary Inquiry and MAIS 5321: Library Research Skills—during their senior year (within 30 hours of graduation), which
will apply to their undergraduate degree plans as either major or elective courses. To qualify for admission to the Fast Track program, a senior must have completed at least 36 credits of core courses in their major and have attained a GPA of at least 3.5 overall and in their major.

Registration for graduate courses will be made in consultation with and approval from the MAIS Program Head, the School of Interdisciplinary Studies Associate Dean, and the Dean of the School of Interdisciplinary Studies. Students who are non-IS majors will also need to obtain permission from the Undergraduate Dean of their respective majors. Depending on the student’s undergraduate major, the graduate courses they complete may be applied as “major and related” or as “electives” on the undergraduate degree plan.

Students who are interested in the MAIS Fast Track program should consult with their Academic Advisor and complete an application form. The best time to apply is immediately prior to the start of the senior year (within 30 hours of graduation). Completed applications can be submitted to Dr. Jillian M. Duquaine-Watson, MAIS Program Head, or to Ahnna Peavey, Administrative Assistant for the MAIS program, and will be reviewed by the Fast Track Admissions Committee in the School of Interdisciplinary Studies. (NOTE: we will then add link to IS website which lists MAIS Fast Track Admission Requirements, as indicated above)
Dear Juan,  Per our earlier conversations, I met with Dr. Duquaine-Watson to review the IS Fast Track materials; she made some minor revisions, secured Dean Fair’s approval of those, and the attached request is now ready for Graduate Council’s review/consideration.

Dear Jessica,

Because IS wants UG majors from across the university to be able to fast-track into their MA program (cross-discipline fast-track), they have put some protocols in place for other school ADU approval. I believe this is existing practice for some other programs as well, but that may only be across majors within a school. At any rate, I also think it is important that CUE review this documentation. I spoke briefly with Dr. Wissinger about this last week as well.

Please note all schools/programs are currently “approved” for fast track generally, although ATEC has opted out of fast track, so this request is more regarding the specificity of the criteria as well as the ability for cross-discipline fast-tracking. The attached document contains both the proposed revised catalog text as well as text for the school’s own webpage regarding fast-track. That is, not all of the text in the document is intended for the catalog.

Best,
Serenity

Begin forwarded message:

From: "Duquaine-Watson, Jill" <jmw087000@utdallas.edu>
Subject: Re: revised document, MAIS Fast Track
Date: March 20, 2019 at 9:48:45 AM CDT
To: "King, Serenity" <serenity.king@utdallas.edu>

Serenity,

I was finally able to connect with Dr. Fair on this and he has approved the changes. Thus, can you please send it to Dr. Gonzalez so the review process may begin?

Many thanks,
Jillian

-------------------------
Dr. Jillian M. Duquaine-Watson
On Thu, Mar 14, 2019 at 6:48 PM -0500, "King, Serenity" <serenity.king@utdallas.edu> wrote:

Jillian,

Thank you; it is ready to move forward. We will want to convey to the governing committees that this document is both the proposed revised catalog text as well as the school webpage text that will further elaborate the criteria for students.

So long as you have Dean Fair's consent to move this forward, I will send it to Dean Gonzalez and Dean Murphy for their respective meetings, and I will Cc you (and the Registrar as a head's up that the catalog change is forthcoming). Please let me know if you need to discuss it with Dean Fair again first.

Serenity

Begin forwarded message:

From: "Duquaine-Watson, Jill" <jmw087000@utdallas.edu>
Subject: revised document, MAIS Fast Track
Date: March 14, 2019 at 6:13:54 PM CDT
To: "King, Serenity" <serenity.king@utdallas.edu>

Serenity,

Thanks so much for taking the time to meet with me today to discuss the MAIS Fast Track program.

As per your suggestions, I've modified the "draft" I sent and believe I have addressed all the points you raised. It is attached for your review. Please let me know if you suggest any additional changes or if you deem it ready to move forward in the review process.

Cheers, and thanks again!
Jillian

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Dr. Jillian M. Duquaine-Watson
Program Head, Master of Arts in Interdisciplinary Studies
The University of Texas at Dallas
Author of *Mothering by Degrees: Single Mothers and the Pursuit of Postsecondary Education*, recipient of the 2018 Outstanding Publication Award from the American Educational Research Association (AERA)
### Undergraduate Program Degree Plan Pages to be Updated in 2019-2020

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<th>ARHM</th>
<th>ATEC</th>
<th>BBS</th>
<th>ECS</th>
<th>EPPS</th>
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All updated pages are listed with a general summary of changes made.

### ARHM

| VPA – Interdisciplinary Arts | New concentration. |
| VPA – Photo-Video-Digital | New concentration. |

### BBS

| About BBS | Changes to wording under Internship Program |
| Child Learning and Development | Added new wording to Fast Track section. Added two new courses. Note: Page sent through approvals previously. New PDF only shows new updates since first submission. |
| Cognitive Science | Added new wording to Fast Track section. Minor changes to courses. |
| Neuroscience | Minor changes to courses. |
| Psychology | Added new wording to Fast Track section. Minor changes to courses. |
| Speech Language Pathology and Audiology | Added new wording to Fast Track section. Minor changes to courses. |

### ECS

| Computer Engineering | Changes to SCH, but all still adds up correctly. Changes to courses, specifically labs. Old labs will be retained in course inventory until 2020. Note: Page sent through approvals previously. No changes made to page from that submission. |
| Electrical Engineering | Changes to SCH, but all still adds up correctly. Changes to courses, specifically labs. Old labs will be retained in course inventory until 2020. Note: Page sent through approvals previously. No changes made to page from that submission. |

### JSOM

| About JSOM | Change of Major section heavily revised. Note: Page sent through approvals previously. New PDF only shows new updates since first submission. |
| JSOM Minors | Supply Chain Management minor added. Note: Page sent through approvals previously. New PDF only shows new updates since first submission. |

### NSM

| Actuarial Science | Updated to reflect lab changes for PHYS 2421. Note: Page sent through approvals previously. New PDF only shows new updates since first submission. |
| BioChemistry | Updated to reflect lab changes for PHYS 2421. |
| Biology | Updated to reflect lab changes for PHYS 2421. |
| Chemistry | Updated to reflect lab changes for PHYS 2421. |
| Geosciences | Updated to reflect lab changes for PHYS 2421. |
| Mathematics | Updated to reflect lab changes for PHYS 2421. |
Undergraduate Program Degree Plan Pages to be Updated in 2019-2020

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<td>Global Business &amp; Supply Chain Mgmt</td>
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### 1st 40

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### Graduate Program Degree Plan Pages to be Updated in 2019-2020

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All updated pages are listed with a general summary of changes made.

#### EPPS

**Public Affairs**

Changes made to Certificate in Local Government Management based on previous SACS review. Note: Page sent through approvals previously. New PDF only shows new updates since first submission.

#### JSOM

**About JSOM**

Extensive changes to Objectives section.

**Business Analytics**

Minor course changes/additions. Note: Page sent through approvals previously. New PDF only shows new updates since first submission.

**Energy Management**

Minor course changes/additions. Note: Page sent through approvals previously. New PDF only shows new updates since first submission.

**International Management**

Minor course changes/additions. Note: Page sent through approvals previously. New PDF only shows new updates since first submission.

#### GRAD

**Graduate Programs**

Extensive changes to wording concerning catalog.
Graduate Degree Program Policies and Procedures

Program of Studies/Degree Plan

Each student admitted to a graduate program will have a specific program of studies, outlined in the current graduate catalog that is agreed to in consultation with the appropriate committee, graduate advisor, or administrator for that degree program, except in those Schools with standard degree plans. Students enrolled in master's degree programs must have a completed "Program of Studies/Degree Plan" filed in and approved by the Office of the Dean of Graduate Studies prior to the student's registration for his or her 19th semester credit hour in the degree program. The form will be completed and revised, if necessary, each semester under the guidance of the student’s graduate advisor.

Some academic units designate a set of courses or a concentration that focus on an in-depth study centering on a discipline or a program of studies. The term concentration is often used interchangeably with other similar terms, such as designation, emphasis, option, pathway, specialization, or track. The concentration allows students to pursue a program of interdisciplinary specialization in addition to the program of studies they are pursuing. Concentrations are available only to students enrolled in the program of studies under which the concentration is listed. Graduate students should check with their graduate advisor about course applicability and restrictions.

For more information on this policy please review UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Program of Studies.

Milestones Agreement Form

For each student enrolled in a doctoral degree program, the academic advisor in consultation with the student, will prepare and submit a completed and updated "Milestones Agreement Form" annually to the Office of the Dean of Graduate Studies. The completed form will define academic milestones and timeline required to earn the doctoral degree and the progress being made by the student in meeting each requirement.

Change of Program

A student must be in good academic standing to change from his/her admitted graduate program to another one within the same graduate department. A student wishing to change programs within their same UT Dallas School must see their advisor prior to registration and no later than the first day of classes of a semester/term. If the change of program is approved, the student will then be responsible for meeting all program requirements and course prerequisites of the catalog in effect at the time of the change. The student and advisor will prepare a new degree plan.
Transfer of Credit

A degree-seeking student may petition to have graduate coursework taken at another institution be counted towards satisfying the master's or doctoral degree requirements. To qualify for transfer of credit the student had to be enrolled in a graduate degree program at an institution of higher education and the grade earned in the course must be a B or better. Grades of B- are not transferrable and the course must not be a correspondence or extension course.

Petitions for transfer of credit must be prepared by the Graduate Program. An official transcript and an official explanation of the course numbering system at the school where the credit was earned should accompany the transfer request and be submitted to school's advising unit for processing and approval by the program faculty and the School’s Associate Dean for Graduate Studies.

Transfer of credit petitions are subject to the following limitations:

- No more than 25% of the total requirement of a master's degree may be transfer credits. Some degree programs have more restrictive transfer of credit requirements.
- Transfer of master's level credit into a doctoral program is limited to a maximum of 36 semester credit hours.
- No more than 15 semester credit hours taken as a non-degree student at UT Dallas can be subsequently applied to a degree program at UT Dallas.

Exceptions to these transfer policies may be granted only on petition to the Dean of Graduate Studies.

All petitions for transfer of credit for coursework taken prior to enrolling at UT Dallas should be submitted to the student's Program Graduate Advisor by the student prior to filing a Program of Studies; however, acceptance of transfer of semester credit hours will not occur until after the student has completed 9 semester credit hours at UT Dallas with a grade point average of at least 3.0. All petitions must be processed and approved no later than the semester prior to anticipated graduation. Accordingly, requests to take courses at another institution during the semester a student plans to graduate cannot be approved because the grades may not be received in time to certify the student for graduation.

For more information on this policy please review UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Transfer Credit

Evaluating and Awarding Credit for Non-Credit Coursework Not Originating from the Institution

The University of Texas at Dallas awards academic credit for non-credit coursework not originating from the institution only in instances in which a signed cooperative agreement exists between the entity offering the non-credit work and the institution. The cooperative agreement must be reviewed and approved by the program faculty, the school administration, Graduate Council, the Committee on Educational Policy, Academic Senate, the Provost's Office, the University Registrar, and the University Attorney. Terms of the agreement must specify the responsibilities of the outside entity, including their obligation to send instructor credentialing...
information, course syllabi with articulated outcomes and participant deliverables, and verification of participants' completion, to the institution. Academically qualified UT Dallas faculty provide annual oversight of the outside entity's content to ensure that non-credit work is comparable in both content and rigor for the awarding of an equivalent UT Dallas graduate credit experience in the respective degree program. Such transfer credit is awarded for purposes of executive education only.

**General Degree Requirements**

The student will be deemed to have completed the coursework degree requirements when he or she completes the previously filed program of studies with acceptable grades.

For more information on this policy please review [UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Degree Requirements](#).

**Required Semester Credit Hours**

The minimum semester credit hours required for the degree in a Program of Studies will be those shown in the catalog applicable to the student at the time of his or her admission or readmission to the program. In no case will a student be allowed to graduate with less than 30 approved graduate semester credit hours (including approved graduate transfer credit hours) for the master's degree.

Enrollment in doctoral study at UT Dallas for a minimum of three, consecutive long terms and for a minimum of 18 doctoral semester hours are required for graduation with a doctoral degree. Additional requirements for the doctoral degree may be specified by the faculty of each program as described in the individual degree program sections of this catalog.

For more information on this policy please review [UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Registration Requirements](#).

**Required Grade Point Average**

In order to qualify for graduation, students must maintain a minimum 3.0 grade point average in their degree program's core courses. However, individual programs may have more stringent grade point requirements in selected courses, which must be satisfied for graduation.

The minimum acceptable university grade point average for graduation is 3.0 for all graduate courses taken in the student's degree program at UT Dallas.

**Registration Requirements: Examinations or Proposal Presentation**

A student must be registered for at least three semester credit hours of graduate coursework during the semester in which any major degree examination, such as the Qualifying Examination, Final Written Examination, or Final Oral Examination, is taken. A student must also be registered for at least three semester credit hours of graduate coursework during the semester in which the Dissertation Proposal is submitted for approval.
Time Limits

All requirements for a graduate degree, including transfer credit, must be completed within the specified time period. Students exceeding the specified time limit will not be eligible for their degrees and will be dismissed from the graduate program. An approved leave of absence will not alter the time limits placed on graduate degrees.

All requirements for the master's degree must be completed within one six-year period. All requirements for the doctoral degree must be completed within one ten-year period. Students whose master's degrees are accepted for full credit toward a PhD must complete all requirements for the doctoral degree within one eight-year period. Work exceeding these limits, whether done at this University or elsewhere, will not count towards the degree.

Individual programs may set shorter time limits. Exceptions to time limit specifications must be approved by the Dean of Graduate Studies.

For more information on this policy please review UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Time Limits

Additional Master's Degrees

Students are encouraged to pursue additional master's degrees at The University of Texas at Dallas. To the extent that the requirements of some master's degrees overlap, some of the semester credit hours taken in pursuit of previously earned master's degrees at UT Dallas may be counted toward an additional master's degree. The only limitation is that more than one-half of the semester credit hours for any master's degree earned at UT Dallas must be satisfied by new coursework. A student is required to develop an approved plan of studies through the department or program offering the master's degree prior to enrolling in that degree. Similarly, a student wishing to earn two master's degrees concurrently must develop an approved plan of studies through both relevant departments and programs. All coursework for any degree must meet the academic standards of that degree.

Supervising Committee for Thesis and Dissertation

A supervising committee will be appointed to approve a research topic, provide advice, and periodically assess progress and accomplishments for students pursuing degree options requiring a written master's thesis, a doctoral dissertation, or a research practicum report. The composition of the Supervising Committee must follow the guidelines contained in the UT Dallas policy memorandum, "Policy on Procedures for Completing a Graduate Degree" (UTDPP1052), and must be submitted by the appropriate committee or administrator of the degree program to the Dean of Graduate Studies for approval. A student may obtain copies of this policy from their department or program office.

The Supervising Committee must meet at least once annually to assess the student's progress, and send a written report to the Dean of Graduate Studies. This report should describe any problems which could delay the student's research beyond its anticipated completion date. A copy of this report must also be sent to the student.
The student may request a meeting of the Supervising Committee through a written request to the appropriate committee or administrator of the degree program.

For more information on this policy please review UTDP1052 - Policy on Procedures for Completing a Graduate Degree: Supervision.

**Master's Thesis**

The Master's thesis should integrate relevant scholarship and demonstrate research competence, including the potential to add to knowledge in the student's field with respect to either its intellectual substance or professional practice.

MFA Thesis: The MFA thesis project must demonstrate aesthetic and technical competence that integrates coursework and demonstrates an intellectual synthesis of the work in context. The MFA thesis project, as the culminating project of a terminal degree, should be of such standard as to warrant individual exhibition, festival screening, or the equivalent.

**Admission to Doctoral Candidacy**

The research potential and ability of each doctoral student to both understand and integrate previous coursework will be evaluated before a student can be formally admitted to doctoral candidacy. The format of this evaluation, hereafter referred to as a qualifying examination, varies amongst the degree programs and can be obtained from the student's Graduate Program office. A student failing the Qualifying Examination is terminated as a doctoral student in that Graduate Program unless a two-thirds majority of the examining committee votes that a second examination be permitted. All committee members should have all evidence of the student's academic record and Qualifying Examination performance prior to this vote. The second examination must be taken no sooner than two months after the student receives the written results of the first examination, and no later than one year. A student failing the second examination will not be allowed to pursue a doctoral degree in that program. Under no circumstances will a third examination be allowed. The student will have advanced to candidacy when she or he has:

- passed the Qualifying Examination;
- been assigned an approved Supervising Committee;
- satisfied any other program or school candidacy requirements.

Candidacy must be achieved before a student is eligible to enroll in dissertation or in the chemistry internship practicum courses.

**Doctoral Dissertation**

Each doctoral candidate must prepare and submit for examination a written dissertation meeting the guidelines specified in the “Guide for the Preparation of Master's Theses and Doctoral Dissertations.” A copy of the guide can be obtained from the office of the Dean of Graduate Studies or visit [http://www.utdallas.edu/dept/graddean](http://www.utdallas.edu/dept/graddean).
The dissertation manuscript for the Doctor of Philosophy degree must demonstrate an independent research competence on the part of the candidate that substantially adds to knowledge in the candidate's field with respect either to its intellectual substance or professional practice.

For more information on this policy please review UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Thesis and Dissertation Requirement

**Final Oral Examination for Doctoral Candidates**

The presentation and defense of the Dissertation will constitute the Final Oral Examination for the doctoral candidate. Specifics on the scheduling and conduct of the examination are contained in the "Guide for the Preparation of Master's Theses and Doctoral Dissertations." The initial phase of the examination will be open to the public. Following the public presentation, the candidate's research will be examined by the members of the examining committee. This part of the examination is not open to the public. Depending upon the school's policy, other members of the faculty may also attend that part of the examination. This portion of the examination will be chaired by the representative of the Dean of Graduate Studies. The examination will focus primarily on the candidate's research contribution, although aspects of the general field in which the candidate's research was conducted may also be covered.

One of five possible results of the examination will be reported:

1. passed the oral examination and manuscript accepted,
2. passed the oral examination and manuscript accepted pending specified revisions,
3. second oral examination required, but manuscript accepted or accepted with specified revisions,
4. major revisions of the manuscript and a second oral examination required,
5. or oral examination failed, manuscript not accepted and the committee recommends dismissal from the program.

If a recommendation for re-examination is made, the second Final Oral Examination must be taken between six months and one year after the first examination. In no cases will a third Final Oral Examination be given. See also "Policy on Procedures for Completing a Graduate Degree" (UTDPP1052), in the University's Handbook of Operating Procedures and/or the "Guide for the Preparation of Master's Theses and Doctoral Dissertation" or visit http://www.utdallas.edu/dept/graddean.

For more information on this policy please review UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Final Oral Examination

**Required Copies of Dissertation and Thesis**

A final, approved electronic version of the dissertation/thesis is required by Office of Graduate Studies. An electronic copy of the dissertation/thesis will be held by the library and available to the public.
An electronic copy must be submitted to UMI/ProQuest. UMI will publish and make the dissertation/thesis available to the public for purchase both on the web and in hard copy.

For more information on this policy please review UTDPP1052 - Policy on Procedures for Completing a Graduate Degree: Thesis and Dissertation Requirement

**Intellectual Property Rights**

In order to protect patent or other intellectual property rights, the Dean of Graduate Studies may, upon request, delay for a period of up to one year the binding, distribution, and/or publication in microform of the thesis, dissertation, or research practicum report. This request must be supported by a written recommendation of the Supervising Professor.

Updated: 2019-03-07 10:35:19
JSOM Policy on Undergraduate Change of Majors

All students wishing to change majors to JSOM after enrollment should carefully consider the consequences of excessive hours and time to degree completion. All students considering major changes are advised to complete career counseling assessment at either the Jindal Career Management Center or University Career Center. Please note: Requests for a JSOM change of major will be processed after semester grades are posted and up to the first day of class for the following semester.

Change of Major Application Minimum requirements:
- Students with 24 or more 60 total earned/attempted credit hours with at least 12 UT Dallas credit hours; AND  
- Who have completed MATH 1325 (or equivalent) at UT Dallas with a minimum grade of C or better (or transferred MATH 1325 with a C or better); AND  
- Have a cumulative UT Dallas GPA of 2.5500 or better; AND  
- Have completed a plan for their intended major with a JSOM advisor.

OR
- Students with fewer than 24 attempted credit hours; and  
- Who meet JSOM freshman admission standards and in good standing; AND  
- Have completed a plan for their intended major with a JSOM advisor.

Applications submitted up to 3 weeks before the end of the semester will be processed within the semester. Late applications will be processed after semester grades are posted.
Economic, Political and Policy Sciences Honors Program

The School Honors Program in the School of EPPS provides eligible students with the opportunity for recognition at the Program level for scholarly performance in degree programs within the School. In order to earn EPPS honors, a student must:

- graduate with an overall GPA of 3.400-50 or higher
- graduate with a GPA of 3.400-75 or higher in their major program of study

Additionally, the student must complete the following two requirements:

1. Complete 9 semester credit hours of the School's Fast Track program graduate courses with no less than a "B" in each course. Alternatively, complete 9 semester credit hours of honors designated courses as determined by the program, with no less than a "B" in each course. Honors designated courses are often graduate courses taken in one of the School's fast track programs. Exceptions may be made by the Associate Dean upon recommendation of the Program Head. Eligible courses could also be upper division CV classes that are major appropriate or other courses approved by the appropriate Program Head and Undergraduate Associate Dean.

2. Complete an internship by completing three semester credit hours of internship. The internship must be approved by the Program Head, and have a significant research component.

2a. Register for Senior Honors semester credit hours with a faculty supervisor or mentor and complete an Honors paper.

The Honors paper must be submitted to your faculty mentor or supervisor at least three weeks prior to the last day of classes for the term. It is then critiqued by your mentor and returned to the student for revisions and resubmitted by the last day of classes of the term. At that point, a second reader is asked to evaluate the paper.

School Honors with Distinction will be awarded to those students who complete a Senior Honors thesis, and whose paper is judged by a faculty committee to be of exemplary quality and provided the students meet the other requirements stated above.

Students must apply for admission to the Program Head of the academic program in which they expect to receive their degree. Students must apply no later than 30 semester
credit hours prior to graduation and no earlier than 60 semester credit hours prior to graduation.

Students should contact an academic advisor for an application.
University Policies Related to Graduate Assistants Teaching Assistants Teaching Associates and Student Research Assistants - UTDPP1075

Policy Statement

Philosophy

Graduate programs, schools, or departments and eligible administrative units are designed to provide the opportunity for individuals to make the transition from students to professional scholars and practitioners. The appointment of a graduate student as a Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate often provides the student with the necessary financial support to facilitate this transformation.

Teaching Assistants, Research Assistants, Graduate Assistants, and Teaching Associates are enrolled, full-time graduate students taking a minimum of nine approved semester credit hours each regular (long) semester and must be in academic good standing each semester they are appointed. Students holding these appointments normally are not allowed to accept outside employment. In those very rare cases when it is appropriate for the student to seek limited employment beyond the appointment, explicit permission must be obtained from both the project supervisor and the Associate Dean for Graduate Studies from the appropriate School. Assistants and Associates are also employees of the University and are expected to meet specified teaching, research, or administrative support obligations and receive compensation for contributing to the mission of the University. Assistants who are not instructor of record and Associates will be reviewed and assessed on their work performance at least annually; some SchoolsPrograms or units will may conduct reviews each semester. Teaching Associates or Teaching Assistants who are instructors of record will be reviewed on a semester-by-semester basis. As employees of the University, Teaching Assistant, Research Assistant, Graduate Assistant, and Teaching Associate appointees, when acting in their capacity as employees, are subject to the provisions of policies and procedures relating to employment, including the provisions and requirements governing intellectual property.
Graduate studies and assistantship responsibilities should reinforce each other. The appointments are intended to allow the student to gain valuable in-service experience in teaching, research, administrative functions, and other activities. Research projects should ideally lead to a thesis or dissertation. Teaching assignments should give greater insight into a student's discipline. Administrative responsibilities could include research; in such cases, these duties should give a graduate student an opportunity to apply collaborative communication strategies in planning, executing, and assessing projects or to apply research concepts, practices, and methodologies when conducting institutional research. In all cases, a close relationship between the faculty or administrative supervisor and the student is vital to the promotion of the professional growth of the graduate student.

**Types of Graduate Assistantships**

A "full-time" Teaching Assistant (TA), Research Assistant (RA), Graduate Assistant (GA) and Teaching Associate is defined as an appointment working no more than 20 hours per week and is considered a part-time employee. An appointment less than "full-time" (i.e., less than 20 hours weekly) is permissible with a commensurate reduction in salary. Aggregate employment at more than 20 hours per week in a combined appointment is not permitted.

Four types of assistantships are offered:

1. Full-time (0.5 FTE personnel appointments) Graduate Student Teaching Assistants (TA’s) are employed a maximum of 20 hours per week to help meet the instructional needs of the university. Appointments and reappointments as Teaching Assistants are subject to: the availability of financial support, satisfactory academic progress, and performance review by their academic program, school, or department on a semester-by-semester basis. In consultation with, and under the direction of, an assigned supervisor, the Teaching Assistant will aid in the teaching of one or more courses or may serve as the instructor of record.

2. Full-time (0.5 FTE personnel appointments) Graduate Student Research Assistants (RA’s) are employed a maximum of 20 hours per week to assist the research efforts of the faculty in a capacity that relates to the student's educational goals. Research Assistant appointments and reappointments are subject to: the availability of financial support, satisfactory performance in and progress toward specified research assignments, and performance review on a semester-by-semester basis. The Principal Investigator or Project Director of the award will designate and supervise the research activities of the Research Assistant. Duties may include library searches, field work, laboratory experiments, and preparation of reports. The duties should provide an opportunity to acquire professional skills that complement his/her graduate program and must not be for services unrelated to the student's educational program, school, or department or be clerical in nature.
3. Full-time (0.5 FTE personnel appointments) Graduate Student Assistants (GA’s) are employed a maximum of 20 hours per week to assist with administrative support functions and other activities in a manner that relates to the student's professional development. Graduate Assistant appointments and reappointments are subject to: the availability of financial support, satisfactory performance in specified administrative assignments, satisfactory progress in the academic program, and a satisfactory performance review on a semester-by-semester basis. The Graduate Assistant's responsibilities may or may not directly relate to teaching or research while some duties may be both research and administrative in nature, or consist of other activities that do not generally fit within the Teaching Assistant, Teaching Associate, or Research Assistant responsibilities. Depending on the specific job duties, Graduate Assistants may apply research concepts, practices, or methodologies through analyzing data, presenting findings, conducting institutional research, collaborating with co-workers and/or colleagues in preparing reports and/or presentations, and similar activities. In all cases, their duties should not be clerical in nature. The administrative supervisor will designate and manage the activities of the Graduate Assistant. The administrative supervisor will ensure that the Graduate Assistant activities will contribute to the graduate student's professional growth in acquiring professional skills that complement his/her graduate interests and/or discipline, although these skills may not necessarily relate to his/her progression toward a degree. It is required that the administrative supervisor maintains communication with the student’s faculty advisor about the student’s appropriate academic progress and administrative performance.

4. Full-time (0.5 FTE personnel appointments) Graduate Student Teaching Associates will be appointed, with prior written approval of the Chief Academic Officer, as the primary instructor of record for a course. The Teaching Associate serving as a primary instructor will work closely with an assigned faculty supervisor. To be eligible for appointment as the primary instructor of record for a course, Teaching Associates must be in the last phase of either their doctoral program program or the Master of Fine Arts, as applicable; must have completed 18 semester credit hours in the teaching discipline; and should participate in professional development initiatives led by the Office of Graduate Education and the Center for Teaching and Learning and be unconditionally enrolled in graduate study. Appointments and reappointments as Teaching Associates are subject to: the availability of financial support, satisfactory academic progress, and performance review by their academic program, school, or department on a semester-by-semester basis.

Qualifications/Eligibility for Assistantship Appointments

To be eligible for appointment as a full-time Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate students must be unconditionally admitted to a graduate program/school and be enrolled full-time
in a graduate program/school at UT Dallas. Students appointed as Assistants and Associates are required to maintain academic good standing as defined in the graduate catalog. Students on academic probation may not be appointed to, or remain on, an assistantship. Exceptions may be approved by the Graduate Dean upon recommendation of the School Dean and/or the administrative supervisor.

For teaching appointments, proficiency in spoken and written English is required. At the time of their initial appointments as Teaching Assistants or Teaching Associates, international students will be required to take an oral screening test designed to establish their English communication skill level. The outcome of the test will establish if the student will be required to enroll in, and subsequently pass, an English as a Second Language (ESL) course designed to prepare them for classroom duties and interactions with students. Students who are not excused from taking the ESL course by the Graduate Dean must pass the ESL course within two semesters of enrollment to qualify for continued appointment as a Teaching Assistant or Teaching Associate. Additional information about the screening test and the ESL course may be obtained from the Office of Graduate Studies Education.

A faculty committee in each program, school, or department must screen, rank, and recommend the appointment or reappointment of Teaching Assistants, Research Assistants, and Teaching Associates in that academic unit. Evaluation criteria for entering students must include, but not necessarily be limited to, previous academic record (degree, GPA), TOEFL scores if applicable, standardized examination scores if required by the program (GRE, GMAT), applicable teaching or work experience, letters of recommendation, and the Committee's judgment that the student has the potential for sustained achievement in the chosen field of graduate study. Eligible administrative units may follow their current personnel practices in screening, ranking, and recommending the appointment or reappointment of Graduate Assistants in consultation with faculty in the student’s academic discipline.

Reappointment of students will also require: completion of a required assistantship orientation training program; a demonstrated high standard of performance in the areas of assigned duties in teaching, research, and/or administrative support; and satisfactory progress toward the graduate degree.

**Appointment Procedures**

The appointment of a Teaching Assistant, Research Assistant, or Graduate Assistant requires recommendation by the program, school and/or department head (if applicable) or the administrative supervisor and the Dean of the School and approval by the Dean of Graduate Studies Education. Teaching Associate appointments must also be approved by the Office of the Chief Academic Officer. In the case of an administrative unit, the appointment of Graduate Assistants
requires the recommendation by the supervisor and his/her manager. All requests for initial appointment, reappointment, or change of status of Assistants or Associates must be initiated on the appropriate Human Resources forms, and must include the academic level of the student in the degree program at UT Dallas (Master's or Doctoral). For Teaching Assistants and Associates, the course or courses for which assistance is to be rendered should be specified on a semester-by-semester basis. Under no circumstances aA Teaching Assistant or Associate can not be enrolled in the same course or courses for which their assistance is required. For Research Assistants, the name of the faculty member whose research is to be assisted should be specified. For Teaching Associates, the name of the course and the name of the faculty member who will supervise the Teaching Associate should be specified. In addition, all Teaching Assistants, Research Assistants, Teaching Associates, and Graduate Assistants must complete, sign, and return to their program, school and/or department head a statement confirming the understanding and acceptance of the Responsibilities of U.T. Dallas Graduate Student Teaching Assistants, Teaching Associates, and Research Assistants or Graduate Assistants. This agreement must be completed in the semester of initial appointment and at the beginning of each fall semester thereafter. In addition, all Teaching Assistants, Research Assistants, and Teaching Associates must complete, sign, and return to their program, school and/or department head a statement confirming the receipt, understanding, and acceptance of the conditions contained in the form entitled "Responsibilities of UT Dallas Graduate Assistants". A copy of the completed form must be submitted in the semester of initial appointment and at the beginning of each fall semester thereafter. These copies should be maintained by the program personnel or the administrative unit for an appropriate time period as defined by the records retention policy.

Because the terms of individual awards may vary from program to program, and even within a single program, the program, school, and/or department head (if applicable) and/or School Dean, and the administrative supervisor or his/her manager are responsible for forwarding to each prospective Teaching Assistant, Research Assistant, Graduate Assistant or Teaching Associate an official letter of appointment specifying complete information on the terms of the assistantship, including:

1. title, fraction of effort, and length of appointment;
2. level of assistantship financial support;
3. minimum student course load;
4. description of duties;
5. name of supervisor;
6. information concerning the required assistantship orientation program and sessions for teaching appointees; and
7. deadline for acceptance.
If specific information on items 4 and 5 is unavailable at the time of appointment, the information should be furnished in writing no later than the first class day of the semester. Specific program, school, and/or department or administrative unit policies, if any, governing Teaching Assistants, Research Assistants, Graduate Assistants and/or Teaching Associates should be communicated in writing.

Length and Terms of Appointment and Reappointment to Assistantships

Initial appointments starting in the fall semester may be for an academic year or for a single semester. Initial appointments starting in the spring or summer semester will terminate no later than the end of the summer semester.

Teaching Assistant, Research Assistant, Graduate Assistant or Teaching Associate reappointment is not automatic. Students may be reappointed if it is determined that reappointment is to the benefit of the institution. Reappointment may be for an academic year or for a single semester. Failure to maintain qualifications for the appointment and/or meet the conditions of service, including performance standards may lead to the termination of an assistantship.

The maximum duration of assistantship support provided to students pursuing master's degrees is normally four semesters, whether regular (long) or summer semester. An additional semester of support may be provided for qualified students in degree options requiring more than 36 semester credits. It is recommended that students confer with their program, school, or department head and/or School Dean or the administrative supervisor to clearly establish/define such limits and other restrictions that may apply. Appointments and reappointments are subject to the availability of funds.

Subject to the availability of funds and continued reappointment by the program, school, or department, the maximum period of teaching assistantship support of students enrolled in a doctoral program is 12 semesters, whether regular (long) or summer semester or 100 doctoral level semester credit hours (whether taken at UT Dallas or another public institution in Texas). It is strongly recommended that students confer each semester with their program, school, or department head (if applicable) and/or School Dean to clearly establish/define the status of their appointment, the number of doctoral hours of eligibility remaining for the student, and other restrictions that may apply.

Conditions of Service

As conditions of service (appointment and reappointment) the graduate student must:
• be in good academic standing with the program, school, and/or department and the University;
• be making satisfactory and timely progress toward the appropriate degree;
• be enrolled on a full-time basis (minimum of 9 credit hour enrollment each regular (long) semester); the required course load in the summer session will be designated by the Dean of the School;
• have been evaluated by supervisor as having performed satisfactorily on assigned tasks in accordance with program, school, department, and University policies and procedures; and
• have been in compliance with all requirements, including additional outside work, as specified within one of the appropriate forms, in "Responsibilities of UT Dallas Graduate Student Teaching Assistants, Teaching Associates, and Research Assistants" or "Responsibilities of UT Dallas Graduate Assistants."

**Termination Within Appointment Period**

If any of the qualifications for the appointment and/or the conditions of service, including performance standards are NOT satisfied, the program, school, and/or department head (if applicable) and/or School Dean (in the case of Teaching Assistants or Teaching Associates) or the research supervisor (in the case of Research Assistants) or the administrative supervisor (in the case of Graduate Assistants) will inform the student that grounds exist for termination of his/her assistantship, the nature of the grounds for termination, an explanation of the evidence to support the grounds, and provide the student with the opportunity to respond to an intent to terminate the assistantship.

If, after providing the student with an opportunity to respond, the program, school, and/or department head (if applicable) and/or School Dean or research or administrative supervisor determines that the termination should proceed, he/she will then make a written request of the School Dean to proceed with the termination of the appointment. Upon review and concurrence, and in consultation with the Office of Human Resources, the School Dean will inform the student, in writing, of the decision to terminate the appointment. The termination will take effect on the date specified in the notification to the student from the School Dean.

**Appeal of Termination of Assistantship**
Any student holding a graduate student appointment at UT Dallas has the right to appeal a decision leading to the termination of an assistantship within the appointment period.

The appeal by the student must be made in writing to the Graduate Dean within 10 working days of the date of the notification of the termination of the student's assistantship. The request for reconsideration must be concise. The student is encouraged to attach copies of all relevant statements, documents (written or electronic material) on the matter in support of his/her appeal. The student should also include a clear statement of the student's desired outcome of the appeal process.

The Graduate Dean will convene a review panel consisting of a School Dean and/or an administrative Vice President and a faculty member from schools other than that of the student and the Graduate Dean. The panel will review all submitted materials, will meet with the supervisor who terminated the assistant or associate and the student to provide the opportunity for additional clarifications as appropriate. The student will be notified in writing of the outcome of the appeal within 10 working days of the date the student's written appeal is received by the Graduate Dean. The decision of the review panel will be final.

Responsibilities

The Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate is expected to work closely with the faculty, research, or administrative supervisor in carrying out assigned teaching/research/administrative duties and also to make good progress toward the completion of his/her degree program. The Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate is obligated to maintain and enforce standards of academic honesty and integrity and to report violations of these to the faculty/research/administrative supervisor. The Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate is expected to keep well informed of program, school, department, and University regulations and follow them consistently. The Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate is expected to maintain all records pertinent to his or her assignment and to transfer them as and when requested by his or her supervisor.

Evaluation

Evaluation of performance is a critical part of the assistantship experience and should involve ongoing communications between the Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate and faculty/research/administrative supervisor(s). The School, or, if delegated, program and/or department or administrative unit, is responsible for establishing
appropriate procedures for a formal annual evaluation to occur semesterly, either annually or each semester for associates and assistants who are instructors of record and at least annually for assistants who are not instructors of record. This evaluation, depending upon the program or unit, which will help the student identify strengths and weaknesses; some Schools will conduct reviews each semester. This evaluation will be a part of the graduate student's employment record. This evaluation will also provide an avenue for assistants/associates to assess their work from their own perspectives.

**Supervisor's Responsibilities**

The supervisor of a Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate is expected to inform and advise the Assistant/Associate directly in matters which pertain to performance. The supervisor should inform a Teaching Assistant or Teaching Associate specifically of all curricular matters in the course (e.g., content, methods, objectives, and standards) and provide advice in teaching techniques and teacher/student relations. The supervisor of a Research Assistant should establish research goals with the assistant, which assures that the assistant has the opportunity to learn proper research procedures and techniques and which contribute to the assistant's growth as a scholar. The administrative supervisor of a Graduate Assistant should inform the assistant by outlining the administrative and/or research duties and other activities to be carried out which contribute to the professional growth as a practitioner.

The supervisor is responsible for apprising the Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate of the nature of records to be kept in the course of performance of the assigned duties and of the disposition of these records required at the termination of the assignment. For Teaching Assistants and Teaching Associates, such records may include grade sheets, copies of quizzes or examinations, and student reports. For Research Assistants, they may include laboratory notebooks, primary data, and computer runs. For Graduate Assistants, they may include pertinent university information, files, emails, and institutional research data. These examples are not all-inclusive.

The supervisor is responsible for ongoing communication regarding the quality of the Teaching Assistant, Research Assistant, Graduate Assistant, or Teaching Associate performance. The supervisor is the primary evaluator of this performance.

**Policy History**

- Issued: 1976-04-12
- Revised: 1976-08-17
- Revised: 1977-08-01
Policy Statement

1. PROGRAM OF STUDIES: Each student admitted to a Graduate Program will have a specific program of studies, outlined in the current graduate catalog that is agreed to in consultation with the appropriate committee, graduate advisor or administrator for that degree program. Students enrolled in Master's degree programs must have a completed "Program of Studies/Degree Plan" filed in and approved by the Office of the Dean of Graduate Education prior to the student’s registration for his or her 19th semester credit hour in the degree program. The form will be completed and revised, if necessary, each semester under the guidance of the student’s graduate advisor. For each student enrolled in a doctoral degree program, the academic advisor in consultation with the student, will prepare and submit a completed and updated "Milestones Agreement Form" annually to the office of the Dean of Graduate Education. The completed form will define academic milestones and timeline required to earn the doctoral degree and the progress being made by the student in meeting each requirement.

1. Exception: Common Master's Program: In those Graduate Programs where a common program of studies is prescribed for all Master’s students, differing only in elective courses comprising less than one-third of the total required degree semester credit hours, the Graduate Program can file a model "Program of Studies" with the Office of the Dean of Graduate Education. Any student wishing to deviate from that approved model Program of Studies must file an Individual Program of Studies developed and approved by the appropriate committee or administrator for that program prior to the student’s registration for his or her 19th degree semester hour taken at UT Dallas.

2. Exception: Common Doctoral Core: In those Graduate Programs where a common doctoral core is prescribed for all students, differing only by the area of specialization chosen, the Graduate Program can file a model "Program of Studies" with the Office of the Dean of Graduate Education. Any student wishing to deviate from that approved model Program of Studies must file an Individual Program of Studies developed and approved by the appropriate committee or administrator for that program prior to the student’s registration for his or her 50th degree semester hour taken at UT Dallas.

3. Additional Master’s Degrees: Students wishing to earn additional Master’s degrees at UT Dallas must develop an approved Program of Studies through the
Program offering that degree prior to enrolling in additional courses. The program can allow up to 15 semester credit hours earned in a previous degree program toward the additional degree. Additional credits may be accepted from the previous degree upon the approval of the Dean of Graduate Education. In no case will credits counted for a previous degree be allowed to exceed one-half the total hours required for the additional Master's degree program.

4. Graduation Under a Particular Catalog: Provided the requisite courses continue to be offered, the student is bound by the course work requirements of the catalog in force at the time of admission, within a six-year limit for the completion of the Master’s degree and ten years for the doctoral degree. With the approval of the Dean of Graduate Education the student may elect to be bound by the catalog in force at the time the student applies for graduation. This regulation applies to specific course work and the number of semester credit hours for the academic degrees set forth in the catalog. All other requirements will change or be continued with the issuance of new graduate catalogs.

2. TRANSFER CREDIT: To qualify for transfer credit, the grade earned in the course must be a B or better and the course must not be a correspondence, extension or pass/fail course. UT Dallas awards academic credit for non-credit coursework not originating from the institution only in instances in which signed agreements are on file as outlined in the Graduate Catalog. Petitions for transfer of credit must be prepared by the Graduate Program and submitted for approval by the program faculty and the School Associate Dean of Graduate Studies. Petitions may be approved at the time of the student’s first enrollment; however, no actual acceptance of transfer credit will occur until after the student has completed 9 semester credit hours of courses at UT Dallas with a grade point average of at least 3.0. Petitions for transferring courses taken before enrolling as a graduate student at UT Dallas must be submitted prior to filing the Program of Studies. Petitions for transfer credit must be accompanied by a copy of the student’s transcript showing the course(s) in question.

1. No more than 25% of the total requirement of a Master’s degree may be transfer credits. Some degree programs have more restrictive transfer of credit requirements.

2. Doctoral Degree: A Master’s degree or its equivalent may be transferred from another university for up to 36 semester hours of credit towards a doctoral degree.

3. Non-Degree Students: No more than 15 semester credit hours taken as a Non-Degree Student may be subsequently transferred to a degree program at UT Dallas. No petition is necessary for any of this coursework to be included in a student’s Program of Studies.

4. Exceptions: Exceptions to these transfer policies may be granted only on petition to the Dean of Graduate Education. Such a petition could be for the
program of an individual student or for the model Program of Studies (See "Exceptions" on page 1 of this policy).

3. DEGREE REQUIREMENTS: The student will complete the course work degree requirements when he or she completes the previously filed program of studies with acceptable grades.

1. Required Semester Credit Hours: The minimum required semester credit hours in a Program of Studies required for the degree will be those shown in the catalog applicable to the student at the time of his or her admission or readmission to the program. In no case will a student be allowed to graduate with less than 30 approved graduate semester credit hours (including approved graduate transfer credit hours) for the Master's degree.

2. Required Grade Point Average: In order to qualify for graduation, students must maintain a 3.0 grade point average in their degree program’s core courses. However, individual programs may have more stringent grade point requirements in selected courses, which must be satisfied for graduation. The minimum acceptable University grade point average for graduation is 3.0 for all graduate courses taken in the student’s degree program at UT Dallas.

3. Research Involving Animal or Human Subjects

   1. Research Involving the Use of Animals (UTDPP1014): Any student who intends to conduct research, (whether funded or not funded) which would involve animals must obtain permission from the Institutional Animal Care and Use Committee (IACUC). Permission to use an animal in research must be obtained prior to ordering, bringing to campus or housing on campus an animal. The required form to request approval may be obtained from the Office of Research Compliance.

   2. Research Involving Human Subjects (UTDPP1035): Any student who intends to conduct research, on or off campus, in partial or complete fulfillment of a course requirement, thesis or dissertation, which would involve human beings as subjects must obtain permission, prior to undertaking the research, from the University’s Institutional Review Board for the Protection of Human Subjects (IRB). Any research activity, including but not limited to surveys, questionnaires, interviews, standardized and non-standardized tests, and/or simple research experiments, which include the participation of human beings, regardless of age of participant, must have approval from the IRB. The required forms to request approval may be obtained from the Office of Research Compliance.
4. Admission to Doctoral Candidacy: The research potential and ability of each doctoral student to both understand and integrate previous coursework and relevant scholarship will be evaluated before a student can be admitted formally to doctoral candidacy. The format of this evaluation, hereafter referred to as a qualifying examination, varies amongst the degree programs, and can be obtained from the student's Graduate Program Office. A student failing the Qualifying Examination is terminated as a doctoral student in that program unless a two-thirds majority of the examining committee vote that a second examination be permitted. All committee members should have all the evidence of the student's academic record and Qualifying Examination performance prior to this vote. The second must be taken no sooner than two months after the student receives the written results of the first examination, and no later than one year after the first examination. Students failing the second examination will not be allowed to pursue a doctoral degree in that program. Under no circumstances will a third examination be allowed. The student will have advanced to candidacy when the student has

1. passed the qualifying examination,
2. been assigned an approved Supervising Committee, and
3. satisfied any other Program or School candidacy requirements.

Candidacy must be achieved before a student is eligible to enroll in dissertation courses.

4. THESIS AND DISSERTATION REQUIREMENT

1. **Outcome of the Thesis or Dissertation:**
   1. **Dissertation:** The dissertation must demonstrate an independent research competence on the part of the candidate that substantially adds to knowledge in the candidate’s field with respect either to its intellectual substance or professional practice. The dissertation should be of such standard as to warrant publication in peer reviewed journals or scholarly books or monographs or equivalent.
   2. **Master’s Thesis:** The Master’s thesis should integrate relevant scholarship and demonstrate research competence, including the potential to add to knowledge in the student’s field with respect to either its intellectual substance or professional practice.
   3. **MFA Thesis:** The MFA thesis project must demonstrate aesthetic and technical competence that integrates coursework and demonstrates an intellectual synthesis of the work in context. The MFA thesis project, as the culminating project of a terminal degree, should be of such standard as to warrant individual exhibition, festival screening, or the equivalent.

1.2. **Dissertation Proposal:** Content: The Dissertation Proposal should be prepared by the student in consultation with the student's Supervising Committee. The proposal should include:
1. A tentative title of the dissertation describing the topic as accurately and briefly as possible.

2. The background of the research, the hypotheses to be tested or concepts to be explored, and the methodology to be employed. It should also address the relationship of the proposed work to existing work in the field, at UT Dallas or elsewhere, its intended outcome, and its contribution to the field.

3. A schedule of the remaining research activities, including major completion milestones.

4. A set of up to five "key words" to assist in establishing the Data Base on Theses and Dissertations.

2.3. Dissertation Proposal: Approval: The proposal should be prepared by the student in consultation with the student’s Supervising Professor, who will approve the document before its submission to the appropriate committee or administrator for that Department or Program. After its approval at the Department, Program, School, or Interdisciplinary Degree Committee level, the proposal will then be forwarded to the Dean of Graduate Education, together with the Department’s or Program’s nominations for Supervising Professor and members of the Supervising Committee and the anticipated time of completion. To allow the Supervising Committee the opportunity to guide the development of the project, the Dissertation Proposal must be approved in a semester prior to the one in which the Final Oral Examination will be held.

3.4. Supervising Committee: General: The recommended Supervising Committee for the student is submitted by the appropriate committee or administrator for that Department or Program to the Dean of Graduate Education for approval. Subsequent changes in membership must also be subject to approval by the appropriate committee or administrator for that Department or Program, and in, turn the Dean of Graduate Education. Individuals qualified for service on the Supervising Committee will be voting members of the General Faculty (as defined by The University of Texas at Dallas Handbook of Operating Procedures), Adjunct Faculty, Clinical Faculty, Professors of Instruction, Professors of Practice, Distinguished Scholars in Residence, Emeritus Faculty, Research Professors, Research Scientists, Senior Lecturers, or Visiting Faculty who hold the highest earned degree in the field or fields concerned or exhibit an equivalent record of accomplishment. In addition to the Master’s and doctoral degree membership composition as defined in sections 4 and 5 below, additional members outside the General Faculty may serve with the special approval of the Dean of Graduate Education. Members of the Supervising Committee will also be members of the Examining Committee. (*In the case of Adjunct Faculty, a General Faculty member will be appointed to co-chair the Supervising Committee).
4.5. Supervising Committee: Master's Degree with Thesis: Appointment of a Master's thesis Supervising Committee consisting of at least three members is a function of the degree program expected to confer the student's degree. Additional members may be appointed. All appointments must be approved by the Dean of Graduate Education. The appropriate committee or administrator of the program in consultation with the student, will nominate:

1. the Chair, who serves as the supervisor of the research, will ordinarily be a voting member of the General Faculty holding the rank of Professor, Associate Professor, or Assistant Professor. Adjunct Faculty, Clinical Faculty, Professors of Instruction, Professors of Practice, Distinguished Scholars in Residence, Emeritus Faculty, Research Professors, Research Scientists, Senior Lecturers, or Visiting Faculty who hold the highest earned degree or exhibit an equivalent record of accomplishment in the field or fields of the research or aesthetics may be appointed as Chair if he/she receives a 2/3 majority recommendation of the Professors of the academic discipline and approval of the Academic Dean of the School offering the degree.

2. at least two voting members of the General Faculty from the graduate degree program expected to confer the student's degree; and

3. if necessary, a third representative appointed by the appropriate committee or administrator for that discipline.

Any school varying from the above procedures in constituting Supervising Committees must have had prior approval from the Dean of Graduate Education.

5.6. Supervising Committee: Doctoral Degree: Appointment of a Doctoral dissertation Supervising Committee consisting of at least four members is a function of the degree program expected to confer the student’s degree. Additional members may be appointed. All appointments must be approved by the Dean of Graduate Education. The appropriate committee or administrator of the program, in consultation with the student, will nominate:

1. the Chair, who serves as the supervisor of the research, will ordinarily be a voting member of the General Faculty holding the rank of Professor, Associate Professor, or Assistant Professor. Adjunct Faculty, Clinical Faculty, Professors of Instruction, Professors of Practice, Distinguished Scholars in Residence, Emeritus Faculty, Research Professors, Research Scientists, Senior Lecturers, or Visiting Faculty who hold the highest earned degree or exhibit an equivalent record of accomplishment in the field or fields of the research or aesthetics may be appointed as Chair if he/she receives a 2/3 majority recommendation of the Professors of the academic discipline and approval of the Academic Dean of the School offering the degree.

2. not less than three voting members of the General Faculty, from the graduate degree program expected to confer the student’s degree; and

3. if necessary, a fourth representative appointed by the appropriate committee or administrator for that discipline.
Schools varying from the above procedures in constituting Supervising Committees must have had prior approval from the Dean of Graduate Education.

5. SUPERVISION: The Supervising Committee will meet with the candidate soon after the Dean of Graduate Education has approved membership of the Committee. The intention of this initial meeting should be to discuss potential problem areas in the proposal and to establish a procedure that the Committee wishes to adopt to follow the research to a successful conclusion, e.g., the frequency and format of contact between candidate and Committee. The Supervising Committee must meet at least once annually, assess the student’s progress, and send a report on that progress to the appropriate committee or administrator for that program and to the Dean of Graduate Education. This report should describe any problems which have the potential to delay the research beyond its anticipated completion date. A copy of this report must also be sent to the student. The student can request a meeting of the Supervising Committee through a written request to the appropriate committee or administrator for that program. The appropriate committee or administrator for that program will be responsible for convening such a meeting, generally within two weeks of the student’s request, unless this timing is impossible owing to the absence of the Supervising Professor. No more than one student-initiated meeting can be called within an academic year. Provision for coverage of leaves of absence of either students or committee members will have been discussed at the initial meeting of the Supervising Committee. Any arrangements for surrogate supervision or changes in the student’s plans will be communicated to the appropriate committee or administrator for that program, in writing, with a copy to the Dean of Graduate Education. Because of the relationship between the student and the Supervising Committee, committee members on leave of absence or who have left their positions with the university may be given permission to remain on the committee by the Dean of Graduate Education. However, they must agree to be active participants in supervisory activities and to be present for the final examination. If this is not possible, the committee member must be replaced and a new member of the General Faculty must be submitted for approval.

1. Manuscript Preparation: Style and format requirements have been established for theses and dissertations prepared at UT Dallas. Prior to submitting manuscripts, candidates should consult the Dissertation and Thesis Formatting Guide which can be obtained from http://www.utdallas.edu/dept/graddean/dgIndex.htm.

2. Committee Approval of the Manuscript: Approval of the thesis or dissertation to go forward for examination can only be given after the members have considered the entire manuscript. Members of the committee who do NOT agree that the manuscript is examinable, whether in the majority or not, should inform the Department Head or program administrator immediately, and in writing, so that such objections may be discussed with the Supervising Professor and the candidate.
3. **Independent Research Competence:** The dissertation must demonstrate an independent research competence on the part of the candidate that substantially adds to knowledge in the candidate’s field with respect either to its intellectual substance or professional practice. The dissertation should be of such standard as to warrant publication in peer reviewed journals or scholarly books or monographs or equivalent.

4. **Submission of the Final Draft of the Thesis or Dissertation:** Once the candidate has, in the judgment of the Supervising Professor, prepared an examinable thesis/dissertation manuscript, it should be distributed to the other members of the Supervising Committee, allowing them a minimum of two weeks to review the document. After reading the document, a majority of the Supervising Committee members must agree that the document is ready to be defended before a request for a Final Oral Examination may be submitted and an examination date scheduled. The Final Oral Examination must be scheduled in at least one semester after the semester in which the Dissertation Proposal was approved. Committee members should ensure that the manuscript is complete, has been rigorously proofread (preferably by a professional proofreader), and meets scholarship standards for theses or dissertations. The student then submits a copy of the dissertation and the Request for Final Oral Examination form, signed with no more than one dissenting vote by the Supervising Committee members to the Office of the Dean of Graduate Education, which shall approve the scheduling of the Final Oral Examination. Members of the committee who do NOT agree that the manuscript is examinable should inform the appropriate committee or administrator for that program immediately, and in writing, so that such objections may be discussed with the Supervising Professor and the candidate. The Final Oral Examination cannot be scheduled until a resolution has been reached with, at most, one dissenting vote.

5. **Submission of Final Approved Thesis or Dissertation:** Students must submit a final approved, electronic version of their dissertation/thesis to the Office of Graduate Education. An electronic version of the dissertation/thesis will be held by the library and available to the public. An electronic copy may also be submitted to UMI/ProQuest who will make it publicly available in hard copy and on the web. Information about required format and the submission process can be found at [http://www.utdallas.edu/dept/graddean/dgIndex.htm](http://www.utdallas.edu/dept/graddean/dgIndex.htm).

6. **FINAL ORAL EXAMINATION**

1. **Examining Committee:** Upon the submission of the dissertation to the office of the Dean of Graduate Education, the Dean will appoint the Examining Committee. The membership of the Examining Committee will include all members of the Supervisory Committee plus a non-voting representative appointed by the Dean of Graduate Education. The representative serves as the Chair of the Examining Committee. An examiner external to the University may also be appointed by the Dean of Graduate Education on the recommendation of a member of the Supervising Committee or the candidate.
2. Conducting the Examination: Formal arrangements, such as time and place for the Final Oral Examination, are made by the appropriate committee or administrator for that program, in consultation with the candidate and the Examining Committee, and with the approval of the Dean of Graduate Education. The examination will be conducted by the Chair of the Dissertation Committee in a manner appropriate to the material presented, and in accordance with current University regulations. The discussion will primarily focus on the candidate’s research, although aspects of the general field in which it was conducted may also be covered.

3. Attendance Requirements for the Final Oral Examination: The doctoral candidate and all members of the Examining Committee must be physically present on campus for the examination to be valid. If one member of the dissertation committee (aside from the chair) cannot attend in person, a written petition for exemption may be submitted to the Dean of Graduate Education. If a member of the Examining Committee is absent without a written exemption from the Dean of Graduate Education, or if more than one member of the Examining Committee is absent, then the Chair of the Examining Committee shall not hold the defense. The defense shall be rescheduled in consultation with the candidate and the Examining Committee, and with the approval of the Dean of Graduate Education.

4. The final oral examination shall be conducted in three phases.
   1. Phase I. The candidate will make a formal public presentation of the research at the UT Dallas campus. That presentation is open to the public, and members of the audience may ask questions. The Supervising Professor will chair this phase and supervise the questioning.
   2. Phase II. Following the public presentation, the candidate will be examined by the members of the Examining Committee. This part of the examination is not open to the public. Depending upon the school’s policy, other members of the faculty may also attend that part of the examination. This portion of the examination will be chaired by the representative of the Dean of Graduate Education.
   3. Phase III. After the completion of the oral examination, the Examining Committee will vote on the results of the Final Oral Examination. The committee will reach agreement on one of the five possible outcomes listed below with no more than one dissenting vote. If the committee cannot reach agreement on one of the options, then the candidate will have failed the oral examination and the manuscript will not be accepted.
      1. Passed the oral examination and manuscript accepted.
      2. Passed the oral examination and manuscript accepted pending specified revisions,
      3. Second oral examination required, but manuscript accepted or accepted with specified revisions,
      4. Major revisions of the manuscript and a second final oral examination required,
      5. Oral examination failed, manuscript not accepted and the committee recommends dismissal from the program. Following the vote of the Examining Committee, the Dean’s representative shall complete the Examination Report, to be forwarded to the Dean of Graduate Education.
5. Procedures concerning Acceptance, Specified and Major revisions, and Failure are as follows:

1. Accepted - The committee agrees that the dissertation is acceptable either without any revisions, or with minor revisions such as corrections of typographical errors or changes of a minor editorial nature. It is the Supervising Professor's responsibility to ensure that such corrections are made. The final corrected and approved copies of the dissertation must be submitted to the Office of the Dean of Graduate Education within the same semester. If the final approved copy is not submitted within the semester, the results of the examination will be changed to Accepted Pending Specified Revisions and will be dealt with as specified under that result.

2. Accepted Pending Specified Revisions - The Committee agrees that the dissertation is acceptable pending changes, which may include insertions or deletions. Such changes would be of the kind which do not radically modify the development/argument of the dissertation but which go beyond minor revisions. The practical criterion will be that the committee is able to specify such changes with precision. It is the responsibility of the Supervising committee to certify that all such changes have been made. If the final approved copy is not submitted by the end of the semester following the examination, the results of the examination will be changed to Referred Pending Major Revisions and will be dealt with as specified under that result.

3. Referred Pending Major Revisions - The Committee agrees that the dissertation requires substantive changes in order for the dissertation to be acceptable. Detailed reasons for this decision must be supplied by the Chair of the Examining committee to the Dean of Graduate Education, the appropriate committee or administrator for that program, and the candidate concerned. These recommendations on required changes must be approved by all members of the Committee. The committee reconvenes within a period not to exceed twelve months to conduct a second Final Oral Examination. This second attempt on the Final Oral Examination will be the final attempt by the student. If the Final Oral Examination and the written manuscript are not graded within the Accepted category, the student is dismissed from the program.

4. Failure - If the majority of the Examining Committee votes for failure of the oral and the non-acceptance of the manuscript, the student will be dismissed from the program. In no case will a third oral be given.

6. Registration During Manuscript Revision: Regardless of the revisions to be made, the student will be required to register for three credit hours and pay fees until the revisions are accepted by the Office of the Dean of Graduate Education.
7. Impact of revisions upon time limit for degree completion: The ten-year time limit for completion of the degree is still in effect while these revisions are being completed.

8. Intellectual property right protection: In order to protect patent or other intellectual property rights, the Dean of Graduate Education may, upon request, delay for a period of one year the binding, distribution, and/or publication in microfilm of the dissertation.

7. REGISTRATION REQUIREMENTS

1. Examinations or Proposal Presentation: A student must be registered for at least three semester credit hours of graduate course work during the semester in which any major degree examination, such as the Qualifying Examination or comprehensive exam is taken, or during the semester in which the proposal is submitted for approval.

2. Procedures are outlined in the Graduate Catalog - Continuous Enrollment for Thesis or Dissertation: Once a student has enrolled in thesis or dissertation unless a leave of absence has been granted, that student must maintain continuous enrollment (not necessarily for thesis or dissertation) of at least three semester hours during consecutive long semesters until the final approved copy of the manuscript has been deposited in the Office of the Dean of Graduate Education. If the approved copy of the manuscript has been deposited in the Office of the Dean of Graduate Education too late to permit graduation during that semester, but before the Census day of the Full-Term session (as defined in the academic calendar) of the subsequent semester, the student may register in absentia for his/her final semester of graduation.

3. Enrollment During the Semester of Graduation: With the exception of in absentia registration, doctoral students must be enrolled in at least 1 credit hour in the semester in which they graduate. Enrollment for 1 semester credit hour in the final semester is only allowed once. However, the individual degree program may require more than 1 credit hour be taken during the graduation semester.

8. TIME LIMITS: All requirements for a graduate degree, including transfer of credit must be completed within the specified time period. Students exceeding the specified time limit will not be eligible for their degree and will be dismissed from that graduate program. An approved leave of absence will not alter the time limits placed on graduate degrees.

1. Master's Degree: All requirements for the Master's degree must be completed within one six-year period. Work over six years old, whether done at this University or elsewhere, will not count towards the Master's degree except through the petition process described in the "Time Limit: Exceptions" section.

2. Doctoral Degree: All requirements for the Doctoral degree must be completed within one ten-year period. Work over ten years old, whether done at this
University or elsewhere, will not count towards the Doctoral degree except through the petition process described in the "Time Limit: Exceptions" section. Students whose master’s degrees are accepted for full credit toward a Ph.D. must complete all requirements for the doctoral degree within one eight-year period. Work exceeding these limits, whether done at this university or elsewhere, will not count towards the degree.

3. Exceptions — Course Work: The time limits affecting course work taken early in a graduate program can be waived only when a student can demonstrate to the appropriate committee or administrator for that program that:

   1. the substantive material in the course is still relevant to the curriculum and,
   2. the student still retains a substantial grasp of the material taught in the course.

   In such case, the acceptability of the course work in the student's Program of Studies must be approved by the Dean of Graduate Education upon the recommendation of the appropriate committee or administrator for that program.

4. Exceptions — Research: The time limits can be waived only for research extending beyond the prescribed limits and only in exceptional cases where the student, Supervising Professor, and the appropriate committee or administrator for that program can demonstrate that:

   1. substantial progress has been made in the research effort and the student can successfully complete the thesis or dissertation within a two term extension, including the summer term, and
   2. a schedule to complete the research has been developed including major milestones of accomplishments. In such a case, the acceptability of the plan to finish the research must be approved by the Dean of Graduate Education upon the recommendation of the appropriate committee or administrator for that program.

5. Procedures Prior to Graduation: An Application for Graduation must be filed during the semester of graduation on or before the date stipulated in the Academic Calendar.

Policy History

- Revised: 1990-05-15
- Revised: 1992-03-01
- Revised: 1992-11-01
- Revised: 1997-06-24
- Editorial Amendments: 1998-02-02
• Editorial Amendments: 2000-09-01
• Revised: 2000-12-15
• Revised: 2006-12-13
• Revised: 2008-12-02
• Revised: 2010-12-17
• Revised: 2013-09-13
• Revised: 2016-06-09
• Editorial Amendments: 2016-11-11
• Revised: 2017-03-09
• Revised: 2017-07-05
• Revised: 2018-05-31
• Editorial Amendments: 2018-12-05
• Revised: 2019-04-02

Policy Links
• Permalink for this policy: https://policy.utdallas.edu/utdpp1052
• Link to PDF version: https://policy.utdallas.edu/utdpp1052/makepdf
• Link to printable version: https://policy.utdallas.edu/utdpp1052/makeprint
Undergraduate FTIC Admissions Deadlines

Objective:
Given current application cycle trends, the Office of Admission and Enrollment proposes to shift application deadlines for undergraduate first-time-in-college freshman. Shifting deadlines will also alleviate compounding peak volume in admissions processing when the FTIC freshman application deadline is the same as the graduate application deadline.

Current Deadline Structure:
https://www.utdallas.edu/enroll/freshman/application-process/

### Deadlines for All Freshmen

<table>
<thead>
<tr>
<th>Term</th>
<th>Priority Application Deadline*</th>
<th>Regular Application Deadline**</th>
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<tbody>
<tr>
<td>Fall Full-Term</td>
<td>January 15</td>
<td>May 1</td>
</tr>
<tr>
<td>Spring Full-Term</td>
<td>May 15</td>
<td>October 1</td>
</tr>
<tr>
<td>Summer (All Sessions)</td>
<td>October 15</td>
<td>March 1</td>
</tr>
</tbody>
</table>

Proposed Deadline Structure:

<table>
<thead>
<tr>
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<th>Regular Application Deadline**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Full-Term</td>
<td><strong>December 1</strong></td>
<td>May 1</td>
</tr>
<tr>
<td>Spring Full-Term</td>
<td>May 15</td>
<td>October 1</td>
</tr>
<tr>
<td>Summer (All Sessions)</td>
<td>October 15</td>
<td>March 1</td>
</tr>
</tbody>
</table>
Enrollment Data:

- Historically, over half of our enrolling cohort each fall applies before December 1.

Research on other institutions:

**UT Austin**

- Freshman(https://admissions.utexas.edu/apply/freshman-admission):
  - Summer/Fall (U.S. applicants only):
    - Priority: November 1
    - Regular: December 1
  - Spring: October 1

**Texas A&M**

- Freshman(http://admissions.tamu.edu/freshman/apply):
  - Fall:
    - Fall Early Action for Engineering majors: October 15
    - Regular: December 1
  - Spring: October 15
2019-2020

COMMITTEE NAME: COMMITTEE ON COMMITTEES  
Charge: Policy Memorandum UTDPP1019  
Senate
 Concurrent

EX-OFFICIO (with vote)  
Speaker of the Faculty Senate – Ravi Prakash

RESPONSIBLE UNIVERSITY OFFICIAL  
Chief Academic Officer

MEMBERS WHOSE TERMS ARE CONTINUING  
FACULTY:  
Li Zhang (NSM) (5/31/20)  
Paul Battaglio (EPPS) (5/31/20)  
Christine Dollaghan (BBS)(5/31/20)

MEMBERS WHOSE TERMS ARE EXPIRING  
Andrew Blanchard (ECS) (5/31/2019)  
Michele Hanlon (AH) (5/31/19)  
David Cordell (SOM) (5/31/19)  
Todd Fechter (ATEC) (5/31/19)  
Tonja Wissinger (IS) (5/31/19)

CHAIR: Ravi Prakash (ECS) (5/31/20)

SPECIAL REQUIREMENTS:  
8 members of General Faculty  
1 from each of 8 schools

2 year terms

REPLACEMENTS NEEDED  
Dinesh Bhatia (ECS) (5/31/21)  
Michele Hanlon (AH) (5/31/21)  
BPS Murthi (JSOM) (5/31/22)  
Todd Fechter (ATEC) (5/31/21)  
Jill Duquaine-Watson (IS) (5/31/2021)

Ravi Prakash (ECS) (5/31/21)
UTDPP1055 - Hearing Tribunal Selection Procedures

Policy Statement

The Rules and Regulations of the Board of Regents, in Rule 31008, Section 4 (http://www.utsystem.edu/bor/rules.htm#A4) provide for the use and appointment of a special faculty hearing tribunal in cases where the President has determined that allegations against a tenured faculty member or of a faculty member before the expiration of his or her appointment are supported by evidence that constitutes good cause for termination. Rule 31008, Section 6 further provides that tenure-track faculty whose appointments are not renewed or who are not granted tenure and are therefore given a one year terminal appointment as required by Rule 31007, Section 5 may be granted the right to have the decision reviewed by a special faculty hearing tribunal to determine whether the decision was made for reasons that are unlawful under the laws or Constitution of Texas or the United States. Procedures for the selection of a special hearing tribunal at U.T. Dallas are specified below.

The special hearing tribunal will consist of three members of the tenured faculty selected from a standing pool of tenured faculty chosen by the President and by the Academic Senate. The pool should reflect the diverse nature of the University and, to ensure fairness, should include members from all schools. Twenty members of the pool are to be selected by the Academic Senate via open nominations and a secret ballot no later than during the last meeting of each academic year. Twenty additional members are to be appointed by the President to the pool by June of each year. The names of the faculty members selected for the pool (both those chosen by the Academic Senate and the President) will be published in the Academic Senate's June minutes. The names of the additional faculty members appointed by the President will be published in the Academic Senate’s minutes of the meeting during which the Academic Senate is informed of the appointment.

In a case where a special hearing tribunal is required by the Regents’ Rules and Regulations cited above, the President, in consultation with the Academic Council, will appoint three faculty members from the pool to serve on the special hearing tribunal. A minimum of one member must be selected from members of the pool selected by the Academic Senate.

Policy History

- Issued: 1999-05-04
- Editorial Amendments: 2000-09-01
- Editorial Amendments: 2006-04-06

Policy Links

- Permalink for this policy: http://policy.utdallas.edu/utdpp1055
- Link to PDF version: http://policy.utdallas.edu/pdf/utdpp1055
- Link to printable version: http://policy.utdallas.edu/print/utdpp1055


2019-2020

Committee Name: Academic Tribunal Pool

Charge: Policy Regents Rules 31008

<table>
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<tr>
<th>Senate</th>
<th>Concurrent</th>
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Special Requirements:
- 20 members in pool
- Representatives from each of the schools
- One year term, may be reappointed

Members Whose Terms are Continuing

<table>
<thead>
<tr>
<th>Faculty:</th>
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<tbody>
<tr>
<td>John Fonseka (ECS)</td>
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<tr>
<td>Murat Kantarcioglu (ECS)</td>
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<td>Mario Rotea (ECS)</td>
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<td>Ovidiu Daescu (ECS)</td>
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<td>Euel Elliott (EPPS)</td>
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<td>Stanley Liebowiz (SOM)</td>
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<td>Vijay Mookerje (SOM)</td>
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<td>George McMechan (NSM)</td>
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<td>Rod Heelis (NSM)</td>
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<td>Dean Sherry (NSM)</td>
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<td>Roger Malina (ATEC)</td>
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<td>Paul Fishwick (ATEC)</td>
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<td>Milton Cohen (AH)</td>
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<tr>
<td>Marilyn Waligore (AH)</td>
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</tbody>
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Replacements Needed

Recommendations

1. John Fonseka (ECS)
2. Murat Kantarcioglu (ECS)
3. Mario Rotea (ECS)
4. Ovidiu Daescu (ECS)
5. Euel Elliott (EPPS)
6. May Yuan (EPPS)
7. Bruce Jacobs (EPPS)
8. Peter Assmann (BBS)
9. Karen Prager (IS)
10. Ross Roessler (BBS)
11. Greg Dess (SOM)
12. Stanley Liebowiz (SOM)
13. Vijay Mookerje (SOM)
14. John Geissman (NSM)
15. Rod Heelis (NSM)
16. Dean Sherry (NSM)
17. Roger Malina (ATEC)
18. Paul Fishwick (ATEC)
19. Charles Bambach (AH)
20. Marilyn Waligore (AH)
UTDPP1035 - Committee on Research Involving Human Subjects (Institutional Review Board)

Policy Charge

Research Involving Human Subjects (IRB)

Policy Statement

The Institutional Review Board (IRB) is a University-wide Standing Committee appointed by the President not reporting to the Academic Senate of The University of Texas at Dallas.

The IRB operates under the Department of Health and Human Services (HHS) regulations for the protection of Human Research Subjects (45 CFR 46).

1. Applicability - The responsibilities of the IRB are applicable to all activities which, in whole or in part involve research with human subjects if:
   1.1. the research is sponsored by this institution, or
   1.2. the research is conducted by or under the direction of any employee or agent of this institution in connection with his or her institutional responsibilities, or
   1.3. the research is conducted by or under the direction of any employee or agent of this institution using any property or facility of this institution, or
   1.4. the research involves the use of this institution's nonpublic information to identify or contact human research subjects or prospective subjects.

2. Institutional Policy
   Scope of Responsibility

   2.1. This institution acknowledges and accepts its responsibilities for protecting the rights and welfare of human subjects of research covered by this policy.

   2.2. It is the policy of this institution that, except for those categories specifically exempted by 45 CFR 46, all research covered by this policy will be reviewed and approved by the University's Institutional Review Board which has been established under a policy of compliance negotiated with HHS. The involvement of human subjects in research covered by this policy will not be permitted until the IRB has reviewed and approved the research protocol and informed consent has been obtained in accord with and to the extent required by 45 CFR 46.116. Certification of the IRB's review and approval for all HHS funded research involving human subjects will be submitted to HHS no later than sixty days following the submission of an application or proposal for funding. Further, the IRB's review of research on a continuing basis will be conducted at appropriate intervals but not less than once per year.

   2.3. It is the policy of this institution that unless informed consent has been specifically waived by the IRB in accordance with 45 CFR 46.116, no research investigator shall involve any human being as a subject in research unless the research investigator has obtained the legally effective informed consent of the subject or the subject's legally authorized representative.

   2.4. This institution acknowledges that it bears full responsibility for the performance of all research involving human subjects, covered by this policy.

   2.5. This institution bears full responsibility for complying with federal, state or local laws as they may relate to research covered by this policy.

   2.6. This institution has established and will maintain one IRB in accordance with 45 CFR 46. The IRB has the responsibility and authority to review, approve, disapprove or require changes in appropriate research activities so that the rights and welfare of human subjects will be protected.

   2.7. This institution has provided and will continue to provide both meeting space for the IRB and sufficient staff to support the IRB's review and recordkeeping duties.
2.8. This institution encourages and promotes constructive communication among the research administrators, department heads, research investigators, clinical care staff, IRB, other institutional officials and human subjects as a means of maintaining a high level of awareness regarding the safeguarding of the rights and welfare of the subjects.

2.9. This institution will maintain documentation of IRB activities as prescribed by 45 CFR 46.115.

2.10. This institution will exercise appropriate administrative overview carried out at least annually to insure that its practices and procedures designed for the protection of the rights and welfare of human subjects are being effectively applied and are in compliance with the requirements of 45 CFR 46 and this policy.

2.11. This institution will comply with the policies set forth in 45 CFR 46 Subpart B, which provide additional protections to research, development, and related activities involving fetuses, pregnant women, and in vitro fertilization of human ova.

2.12. This institution will comply with the policies set forth in 45 CFR 46 Subpart C, which provide additional protections for prisoners involved in research.

2.13. This institution, in addition to complying with the requirements of 45 CFR 46, will consider additional safeguards in research when that research involved children, individuals institutionalized as mentally disabled and other potentially vulnerable groups.

2.14. This institution will comply with the requirements set forth in 45 CFR 46.114 regarding cooperative research projects. When research covered by this policy is conducted at or in cooperation with another entity, all provisions of this policy remain in effect for that research. This institution may accept, for the purpose of meeting the IRB review requirements, the review of an IRB established under another policy of compliance with HHS. Such acceptance must be in writing, approved and signed by this institution’s Office of the Vice President for Research, approved and signed by correlative officials of each of the other cooperating institutions. A copy of the signed agreement must be forwarded to the Office for Protection for Research Risks (OPRR), HHS.

2.15. Copies of the general policy will be available to all faculty through the Office of the Vice President for Research, the offices of the Deans and the Department Heads, and the Chair of the IRB. This institution will also provide each individual at the institution conducting or reviewing human subject research a summary of the rules and regulations including any future modifications and an outline of the procedures to be followed in any research involving human subjects as covered by this policy.

3. Institutional Establishment of the IRB

3.1. Institutional Establishment of the IRB

3.1.1. The University of Texas at Dallas IRB is a University-Wide Committee.

3.1.2. The IRB is established at The University of Texas at Dallas to review all research involving human subjects. The IRB membership is appointed by the President of the University.

3.1.3. It shall include at least one member of the general faculty in a non-science field, nominated by the Academic Senate.

3.1.4. It shall include one student member, normally a graduate student, nominated by the Dean of Graduate Education.

3.1.5. At least one member, nominated by the Vice President for Research, shall not be affiliated with the University apart from his/her membership on the Committee.

3.1.6. The Committee shall have a professional staff of four individuals, appointed by the (President or Vice-President for Research), as The professional staff members shall be alternate voting members.

3.1.7. The Vice President for Research serves as the ex officio member of the IRB, without vote, who has the federally required authority to act and speak for the University.
3.1.2. The term of office of the Committee members shall be for two years, effective September 1 to August 31, and members may be reappointed by the President for additional terms. If for any reason a Committee member resigns, the President shall appoint another individual to serve the remainder of the unexpired term.

3.1.3. To ensure continuity, initial appointments of Committee members will be for staggered terms so that one-half of the appointments expire August 31 of each academic year.

3.1.4. The Chair and Vice Chair shall be appointed by the President from among the faculty members. The term of office Chair and Vice Chair of the Committee shall be appointed by the President annually, two years, renewable.

3.1.9. To ensure continuity, initial appointments of Committee members will be for staggered terms so that one-half of the appointments expire August 31 of each academic year.

3.2. IRB Membership Requirements

3.2.1. The IRB is comprised of members from diverse backgrounds to promote complete and adequate review of research activities covered by this policy, and has developed the professional competence necessary to review the specific research activities which will be assigned to it.

3.2.2. The IRB is sufficiently qualified through the experience and expertise of its members, and the diversity of the members’ backgrounds, including consideration of the racial and cultural backgrounds of members and sensitivity to such issues as community attitudes, to promote respect for its advice and counsel in safeguarding the rights and welfare of human subjects.

3.2.3. When research is reviewed involving a category of vulnerable subjects (e.g., prisoners, children, individuals institutionalized as mentally disabled), the IRB shall include in its reviewing body one or more individuals who have as a primary concern the welfare of these subjects.

3.2.4. The IRB includes both male and female members.

3.2.5. The IRB includes members representing a variety of professions.

4. Full Board Quorum Rule

4.3. For actions that require a vote of the full board, a quorum shall be nine members plus the chair. A majority of those voting shall be faculty.

3.2.6. The IRB includes at least one member whose primary expertise is in a non-scientific area.

3.2.7. The IRB includes at least one member who is not otherwise affiliated with the institution and who is not a part of the immediate family of a person affiliated with the institution.

3.3.3. The IRB shall include one student member, normally a graduate student.

3.3.5. The IRB includes members representing a variety of professions.

Policy History

- Issued: 1979-08-01
- Revised: 1980-09-02
- Revised: 1983-09-01
- Editorial Amendments: 1998-02-02
- Editorial Amendments: 2000-09-01
- Revised: 2005-02-15
- Editorial Amendments: 2006-04-10
- Editorial Amendments: 2007-01-11
Policy Links

- Permalink for this policy: http://policy.utdallas.edu/utdpp1035
- Link to PDF version: http://policy.utdallas.edu/pdf/utdpp1035
- Link to printable version: http://policy.utdallas.edu/print/utdpp1035
Bylaws of the Academic Senate of The University of Texas at Dallas - UTDPP1007

Policy Statement

I. Preamble

The Academic Senate is a representative body, formed from the General Faculty of The University of Texas at Dallas, in which faculty develop their concerns and proposals in exercising their major roles in faculty governance. The Academic Senate is aided in its work by the Academic Council, a smaller body formed from the Academic Senate which meets regularly with the President and Chief Academic Officer and by the Faculty Committees. As the regular primary faculty governance body, the Academic Senate is expected to coordinate faculty exercise of faculty governance responsibilities in the interests of academic excellence at The University of Texas at Dallas.

II. Authority

These Bylaws supplement UTDPP1088 - Faculty Governance of the Handbook of Operating Procedures of The University of Texas at Dallas. Nothing in these Bylaws shall be construed to conflict with the Handbook of Operating Procedures, the Rules and Regulations of the Board of Regents of The University of Texas System, or state law.

III. Organization

1. Membership in the Academic Senate
   1. Only members of the Voting Faculty are eligible for membership in the Academic Senate. Members of the Voting faculty are limited to the following, as defined in UTDPP1088, Section I.B.1.a:
      1. Faculty appointed half-time or more to The University of Texas at Dallas who hold the rank of Regental Professor, Professor, Associate Professor, or Assistant Professor.
      2. Faculty appointed half-time or more to The University of Texas at Dallas who hold the rank of Instructor.
      3. Faculty appointed full-time to The University of Texas at Dallas who hold the rank of Clinical Professor, Clinical Associate Professor, Clinical Assistant Professor, or Senior Lecturer 1, 2, or 3, Professor of Instruction, Associate Professor of Instruction, Assistant Professor of Instruction, Professor of Practice, Associate Professor of Practice, or Assistant Professor of Practice.
   2. As specified in UTDPP1088, Sec. II.B.1, "The elected members of the Academic Senate shall consist of no fewer than twenty-three and no more than fifty-one voting members of the
General Faculty, with intermediate numbers computed so as to be as close to 10% of the voting membership of the General Faculty as possible."

3. Each School in the University shall be represented in the Senate.

4. A minimum of 50% of Senate positions shall be held by tenure-system faculty and a minimum of 10% of Senate positions shall be held by non-tenure-system faculty.

5. All members elected or appointed to the Academic Senate according to these Bylaws, and only those members, shall be voting members of the Academic Senate.

6. Non-voting participants
   1. The President and Vice President of the Student Government Association, or their assignees, shall be invited to attend meetings of the Academic Senate as non-voting participants, except when the Academic Senate is in executive session.
   2. The Chair of the Staff Council shall be invited to attend the Academic Senate meetings as a non-voting participant, except when the Academic Senate is in executive session.

2. Elections for Academic Senate
   1. The Secretary of the Faculty shall be in charge of the election, although he or she may designate other faculty and staff members to assist.
   2. The nomination and election procedures, including a calendar, shall be distributed no later than February 1. Nomination and election procedures may be online or may utilize paper petitions and ballots. The election procedures, beginning with the nomination process and ending with election of a Speaker of the Faculty-Elect and Secretary of the Faculty-Elect, shall begin no later than March 15 and end no later than April 14. At least two weeks shall be allowed for submission of Academic Senate nominating petitions, and one week for ballots in the Academic Senate election.
   3. Nominating petitions are collected by the Office of Academic Governance. For an individual to be placed on the election ballot, two nominating petitions must be submitted on his or her behalf. Any member of the Voting Faculty may submit a nominating petition for any other member of the Voting Faculty, or for himself or herself. No one may submit more than two nominating petitions, and no one may submit more than one nominating petition for any one individual.
   4. The Secretary of the Faculty shall ascertain the willingness of each nominee to serve if elected. The names of those who do not wish to serve will not be placed on the ballot.
   5. If the number of nominees is below 23 (the minimum number of Senate positions as specified in UTDPP1088, Sec. II.B.1), the nominating period shall be extended, and the Secretary of the Faculty shall make additional efforts to encourage nominations.
   6. If the number of nominees exceeds the minimum of 23, but does not exceed the maximum of 51, all nominees shall be deemed elected, and there shall be no formal election.
   7. The Secretary of the Faculty shall make ballots available by the date designated in the election calendar.
   8. Ballots shall be secret and must be submitted in accordance with the election procedures to be valid.
   9. Each member of the Voting Faculty may vote for as many five nominees and will indicate his or her first choice, second choice, and so on to a maximum of five. All such votes shall be counted, and the order of choice will only be used for tie-breaking.
   10. As explained in III.A.2 above, based on the current size of the General Faculty and projected growth, the number of Senators will be 51. To ensure that 1) all schools are represented (III.A.3 above), 2) at least 50% of Senate positions are allocated to tenure-system faculty (III.A.4 above), and 3) at least 10% of Senate positions are allocated to non-tenure system
faculty (III.A.4 above), the following procedures shall be used to determine the results of the election.

1. The number of Senate positions will be multiplied by 50%, rounded upward if necessary. That number of positions will be allocated to the top tenure-system vote recipients. Thus, based on 51 Senate positions, the top 26 tenure system vote recipients will be deemed elected. Ties will be broken by counting the number of "first choices" received. If there is still a tie, the number of "second choices" will be counted, and so on.

2. The number of Senate positions will be multiplied by 10%, rounded upward if necessary. That number of positions will be allocated to the top non-tenure-system vote recipients. Based on 51 Senate positions, the top 6 non-tenure-system vote recipients will be deemed elected. Ties will be broken by counting the number of "first choices" received. If there is still a tie, the number of "second choices" will be counted, and so on.

3. If any School within the University is not represented in 1 and 2 above, the top vote recipient from that school will be deemed elected.

4. To fill the remaining positions, all remaining nominees, whether tenure-system or non-tenure system, will be pooled and ranked by number of votes received. Ties will be broken by counting the number of "first choices" received. If there is still a tie, the number of "second choices" will be counted, and so on.

5. If there are fewer nominees in either of the two faculty categories (tenure system and non-tenure system) than the number of Senate positions calculated by the 50% or 10% factor, respectively, all nominees in that category will be deemed elected and the minimum percentage will not apply.

11. The Secretary of the Faculty shall notify successful candidates of their election and of the date of the Senate-Elect Caucus, and shall notify the General Faculty of the election results.

3. Vacancies and Appointments

1. If a member of the Academic Senate resigns his or her seat or leaves The University of Texas at Dallas for a period expected to exceed four months, that seat shall be filled by the unelected candidate who received the most votes in the prior election, bearing in mind the minimum number of required tenure-system, non-tenure-system, and school faculty for Academic Senate.

2. If enough seats are vacated such that the original nomination list is exhausted, the Academic Senate shall fill vacancies by majority vote of all members of the Academic Senate.

3. In the event a sitting member of the Academic Senate is appointed to the position of Dean, that individual is no longer eligible for Academic Senate membership. That seat will be vacated, and the Academic Senate shall fill the vacancy in accordance with III.C.1 and III.C.2 above.

4. If a member of the Academic Senate misses two consecutive Senate meetings, the Senator will be contacted by the Secretary of the Faculty to ascertain whether he or she still wishes to serve. If not, the Senator will be immediately replaced by the procedures of Sections III.C.1 and III.C.2 above.

5. If a member of the Academic Senate misses three meetings during September-May, the Academic Senate may, by a majority vote of those present, declare the seat vacant. The seat will then be filled by the procedures of Section III.C.1 and III.C.2 above.

4. Officers

1. Roster and Duties
1. Speaker of the Faculty: The Speaker of the Faculty is the principal elected officer of the General Faculty, of the Academic Senate, and the Academic Council. The Speaker shall:
   1. preside as described in the Handbook of Operating Procedures, UTDPP1088;
   2. chair the Executive Committee, if any, of the Academic Senate in its coordination of the work of the General Faculty, Academic Senate, Academic Council, and Concurrent Committees in order to improve the academic welfare and standing of The University of Texas at Dallas;
   3. assist in formulating faculty views as motions to be placed before the Academic Council or Senate for discussion and resolution; and
   4. together with the Secretary of the Faculty, review drafts of the minutes and authorize their circulation for formal approval.
   5. Sign the official copy of the approved minutes of the Academic Council and the Academic Senate.

2. Secretary of the Faculty: The Secretary of the Faculty shall:
   1. serve as Secretary for meetings of the General Faculty, the Academic Senate, and the Academic Council;
   2. see that minutes are kept, made available to any faculty member, and filed in the Office of the President and, through that office, with the Executive Vice Chancellor for Academic Affairs of The University of Texas System, and with the Library of The University of Texas at Dallas;
   3. together with the Speaker of the Faculty, review drafts of the minutes and authorize their circulation for formal approval;
   4. provide a report on Academic Senate and Academic Council activities to the General Faculty at least once a year;
   5. in case of the absence of the Speaker from a meeting of Academic Council or Academic Senate, sign the official copy of the approved minutes of the Academic Council and Academic Senate for transmittal to the Executive Vice Chancellor for Academic Affairs of The University of Texas System; and
   6. maintain a list of all recommendations that the Academic Senate and/or Academic Council has made to the administration so that the President may be requested to comment on these items at the beginning of each meeting.

3. Vice Speaker: The Speaker may appoint one or two members of the Senate to serve as Vice Speaker(s) and assist in carrying out the Speaker's official and unofficial duties. Vice Speaker(s) will serve for a term of one year, and will become ex officio voting members of the Academic Council if not already elected to the Council by the Senate.

4. Other Offices: The Academic Senate may, through its Resolution of Operating Procedures, create, provide for election or appointment, and provide duties for other offices of the Academic Senate and the Academic Council.

2. Election of Officers
   1. The Academic Senate-Elect shall, in a caucus announced to and open to the voting members of the General Faculty and presided over by the Speaker of the Faculty, and under Robert's Rules of Order (current edition) elect its Speaker by a majority vote. The individual elected shall be known as the Speaker-Elect of the Faculty until June 1. The term of the Speaker of the Faculty shall be for two years.
   2. The Academic Senate-Elect shall, in a caucus announced to and open to the voting members of the General Faculty and presided over by the Speaker-Elect of the Faculty, and under Robert's Rules of Order (current edition) elect its Secretary of the Faculty, who shall be known as the Secretary-Elect of the Faculty until June 1.
3. Until the election of the Secretary-Elect of the Faculty, the Secretary of the Faculty shall perform the routine functions of Secretary for the Academic Senate-Elect.

5. Academic Council
1. Relation to Academic Senate: The Academic Senate should, through its Resolution of Operating Procedures, specify at least the following:
   1. the powers delegated to the Academic Council;
   2. the extent to which the Academic Council is to function as an executive committee for the Academic Senate;
   3. the extent to which the Academic Council is to function as an agenda committee for the Academic Senate; and
   4. the communications required between the Academic Council and the Academic Senate, and between the Academic Council, Academic Senate and the Voting Faculty, including the appropriate form for the Minutes of the Academic Council and the Academic Senate.

2. Election, Removal, and Vacancies
1. After the election of the Speaker-Elect and Secretary-Elect of the Faculty, the Academic Senate-Elect shall, in a caucus announced to and open to the voting members of the General Faculty and presided over by the Speaker-Elect of the Faculty, and under Robert's Rules of Order (current edition), elect the remaining members of the Academic Council. Members in addition to six may be appointed by the Speaker with approval of the Council. Election shall be by simple plurality vote, with each member of the Senate voting for a number of candidates up to the number of positions to be filled.

2. These members, along with the Speaker-Elect of the Faculty and the Secretary-Elect of the Faculty, shall be known as the Academic Council-Elect until June 1.

3. The Academic Senate, in a caucus session, may accept resignations of members of the Academic Council, remove any members of the Academic Council except the Speaker of the Faculty or the Secretary of the Faculty, and vote on replacements to the Academic Council.

4. When a member of the Academic Council must be absent from a meeting, the member may designate, through the Secretary of the Faculty, a Senator to represent him or her at that meeting as a member of the Academic Council.

5. The President of the Student Government Association or designee shall be a non-voting participant in the Academic Council during the Council's non-executive sessions.

6. If appointed by the Speaker to serve as Vice Speaker, Senators will serve as ex officio voting members of the Academic Council for the duration of their term.

IV. Procedures
1. The Academic Senate shall be governed by Robert's Rules of Order (current edition) unless procedures described in the Handbook of Operating Procedures, UTDPP1088 - Faculty Governance or these Bylaws make exception to Robert's Rules of Order.

2. Actions of the Academic Senate
1. Actions During the Spring and Summer
   1. At the first meeting of the Academic Council, which shall be called by the Speaker-Elect of the Faculty to take place as soon after May 31 as practical, the Council shall prepare a calendar of regular meetings for the Academic Council and for the Academic Senate and shall set the date of the annual General Faculty meeting. The calendar shall be published as early in the academic year as possible.
2. As soon as possible after the new Academic Council is elected, it shall appoint the Committee on Committees so that it may begin composing slates of nominees for the University, Concurrent, and Academic Senate committees for which it is charged. The membership of the Committee on Committees shall be approved by a majority vote.

2. Submissions of Items for Debate
   1. The Agenda Packet for the Academic Senate normally will be sent to the Senate one week prior to a meeting of the Academic Senate.
   2. The Agenda Committee for the Academic Senate, consisting of the President, the Secretary, and the Speaker normally will confer five days prior to the submission of the Agenda Packet to the Academic Senate.
   3. Items for debate that are not on the Academic Senate Agenda normally will be deferred to a later Academic Senate meeting.
   4. The Agenda Committee for the Academic Senate will attempt to bring all items submitted to it to the Academic Senate, although it may recommend that particular items be sent to committee and/or to the Academic Council prior to Academic Senate debate. Any memorandum submitted by any General Faculty member of the University to the Academic Senate or to the Speaker of the Faculty that requests action by the Academic Senate or Academic Council must be reported to the Academic Senate by the Agenda Committee of the Academic Senate.

3. Debate and Passage
   1. If the President and Provost are not available to chair meetings of the Senate at which legislation is enacted, the Speaker shall chair. In the absence of the Speaker, a Vice Speaker shall chair. In the absence of a Vice Speaker, the Secretary shall chair. In the absence of the Secretary, the meeting may be chaired by any member of the Senate designated by the Speaker.
   2. The chair of a meeting of the Academic Senate may participate in the debate but shall exercise particular care to preside in a manner which is fair to all points of view in the debate.
   3. The President and/or the Speaker of the Faculty may invite to meetings of the Academic Senate those persons believed to be necessary to assist the Academic Senate in the conduct of its business.
   4. Except when the Academic Senate is in executive session, meetings of the Academic Senate are open to the General Faculty, who may request the privilege of participation in the debate.
   5. A simple majority of the voting membership of the Senate constitutes a quorum. If a quorum is not present, business that would otherwise have been conducted may be discussed, but votes shall not be taken.
   6. Members of the Academic Senate who anticipate making lengthy or complicated amendments to legislation should bring sufficient written copies to distribute to the entire Academic Senate.
   7. Passage of legislation or resolutions shall require a simple majority of those voting members present. Votes shall be recorded by hand count: ayes, nays, abstain. Role call votes shall be taken if three or more members request.
   8. The Secretary of the Faculty is responsible for sending copies of motions passed to the parties addressed.

3. Actions of the Academic Council
   1. Submission of Items for Debate and Passage

   If the President and Provost are not available to chair meetings of the Council at which Senate
agenda items are discussed, the Speaker shall chair. In the absence of the Speaker, a Vice Speaker shall chair.

1. The Agenda Committee for the Academic Council, consisting of the President, the Secretary, and the Speaker, normally will confer by email at least five days before each Academic Council meeting. Items to be included on an agenda must be submitted prior to that time.

2. Items for the Agenda of the Academic Council will normally originate with the President and with the Academic Senate, its Executive Committee, or the Speaker of the Faculty.

2. Transmissions from Academic Council to Academic Senate The Academic Council shall formulate its recommendations to the Academic Senate and transmit them to the Agenda Committee of the Academic Senate. It shall generally transmit all items submitted to it to the Agenda Committee of the Academic Senate.

4. Records and Communications

1. Actions required by motions of the Academic Senate or Academic Council, as described in the minutes, will be conveyed to those concerned, or will be taken by the Academic Governance Secretary only after approval of the minutes for circulation, but without waiting for the formal approval of the minutes at the subsequent meeting of the Academic Senate or Academic Council.

2. The general policy on composition and contents of records including minutes is the same for both the Academic Council and Academic Senate, and is as follows:

   1. Consistent with Robert's Rules of Order, the approved minutes constitute the only official record of the actions of the Academic Council and Academic Senate;

   2. The minutes are intended to allow members of the General Faculty to follow the debates and actions within their representative bodies, the Academic Senate, and within the Academic Council;

   3. The Secretary of the Faculty or the Academic Governance Secretary may make recordings of the Academic Council and Academic Senate meetings. Tapes of meetings shall not, however, be considered official documents, and will be kept only until the minutes of the meeting recorded are officially approved, after which the recordings may be destroyed in accordance with the University’s Records Management Retention Policy and records retention schedule;

   4. Unapproved minutes of Academic Council and Academic Senate meetings shall be distributed to the Academic Senate expeditiously, if possible within two weeks after the meeting;

   5. Minutes are numbered serially each year, including special meetings;

   6. Attendance for minutes includes both those present and absent of the voting membership, ex officio members, and student observers. Invited guests are also listed;

   7. Minutes of the Academic Council and Academic Senate are distributed to all members of the Academic Senate, and made available at the authorized locations for Regents’ Rules and Regulations, and are also sent to the Executive Vice Chancellor for Academic Affairs of The University of Texas System; and

   8. The minutes of the last meetings of the Academic Senate and Academic Council will be approved by the incoming Academic Senate or Academic Council, respectively.

3. The Academic Senate shall establish procedures, in its Resolution of Operating Procedures, to disseminate information about its debates and actions to the General Faculty effectively and expeditiously.

5. Resolution of Operating Procedures: The Academic Senate may, by adoption or revision of its Resolution of Operating Procedures, modify the following portions of its procedures without having to amend these Bylaws:
1. delegation of duties and powers to the Academic Council;
2. designation and powers of the Agenda Committee;
3. designation and powers of the Executive Committee, if any; and
4. instructions to the Secretary of the Faculty regarding the character of action or discussion minutes to be taken.

6. Amendment of Bylaws
1. These Bylaws may be amended by a majority vote of the Senate members, provided that the proposed amendment passes, at two consecutive meetings of the Academic Senate separated by at least two weeks.
2. The Secretary of the Faculty shall transmit a copy of the amended Bylaws to the President for review. All amendments must be approved by the President and by the institution's chief legal officer or the Vice Chancellor and General Counsel for inclusion in the UT Dallas Handbook of Operating Procedures pursuant to Rule 20201, section 4.9.
3. The amended Bylaws shall become effective immediately.

Policy History
- Issued: 1979-09-10
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- Revised: 1982-12-14
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Policy Links
- Permalink for this policy: http://policy.utdallas.edu/utdpp1007
- Link to PDF version: http://policy.utdallas.edu/utdpp1007/makepdf
- Link to printable version: http://policy.utdallas.edu/utdpp1007/makeprint
Faculty Grievance Procedure The University of Texas at Dallas - UTDPP1050

Policy Statement

Nature and Scope of the Policy

1. It is important to collegiality that problems arising out of administrative decisions or actions affecting the academic standing or conditions of employment of members of the faculty be reviewed and resolved in a fair, efficient, and equitable manner.

2. The faculty grievance policy is intended to provide an effective process for the review and equitable resolution of contentions by a faculty member that an administrative decision or action affecting the faculty member has not been made in substantial compliance with established University criteria or procedures; that there is no rational basis for the decision or action; or that the decision or action was based upon criteria that are unlawful under the state or federal constitution, laws, or court decisions. Faculty with the rank of Regental Professor, Professor, Associate Professor, or Assistant Professor are entitled to present a grievance pursuant to this policy. So also are nontenure-system faculty who are appointed as Senior Lecturers with a teaching requirement of 24 workload points full teaching load in organized courses, prorated for administrative appointments, if any, and faculty with appointments to assistant, associate or full professor of instruction titles, to assistant, associate or full professor of practice titles, or assistant, associate, or full clinical professor titles. The grievance policy for other nontenure-system faculty is found in the University’s Administrative Policies and Procedures Manual, UTDBP3056, Grievance Policy and Procedures.

3. The following administrative decisions or actions are subject to review pursuant to the faculty grievance policy:
   1. A reduction in salary or in a rank;
   2. The denial or withdrawal of a University benefit or privilege;
   3. Assignment or reassignment of duties;
   4. Withdrawal or reassignment of the use of University facilities, equipment, or support staff;
   5. Sanctions other than oral reprimand as a result of administrative actions under The University of Texas at Dallas Faculty Conduct Policy UTDPP1049; or
   6. Issues specified in Section 8 of The University of Texas at Dallas Program Abandonment Policy UTDPP1000.

4. The faculty grievance policy does not apply to:
   1. Evaluations of a faculty member’s professional performance made by a faculty member or administrator acting pursuant to University policy or procedures;
2. Issues arising from failure to receive merit raises or complaints of the inadequacy of merit raises, which are subject to the policy on merit salary increases for faculty, Policy Memorandum UTDPP1059;

3. Adverse actions or decisions that result from procedures provided for in the Rules and Regulations of the Board of Regents of The University of Texas System, Rule 31003 concerning abandonment of academic positions or programs, except as provided in 1.3.6 above, or Rule 31008 concerning termination of a faculty member; or

4. Actions or decisions described in Section 1.3 that are reviewable pursuant to procedures provided by the University’s Handbook of Operating Procedures or the Rules and Regulations of the Board of Regents of The University of Texas System.

5. Resort to the grievance policy is a serious matter. It is the responsibility of all parties to resolve grievable complaints quickly and at the lowest possible level. A faculty member who believes that he/she has a grievance under this policy is encouraged to discuss the matter informally with the Committee on Faculty Standing and Conduct. This discussion is not a prerequisite to use of the grievance policy, but is intended to help the faculty member understand the informal and formal procedures that must be followed and whether the subject matter of the complaint may be covered by the policy. The Committee may encourage an administrator to reconsider the decision that is the subject of the complaint or advise the faculty member to withdraw or modify the complaint.

6. A faculty member has the right of self-representation at any step in the grievance policy and may choose to present a grievance through legal counsel or personal representative during the formal stage of the procedure. If, and only if, the faculty member is represented by legal counsel at the formal stage of the procedure, the University administrator may be represented by the Office of General Counsel of The University of Texas System.

7. A faculty member shall not be penalized for filing a grievance unless it is determined that the grievance has been filed in bad faith or with malice.

**Informal Consultation**

1. A decision or action that is subject to this procedure must be pursued through the informal consultation process before filing a formal grievance. A formal grievance may be filed only after exhausting the informal consultation process.

2. A faculty member affected by grievable decision or action shall present his or her concerns to the administrator responsible for the decision or action within 90 days after the date he or she knew or reasonably should have known of the decision or action. The administrator must respond within 10 work days, explaining the reasons for the action and the criteria employed. Both parties should enter into these discussions seriously, treating them as an opportunity to settle the matter. It is expected that the majority of grievances will be resolved at this stage.

3. If informal consultation with the administrator responsible for the grievable decision or action does not result in a resolution of the matter, the faculty member may, within 10
work days after receiving the administrator's response, elect to discuss the administrator's response with the next higher level of administration, respectively, until it has been discussed with the Chief Academic Officer. If resolution of the matter does not occur as a result of this meeting, the faculty member may proceed to the formal grievance procedure. A response shall be provided to the faculty member within 10 work days at each level.

4. If the faculty member has not requested discussion of the matter at the next administrative level within 10 work days from the response at the last administrative level, the response of the administrator at that level will stand and no further informal discussion shall be available, nor shall a formal grievance be accepted.

**Formal Grievance Procedure**

1. In order to initiate the formal grievance procedure, a faculty member who is unwilling to accept the response of the Provost in the informal consultation process must request the administrator who made the decision or took the action that is the subject of the grievance for a written explanation of the reasons for the decision or action within 30 days after notification of the response of the Provost. The request must be in writing, must include the faculty member's specific questions and concerns, and must state the resolution or relief sought. The faculty member shall send a copy of the request to the dean of the school and the Provost. The formal grievance procedure may be pursued even if a faculty member leaves the University.

2. The administrator must make a written response to the request within 10 work days, stating the reasons for the questioned decision or action and explaining the procedures, standards, and criteria used. The administrator shall send a copy of the response to the dean of the school and the Provost. The faculty member may elect to appeal the response to the President. The appeal must be made within 10 work days of the administrator's written response. The decision of the President shall be final, and the faculty member will not be entitled to have the decision or action that is the subject of the grievance reviewed pursuant to the formal grievance procedure.

3. If the faculty member is unwilling to accept the written response of the administrator and does not choose to appeal to the President, he or she may initiate the formal grievance procedure within 30 days after receiving the written response required by Section 3.2 by filing the following documents with the chairperson of the Committee on Faculty Standing and Conduct:
   1. The faculty member's written request to the administrator pursuant to Section 3.1;
   2. The written response of the administrator under Section 3.2;
   3. A written statement of specific facts that the faculty member contends establish that the contested decision or action:
      1. Was not made in substantial compliance with established University criteria or procedures;
      2. Has no rational basis; or
      3. Was based upon criteria that are unlawful under the state or federal constitution, laws, or court decisions.
4. Notice of whether the faculty member will be represented by legal counsel or a personal representative in the formal grievance procedure with the name and address of such person.

4. The documents filed pursuant to Section 3.3 shall be the basis for all subsequent steps in this procedure. Copies of the documents filed by the faculty member shall be forwarded by the chairperson of the Committee to the administrator who made the decision or took the action that is contested, the dean of the school, and the Provost.

5. After a formal grievance is filed, members of the Committee on Faculty Standing and Conduct shall refrain from contact with the parties regarding the subject matter of the grievance, except to respond to questions regarding procedures.

6. Within 10 work days after receiving the formal grievance, the Committee on Faculty Standing and Conduct shall determine whether the challenged decision or action is grievable under Section 1.3, and/or whether the grievance is filed as an appeal of a sanction imposed under the Faculty Conduct Policy, and take one of the following actions:

1. If the grievance is an appeal of any of sanctions (2) through (9) imposed under the Faculty Conduct Policy, then the following procedure is to precede actions under Section 5:
   1. The Committee on Faculty Standing and Conduct may elect, after examining the documents presented under Section 3.3, to advise the President, through a written report, that the alleged conduct does not violate the Faculty Conduct Policy, and/or that the violations, if true, are insufficient to justify the sanction, and/or that the evidence does not warrant a hearing.
   2. The President must, within 10 work days of receiving this report, inform the grievant and the Committee on Faculty Standing and Conduct of a decision either to cancel the sanction, in which case the matter is terminated, or to proceed with a hearing before the grievance panel under Section 5.

2. If the grievance requests a review of a decision or action specified in Section 1.3, the Committee on Faculty Standing and Conduct shall determine whether the allegations of fact made by the grievant, if proven, establish a prima facie basis for relief under the criteria of Section 1.2. If the Committee finds that the decision or action is not covered by this policy or that the grievant has not alleged facts that, if proven, establish a prima facie basis for relief and justify redress, it shall dismiss the grievance and notify the faculty member, the administrator, the dean of the school, and the Provost of its decision. The faculty member shall not be entitled to further action within the University.

7. If the Committee on Faculty Standing and Conduct does not dismiss the grievance under the provisions of Section 3.6.2 the Committee shall consult with the faculty member and the administrator and select one of the following alternatives for resolving the issues presented by the grievance:

1. Appoint a mediator who is a tenured member of the faculty but not a current member of the Committee on Faculty Standing and Conduct or the school of any party; or

2. Appoint a five member grievance panel, as described in Section 5.1, and notify the parties that the panel has been selected subject to challenge or recusal.
8. The Committee on Faculty Standing and Conduct may, at its discretion, consolidate the grievances of two or more faculty members who make allegations of the same type against the same administrator and who petition the Committee to have their individual grievances heard by the same mediator or grievance panel. In such situations the mediator or grievance panel shall make separate findings and recommendations regarding the grievance of each faculty member.

9. Although the Committee on Faculty Standing and Conduct is constrained to act within the rules contained in this faculty grievance policy, the Committee is expected to report, by a memorandum to the President and the Speaker of the Faculty, issues arising from grievances that are not adequately or appropriately addressed by the applicable University rules.

**Mediation**

1. When a grievance is referred to a mediator, the mediator shall have a period of no more than 10 work days to assist the parties in reaching an acceptable settlement. The mediator shall report the results of the mediation to the Committee on Faculty Standing and Conduct. If a settlement acceptable to the parties has not been reached, the mediator shall recommend either: (a) a settlement, (b) the establishment of a grievance panel, or (c) that the grievance be dismissed.

2. Upon receiving the recommendation of the mediator, the Committee shall, within 10 work days, accept or reject the recommendation and notify the parties and the President of its decision.
   1. If the Committee accepts the recommendation of the mediator for a settlement of the grievance, it shall forward the recommendation and the report of the mediator to the President for final action.
   2. If the Committee accepts the recommendation of the mediator to appoint a grievance panel, or rejects a recommendation to settle or to dismiss the grievance, it shall proceed to appoint a grievance panel.
   3. If the mediator's recommendation to settle or to appoint a grievance panel is rejected, or a recommendation to dismiss the grievance is accepted by the Committee, it shall dismiss the grievance and the faculty member shall not be entitled to further action within the University.

**Grievance Panel Selection**

1. In order to be eligible to serve as a member of a grievance panel a faculty member must:
   1. Be a full-time member of the faculty with the rank of Assistant Professor or above;
   2. Not be appointed to an administrative position of department head or above;
   3. Not be a member of the Committee on Faculty Standing and Conduct;
   4. Not be a faculty member of the same school as the faculty member who files a grievance.
2. A grievance panel shall consist of five faculty members, no fewer than three of whom shall be tenured. Four members shall be chosen by the Committee on Faculty Standing and Conduct by drawing names one at a time, at random, from a pool of all eligible faculty members. If during the drawing process two untenured faculty members are already on the list, any further untenured faculty member drawn shall be replaced by another name drawn at random. After selecting four members in this manner, the Committee shall appoint the fifth member from the tenured faculty of the University to serve as the chair of the panel. The Committee shall notify the members of the panel and the parties to the grievance.

3. Each party to the grievance may challenge the impartiality of any member of the grievance panel. A challenge for impartiality must be in writing and must state the facts on which the challenge is based. The challenged member(s) shall be the sole judge of whether he or she is capable of considering the evidence and determining the facts with impartiality. Each party shall also have two peremptory challenges to members of the grievance panel. Peremptory challenges or challenges for impartiality must be submitted to the chair of the grievance panel within 5 work days after the appointment of the grievance panel. Parties are cautioned against frivolous use of the right of challenge.

4. A member(s) of a grievance panel may request to be excused from service for reasons of extreme hardship or for conflict of interest. Requests to be excused must be in writing, must state the reasons upon which the request is based, and must be submitted to the Committee on Faculty Standing and Conduct within 3 work days after notification of appointment to the grievance panel. The Committee will determine whether the request should be granted or denied and notify the member(s) who made the request.

5. When a member(s) of a grievance panel is excused at their request or as the result of a challenge, the vacancy(ies) will be filled in the same manner as the original appointment.

Grievance Panel Pre-Hearing Procedures

1. After the grievance panel is constituted, the chair will consult the parties to the grievance and the members of the panel and schedule the grievance hearing at the earliest practical date. The chair will notify the parties to the grievance of the date, time, and place for the hearing at least 10 work days prior to the hearing date.

2. The date for the grievance hearing may be postponed only for good cause. Requests for postponement must be in writing addressed to the chair of the grievance panel and shall state the reasons for the requested postponement. If the panel determines that there is good cause for postponement, a new hearing date shall be selected and the parties to the grievance notified.

3. At least 5 work days prior to the date for the hearing, the parties to the grievance shall each furnish the other the names of the witnesses that they intend to have testify; a summary of their expected testimony; and a copy of each document, record, or exhibit that they intend to offer as evidence at the hearing.
4. The Committee on Faculty Standing and Conduct shall provide the grievance panel with copies of the documents filed by the faculty member pursuant to Section 3.3.

5. The parties to the grievance shall be responsible for notifying the witnesses who will testify on their behalf of the date, time, and place for the hearing.

6. Upon request, the University shall provide a faculty member with copies of University documents that the faculty member intends to offer as evidence in the hearing before the panel unless such documents contain information that is made confidential by statute or court order.

7. University employees who are requested to be witnesses at a grievance hearing are encouraged by the University to testify regarding matters within their personal knowledge.

Grievance Panel Hearing Procedures

1. The chair of the grievance panel shall preside at the hearing and has final authority with respect to all proceedings before the panel, including the responsibility for ensuring that the grievance hearing is conducted in accordance with this procedure and that the parties to the grievance, their legal counsel or personal representative, and witnesses conduct themselves in an orderly manner. The chair should begin the hearing by briefly outlining the hearing procedures and informing the parties that all procedural questions and all objections regarding testimony and exhibits are to be directed and ruled upon by the chair.

2. All proceedings before the grievance panel will be recorded with equipment provided by the University and operated by a University employee who is qualified to operate such equipment. This recording, the documents filed by the faculty member pursuant to Section 3.3, and exhibits admitted into evidence during the hearing, shall be the official record of the grievance hearing. The parties to the grievance may have access to the official record and will be furnished a copy at cost.

3. To avoid issues of invasion of privacy, the hearing should be closed to everyone except the party to the grievance, their legal counsel or personal representative, the grievance panel, witnesses while giving testimony, and the person operating the recording equipment.

4. Witnesses should testify from personal knowledge and without regard to what other witnesses may say; therefore, the chair will require all potential witnesses except the parties to the grievance to leave the hearing room until such time as they are called to testify. Witnesses called by one party may be cross-examined by the other party. The chair and members of the grievance panel may ask questions of a witness after the parties have concluded their examination.

5. In all cases, except the appeal of sanctions imposed under the Faculty Conduct Policy, the faculty member shall have the burden of proof. In the appeal of sanctions imposed under the Faculty Conduct Policy, the University administration shall have the burden of proof.

6. After the hearing has been called to order by the Chair, the hearing shall proceed as follows:
1. If the hearing is not an appeal of sanctions imposed under the Faculty Conduct Policy, the following order applies:
   1. The faculty member, his or her legal counsel or personal representative, may make a brief statement explaining the basis for the grievance and what he or she contends that the evidence will show;
   2. The administration or legal counsel may make a brief statement explaining the basis for the challenged decision or action and what he or she contends that the evidence will show;
   3. The faculty member, legal counsel or personal representative, may call witnesses to testify and may offer documentary evidence;
   4. After witnesses and evidence have been presented by the faculty member, the administrator or legal counsel may call witnesses to testify and may offer documentary evidence;
   5. Each party may call witnesses or offer documentary evidence in rebuttal to the testimony of witnesses or documentary evidence of the other party;
   6. After the presentation of evidence has been concluded by both parties, each party may make a brief statement that summarizes the evidence that was admitted and the conclusion(s) that the grievance panel is requested to reach on the basis of that evidence. As the party with the burden of proof, the faculty member has the right to address the panel first and may also make a closing statement after the statement of the administrator. The chair shall determine the appropriate time limit for the statement by each party and shall require that the time limit be observed.

2. If the hearing is an appeal of sanctions imposed under the Faculty Conduct Policy, the following order applies:
   1. The administration or legal counsel may make a brief statement explaining the basis for the challenged sanction and what he or she contends that the evidence will show;
   2. The faculty member, his or her legal counsel or personal representative, may make a brief statement explaining the basis for the appeal of the sanction and what he or she contends that the evidence will show;
   3. The administrator or legal counsel may call witnesses to testify and may offer documentary evidence;
   4. After witnesses and evidence have been presented by the administrator, the faculty member, legal counsel or personal representative, may call witnesses to testify and may offer documentary evidence;
   5. Each party may call witnesses or offer documentary evidence in rebuttal to the testimony of witnesses or documentary evidence of the other party;
   6. After the presentation of evidence has been concluded by both parties, each party may make a brief statement that summarizes the evidence that was admitted and the conclusion(s) that the grievance panel is requested to reach on the basis of that evidence. As the party with the burden of proof, the administrator has the right to address the panel first and may also make a closing statement after the statement of the faculty member. The chair
shall determine the appropriate time limit for the statement by each party and shall require that the time limit be observed.

3. The chair will adjourn the hearing and, upon the basis of the evidence admitted at the hearing, the grievance panel will make a written report of its findings and recommendations to the President within 10 work days after the hearing is adjourned. The findings and recommendations of the panel shall be limited to the issues contained in the documents filed by the faculty member pursuant to Section 3.3. The grievance panel may submit majority and minority findings and recommendations as appropriate.

4. Although the hearing panel is constrained to act within the rules contained in this faculty grievance policy, the panel is expected to report, by a memorandum to the President and the Speaker of the Faculty that is separate from its written grievance panel report to the President, issues arising from grievances that are not adequately or appropriately addressed by the applicable University rules.

7. Each member of the grievance panel is required to be in attendance throughout the hearing. After the hearing has begun, any member who is unable to continue in attendance because of illness or extenuating circumstances shall not participate further in the hearing or other proceedings under this procedure. Provided at least three panel members continue to serve, the proceedings under this procedure shall continue to completion.

Admissibility of Evidence

1. The chair must rule upon objections that are made to the admissibility of evidence offered by the parties.

   1. In order to be admissible, the documents or testimony offered must be relevant to issues that are to be decided by the grievance panel. Generally, evidence is relevant if it tends to prove or disprove a fact that is at issue. There must be some logical connection between the offered evidence and a fact that is in dispute. Upon objection, evidence that is not relevant should be excluded.

   2. Testimony of a witness should be based upon statements personally heard or events personally observed by the witness. Fundamental fairness requires that a witness offered by a party be subject to cross-examination by the other party in order to determine whether the witness is testifying from personal knowledge and to test the credibility of the witness. If the knowledge of a witness regarding statements attributable to a person or the occurrence of an event is based upon what the witness has read or has been told by someone rather than what the witness personally heard or observed, testimony of the witness should be excluded upon objection. Written or recorded testimony of a witness will not be admitted except by agreement of the parties to the grievance.

   3. University records and correspondence of University administrators produced in the ordinary course of business shall be admissible, subject to objections as to relevancy.

   4. Evidence that is admissible but is merely cumulative of evidence already in the record should be excluded by the chair upon objection or upon determination by
the chair that additional evidence of the same nature as that already admitted is merely repetitious. It is within the discretion of the chair to determine when further testimony on an issue becomes a waste of time.

5. It is the responsibility of the grievance panel to make fair and impartial findings and recommendations to the President. When irrelevant evidence is offered without objection the grievance panel should recognize it as such and disregard it in its deliberations.

**Burden of Proof and Consideration of Evidence**

1. If the grievance is not an appeal of a sanction imposed under the Faculty Conduct Policy, then the faculty member has the burden of going forward with the evidence at the grievance hearing and has the burden of proving by the greater weight of the credible evidence that (a) the decision or action that is the subject of the grievance was not made in substantial compliance with established University criteria or procedures; or (b) that there is no rational basis for the decision or action; or (c) that the decision or action was based upon criteria that are unlawful under the state or federal constitution, laws, or court decisions. If the grievance is an appeal of a sanction imposed under the Faculty Conduct Policy, then the administrator has the burden of going forward with the evidence at the grievance hearing and has the burden of proving by the greater weight of the credible evidence that (a) the sanction that is the subject of the grievance was made in substantial compliance with established University criteria or procedures; and (b) that there is a rational basis for the sanction. The affected faculty member may allege and bear the burden of proving that the sanction was based upon criteria that are unlawful under the state or federal constitution, laws, or court decisions.

2. Failure to comply with established University criteria or procedures will not be considered substantial if the administrator who made the decision, took the action, or imposed the sanction in question proves by the greater weight of the credible evidence that the same decision, action, or sanction would have resulted even if the omitted criteria or procedure had been applied or followed.

3. In determining whether a decision, an action, or sanction is without a rational basis the panel may not concern itself with whether the decision, action, or sanction is wise or whether the panel agrees with the decision, action, or sanction. The greater weight of the credible evidence must show that the decision, action, or sanction is arbitrary and irrational. If reasonable minds could differ as to whether the basis given by the administrator supports the decision, action, or sanction, it is not arbitrary and irrational.

3. A decision, action, or sanction is based upon criteria that are unlawful if the greater weight of the credible evidence demonstrates that the decision, action, or sanction was made because of the faculty member's race, religion, national origin, disability, sex, age, veteran status, protected speech activity, protected right of association, or other basis that may be prohibited by the state or federal constitution, laws, or court decisions.
2. The grievance panel is the sole judge of the credibility of a witness. A witness is credible when he or she is believable. In determining the credibility of a witness the grievance panel may consider the demeanor of the witness, the opportunity of the witness to observe events or to acquire personal knowledge that is the subject of the testimony, any interest that the witness may have in the determination of the issues, or any other factor that is relevant to whether the witness is believable.

3. Facts at issue may be proven by direct or indirect evidence. Direct evidence is testimony by a witness who saw the events occur or who heard words spoken that establish the fact in question. Indirect evidence includes testimony of a witness who saw events occur or who heard words spoken that establish a collateral fact or circumstance from which the fact at issue may be logically inferred from common knowledge or experience.

**Review and Decision of the President**

1. The findings and recommendation of the grievance panel (majority and minority if appropriate), the tape recording of the grievance hearing, the documentary evidence admitted during the grievance hearing, and the documents filed by the faculty member to initiate the formal grievance procedure shall constitute the record of the grievance hearing and will be forwarded to the President by the chair of the panel within 10 work days after the grievance hearing is adjourned.

2. The President will review the record and the findings and recommendations of the grievance panel. Based upon the official record, the President may approve such findings and recommendations, may make modifications, or may make different findings and conclusions. Within 20 work days after receipt of the record of the grievance hearing and the findings and recommendations of the grievance panel, the President will make findings of fact based upon the record and render a decision on the issue(s) that are the subject of the grievance hearing. The decision of the President is final and will be delivered to the parties to the grievance, the chair of the grievance panel, the chair of the Committee on Faculty Standing and Conduct, the dean of the school, and the Provost.

**General Provisions**

1. Any time limit provided for in this policy may be extended for no more than 10 work days by written agreement of the parties to the grievance filed with the appropriate chair at least 2 work days prior to the expiration of the applicable time limit.

2. If a faculty member who has filed a grievance fails to pursue the grievance to the next appropriate step within the time limit prescribed by this policy or fails to file a written agreement extending the time for taking such action, the faculty member shall be presumed to have accepted the decision that has been made at the previous stage of the procedure.

3. A faculty member who does not receive a response to a grievance within the time limit prescribed by this policy or within an agreed extension to such time limit, may proceed to pursue his or her grievance to the next step of the procedure.
4. Resort to this policy does not prevent a faculty member from pursuing the issues of his or her grievance in any non-University proceeding; however, if a faculty member seeks resolution of the issues in a non-University forum, he or she shall not be entitled to file a grievance under this policy or to pursue a grievance under this policy that was filed prior to presenting such issues to a non-University forum for resolution.

5. The term "work day" means a day on which classes or examinations are scheduled on the official academic calendar of the University. The term "day" means a calendar day.

Policy History
- Revised: 1992-11-01
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Policy Links
- Permalink for this policy: http://policy.utdallas.edu/utdpp1050
- Link to PDF version: http://policy.utdallas.edu/utdpp1050/makepdf
- Link to printable version: http://policy.utdallas.edu/utdpp1050/makeprint
Policy Statement

It is the policy of The University of Texas at Dallas to follow established policies and procedures for the appointment and reappointment of nontenure-system faculty. For the purposes of this policy memorandum, the term nontenure-system faculty refers to faculty who are hired to teach specific courses, offered for academic credit, on a course-by-course basis and who are not subject to the procedures for tenure-system faculty.

Responsibility for the initial hiring of nontenure-system faculty and for the evaluation of performance of those faculty members are primarily placed with the Dean of the School and those in the School’s administrative chain responsible for developing the University budget. The primary input in the hiring process will be by the Dean of the School, utilizing whatever advice and recommendations from Department Heads or other members of the Dean's administrative structure as might be appropriate in that School. The Dean, Department Head, or Program Head should certify credentials of selected candidates using the University’s Certification of Credentials and Qualifications form for nontenure-system faculty appointments. The search plan, results of each pool of applicants, and certification of credentials forms will be submitted each semester, along with any related School guidelines developed by the Dean of the School and faculty, to the Office of the Chief Academic Officer.

The School Dean with the consultation of the faculty will be responsible for the evaluation of nontenure-system faculty. The evaluation process will follow the procedures outlined in UTDPP1062 General Standards and Procedures for Review of Nontenure-System Faculty and UTDPP1006 Teaching Evaluation Policy and will directly involve the School’s committee charged with the evaluation of teaching. The evaluations will be used to ensure that the degree program’s learning objectives are achieved. The Provost will review these evaluations with each Dean as part of the budget cycle each year.

Nontenure-system faculty members are encouraged to seek clarification of the evaluation procedures in their schools, and whenever they have questions or dissatisfactions concerning the procedures, queries should be lodged with the School Dean. In Schools where Department Heads provide an initial recommendation for hiring and evaluations, a preliminary discussion should be held with the Department Head. If the matter remains unresolved fifteen days after discussion with the Dean, it may properly be taken to the Provost. The Provost is the final level of review.
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• Link to printable version: http://policy.utdallas.edu/utdpp1061/makeprint
General Standards and Procedures for Review of Nontenure-System Faculty - UTDPP1062

Policy Statement

Preamble

The ideal of a research university is a university in which all those who convey knowledge are also engaged in producing it. Further, those engaged in producing knowledge require and should have, as a necessary condition in support of their freedom of inquiry, the protection of tenure. The faculty of The University of Texas at Dallas has been dedicated to this concept since the University began and this dedication does not waver. Other things being equal, as many of the faculty as practicable should hold tenure-system appointments. However, in practice a substantial component of instructional responsibilities will continue to be met with faculty who are not part of the tenure system. The term "nontenure-system faculty" means faculty with classroom or class-laboratory responsibilities who are hired for a fixed term of service and who are not subject to the various rules and regulations pertaining to tenure-system faculty. Nontenure-system faculty titles may include but are not limited to the following: Senior Lecturer 1, Senior Lecturer 2, Senior Lecturer 3, Clinical Assistant Professor, Clinical Associate Professor, Clinical Full Professor (Clinical Professor), Assistant Professor of Instruction, Associate Professor of Instruction, Assistant Professor of Practice, Associate Professor of Practice, and Professor of Practice.

It is the policy of The University of Texas at Dallas that nontenure-system faculty should be treated as true colleagues in a collective academic enterprise. Nontenure-system faculty should have the same kinds of working conditions and expectations of fair and considerate treatment as tenure-system faculty and should be able to work with tenure-system faculty as genuine colleagues. Accordingly, the purpose of this policy is to require the establishment of processes for nontenure-system faculty hiring and evaluation. This policy is to be implemented in the several schools as the responsibility of the School Deans and Faculty. Promotion recommendations regarding nontenure-system faculty are not to be reviewed by the Committee on Qualifications of Academic Personnel. The Academic Senate will exercise general oversight with respect to the academic policy referenced herein. The Chief Academic Officer will exercise general oversight with respect to letters of appointment and compliance with Regents Rules and Regulations.

Standards of Evaluation
1. **Peer-Reviewed Research and Academic Achievement:** Except for Research Professors, peer-reviewed research and academic achievement are not required of nontenure-system faculty as part of their normal assigned responsibilities at U. T. Dallas. However, nontenure-system faculty have the same standing to seek funding for, and to pursue, funded research as other faculty. If peer-reviewed research and academic achievements, such as maintaining an academic qualification required by accreditation boards, are required as a condition of employment, this requirement must be specified in writing and should be included in the evaluation. When not required, they may still be noted in peer reviews. Evidence of research and academic achievements can include publication in peer-reviewed journals; monographs which contribute to advancing knowledge or its utilization in the resolution of societal problems; development of widely adopted clinical or educational techniques which advance the quality of life; presentations at professional gatherings; literary publications, performances, and visual and other artistic contributions in regional and national exhibitions.

2. **Teaching:** It is important that evaluating committees seek a variety of ways to evaluate an individual's teaching. Teaching effectiveness is not to be measured solely in terms of teaching in organized courses. It also includes the ability and willingness to develop new courses and to teach a wide variety of courses. Evaluating committees should consider the importance of such courses to the instructional programs, and the development of innovative teaching methods. Teaching also extends to curriculum development and student advisement.

3. **University Service and Citizenship:** University citizenship is that amorphous blend of willingness to participate actively as citizens in the life of the University and as collegial representatives of the University in extramural settings. Service, in contrast to administration, includes membership in governance bodies and committees, program planning and development, public service, and special assignments from Deans or the University Administration.

4. **Administration:** Nontenure-system faculty may be assigned duties that require academic knowledge and experience, but are also heavily administrative, such as Associate Deans for Undergraduate Education, graduate student advisor, and graduate clinical instructor or coordinator. Aspects of this type of activity that indicate good or poor performance include overall work-load or case-load, the overall levels of satisfaction and good order in the program, letters or other expressions of satisfaction or dissatisfaction from students, colleagues, or immediate supervisors, and the development of innovative methods or program designs.

**Procedures**

1. **Inclusion in bylaws:** Procedures for hiring and peer review of nontenure-system faculty should be incorporated in the bylaws of the School.

2. **Rank and recognition of employment history:** Nontenure-system faculty titles should be given in accordance with Regents' *Rules and Regulations* Rule 31001, Part 2, Sec. 2.2. Criteria for these differentiations might include relevant degrees, teaching experience, work experience, research experience, and creative contributions. A change in title for a nontenure-system faculty member whose contract is being renewed should be based on a record of excellence relevant to their assignments or reflect distinguished attainments relevant to their assignments.
3. **Hiring**: For hiring nontenure-system faculty, each School or Department should institute a committee or designate an already existent committee as a search committee. Whenever possible, at least one nontenure-system faculty member at the highest rank should be included on the search committee. The search committee will recommend a candidate and an initial hiring rank to the Dean and/or Program Head. Whenever possible, program faculty will be given the opportunity to comment on this recommendation prior to any formal job offer.

4. **Teaching Evaluation**: Each School should establish or designate a committee to review and provide advice on the teaching performance of nontenure-system faculty. This evaluation may be assigned to the School Committee on Effective Teaching. For this purpose, the committee should include an appropriate number of nontenure-system faculty members, depending on their number in the School. A School Committee on Effective Teaching is mandated by UTDPP1006.

5. **Orientation programs and advice**: Each School or Department with nontenure-system faculty should develop orientation programs and materials for them and assure that there are procedures and processes to provide ongoing advice. This program should involve both more experienced nontenure-system faculty and tenure-system faculty. If there is a mentoring program, nontenure-system faculty should be included as appropriate given their work assignments and numbers in the School. Each School or Department should clearly designate a faculty member or faculty body to consult with each nontenure-system faculty member in regard to his or her academic responsibilities. Nontenure-system faculty should also consult regularly with their School Deans and Associate Deans.

6. **Periodic Review**: All faculty at U. T. Dallas are subject to an annual administrative review. For annual administrative reviews, nontenure-system faculty will submit annual review documents in the same manner and at the same times as tenure-system faculty.

7. **Contract Term and Renewal**: Under Regents' Rules and Regulations, Rule Number 31001, the longest appointment available to nontenure-system faculty is three academic years (which may be renewable in accordance with Texas Education Code Section 51.943). Initial appointments are for one academic year but can be as long as three academic years in situations deemed appropriate by the Dean and Provost. If a position is expected to be short term, it should be clearly identified as a visiting or a lecturer position. One year contracts and all initial contracts are deemed to be probationary. Subsequent contracts shall be offered on or before May 15, if possible. At the discretion of the Dean and the Provost, subsequent contracts may be offered for one, two, or three academic years. Two year annually renewable contracts should typically be awarded to faculty at the level of Senior Lecturer 2 and 3, Clinical Associate Professor, and Clinical Professor, Associate Professor of Instruction, Professor of Instruction, Associate Professor of Practice, or Professor of Practice if they have completed their probationary period with evaluations indicating that they meet expectations. Two year annually renewable contracts should also typically be awarded to faculty at the level of Senior Lecturer 1 and Clinical Assistant Professor, Assistant Professor of Instruction, and Assistant Professor of Practice if they have completed three years of service with evaluations indicating that they meet expectations. Three year annually renewable contracts should typically be awarded to faculty whose work clearly exceeds expectations.
Notwithstanding these guidelines, per Regents’ Rules there can be no expectation of employment beyond the current appointment period.

8. **Promotion Process:** Each School or Department with nontenure-system faculty should develop a process for review of nontenure-system faculty involving tenure-system faculty and above-rank nontenure-system faculty as appropriate in the School or Department. These reviews should strive for an even consideration of strengths and weaknesses and should attempt to commend performance that is already outstanding as well as give constructive advice where performance can be improved. The weighting of the standards of evaluation should reflect the employment contract. The interpretation of the standards of evaluation should reflect the interpretations of the School or Department bylaws. The reviews may result in recommendations of non-renewal, renewal in rank, renewal at a higher rank, renewal with recognition of excellence or distinction, or changes in assignment. Two of the more common promotional lines for nontenure-system faculty are Senior Lecturer 1–Clinical Assistant Professor, Assistant Professor of Instruction, or Assistant Professor of Practice to Senior Lecturer 2–Clinical Associate Professor, Associate Professor of Instruction, or Associate Professor of Practice to Senior Lecturer 3–Clinical Full Professor, Professor of Instruction, or Professor of Practice.

9. **Deadline:** All reviews should be complete by March 30 each year.

**Review of Files**

A nontenure-system faculty member who will be reviewed by a faculty body under this policy is responsible for preparing the file that will constitute the essential basis for this review. The Review File as submitted by the nontenure-system faculty member to the School Dean, Department Chair, or Program Head will include a complete professional curriculum vitae from the nontenure-system faculty member which covers the areas of assigned responsibility and any additional areas the candidate wishes to have considered. For teaching evaluation, information should include statistical summaries of the teaching evaluation form for each course taught during the previous six regular, long semesters (including transcripts of or original comments by students) as well as information on course content and process, such as copies of syllabi and exams. Upon receipt of the basic Review File from the nontenure-system faculty member, the Office of the Dean will inventory the contents and insert a copy of the inventory in the file. The designated reviewing committee has the authority and responsibility to add material to the basic Review File, these additions being clearly identified components of the Review File. Possible additions will include items such as the letters from external and internal evaluators for the committee’s review of teaching performance, and the committee’s recommendations. All these additions will be entered on the file inventory sheet.

**Right to View Files**

If a nontenure-system faculty member under review requests to see his or her file during the review process, the Dean, Department Chair, or Program Head shall make the file available within three working days.
Opportunities

Nothing in this policy or in the bylaws of a School or Department should be construed as precluding nontenure-system faculty members from applying and being considered for tenure-system positions in the manner established for those positions.

Grieveance and Appeal

Faculty grievance procedures which apply to tenure-system and nontenure-system faculty are specified at http://policy.utdallas.edu/utdpp1050.

Procedures for appeal of a decision on reappointment or promotion to a nontenure-system position are in Rule 30602 of the Regents’ Rules and Regulations at http://www.utsystem.edu/bor/rules/30000Series/30602.pdf.

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UT Dallas Policy on Financial Exigency - UTDPP1081

Policy Statement

Preamble

Rule 31003, Section 1, of the Regents’ Rules and Regulations establishes U T System policy concerning the Abandonment of Academic Positions or Programs. Section 1 calls for the President of the University to determine institutional procedures for an in-depth review to inform and guide decisions on these matters “with full and meaningful faculty input.” Section 2 concerns elimination for “Academic Reasons.” Section 3 concerns elimination due to institutional financial exigency. This document establishes UT Dallas policy and procedures relating to Section 3.

General Policy on Interpretation of Regent's Rules

Regents Rule 31003, abandonment of academic positions or programs must be interpreted in the light of Rule 40101 which gives faculty a “major role” in regard to “general academic policies and welfare” and related matters and in the light of the further provisions that assign these faculty responsibilities to the faculty governance organization and require that the organization and procedures of the governance organization be set out in the university Handbook of Operating Procedures and subject to governance review and approval.

The University of Texas at Dallas recognizes the importance of tenure as a fundamental safeguard for academic freedom, an encouragement for faculty to engage in research at the frontiers of knowledge, and as the basis of attracting and retaining the very best possible faculty members. The aim of this policy is to assure that the University’s response to an institutional financial exigency does everything possible to preserve this commitment to tenure while also providing the strongest possible foundation for rapid recovery and future growth.

The term “faculty committee” as used in Regents Rules section 31003 shall be understood here as meaning the Academic Senate of the University of Texas at Dallas, the regular committees of the Senate, or the Exigency Committee and appeals committees to be established in accordance with this policy.
The term “faculty” as used in Regents Rules 31003 to designate those eligible to be appointed as faculty on the Exigency Committee and appeals panels shall be understood here as meaning individuals holding tenure-track, tenured, and emeritus positions with the titles of Assistant Professor, Associate Professor, and Professor with primary assignments in teaching, research, and advising. It shall also include individuals holding yearly or longer-term renewable non-tenure track position with the titles of Senior Lecturer, Clinical Professor, Assistant/Associate/Full Professor of Instruction, and Assistant/Associate/Full Professor of Practice with primary assignments in teaching, research and advising. It shall not include faculty holding administrative appointments at the level of dean or above. For purposes of this policy the position of Associate Provost shall be regarded as an administrative appointment at the level of dean or above.

**Initial Declaration of Financial Exigency**

Institutional financial exigency is a demonstrably bona fide financial crisis that adversely affects an institution as a whole and that, after considering other cost-reducing measures, including ways to cut faculty costs, requires consideration of terminating appointments held by tenured faculty. Whenever there is reason to anticipate that the University as a whole is threatened by financial exigency, the President at the earliest date possible shall inform the Faculty Senate and all potentially affected budgetary units of the problem.

The President shall consult with the Senate and the concerned budgetary units to determine the nature and seriousness of the problem, the most appropriate of the possible courses of action to be taken, and the means of safeguarding faculty rights and interests, including tenure rights. In solving such a problem, the University shall make every reasonable effort to reassign affected faculty members to other suitable work and to aid them in finding other employment.

On the basis of these deliberations, the President shall write an Initial Declaration of Financial Exigency, giving the extent and scope of the emergency and the general approach to be taken to respond to it.

**Advice of the Senate**

The President shall submit the Initial Declaration of Financial Exigency to the Senate for advice. This process may involve amendments and may, but need not, result in a joint Senate-presidential Exigency Plan. The Exigency Plan, whether joint with the Senate or not, shall include a formula for the membership of the committee “composed of faculty and administrative personnel to make recommendations to the president as to which academic positions and/or academic programs should be eliminated as a result of the financial exigency” designated in rule 3.1, as well as the general criteria the committee should apply in making its recommendations. This committee will be called hereafter the Exigency Committee.
The size and composition of the Exigency Committee shall be specified in the Exigency Plan, provided that it has at least seven members. At least one-half of these members shall be faculty as defined above, and at least one-half of the faculty members shall be appointed from nominations submitted by the Senate. The Senate procedure for making the Senate designated appointments on the Exigency Committee shall be that the Senate will nominate at least twice as many faculty members as there are openings consigned to it, and the President shall appoint the members from among them. For faculty appointed to the remaining positions on the Exigency Committee, no Senate nomination is necessary. At least a majority of the total number of faculty will be tenured. All faculty appointees should seek to represent the university as a whole, not just programs initially slated to be reduced or just those not so slated, and at least some of them will have served on the Committee for Qualifications of Academic Personnel.

**Procedure for Eliminating Positions**

The Exigency Committee shall develop the Exigency Plan in two stages. First, it will assess current programs and recommend cuts or other actions as described in Rule 31003 Section 3.2. Second, upon receiving approval for this assessment or a modified version thereof, it will proceed to recommend positions to be eliminated as described in Rule 31003 Section 3.3 to 3.5, provided that:

1. **For section 3.2, assessment of academic programs.** The Exigency Committee will provide a written report of its analysis of programs, which shall be submitted to the President, who shall then consult with the Senate before decisions are made for specific positions to be eliminated. As stated in the Rule, “The committee will review and assess the academic programs of the institution and identify those academic positions that may be eliminated with minimum effect upon the degree programs that should be continued and upon other critical components of the institution’s mission. The review will include, but not be limited to, as relevant: (a) an examination of the course offerings, degree programs, supporting degree programs, teaching specialties, and semester credit hour production; (b) an evaluation of the quality, centrality, and funding of research activities; and/or (c) an assessment of the productivity, community service, and quality of clinical services (in relation to teaching, healthcare delivery, and scholarly activity).” The Committee shall consider and may offer advice on all avenues by which terminations of faculty members can be avoided or minimized, and, as well, by which the negative effects of any necessary terminations can be mitigated. Unless an extension is approved by the President, the Committee shall submit its recommendations in writing within 60 days after the committee receives its charge.

2. **In section 3.3, Review Consideration.** After the President reviews and responds to the recommendations regarding programs to be cut, the Exigency Committee next recommends specific positions to be eliminated. These recommendations should also be contained in a written report. The recommendations should be related to the Exigency Committee’s assessment of programs. If other officers of the university, such as deans or program chairs, are involved in identifying individuals whose appointments are to terminated, those recommendations and the process for obtaining them should be described in the report. The Exigency Committee will have available the personnel records of those being considered including current curriculum vitas, annual reports,
promotion committee reports and recommendations, and results of periodic performance reviews. It will have access to full personnel files. Faculty whose positions would be jeopardized by the proposed actions will be provided the opportunity to contribute meaningfully to the Committee's review process.

3. For section 3.4, Tenure Preference. The Exigency Committee should not apply an unduly narrow interpretation of the idea that two candidates should be “equally qualified” before preference is given to one with tenure over one without. Preference should be given to tenured faculty over non-tenured if they are have approximately the same qualifications, prospects experience, and service to the university provided that their accomplishments are roughly proportional to their relative academic lifetimes. The decisions should be consistent with the general principle that greater contributions will gain greater recognition.

4. In section 3.5, Recommendation. According to the Rule, “upon completion of its review,” the Exigency Committee “shall promptly recommend in writing to the president those persons who may be terminated, ranked in order of priority, with the reasons for their selection. The president shall, with such consultation with institutional administrative officers as the president may deem appropriate, determine which academic positions are to be terminated because of the financial exigency and shall give the holders of these positions written notice of the decision.” The Exigency Committee’s recommendations to the President shall be made in writing. Unless an extension is approved by the President, the Committee shall complete its work in a period of time no longer than 60 days from the submission of the initial report, specified in section 3.2, identifying the programs to reduce or eliminate.

Procedure for Notice and Appeal

A faculty member whose position has been eliminated is entitled to appeal the decision, subject to the requirements of Regents' Rules 31003 sections 3.7 and 3.8.

1. The burden shall be upon the appellant to show by a preponderance of the credible evidence that:
   1. Financial exigency was not in fact the reason for the initial decision to reduce academic positions; or
   2. The decision to terminate the appellant as compared to another individual in the same discipline or teaching specialty was arbitrary and unreasonable based upon the evidence presented.
   3. Whether the criteria established in the Exigency Plan were properly and fairly applied to the individual case and that any failure to properly and fairly apply the criteria clearly disadvantaged the appellant compared to other individuals in the same discipline or teaching specialty who were considered for termination.

The hearing shall be held before a panel consisting of full-time faculty drawn from the list of faculty in the pool approved for service on hearing tribunals in accordance with the UTD Policy on Hearing Tribunal Selection Procedures, provided that such faculty are not in the academic programs affected by the decision. At least half of the membership of such panels shall be from faculty recommended by the Senate. The size of such appeals panels shall be determined as part of the Exigency Plan. The Hearing
Panel shall elect its own Chair. The hearing must be held no later than 30 days after a written request is submitted to the President's office.

The employment of a tenured faculty member who is to be terminated under this policy shall end no sooner than the end of the current academic term; faculty will be allowed reasonable time to close down laboratories, complete teaching assignments, and transfer their responsibilities. If an entire program or functionally distinct part of a program is cut, employment of all tenured faculty in that program will terminate when the program or part itself is terminated, and will not extend beyond the termination of the program. During this period of employment and for three additional years, the terminated faculty member shall have the right to first consideration among equally qualified candidates for any faculty position at U. T. Dallas for which a recruitment and hiring process is conducted and for which the faculty member in question formally applies. In addition, the considerations noted in Rule 31003, Section 2, Subsections 2.6 - 2.11 of the Regents’ Rules and Regulations will be extended to the faculty member to be terminated.

No Concurrent Replacements

If appointments are terminated, the University will not at the same time make new appointments into the same subject area or specialization except in extraordinary circumstances where a serious distortion in the academic program would otherwise result. That is, a tenured faculty member or a more senior faculty will not be terminated only in order for the University to replace him or her with a new person in the same subject area or specialization at lower pay.

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Faculty Fitness for Duty - UTDPP1085

Policy Statement

The University of Texas at Dallas is committed to providing a safe workplace for the benefit of the University community. Faculty who are not fit for duty may present a safety hazard to themselves, to other members of the University community or to the public. Denial of university privileges to a faculty member is a serious matter and should only take place when there is a perceived danger to the faculty member, coworkers, students, or to university property.

Scope

This policy applies to all members of the faculty.

Purpose

The purpose of this policy is to establish the procedures by which the University evaluates faculty members' fitness for duty when a faculty member is:

1. Having observable difficulty performing work duties in a manner that is safe for the faculty member, for the other faculty, staff, or students, for the University, or for the public, as determined by the supervisor; or

2. Posing an imminent and serious safety threat to self or others.

Definitions

Faculty includes both tenure/tenure track faculty and other nonstudent instructional staff such as clinical faculty, senior lecturers, assistant/associate/full professors of instruction, assistant/associate/full professors of practice, and adjunct faculty.

Fit for duty means able to perform the duties of the job in a safe, secure, productive, and effective manner as determined by the supervisor.

Health service provider is a doctor of medicine or osteopathy, dentist, podiatrist, clinical psychologist, optometrist, nurse practitioner, nurse-midwife, or a licensed clinical social worker that is authorized to practice in the state of Texas or in the state the employee resides for employees who reside outside the state of Texas.

Supervisor means the dean of the faculty member’s school or his/her designee, such as an associate dean or a program head.
The Provost's role in the operation of this policy may be designated at his/her discretion to others within the Provost's office.

**Employee Responsibilities**

1. Faculty members are responsible for managing their health in a manner that allows them to safely perform their job responsibilities.
2. Faculty members must report to work fit for duty and must perform their job responsibilities in a safe, secure, productive, and effective manner during the entire time they are working.
3. Faculty members are responsible for notifying their supervisors when they are not fit for duty.
4. Faculty members are responsible for notifying the supervisor when they observe a coworker acting in a manner that indicates the coworker may be unfit for duty. If the supervisor’s behavior is the focus of concern, faculty may inform the Provost or may call his/her designee. The Office of Human Resources (OHR) – Employee Relations may also be consulted for additional guidance.

**Employer Responsibilities**

1. Supervisors are responsible for observing the attendance, performance, and behavior of the faculty they supervise.
2. Supervisors/managers are responsible for following this policy’s procedures when presented with circumstances or knowledge that indicate that a faculty member may be unfit for duty.
3. Confidentiality of medical records: Any document containing medical information about a faculty member is considered a medical record and is regarded as confidential. If a department has any medical information about a faculty member, that information should be maintained in a file separate from all other faculty member records, including those used in consideration for tenure and promotion.

**Procedures**

1. The supervisor who receives reliable information that a faculty member may be unfit for duty, or through personal observation believes a faculty member to be unfit for duty, will validate and document the information or observations as soon as is practicable. Actions that may trigger the need to evaluate fitness for duty include, but are not limited to, problems with dexterity, coordination, concentration, memory, alertness, vision, speech, inappropriate interactions with coworkers or students, inappropriate reactions to criticism, or suicidal or threatening statements.
2. The supervisor will present the information or observations to the faculty member at the earliest possible time in order to validate them; and will allow the faculty member to explain his or her actions, or to correct any mistakes of fact contained in the description of those actions. The supervisor will then determine whether the faculty member should leave the workplace immediately for safety reasons.
3. In situations where there is a basis to think that a crime may have been committed and/or the faculty member is making threats to harm himself or herself or others, or is acting in a manner that is immediately dangerous to himself or herself or others, the supervisor must contact The University of Texas at Dallas Police Department. OHR-Employee Relations and the Office of the Provost should be contacted regarding the fitness for duty procedure after the immediate safety issue has been addressed.

4. In circumstances not involving immediate safety issues, possible illegal activities, or threats to others of the faculty member himself or herself, the supervisor shall take appropriate action, including contacting OHR-Employee Relations, by determining whether the faculty member should be sent home. The supervisor should arrange to contact the Provost as soon as possible after he or she receives a report, and validates or personally observes an employee’s unfit behavior. After regular business hours the supervisor should determine whether the employee should be sent home and then the supervisor should arrange to contact OHR-Employee Relations no later than the next business day.

5. Based on the descriptions provided by the supervisor, the Provost, in consultation with OHR-Employee Relations, will assist the supervisor in determining whether a fitness for duty evaluation is required and, if so, the type of evaluation needed and the type of health service provider to make the evaluation. OHR-Employee Relations will then provide a form to the supervisor containing that information, and the supervisor will convey the form to the employee. OHR-Employee Relations will assist in determining the type of leave to be used pending a complete assessment of the situation. The supervisor will prepare a written advisory report that will be provided to the faculty member and the Provost.

6. OHR-Employee Relations will provide a form for the designated health service provider to complete to certify whether the faculty member is fit to return to work. The form will include a behavioral description of the circumstances leading to the request for evaluation, and a list of the faculty member’s relevant duties. OHR-Employee Relations may communicate with the health service provider as necessary. The faculty member may submit an additional evaluation from their health service provider.

7. In most cases, the faculty member will be responsible for the cost of the fitness for duty evaluation, if not covered by his/her health plan.

8. Based on information provided by the health service provider, OHR-Employee Relations will advise the supervisor whether the faculty member should return to work and, if so, the conditions of return, including whether the faculty member must attend a reentry conference with the supervisor and OHR-Employee Relations, and whether additional follow-up meetings are necessary. The final decision on whether a provider’s certification will be accepted lies with the Provost. A second independent health service provider certification may be requested in some cases. The University will be responsible for the cost of the second independent provider’s certification.

9. At any stage of the process described in this policy, the faculty member may submit a grievance to the Committee on Faculty Standing and Conduct (UTDPP1027). Such grievance will follow the standard grievance procedures as stated in the Faculty Grievance Procedures (UTDPP1050).
10. The faculty member must comply with all aspects of the fitness for duty and evaluation procedures, including furnishing necessary consent and release forms to the health service provider. Noncompliance may be grounds for disciplinary action up to and including termination. Any recommendation for termination shall be automatically reviewed by the Committee on Faculty Standing and Conduct. Information will be requested from the health service provider regarding work restrictions that may be required upon the faculty member’s return to work.

11. Application of this policy is not intended as a substitute for other University policies or procedures related to performance. Nor is it intended as a substitute for disciplinary action. Situations involving violations of University policies or practices may result in disciplinary action being taken.

For Assistance: Questions regarding faculty fitness for duty should be directed to OHR-Employee Relations and/or the Office of the Provost.

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Faculty Governance - UTDPP1088

Policy Statement

Section I. General Faculty

Excerpt
The following excerpt is from the Rules and Regulations of the Board of Regents of The University of Texas System (hereafter referred to as the Regents' Rules and Regulations), Rule 40101, Faculty Role in Educational Policy Formulation:
"Sec. 1 Board Commitment. The Board of Regents will devote its best efforts to making all of the institutions of The University of Texas System of the "first class," as the Texas Constitution directs in Article VII, Section 10. The Board will be guided in general by the best practices of the top universities in the United States and abroad, especially by the best practices of state universities in the United States.

Sec. 2 Advice on Board Policies. The Board of Regents will ordinarily seek the advice of the faculty on important matters of academic policy.

Sec. 3 General Authority. Subject to the authority of the Board of Regents and subject further to the authority that the Board has vested in the various administrative officers and subdivisions of the System, the faculties of the institutions regularly offering instruction shall have a major role in the governance of their respective institutions in the following areas:
- 3.1 General academic policies and welfare.
- 3.2 Student life and activities.
- 3.3 Requirements of admission and graduation.
- 3.4 Honors and scholastic performance.
- 3.5 Approval of candidates for degrees.
- 3.6 Faculty rules of procedure.

Sec. 4 Necessity of Approval by Regents. Legislation recommended by an institutional faculty, or legislative body thereof, requiring approval of the Board of Regents, shall not be effective unless and until approved by the Board. Such legislation by a college or school faculty shall not be presented to the Board until it has been approved by the institutional faculty, either directly or through its legislative body, and has received the consideration and recommendation of the institutional president, the appropriate Executive Vice Chancellor, the Deputy Chancellor, and the Chancellor. The faculty affected will be notified by the Board, through administrative channels, of its action on recommended faculty legislation.
Sec. 5 Approval of Degree Candidates. It shall be the duty of the several institutional faculties to recommend approval or disapproval of all candidates for degrees. This duty may be delegated by affirmative vote of the institutional faculty, or its legislative body, to the respective deans or other appropriate official. Should this duty not be delegated, the institutional registrar, or his or her equivalent, shall furnish to the members of the institutional faculty a complete list of the degree candidates for recommendation.

Sec. 6 List of Degree Candidates. The institutional registrar, as soon as possible after each commencement, shall provide the secretary of his or her institutional faculty, or its legislative body, with a complete list of all successful degree candidates.

A. Authority and General Functions

The areas of authority of the General Faculty are listed above. The General Faculty, however, has delegated the detailed exercise of its powers to the Academic Senate (see Section II of this chapter). The General Faculty, however, retains the following powers:
1. Establishment of rules of membership and procedure for itself and for school and disciplinary faculties.
2. Election of the Academic Senate.
3. Review, amendment, and/or repeal of all legislative actions of the Academic Senate.
4. Summons to call the General Faculty into Special Session.

B. Membership and Privileges

1. Membership
   1. Voting members of the General Faculty shall consist of the following:
      1. Faculty appointed half-time or more to The University of Texas at Dallas who hold the rank of Regental Professor, Professor, Associate Professor, or Assistant Professor.
      2. Faculty appointed half-time or more to The University of Texas at Dallas who hold the rank of Instructor.
      3. Faculty appointed full-time to The University of Texas at Dallas who hold the rank of Clinical Professor, Clinical Associate Professor, Clinical Assistant Professor, or Senior Lecturer I, II, or III, Professor of Instruction, Associate Professor of Instruction, Assistant Professor of Instruction, Professor of Practice, Associate Professor of Practice, or Assistant Professor of Practice.
   2. Non-voting members of the General Faculty shall consist of the following:
      1. All persons who, pursuant to the Regents’ Rules and Regulations, Rule 31001, hold the following titles at The University of Texas at Dallas: Visiting Professor, Visiting Associate Professor, and Visiting Assistant Professor; Clinical Instructor, and Instructor (less than half-time appointments); Lecturer; Adjunct Professor, Adjunct Associate Professor, and Adjunct Assistant Professor; Faculty; Professor Emeritus and Associate Professor Emeritus; and Research Scientists and Research Associates holding appointments outside the classified pay plan of the University.
      2. The President and Chief Academic Officer of The University of Texas at Dallas, if they do not qualify for voting membership in the General Faculty under Subsection 1.a. above, shall be ex officio non-voting members of the General Faculty.
3. Because of the common qualifications to be required for faculty called upon for graduate and undergraduate instruction at The University of Texas at Dallas, separate graduate and undergraduate divisions of the General Faculty or other legislative bodies will not be established.

2. Privileges
   1. Those faculty members designated in Subsection 1 above shall retain their voting status while on approved leave.
   2. Each voting member, of whatever rank, shall be entitled to one vote.
   3. Nonvoting members have the privilege of attending meetings with the right to speak but without the right to vote.

C. Meetings
   1. The President of the University convenes the university community, faculty, and staff, for a "State of the University Report" each year usually in October. Special meetings of the General Faculty shall be held at the call of the President or the Speaker of the Faculty or at the request of at least twenty percent of the voting members of the General Faculty, as listed on the most recent faculty roster certified by the Secretary of the Faculty, to the Speaker of the Faculty. A minimum notice of one week is required.
   2. If there is no State of the University Address, the Senate meeting for October of each year shall also be a meeting of the General Faculty.
   3. Special meetings of the General Faculty shall be held at the call of the President or the Speaker of the Faculty or at the request of at least twenty percent of the voting members of the General Faculty, as listed on the most recent faculty roster certified by the Secretary of the Faculty, to the Speaker of the Faculty. A minimum notice of one week is required.

D. Organization
   1. The President shall be Chair ex officio of the General Faculty.
   2. In the absence of the President, the Provost shall preside.
   3. In the absence of both the President and the Provost, the Speaker of the Faculty shall preside.
   4. The Speaker of the Faculty and the Secretary of the Faculty shall be elected according to procedures described in the Bylaws of the Academic Senate. The President, to the extent possible, shall reduce the teaching load of the Speaker of the Faculty and of the Secretary of the Faculty by one course in each of the Fall and Spring semesters.

E. Legislation
   1. Definition - Legislation is any motion which:
      1. requests or recommends actions on the part of the academic administration of The University of Texas at Dallas or of The University of Texas System,
      2. establishes rules or procedures under the general authority of the faculty, as described in Rule 40101 of the Regents' Rules and Regulations, or
      3. certifies compliance with those rules and procedures.
   2. Responses and Approvals
      1. The academic administration shall respond, in due course, to all legislation directed to it.
2. The Academic Senate has the responsibility for suggesting, reviewing, and commenting on any revisions to the University's Handbook of Operating Procedures pertaining to general academic policies and welfare and faculty rules of procedure on a timely basis before they are approved by the President and by the institution's chief legal officer or to the Vice Chancellor and General Counsel pursuant to Rule 202011, section 4.9.

3. All actions of the General Faculty which require the approval of the Board of Regents shall be transmitted to the Board by the President and the Chancellor, University of Texas System, in the form passed by the General Faculty, together with such recommendations as the President or Chancellor, University of Texas System, may choose to make. At each meeting of the Academic Senate, the President shall report on all actions of the Senate or General Faculty transmitted to the Board and the action, if any, of the Board on each. If final action of the Board differs from the General Faculty's recommendation, the President shall communicate these differences to the Academic Senate.

4. The Board of Regents will notify the General Faculty of its actions on faculty legislation.

F. Rules of Procedure
1. The General Faculty meetings shall be conducted under Robert's Rules of Order (current edition), except insofar as they may be modified by the Bylaws of the Academic Senate.

2. At a regular or special meeting, a quorum shall consist of twenty percent of the voting members of the General Faculty. If a quorum is not present at a regular meeting, business that would otherwise have been conducted at that meeting may be discussed; the Academic Senate may decide whether the meeting constituted a valid meeting of the General Faculty. Any business conducted at a special meeting requires a quorum to be present.

Section II. Academic Senate

A. Authority and General Functions
1. The Academic Senate, subject to review by the General Faculty, shall exercise the powers vested in the General Faculty except as retained in Section I.A., and specifically shall have the authority to consider the following:
   1. All matters of educational policy. The Academic Senate shall set up the necessary machinery and procedures for enlisting the aid of faculty in developing educational policies for the entire University.
   2. Regulations dealing with student activities.
   3. Requirements for admission, honors, or degrees.
   4. Approval of degree candidates.
   5. Catalog changes requiring approval of the Board of Regents.
   6. Reports of special and standing committees, including Committees of the General Faculty.

2. The Academic Senate shall advise the President of The University of Texas at Dallas in regard to policy and operations in any matter affecting the general academic welfare of the University.

3. The Academic Senate shall conduct or organize such studies as it requires to initiate legislation and may act upon any recommendations presented to it.
4. Academic Senate may create ad hoc and standing committees of its own. All members of the General Faculty shall be eligible for appointment whether members of the Senate or not.

5. The Academic Senate may refer any matter to a committee, or to a school or disciplinary faculty, or to the Academic Council for appropriate consideration.

6. The Academic Senate may review, approve, or remand to the faculty of the school academic policies and procedures established by the faculties of the several schools.

7. The list of successful degree candidates, with honors as appropriate, shall be part of the minutes of the Academic Senate.

8. The Academic Senate may not delegate any portion of the powers listed under Section II.A.1. of this document to the Academic Council. It may, however, designate appropriate committees or officers to carry out policies which it establishes pursuant to these powers.

9. The Academic Senate may approve the minutes of meetings of the General Faculty.

10. The Academic Senate may meet in regular session or in caucus.
   1. At regular sessions, the President or the Provost shall preside. In their absence, the Speaker shall preside. In the absence of a Vice Speaker, the Secretary shall chair. In the absence of the Secretary, the meeting may be chaired by any member of the Senate designated by the Speaker. Legislation as defined in Section I.E.1. may be brought to a formal vote.
   2. At caucus sessions, the Speaker of the Faculty, or other officers designated by the Academic Senate, shall preside. Legislation approved at a caucus session shall not be transmitted to the academic administration for action unless it is subsequently passed at a regular session of the Senate.

11. The Academic Senate shall approve procedures for elections in all faculty governance bodies at The University of Texas at Dallas as described in Section V. The procedures shall provide for secret ballots, accurate tallies of votes, and reasonably equal representation of all voting members of the faculty governance body, except that in elections for the Academic Senate, the procedure shall guarantee each School from which there are candidates at least one member of the Academic Senate.

12. The Academic Senate may establish an executive committee which shall, at least, coordinate the actions of its committees.

B. Membership

1. The elected members of the Academic Senate shall consist of not less than twenty-three nor more than fifty-one voting members of the General Faculty, with intermediate numbers computed so as to be as close to 10% of the voting membership of the General Faculty as possible, except that faculty members having administrative appointments at the level of Dean or higher are not eligible to serve on the Academic Senate.

2. The elections shall be conducted according to procedures described in the Bylaws of the Academic Senate.

3. The Academic Senate may fill vacancies according to procedures described in the Bylaws of the Academic Senate.
4. The President and Provost are ex officio members of the Academic Senate. They are non-voting members.

C. Term of Office

The term of office of members of the Academic Senate shall run from the June 1 immediately following elections to May 31 of the following year.

D. Meetings

1. The Academic Senate shall establish a calendar of meetings, which shall include no fewer than four meetings each academic year.

2. The President, or the Speaker of the Faculty, or one-fifth of the voting membership of the Academic Senate by notice to the Speaker of the Faculty may call a meeting of the Academic Senate. A minimum of three days notice is required.

E. Organization

1. The Academic Senate shall adopt Bylaws of the Academic Senate which shall govern its function.

2. Amendment of the Bylaws of the Academic Senate, except through modification of the Resolution of Operating Procedures, shall require approval at two separate meetings of the Academic Senate.

F. Procedures for Certification of Degree Candidates

Each semester the Academic Senate receives lists of candidates for degrees in the University and certifies these candidates for receipt of the degrees. The procedures are as follows:

1. Submission of Names of Candidates for Degrees: Two weeks prior to the Academic Senate meeting of the month immediately preceding graduation, the Provost shall submit to the Academic Senate the names of candidates for degrees and candidates for degrees with honors.

   1. The submission for undergraduate degrees may use the following suggested wording: "These students have applied for graduation and have been reviewed by the Office of Records. The Office of Records declares that all of these students will be eligible for graduation upon completion of the current semester's work at the necessary levels. I request, therefore, that the Academic Senate certify these students to graduate upon receipt of final grades, and notification of completion of other requirements, provided that the grades are consistent with the standards for graduation prescribed by this University. I also request that the Academic Senate certify those students designated as eligible to graduate with honors upon completion of coursework and requirements consistent with the standards for honors at the levels offered by this University."

   2. The following is suggested wording for submission of candidates for graduate degrees: "These students have applied for graduate degrees and have been reviewed by the Graduate Dean. The Graduate Dean certifies that all these students will be eligible for the degrees indicated upon satisfactory completion of the current semester's work. I request, therefore, that the Academic Senate certify these students to receive the degrees as indicated upon receipt of final grades and notification of completion of other requirements, provided that the grades received are consistent with the standards for credit prescribed by this University."

2. The following is suggested wording for submission of candidates for graduate degrees: "These students have applied for graduate degrees and have been reviewed by the Graduate Dean. The Graduate Dean certifies that all these students will be eligible for the degrees indicated upon satisfactory completion of the current semester's work. I request, therefore, that the Academic Senate certify these students to receive the degrees as indicated upon receipt of final grades and notification of completion of other requirements, provided that the grades received are consistent with the standards for credit prescribed by this University."
2. Placement on Academic Senate Agenda: The list of names of candidates for degrees are automatically placed on the agenda of the Academic Senate as soon as they are received.

3. Report to the Academic Senate of Corrections in the List of Candidates. As soon as they are available, corrections to the list of candidates for degrees and the list of candidates for degrees with honors should be submitted to the Academic Governance Office and reported to the Academic Senate. Additions to the lists of requests to raise levels of honors above those approved require Academic Senate approval. Deletions will be noted by the Senate, and the record will be attached to the minutes of the meeting at which graduation and/or honors were approved.

Section III. Academic Council

A. Authority and General Functions
1. The Academic Council shall facilitate communications between the Academic Senate and its Committees and between the Senate and the Administration.
2. The Academic Council shall have the authority delegated to it by the Academic Senate, pursuant to Section II.A.8. of this document, and as provided for in the Bylaws of the Academic Senate and the Resolution of Operating Procedures.
3. The President of The University of Texas at Dallas shall keep the Academic Council informed as far as practicable on all matters of general interest to The University of Texas at Dallas.

B. Membership
1. The Academic Senate shall elect no more than one-third and no fewer than six of its voting membership to the Academic Council according to procedures established in the Bylaws of the Academic Senate.
2. The Speaker of the Faculty, Vice-Speaker(s) and the Secretary of the Faculty are ex officio voting members of the Academic Council.
3. The President and Provost are ex officio non-voting members of the Academic Council.

C. Meetings
1. The Academic Council shall meet monthly unless the members of the Agenda Committee of the Academic Council, as defined in Section III.D.3. below, agree that a different schedule is appropriate.
2. The President or the Speaker of the Faculty may call special meetings of the Academic Council.

D. Organization
1. The President shall be Chair ex officio of the Academic Council.
2. In the absence of the President, the Provost shall preside.
3. In the absence of the President and the Provost, the Speaker shall preside.
4. The Agenda Committee of the Academic Council shall consist of the President or the President’s designee, the Speaker of the Faculty, and the Secretary of the Faculty. It shall not withhold items from the agenda but rather shall arrange them for effective discussion. The Agenda Committee may conduct business on votes of 2-1.

5. In matters not specified by the Academic Senate, the Academic Council may establish its own bylaws.

6. The Academic Council and Academic Council-elect shall conduct a joint meeting within three weeks of the election of the Council-elect.

Section IV. Committees of the General Faculty

A. Nomenclature and Classification

1. By Appointment and Confirmation
   1. University committees are appointed by the President and do not require confirmation by the Academic Council, the Academic Senate, or the General Faculty.
   2. Concurrent committees are appointed by the President from nominations submitted by the Committee on Committees and confirmed by the Academic Senate.
   3. General Faculty, Academic Senate, or Academic Council committees are appointed by those bodies, respectively, and are not subject to confirmation by the President.

2. By Duration of Charge
   1. Standing committees are committees whose charge is continuing.
   2. Special or ad hoc committees are committees whose charge is limited to a special time or task and which are discharged by the appointer at the end of that time or at the completion of that task. Ad hoc committees of the Senate are distinct from ad hoc review committees for promotion and tenure.

3. By Function
   1. Action committees are those whose charge requires them to act on behalf of the Senate and in a manner consistent with Senate policy, returning to the Senate, if necessary if that policy may be unclear. Only concurrent committees, or other bodies specifically mentioned in this document, can be action committees.
   2. Advisory committees are those whose charges are strictly investigatory and/or advisory in nature, requiring return of recommendations to the Senate for action.

B. Concurrent Committees

1. Formation and Dissolution
   1. The formation of Concurrent Committees and their membership, procedures, and Chair must be approved by the President and the Academic Senate.
   2. The Academic Senate shall, consistent with state and federal laws, Regents' Rules and Regulations, and The University of Texas System policy, establish the charge for each Concurrent Committee including description of the membership. Charges, which require approval by 2/3 of the total voting membership of the Academic Senate and by the President, shall be published as Serial Policy Memoranda issued by the President.
   3. At least the following shall be Standing Concurrent Action Committees at The University of Texas at Dallas:
      1. the Committee on Qualifications of Academic Personnel;
2. the Committee on Educational Policy;
3. the Library Committee;
4. the Committee on Student Life;
5. the Committee on Faculty Standing and Conduct; and
6. the Core Curriculum Committee.

4. Any deletion from the list in Section IV.B.1.c. requires a 2/3 vote of the total voting membership of the Academic Senate and concurrence of the President.

2. Appointments: The President will not appoint anyone to a faculty position on a Senate committee whom the Senate has not nominated. If the President declines to appoint a Senate nominee, the Senate will select a new nominee in the same manner as used for the initial appointment unless specified otherwise in the charge of the concerned committee. For Concurrent University Committees, Senate approval is considered advisory to the President. The President may appoint faculty not recommended by the Senate. If appointments to Concurrent University Committees are declined, the Senate will not seek a replacement unless asked to do so by the Committee's RUO (the Provost).

3. Replacing Committee Members: If a member of a Concurrent Committee misses two consecutive committee meetings, the member will be contacted by the Chair of the committee to ascertain whether he or she still wishes to serve. If the chair determines a replacement is needed he/she will notify the Chair of the Committee on Committees.

4. Committee on Committees
   1. As soon as possible starting and after June 1, the Speaker of the Faculty shall convene the Academic Council to appoint the Committee on Committees.
   2. The Committee on Committees should develop expeditiously the nomination lists for each of the Concurrent Committees, including nominations for Chair and Vice Chair, and should transmit them to the Academic Senate prior to September 1.

5. Other Committees
   1. Concurrent committees, Academic Senate Committees, and the Academic Council may establish subcommittees, which may not be action committees.
   2. The Council for Undergraduate Education shall act on behalf of the Senate in establishing procedures for review and evaluation of degree plans of candidates for undergraduate degrees at The University of Texas at Dallas, and in implementing Academic Senate policy in regard to standards of conduct and performance for such degrees.

Section V. School and Disciplinary Legislative Bodies

A. Schools

1. Faculties of the Schools and Departments of the University shall organize themselves for purposes of establishing academic and curricular policy for that School or Department, consistent with the policies of the Academic Senate and the General Faculty.
2. Faculties of the Schools and Departments shall determine their own voting membership but may not exclude any voting member of the General Faculty administratively assigned to that School or Department and teaching courses for which it is responsible.

3. The Bylaws of each School or Department shall be subject to procedural review and approval by the Academic Senate and the President.

B. Other Groups: Other groups within the University, such as disciplines, which desire recognition as a faculty governance body must do so in accordance with procedures established through joint agreement of the President and the Academic Senate.

Section VI. Academic Governance Support

A. Publication of Bylaws
Each legislative body may establish bylaws which, after review as to compliance with the Handbook of Operating Procedures and approval as required by the Regents' Rules and Regulations, shall be published as part of the Handbook of Operating Procedures.

B. Academic Governance Office
1. The academic administration shall provide an Academic Governance Office and staff support in the form of an Academic Governance Secretary, and assistants as necessary.

2. The Academic Governance Secretary shall:
   1. maintain a file of items to be submitted to the Agenda Committee of the Academic Council;
   2. inform the Speaker of the Faculty and the President simultaneously of requested agenda items to be considered for Academic Council meetings;
   3. maintain a calendar for Academic Governance;
   4. publish in advance the times and places of Academic Senate meetings in campus publications of general circulation, and will establish a permanent room semester by semester with 40 extra chairs for visitors to the meetings;
   5. distribute Academic Council and Academic Senate minutes to the Academic Council and Academic Senate, official depositories, and to those faculty members who indicate to the Academic Governance that they wish to receive copies;
   6. prepare the letters of appointment for University and Concurrent Committees;
   7. seek names of candidates from designated officers for student places on University and Concurrent Committees which require student appointees;
   8. distribute a University and Concurrent Committee membership list two times a year, September 1 and January 1 to all Deans, Associate Deans, Department Heads, and members of the Academic Senate;
   9. provide the incoming Chair of each University and Concurrent Committee with that committee's approved charge and advise him or her of the material to be filed for the committee in the Academic Governance Office;
   10. maintain the files of University and Concurrent Committees;
   11. maintain a file of operating procedures of University and Concurrent Committees; and
12. maintain a history of the role and scope and of the membership for the preceding five years of each University and Concurrent Committee.

3. The duties of the Academic Governance Secretary may be amended by agreement of the President and the Academic Senate.

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Policy Links
- Permalink for this policy: http://policy.utdallas.edu/utdpp1088
- Link to PDF version: http://policy.utdallas.edu/utdpp1088/makepdf
- Link to printable version: http://policy.utdallas.edu/utdpp1088/makeprint
International Education Development Committee - UTDPP1107

Policy Charge

International Education Development Committee

Policy Statement

The International Education Development Committee (IEDC) is a university-wide standing committee appointed by the President.

The IEDC is dedicated to strengthening and to enriching the development of strategic international programs and institutional partnerships that contribute to UT Dallas’ mission. IEDC members include representatives from across campus, including faculty members, administrative leaders, and international education specialists. The committee meets once per month as necessary to review and to discuss strategic issues of UT Dallas internationalization, including the feasibility of proposed international programs and international partnerships.

Programs and partnerships under the purview of this committee include, but are not limited to: education-abroad programs, faculty-led international programs, reciprocal student exchange agreements, affiliation agreements, degree program agreements, dual degree program agreements (undergraduate and graduate), and Cotutelle agreements.

The Committee:

1. Establishes guidelines and processes, suggests policy recommendations to the Council for Undergraduate Education/Council on Graduate Education, as appropriate, and The Committee on Educational Policy and proposes institutional structures to support a holistic, strategic approach to international programs and partnerships.
2. Evaluates the design and implementation of international programs and partnerships to support alignment with established institutional criteria, professional standards, best practices, and institutional mission.
3. Reviews new international program and partnership proposals and makes recommendations to the Provost and President for final approval.

The Committee will be composed of the following members appointed by the President: four faculty, nominated by the Committee on Committees for two-year staggered terms. Faculty will serve as voting members regarding all matters.

Ex-officio members serving as voting members regarding policy recommendations and partnership agreements include the Dean of Undergraduate Education, the Dean of Graduate Studies, Education, a designee from the Hobson Wildenthal Honors College, the Vice President.
for Research or designee, the University Registrar, the Assistant Vice President for International Programs, Senior Director of the International Center, the SACSCOC Liaison, the Director of Admissions, the International Partnership Development Director or their designee, and the Director of Education Abroad or their designee, a graduate student representative nominated by Student Government, and an undergraduate student representative nominated by Student Government.

Ex-officio members serving as voting members regarding policy recommendations only include The Assistant Vice President for International Programs will chair the Committee. All members will serve as voting members regarding policy recommendations: the Senior Director of Admissions or designee, the University Registrar or designee, the International Partnership Development Director or their designee, and the Director of Education Abroad or their designee will serve as non-voting members regarding partnership agreements.

Every two years the Deans of Graduate and Undergraduate Education will alternate the roles of committee chair and vice-chair. The International Center will provide ongoing administrative support to the IEDC committee.

The term of office for Committee members will be for two years. The Provost will serve as the Responsible University Official for this committee.