TO: Academic Senate Members*
FROM: Office of Academic Governance
RE: Academic Senate Meetings

The Academic Senate will meet on **Wednesday, August 20, 2008 at 2:00 p.m. in ECSS 2.415.**

Please bring the agenda packet with you to this meeting. If you cannot attend, please notify me at x6741.

Attachments

*2008-2009 Academic Senate Members
Sheila Amin Gutierrez de Pinieres
Mark Anderson
James Bartlett
Gail Breen
John Burr
Cyrus Cantrell
Santosh D’Mello
Gregg Dieckmann
Jay Dowling
Kelly Durbin
Juan Gonzalez
John Hoffman
Jennifer Holmes
Shayla Holub
Mustapha Ishak-Boushaki
Joseph Izen
Surya Janakiraman
Marilyn Kaplan**
Kamran Kiasaleh
Robert Kieschnick
Robert Nelson
Hobson Wildenthal
Richard Huckaba
Serenity King
Robert Redlinger
Darreene Rachavong
Abby Kratz
Chris Dickson
Arie Litovsky
Deans

Murray Leaf*
Paul Macalevey
Adrienne McLean
Dennis Miller
B.P.S. Murthi
Steven Nielsen
Simeon Ntafos
Ravi Prakash
Michael Rebello
Timothy Redman
Young Ryu
Elizabeth Salter
Richard Scotch
Robert Stern
Lucien Thompson
Mary Urquhart
S. Venkatesan
*Speaker of the Faculty
**Secretary

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION UNIVERSITY
AGENDA
ACADEMIC SENATE MEETING
August 20, 2008

1. CALL TO ORDER, ANNOUNCEMENTS and QUESTIONS DR. DANIEL
2. APPROVAL OF THE AGENDA DR. LEAF
3. APPROVAL OF MINUTES DR. LEAF
   June 18, 2008 meeting minutes
4. SPEAKER’S REPORT DR. LEAF
5. FACULTY ADVISORY COUNCIL REPORT DR. LEAF
6. COMMITTEE ON COMMITTEES RECOMMENDATIONS DR. LEAF
7. MA IN POLITICAL SCIENCE GENERAL (catalog copy update) DR. CANTRELL
   MA IN CONSTITUTIONAL LAW STUDIES (catalog copy update)
   MA IN LEGISLATIVE STUDIES (catalog copy update)
8. MS & Ph.D IN BIO MEDICAL ENGINEERING (not finalized) DR. CANTRELL
9. CERTIFICATE IN INFRARED TECHNOLOGY (program proposal) DR. CANTRELL
10. PM-95 RESEARCH FACULTY AMENDMENT DR. LEAF
11. TEXTBOOK TASK FORCE DR. LEAF
12. ADJOURNMENT DR. DANIEL
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 official minutes.

ACADEMIC SENATE MEETING
June 18, 2008

PRESENT: Kelly Durbin, Jennifer Holmes, Shayla Holub, Marilyn Kaplan, Robert Kieschnick, Murray Leaf, Paul Mac Alevey, Dennis Miller, Simeon Ntafos, Michael Rebello, Timothy Redman, Elizabeth Salter, Richard Scotch


VISITORS: Darren Abernathy, Lynn Butler, Deborah Day, Calvin Jamison, Debbie Jester, Abby Kratz, Dee Lambert, Susan McKee, Robert Nelsen, Anthony Paden, Darlene Rachavong, Donna Rogers, Barbara Thompson, Peg Zotter,

1. CALL TO ORDER, ANNOUNCEMENTS AND QUESTIONS

Dr. Daniel announced that enrollment for Fall looks strong at 14,990. The search for the new Engineering Dean was very successful and a candidate has been hired. A national search has been launched for the VP of Development due to the local search did not produce a candidate of the caliber that Dr. Daniel was looking for. Due to the Office of Diversity and Community Engagement growing so fast Dr. Daniel has signed paperwork for the hire of a few new employees. There will be new positions added in the Office of Development due to funding from UT System.

2. APPROVAL OF THE SENATE AGENDA

Dr. Redman made a motion to approve the agenda as circulated and Dr. Kaplan seconded the motion. The motion carried.

3. GUEST SPEAKERS

A. CUSTOMER SERVICE PROGRAM (Dr. Jamison & Presenters)
Dr. Leaf turned the floor over to Dr. Jamison for the presentation. Dr. Jamison made a couple of announcements regarding the upcoming construction around campus. This Fall there will be several different construction projects going on therefore there will be signs strategically around campus saying “pardon our mess”. This extensive construction will go on for a while.

The mission of the customer service imitative is to make visitors feel better when they leave than when they arrived. Dr. Jamison turned the floor over to the team of presenters. Lynn Butler opened by giving a brief overview of the customer service program “Catch Comet Pride” and introducing each of the team members. There is fierce competition to attract and retain the best and brightest students, exceptional faculty and the highest caliber administrative staff. The Vice Presidents have charged a campus-wide committee to change the culture by creating a program for excellent customer service. The Customer Service Committee was developed of administrative staff all across campus then from this group several subcommittees were formed concentrating on the following areas. Deb Day, Guiding Principles: Integrity, Innovation, Stewardship, Commitment and Results. Debbie Jester, Phone/Email Etiquette: Telephone/Cell Phone Etiquette, Fax Format and Email Etiquette. Dee Lambert, Person-to-Person Etiquette: Attitude makes a difference, Appearance Counts and Communications. Daren Abernathy, Facilities: Cleanliness, Serviceability and Accessibility.


B. BEHAVIORAL ASSESSMENT & INTERVENTION TEAM (BAIT – Dr. Rachavong)

Dr. Leaf turned the floor over to Dr. Rachavong. Dr. Rachavong stated that since the unfortunate events at Virginia Tech, the UT System mandated that each campus would have a Behavioral Assessment and Intervention Team using the guidelines that System setup. The process would be posted on the campus websites. The name was not developed by the UT Dallas team. Dr. Rachavong reported that although the program was in place it has not been finalized. She said that nothing would be printed or posted to the website until she received some input from the faculty. Training for this program will start somewhere around July 23rd and will be called “The Active Shooter.” A brochure will be circulated that will explain the policy and procedures campus-wide. She is also looking into possibly putting together a faculty packet calling it “Faculty 911” giving faculty
information and contact number to report any potentially unstable situation. The faculty is a very important part of the BAIT process they are really the front line to student behavior, therefore if a faculty member notices behavior or is a victim of a disruptive/dangerous student they need to report it to the BAIT team immediately. The BIAT team involves the VP of Student Affairs, Dean of Students, UT Police and Graduate/Undergraduate Deans. Dr. Rachavong asked for recommendations from the faculty stating that she would welcome any beneficial input and that she would take them into consideration.

Dr. Jamison stated that since 9/11 and Virginia Tech, UT Dallas has a “No Tolerance” campus. Using the analogy of is you are in an airport and you posed a threat you would be pulled aside while being investigated, that is how UT Dallas will be responding.

All students have the right to see a disciple action/evaluation. Therefore faculty should be cautious as to what is written. These files are kept for one year.

In discussion, it was suggested signage with emergency numbers be placed in every classroom and at building entrances.

The BAIT program description is included in the minutes of the Senate meeting of May 21, 2008. The text consided at this meeting was the same.

Dr. Scotch moved that the Senate approve the implementation of this program. Dr. Holmes seconded the motion. The motion carried.

C. ANNUAL SCHOLASTIC DISHONESTY REPORT (Donna Rogers & Susan McKee)

Dr. Leaf turned the floor over to Ms. Rogers, Dean of Students. Ms. Rogers distributed the handout “Managing Violent and Other Troubling Students: The Role of Threat Assessment Teams on Campus” reiterating the discussion of Dr. Rachavong then turning the floor over to Susan McKee.

Ms. McKee first indicated that she sometimes has to disagree with faculty recommendations on assessing penalties. The reason is that she has to be concerned with consistency across similar cases. Plagiarism issues seem to be a bigger issue with international students this is mainly due to communication issues. But there also some new ways to cheat that faculty may not be aware of. She out website address: http://www.metacafe.com/watch/956273/_professionally/. This shows how to replace water/soda bottle labels with similar looking crib sheets. Other problem areas are: Course syllabus – should be more specific, Turning in discipline issues should be turned in-in a more timely manner, Faculty/Instructors should turn in all discipline issues not just selected ones, Timed deadlines (assignments/tests/projects) should be honored, Accessing international modules,
4. APPROVAL OF MINUTES OF PREVIOUS MEETING (May 21, 2008)

Dr. Ntafos asked that a fuller record of his remarks on the amendment to the bylaws be included. Dr. Leaf accepted the correction noting that the minutes did not normally include such material.

A motion to approve the minutes as amended was made by Dr. Ntafos and seconded by Dr. Salter. The motion carried.

5. APPROVAL OF CAUCUS MINUTES (April 16, 2008)

A motion to approve the minutes as circulated was made by Dr. Redman and seconded by Dr. Simeon. The motion carried.

6. SPEAKER’S REPORT

A. The admissions website is not fully fixed in line with our previous discussions. It is prettier and the graduate information is better once you find it, but the applicant still encounters the Apply Texas form as a front door, the overall tone is still undergraduate rather than equally weighted between undergraduate and graduate, and nothing gives a general overview of either the undergraduate or graduate programs. I have discussed this Dean Cunningham and President Daniel. The application form correction is awaiting our new administrative software.

President Daniel said that the lack of prominence, given graduate programs will be corrected. The Graduate Council will follow up. President Daniel agreed in discussion that he would also follow up.

B. After the last Senate meeting I conveyed our resolution on compliance modules to Meeoak Cho and to Stan Leibowitz, as chair of Faculty Standing and Conduct. Stan has replied that it is difficult for the committee to meet, and therefore also to speak with one voice. He will ask the committee by email to submit suggestions, and we will see what that leads to.

Subsequently, at the Compliance Subcommittee meeting, I suggested to Meeoak Cho that she look at the UT Arlington system; they only require faculty to check off that they have seen the material. Meanwhile, President Daniel suggested to her that they be responsive to faculty, and I subsequently met with her and the compliance group in her office. We agreed on several things. First, she would use the Committee on Faculty Standing and Conduct as a test panel. Even if they could not meet to give a consensus recommendation, they can be asked to test
modules and respond individually. Second, she would provide the Senate with their matrix for planning when the modules would be used given over time. The Senate can provide feedback on what intervals would be most effective, subject to the requirements of law. Third, when a module was required by law to be given every year, a notice to that effect, citing the law, would be provided at the introduction to the module. In the same vein, the modules would put more emphasis on telling faculty where to find primary information rather than asking them to respond to a necessarily selective and partial list of specific questions. Finally, they would put the modules behind a home page that had links both to the training modules and to useful guides and primary sources, so that when faculty actually needed information on a specific requirement in an authoritative form, they would have a relatively “one-stop” place to go to get it.

C. The Committee on Committees will meet on July 21. I have circulated an email to faculty telling them who the members are and asking them to indicate their committee preferences. Please back this up with personal encouragement, especially for relatively new faculty. We will, therefore, have all or most of the committee appointment recommendations for the August meetings of the Council and Senate.

D. Robert Nelsen, for the Provost, has asked me if I thought the Senate would want to discuss being involved in oversight of courses that involved foreign travel, usually offered as special topics. Apparently, these now have little to no oversight and on the face of it are often doubtful candidates for academic credit. This is an area of potential embarrassment. I took the liberty of saying that I thought the Senate’s position was foregone: as for distance learning courses and as for our recent actions on short courses for academic and non-academic credit, if course credit is given, there must be faculty oversight. Dr. Nelsen will develop some proposals and forward them to us for consideration.

E. All members of the Faculty Senate and the Facilities Oversight Committee now have access to the Facilities Planning Matrix. The url is: https://confluence.utdallas.edu/confluence/display/FPCEN/Planning+Matrix

Please take a look, spread the word, and make suggestions. We thank Daniel Calhoun

7. FAC REPORT

A. The UTSysFAC met on May 22 and 23. It was an interesting and productive meeting, although very little was done in the way of action items as they will appear in the minutes.

B. On the first day, we had extensive conversations with Acting Chancellor Shine and Academic Vice Chancellor Prior.
C. Chancellor Shine briefed us on the search for a replacement for Chancellor Yudof. The main point was to reassure us that the choice would not be a political figure. It would a person of notable scholarly accomplishments and vision. The BOR was happy with Chancellor Yudoff and wants somebody of that caliber and style. Meanwhile, Chancellor Shine said he did not intend to be a place-holder. He would continue on the same lines that Dr. Yudoff had established, especially on focusing resources in areas and programs that would add value to what we are doing as a system.

D. Academic VC Prior covered some of the same ground, although in a somewhat different way. He talked briefly of his campus visits, and made it clear that he has enjoyed and benefited from his interaction with faculty both on the campus level and at the FAC. He expected to make such consultations integral to activities. He discussed the May 22 governor’s conference on higher education, to which he had not been invited. Essentially, this was a presentation of the views of the Texas Public Policy Foundation to Regents from boards across the state. The TPPF describes itself as a “research foundation.” It is described in the press as a “conservative think tank.” Both are too kind. The TPPF was founded and is supported by James Leininger, and is a lobbying mill. The views of their staff are blend of Christian Coalition and Neocon ideology and they produce a large number of papers every year aimed mainly at influencing the Texas legislature. Essentially, they oppose public support of education. Subordinate arguments are that they oppose tenure, academic governance, faculty control of the curriculum, peer review, and direct state support to institutions. They are in favor of giving state funds to students rather than institutions (vouchers), making raises depend on student evaluations, and Governor Perry’s idea of incentivising universities on the basis of graduation rates.

Dr. Prior noted the interests and views reflected in the agenda and stressed that we had to respond by making our case to the public. He particularly noted two areas: diversity and the press for superficial “accountability” as measured by external testing tied to “incentives.” As it happens, these are also of particular interest to the FAC, and the focus of two programs being led by the Governance committee. These are the presentation to the BOR on diversity and the need for campus autonomy to meet its demands, and the campaign to mobilize faculty and governance opposition to federal and state sanction creep—the proliferation of regulation in small matters that carry huge potential penalties for non-compliance. The upshot of the discussion was that we agreed to work interactively with Dr. Prior’s office. This is an important change from the previous practice of doing everything we could within the FAC and then only communicating the results to the System in the form of formal resolutions.

E. Another high point was a discussion with Geannie Morrison, Chairwoman of the Texas House Higher Education Committee. She gave her views and we gave ours. One concern or theme was the PhD problem, which is also the problem of
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designating more universities as research or “tier 1” universities in order to concentrate such programs in a smaller number places where they would be more effective. Morrison’s main theme was that we needed to think in terms of regions. She obviously has given the problem a lot of thought, and although the idea seems at first too simple, she made a good case. It makes very good sense from a number of perspectives, not the least of which is that the result would be a correction to a fundamental policy decision Texas made early on, which has not worked to its academic advantage. This was to concentrate on two major campuses, neither of which were in major metropolitan centers. Representative Morrison urged the FAC and FAC members to be involved—communicate with legislators. Several FAC members brought up the prohibition on lobbying. Morrison’s position was that we can answer questions if asked, and she was asking. Ms. Morrison also described the concerns with higher education as reflected in recent meetings of the National Council of State Legislators, which she has participated.

F. This was followed by a discussion with Karen Lundquist and Daniel Sharphorn, of the Office of General Council. Sharphorn is new, from the U of Michigan. His main focus is Academic Affairs. He described several areas of concern. One of these is a model policy for amending our Handbook of Operating Procedures. Each campus, he suggests, should adopt a version of it if we do not already have one. We will need to discuss this carefully. In this connection he also distributed the current version of Regent’s Rules section 40101, defining the “Faculty Role in Educational Policy Formation.” And following logically on this, he also addressed our present approach to academic discipline and the problem of dangerous and disruptive students. He indicated that he was aware of the concerns I had previously expressed with respect to our own campus, and that he shared them. There were serious problems with the present way that academic discipline is merged with general discipline, resulting in the exclusion of faculty from policy formation and feedback. We will work on this at the level of FAC and the System.

G. All in all, our sense was that cooperation between the FAC and system administration had taken another step forward.

H. The System also circulated to the FAC the report on textbook prices that is included in today’s agenda. In follow-up discussions, one of the members recommended a website at Rice University for building collaborative texts. Essentially it is a wiki for constructing courses, and can be accessed from anywhere and used to assemble a text or course pack that can then either be downloaded and printed cheaply or used on line. The url is You can connect to Connexions at http://cnx.org.

8. CEP
A. Master of Science in Finance (catalog copy)

Dr. Redman made a motion to approve the catalog copy as circulated and Dr. Salter seconded. The motion carried.

MASTER OF SCIENCE IN FINANCE

Degree Requirements
The M.S. in Finance is designed for students with or without previous educational background in finance. Candidates for the M.S. in Finance choose one of four concentrations: Financial Analysis, Financial Management, Financial Risk Management, and Financial Engineering. The Financial Analysis concentration is designed for students interested in pursuing a career as a financial analyst and completing the Chartered Financial Analyst (CFA) examinations. The Financial Management concentration allows students to tailor their course work for careers in a range of activities: e.g., corporate finance, investment banking, venture capital, private equity, commercial banking, insurance, etc. The Financial Risk Management concentration is designed for students interested in a career in financial risk management and one of the financial risk management certifications. The Financial Engineering concentration is designed for students with the quantitative ability to pursue a career applying quantitative methods to investment and risk management problems. Because several of these concentrations are designed to prepare students best for certain certifications, students are required to complete all the course requirements in a particular concentration to graduate with that concentration.

Prerequisites
Calculus, basic statistics, and competence in personal computing are required as prerequisites. Candidates who have not taken equivalent courses will need to take MATH 5304 to meet the calculus requirement, OPRE 6301 to complete the basic statistics requirement, and BA 3351 to complete the personal computing requirement.

Basic Core Courses (12 credit hours)
All students enrolling in the Master of Science in Finance program must complete the following Basic Business Core courses or their equivalents. Please see course descriptions for further prerequisite information.

AIM 6305 Accounting for Managers
MECO 6303 Business Economics
FIN 6301 Financial Management
FIN 6306 Quantitative Methods in Finance

Concentrations:
Financial Analysis (CFA) Concentration (24 hours):
AIM 6344 Financial Statement Analysis
FIN 6308 Regulation of business and financial markets
FIN 6310 Investment Management
FIN 6314 Fixed income securities and their derivatives
FIN 6320 Financial markets and institutions or FIN 6380 Practicum in Finance
FIN 6350 Advanced Financial Management
FIN 6360 Options and Futures Markets
FIN 6364 Advanced Investment Management, or FIN 6370 Theory of Finance or
FIN 6380 Practicum in Finance

Financial Management Concentration (24 hours):
Students must complete eight courses of which at least one course must come from category A and five must come from category B. Further, all eight courses must come from one of these two categories.

Category A:
AIM 6332: Intermediate Financial Accounting II
AIM 6341: Planning, Control and Performance Evaluation
AIM 6342: Strategic Cost Management
AIM 6344: Financial Statement Analysis
AIM 6345: Business Valuation
AIM 6346: Financial Dimensions of Mergers and Acquisitions
AIM 6351: Individual Taxation
AIM 6352: Corporate Taxation
AIM 6380: Internal Audit

Category B:
FIN 6308: Regulation of Business and Financial Markets
FIN 6310: Investment Management
FIN 6314: Fixed Income Securities and their Derivatives
FIN 6315: Entrepreneurial Finance
FIN 6316: Private Equity Finance
FIN 6320: Financial Markets and Institutions
FIN 6340: Management of Financial Institutions
FIN 6350: Advanced Financial Management
FIN 6355: Corporate Finance and Policy
FIN 6360: Options and Futures Markets
FIN 6364: Advanced Investment Management
FIN 6366: International Financial Management
FIN 6370: The Theory of Finance and Its Applications

Financial Risk Management (FRM) Concentration (24 hours):
FIN 6310 Investment Management  
FIN 6314 Fixed income securities and their derivatives  
FIN 6320 Financial Markets and Institutions or FIN 6340 Management of Financial Institutions  
FIN 6360 Options and Futures Markets  
FIN 6364 Advanced Investment Management or FIN 6370 Theory of Finance  
FIN 6384 Numerical Methods in Finance  
MECO 6312 Applied Econometrics and Time Series Analysis  
OPRE 6335 Risk and Decision Analysis  

Financial Engineering Concentration (24 hours):  
FIN 6310 Investment Management  
FIN 6314 Fixed income securities and their derivatives  
FIN 6360 Options and Futures Markets  
FIN 6364 Advanced Investment Management or FIN 6370 Theory of Finance  
FIN 6382 Introductory Mathematical Finance  
FIN 6384 Numerical Methods in Finance  
ECO 6311 Statistics for Economists or MECO 6315 Approaches to Statistical Inference  
MECO 6312 Applied Econometrics and Times Series Analysis

Course Descriptions

Finance

FIN 5301 Personal Financial Management (3 semester hours) Examination of personal financial management and planning issues, with an emphasis on the integration of personal savings and investment decisions with life insurance programs and estate planning. Topics covered include the role of property, health, life insurance, tax-deferred investment vehicles, as well as fixed income and equity investment alternatives such as mutual funds. (3-0) Y

FIN 6301 Financial Management (3 semester hours) Theoretical and procedural considerations in the administration of the finance function in the individual business firm; planning, fundraising, controlling of firm finances; working capital management, capital budgeting and cost of capital. Co-requisites: STAT 5311 or OPRE 6301 and AIM 6201, or consent of instructor. (3-0) S

FIN 6306 Quantitative methods in finance (3 semester hours) The objective of this course is to develop students’ abilities to use quantitative methods and software (particularly spreadsheet) in financial decision making. Pre-requisites: FIN 6301. (3-1) S.

FIN 6308 Regulation of business and financial markets (3 semester hours) The objective of this course is to develop a student’s understanding of the laws and regulations which govern businesses and financial markets. In addition, this
course considers the ethical issues that financial analysts and financial planners face. Co-requisite: FIN 6301 and MECO 6303 (3-0) Y.

**FIN 6310 Investment Management** (3 semester hours) This course is intended to provide an understanding of the role of modern financial theory in portfolio management and to present a framework for addressing current issues in the management of financial assets. Topics to be covered during the semester include trading, valuation, active portfolio management, asset allocation, global diversification, performance measurement, financial derivatives, and fixed income securities. Co-requisite: FIN 6306. (3-0) S.

**FIN 6314 Fixed Income Securities** (3 semester hours) Examines fixed income securities, their derivatives, and the management of fixed income portfolios. Prerequisite: FIN 6306. (3-0) Y.

**FIN 6315 Entrepreneurial Finance** (3 semester hours) The objective of this course is to build skills and knowledge in the financing of entrepreneurial ventures. Entrepreneurial Finance concerns not only the process of financing and investing in start-up companies but also the changes to the initial financing mix that may be required as start-up companies mature and grow. Topics include the markets for venture capital and private equity, the decision to go public or remain private, alternative financing arrangements, and the differential marketability and liquidity of the securities used to finance non-public firms. This course is equivalent to ENTP 6315 and only one of these may be counted toward a degree. Prerequisite: FIN 6301. (3-0) Y

**FIN 6316 Private Equity Finance** (3 semester hours) This course will cover the investment of capital in the equity of private companies to fund growth or in public companies to take them private. This course includes the study of a broad spectrum of private equity investments, investing in established private firms, buyouts, financial restructuring of distressed firms, private equity financing by public firms. Prerequisite: FIN 6301. (3-0) Y

**FIN 6320 Financial markets and institutions** (3 semester hours) Financial behavior in relation to production and consumption decisions. Banking, financial intermediation, flows of funds, regulation and structure of financial markets. Selected topics of current interest. Prerequisites: FIN 6301 and MECO 6303 or equivalents (3-0) Y

**FIN 6340 Management of Financial Institutions** (3 semester hours) Study of the financial management of commercial banks and other financial intermediaries, with special attention to risk management issues. Prerequisites: FIN 6310 or FIN 6320.

**FIN 6350 Advanced Financial Management** (3 semester hours) Advanced analysis of topics in financial management. Capital structure, dividend policy,
incentives, and risk management. Prerequisites: FIN 6306 or consent of instructor. (3-0) T

FIN 6355 Corporate Finance and Policy (3 semester hours) Cases involving financial situations encountered by managers that require the application of financial management skills. Special emphasis is placed on strategy. Prerequisites: FIN 6350 or consent of instructor. (3-0) Y

FIN 6360 Options and Futures Markets (3 semester hours) Examines the valuation of derivative securities such as options and futures contracts, as well as the use of these instruments in managing business and financial risks. The topics to be covered include pricing of future contracts, swaps, and options, the use of derivative instruments in hedging, portfolio insurance, exotic options, and the valuation of options on debt instruments. Prerequisites: FIN 6310. (3-0) T

FIN 6364 Advanced investment management (3 semester hours) This course builds on the basic ideas underlying portfolio optimization covered in FIN 6301 and FIN 6310. It emphasizes the application of modern portfolio theory using quantitative methods. At the completion of this course, students will be able to analyze market data using the latest investment management tools, to formulate theoretical models, and to implement appropriate investment strategies. Prerequisite: FIN 6310. (3-0) T

FIN 6366 International Financial Management (3 semester hours) Study of world financial markets and institutions, foreign exchange exposure and management, foreign direct investment, and a variety of issues involved in the financial management of multinational firms. This course is equivalent to IMS 6220 and only one of these may be counted toward a degree. Prerequisite: FIN 6301. (3-0) T

FIN 6370 The Theory of Finance and Its Applications (3 semester hours) A survey of financial theories and their application to various financial decisions and issues. Topics will include the theory of portfolio choices, asset pricing, derivative pricing, asymmetric information theories, and firm financing issues. Prerequisite: FIN 6310 or FIN6350, or permission of instructor. (3 - 0) T

FIN 6375 Finance Workshop (3 semester hours) Forum for faculty and students to present recent developments in the finance literature. Presentation and discussion of published and unpublished papers of researchers with various affiliations. Prerequisite: Consent of instructor. (May be repeated for credit.) (3-0) T

FIN 6380 Practicum in Finance (3 semester hours) Requires permission of the area coordinator. For students involved in the practice of investment management for the university. May be repeated for credit (9 hours maximum). (3-0) T.
FIN 6382 Numerical Methods in Finance (3 semester hours) Study of the numerical methods used in finance. Topics include numerical static and dynamic optimization, numerical solution of partial differential equations, and Monte Carlo methods. Prerequisite: FIN 6312 and FIN 6360. (3-0) Y.

FIN 6384 Introductory Mathematical Finance (3 semester hours) Introduction to the mathematical methods of continuous time finance (Ito calculus, stochastic dynamic optimization, etc.) Requires permission of the instructor. (3-0) T.

FIN 7310 Seminar in Contemporary Finance (3 semester hours) Issues in current financial research. Prerequisite: consent of instructor. (May be repeated for credit.) (3-0) T

FIN 7330 Topics in Theoretical Asset Pricing (3 semester hours) Advanced studies in the theory of asset pricing. Provides a foundation for advanced research in financial theory and empirical tests of asset pricing models. Topics include utility theory, mean-variance portfolio analysis, state preference models, continuous time portfolio selection, and the term structure of interest rates. Prerequisites: FIN 6364 and MECO 6345 or their equivalents. (May be repeated for credit with the permission of the instructor) (3-0) T

FIN 7335 Topics in Empirical Asset Pricing (3 semester hours) Study of the methods used to empirically test asset pricing theories and/or models. The prerequisite is FIN 7330. (May be repeated for credit with the permission of the instructor.) (3-0) T

FIN 7340 Topics in Theoretical Corporate Finance (3 semester hours) Advanced empirical and theoretical analysis of corporate financial decision making. Topics include the theory of the firm, initial public offerings, ownership and control, managerial incentives, risk management, and financing and investment decisions. Prerequisites: FIN 6380 and MECO 6345 or their equivalents. (May be repeated for credit with the permission of the instructor) (3-0) T

FIN 7345 Topics in Empirical Corporate Finance (3 semester hours) Study of the methods used to empirically test corporate finance theories and/or models. Prerequisite: FIN 7340. (May be repeated for credit with the permission of the instructor.) (3-0) T

Managerial Economics and Analysis

MECO 6303 Business Economics (3 semester hours) Foundations of the economic analysis of business problems, with special emphasis on the function and determination of market prices in production and consumption. Supply and demand, price theory, production theory, trade theory with reference to the global
economy, the effects of tax and other policies in the economy, and essential elements of the banking system and monetary policy are addressed. Prerequisite: MATH 5304 or equivalent. (3-0) S

**MECO 6311 Economics of Information Goods** (3 semester hours) Analysis of the creation, production, pricing and distribution of products that are mainly informational in nature such as software, television, and web pages. Network effects, path dependence, the choice of standards, and the problems of public goods will be analyzed. Includes examination of the roles of patent and copyright laws in the creation of these goods and the impacts of unauthorized copying. Several case studies will be examined in detail. Prerequisite: MECO 6201 or MECO 6303 or consent of the instructor. (3-0) T

**MECO 6312 Applied Econometrics and Time Series Analysis** (3 semester hours) A survey of the econometric methods used to examine cross-sectional and times series data with an emphasis on their applications. Prerequisites: MECO 6201 or MECO 6303 and OPRE 6301, or consent of the instructor. (3-0) T

**MECO 6313 The Business of Entertainment** (3 semester hours) This course examines the economic factors at work in the entertainment industry. The revenue generation models used by the producers of motion pictures, programming for television, radio, and cable TV, as well as videogames and book publishing will be studied in detail. The impact of digitization on costs, the role of copying and copyright, network effects, peer-to-peer file sharing, the labyrinth of property rights, and digital rights management will be examined through the lens of economics. (3-0) T

**MECO 6315 Approaches to Statistical Inference** (3 semester hours) Theory and methods of statistical inference. Classical estimation theory, classical hypothesis testing, Bayesian and alternative approaches to statistical inference, general linear model with applications, and computational methods. Prerequisite: OPRE 6330. (3 - 0) Y

**MECO 6320 Econometrics** (3 semester hours) Estimation and testing of multivariate econometric models; sets of regression relationships; simultaneous equation systems; applications of methods and models in the analysis of business and economic data. (3-0) Y.

**MECO 6345 Advanced Managerial Economics** (3 semester hours) Advanced economic analysis of consumer theory, production theory, exchange, and market interactions. Managerial topics such as: comparable worth, product standardization, environmental spillover effects, and imperfect competition. Prerequisite: MECO 6201 or MECO 6303 and consent of instructor. (3-0) Y
MECO 6360  Topics in Industrial Organization (3 semester hours) Issues in current research on the operation of firms and markets. Topics to include: theory of industrial organization, empirical industrial organization, and special topics in current research on industrial organization. Prerequisite: consent of instructor. (May be repeated for credit.) (3-0) T

MECO 7320 Advanced Econometrics (3 semester hours) Rigorous treatment of traditional econometrics methods, and introduction to both modern time-series econometrics and advanced non-linear models. Prerequisite: MECO 6320. (3-0) Y

MECO 7360  Topics in Econometrics (3 semester hours) Issues in current econometric research and practice. Topics to include: Microeconometrics, Bayesian econometrics, numerical methods in finance and econometrics, and time series econometrics. Prerequisite: consent of instructor. (May be repeated for credit.) (3-0) T

B. Proposed policy requiring a grade of at least B (graduate core courses) get from Cy

C. Policy and catalog copy on final examinations

Proposed modification to the section titled “Degree Programs and Policies” in the top matter of the Graduate Catalog and the section titled “Academic Policies and Procedures” in the top matter of the Undergraduate Catalog:

Discussion: Recently, we were required by Coordinating Board rules to extend the length of each semester by one week in order to meet the standard for the number of instructional hours per semester. The same rules imply that we cannot reduce the number of instructional hours by giving a final examination during regular class hours. If we do so, we are, in effect, shortening the semester, because the time allotted for each course includes time for the final examination.

The Provost's Office advises that our ongoing SACS process will not allow us to continue to give final examinations during class hours, because SACS requires us to be in compliance with all Coordinating Board rules.

Summary: Giving final examinations during class hours diminishes the number of class hours and creates a conflict with SACS and THECB rules. It is still possible to give an examination that lasts no more than one normal class period during the last week of class, as part of our usual evaluation of student progress.

Final Examinations
If a final examination is given in a course, it must be given at the time scheduled by the Registrar’s office during the final examination period. A final examination
must not last more than 2 hours and 45 minutes. Students for whom more than three final examinations are scheduled in one day may petition to take the additional final examinations on different days.

Dr. Redman moved to approve the policy for final examinations. Dr. Rebello seconded the motion. The motion carried.

9. HEARING TRIBUNAL

THE UNIVERSITY OF TEXAS AT DALLAS
NUMBERED POLICY MEMORANDA

POLICY MEMORANDUM 99-III.22-82    Issued: May 4, 1999
Editorial Amendments: September 1, 2000
Editorial Amendments: April 6, 2006

HEARING TRIBUNAL SELECTION PROCEDURES

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 during its 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.

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.

Dr. Leaf opened up discussion for the Senate Tribunal Pool. There was only one
change that was made.

Dr. Kieschnick made a motion to accept the proposed Senate Hearing Tribunal
Pool and Dr. Kaplan seconded the motion. The motion carried.

2008-2009 FACULTY HEARING TRIBUNAL POOL

Herve Abdi (BBS)
Poras Balsara (E)
Duane Buhrmester (BBS)
Lloyd Dumas (S)
David Edmunds (A)
Euel Elliott (S)
Andras Farago (E)
Donald Gray (N)
Robert Marsh (N)
George McMechan (N)
Simeon Ntafos (E)
Karen Prager (G)
Stephen Rabe (A) (Suggestion to replace with Robert Rodriguez)
Suresh Radhakrishnan (M)
Ram Rao (M)
Suresh Sethi (M)
Dean Sherry (N)
Marianne Stewart (S)
Hal Sudborough (E)
Emily Tobey (BBS)

10. TEXTBOOK TASK FORCE RECOMMENDATIONS (discussion item)

Report and Recommendations of the University of Texas System

Textbook Study Group
In the fall of 2007, Chancellor Mark Yudof asked Executive Vice Chancellor David Prior to create a study group to develop recommendations on how the University of Texas System, working through its institutions, could reduce the costs students experience in buying textbooks.

This current study group\(^1\) recommends action to be taken by the University of Texas System Faculty Advisory Council and, subsequently, the individual campus faculty senates and administrative officers. In the short-term, faculty members selecting learning materials, being mindful of the costs, are the key to controlling and, possibly reducing the expense student face with regard to textbooks.

**Introduction**

Over the last several years, considerable attention has been focused on the college textbook market. Compared to changes in the Consumer Price Index (CPI), college textbook prices have risen twice as fast as the rate of inflation. Students, faced with ever increasing tuition, have been very vocal about rising textbook costs.

According to a recent survey conducted by The College Board, full-time students on average spent $942 for textbooks in 2006-07. While this figure is absent of any deductions for financial aid, it should be pointed out that, on average, grant aid is insufficient to cover textbook expenses for low-income and moderate-income students.

The American Association of Publishers reports that 20 percent of students go without purchasing textbooks. This could be due to the fact that students use library copies, borrow from friends or forgo using a textbook because of cost.

A recent report issued by the General Accounting Office cites four major reasons for escalating textbook prices. These include textbook bundling, frequent updated textbooks, bookstore markup, and university profit.

Students, college administrators, textbook publishers, bookstore managers, faculty, state and federal legislators are all in engaged in efforts to find a solution to the problem.

**Understanding the Textbook Market**

The textbook market is made up of four segments—new texts; used texts; course packs; and course technology. The majority of the market is new and used texts—although course packs and course technology are being used more frequently. Roughly 98 percent of course material sales are from new and used textbook purchases.

Typically, publishers produce textbooks and market them to instructors who choose and assign textbooks. In 2004, industry consolidation led to five of the largest publishers providing

\(^1\) The Study Group members include: Jim Studer, Chair, Office of Academic Affairs, Edward Baldwin, Office of Academic Affairs, Lisa Baird, Office of Finance, Kent Kostka, Office of General Counsel, and Carlos Martinez, Office of Governmental Relations.
textbooks for over 80 percent of the market. This consolidation has arguably led to decreased market competition.

Bookstores stock new and used textbooks from wholesalers and student buyback programs. Used books are purchased from a wholesaler or a student for 50 percent of the new retail prices. If the textbook is not going to be used at the institution again but can be used at another institution, the wholesalers buys the textbook and the student gets from 5 to 35 percent of the new retail price. Students may sell their textbooks back to bookstore or to an online buyer or trade the textbook. If a new edition of a textbook is released or no buyback is possible, students get nothing.

Increasingly students are turning to online bookstores in an effort to save money on their textbook purchases. Bigwords.com and Amazon.com are two examples of online companies that stock commonly used collegiate textbooks. Approximately 23 percent of students purchase their textbooks online. The National Association of College Bookstores has estimated that about one-third of those textbooks are purchased from the college bookstore web site.

Appendix A of this report shows 4 examples of typical first and second year Spring 2008 required textbooks of four majors at the University of Texas at Austin. What these examples illustrate is that if a student is resourceful, he/she can realize considerable savings on their textbook purchases. In some cases a student could save over 50 percent of their textbook costs.

College bookstore sales of textbooks are based on requirements by a professor, regardless of format or type of publication. The National Association of College Bookstores estimated U.S. college bookstore sales of $10.5 billion for the 2005-2006 academic year. Roughly 60 percent of the sales revenue of college bookstores, $6.5 billion was from the sale of college textbook/course materials.

**Reasons for Rising Textbook Costs**

**Textbook bundling**

Typically sold as a single unit, “bundles” are packages that contain a textbook along with other course materials that may include study guides, CD-ROMS, and pass codes to textbook-companion web sites. The biggest objection to bundling is that other materials included in the “bundle” are not used enough to justify the extra costs. Those in favor argue that since more and more students arrive for their freshman year unprepared for the rigors of college work, bundles or supplemental materials are essential. A poll released in 2005 by Zogby International found that:

- 75% of professors either required or recommended that their students purchase textbook packages that include supplemental materials,
- 84% professors argued that their students absolutely must have the required textbooks to get a good grade in their courses.
- 76% actually told their students that they needed to use the texts to get a good grade.
These findings were echoed in a 2006 study by Zogby International commissioned by the Association of American Publishers. That study found that:

- 55 percent of entering freshman were not ready for college-level studies
- 65 percent of faculty say that supplemental course materials help retain student who might otherwise fail to complete a course or drop out of school
- 80 percent said that less-prepared students would do significantly better in introductory courses if they spent more time using supplementary materials
- 79 percent of this faculty surveyed believed that students would do better if they used supplementary materials.
- 86 percent required or recommended supplementary materials
- 90 percent believed that less prepared students would do better if they spent more time reading the textbook and
- 30 percent of faculty used the publishers’ online homework, while 19 percent used the publishers’ online quizzes

What is generally missing from the discussion of textbook bundling is the cost effectiveness of textbooks and other learning materials. What is known is that pass rates, retention rates and grades improve when students utilize the materials bundles with their textbooks.

**Frequently updated textbooks**

Another argument is that frequently advanced is that updated textbooks negate the used book market. In general new textbooks are bought back from students at 50% of the new price. If textbooks are frequently updated the buyback value declines substantially. Students may be purchasing new textbooks with the expectation that new textbook can be resold to the bookstore.

The 2005 Zogby International survey found that:

- 80% of those professors surveyed believe that it is important that the material in texts used for their courses be as current as possible
- 62% report that they prefer to order texts with the most recent copyright date.

**Bookstore markup and university profit**

According to the National Association of College Stores *NACS 2007 College Store Industry Financial Report* “college bookstores returned an average of 13.3% of sales back to their institution-- average net income of 7.5% of net sales to their institutions and average of 5.8% of net sales to support campus activities such as scholarship funds, donations of merchandise, advertising dollars to school media, store revenue paid to institutional accounts, rent paid to the institution, non-store administrative salaries, and alumni gifts”.

Table 1 below shows where the new textbook dollar goes.
Table 1
Anatomy of the New Textbook Dollar

<table>
<thead>
<tr>
<th>Cost Element</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher’s Paper, Printing, Editorial Costs</td>
<td>All manufacturing costs including paper, editing, storage, distribution, record keeping, billing, publisher’s offices and employee salaries and benefits</td>
<td>.321</td>
</tr>
<tr>
<td>Punisher’s marketing</td>
<td>Marketing, advertising, promotion, publisher’s field staff, professors’ examination copies</td>
<td>.153</td>
</tr>
<tr>
<td>Author Income</td>
<td>Author’s royalty payments</td>
<td>.116</td>
</tr>
<tr>
<td>College bookstore Personnel</td>
<td>Employee Salaries and Benefits</td>
<td>.108</td>
</tr>
<tr>
<td>Publisher’s General Administrative</td>
<td>Federal, State and local taxes</td>
<td>.099</td>
</tr>
<tr>
<td>College Store Operations</td>
<td>Insurance, utilities, building and equipment, rent and maintenance and data processing</td>
<td>.072</td>
</tr>
<tr>
<td>Publisher’s Income</td>
<td>After tax income</td>
<td>.070</td>
</tr>
<tr>
<td>College bookstore Income</td>
<td>Pretax income</td>
<td>.044</td>
</tr>
<tr>
<td>Freight Expense</td>
<td>Freight costs from publisher’s warehouse to college bookstore</td>
<td>.017</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

As the table shows, 76 percent of the new textbook dollar goes to the publisher, while 24 percent goes to the retailer. The single largest cost element of the new textbook dollar, manufacturing costs and publisher employee salaries and benefits, account for 32 percent. The largest percentage of stores are owned or operated by higher education institutions. While most are institutional, they may also be contract managed, cooperatives, or owned by student associations. Table 2 below indicates the affiliation of UT System academic institutions and bookstores that serve their populations.

Table 2
Contracted Bookstore Services at U. T. System Academic Institutions

<table>
<thead>
<tr>
<th>Institution</th>
<th>Contracted Bookstore</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. T. Arlington</td>
<td>Yes</td>
<td>Follett Corporation</td>
</tr>
<tr>
<td>U. T. Austin</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U. T. Brownsville</td>
<td>Yes</td>
<td>Barnes and Noble</td>
</tr>
<tr>
<td>U. T. Dallas</td>
<td>Yes</td>
<td>Barnes and Noble</td>
</tr>
</tbody>
</table>
Informal arrangement of a retail (not textbook) store, to feature books and authors of non-textbooks in its store.

**Solutions**

**Short-term**

Short-term solutions involve government intervention into the marketplace, or restrictions on publishers, retailers and faculty at the university level.

At the federal level mandated price controls could be employed to restrict the rate of increase in textbook pricing. At the state and local university level, state legislators and university administrators could restrict the use of revised editions, or employ buying consortiums.

Indeed, legislation proposed by the 80th Texas Legislature was focused on some of these short-term solutions. Appendix B of this report gives a synopsis of proposed legislation from 80th Texas legislative session.

At the university level local administrators and faculty senates could work together to put into practice guidelines that would help students purchase textbooks at a lower cost.

Faculty guidelines could require that textbook lists are submitted early enough for bookstores to take advantage of buybacks and the used textbook market, urge faculty to consider multi-semester adoptions, use old editions even though the revised edition has been released and post textbook lists and ISBNs online.

Bundled textbooks and associated materials should be used only when materials will be actively used by the instructor.

Most importantly, by making textbook lists available early, students, who wish to do so, can shop for textbooks online and save significant amounts of money (see Appendix A).

In May 2006, the Academic Senate of the California State University system passed resolution AS-2747-06/FA (Faculty Role in Mitigating Textbook Costs) which recommended that their colleagues take the following actions to mitigate the costs of textbooks for California State University System students (see Appendix C):
Item #3

June 18, 2008

- work with bookstores to arrive at mutually acceptable timelines for text adoption;
- submit textbook requests within mutually acceptable timelines to ensure the availability of textbooks through the campus and other local bookstores;
- notify campus bookstores as early as possible about re-adoptions of previously used textbooks to allow current students who wish to sell their copies back to the campus bookstore and;
- communicate clearly with publisher representatives and bookstore owners about textbook pricing concerns and options.

Notwithstanding the affordability issue, the resolution also reaffirmed the right and responsibility of faculty to select teaching materials with intellectual content and teaching effectiveness as the prime considerations.

Textbook rentals and textbook swapping as well as increasing library reserves (E-reserves and textbook donations) have also been used at some institutions.

While most solutions focus on making changes directly to the textbook market, others look at providing increased financial aid to help cover rising costs. Bookstores at the University of Washington and Portland State University offer need-based textbook scholarships for students who are having trouble paying for textbooks.

Some states have addressed this issue by providing additional aid. Georgia and South Carolina provide extra state aid to help defray textbook costs.

**Long-term**

The textbook industry is in transition and that transition is in part being driven by technology. Longer-term solutions to the escalating costs of textbooks point to the digital marketplace as a method to lower costs. Those solutions include electronic textbooks, no-cost online textbooks, Open Educational Resources and Print on Demand Services. These longer term solutions are in their infancy and are being tested in a limited number of cases. All provide great promise in helping to hold down prices.

Electronic books (E-books) can be provided to students in various formats from unprintable pdf documents to desk top editions that reside on a student’s desktop for the duration of course to textbook on CD. Despite its appeal, research indicates that students still want to have a printed copy of the material.

This fall 2008, The University of Texas at Austin and John Wiley & Sons will partner in a pilot project to provide eBooks to students in certain science and mathematics courses at the University. The exact number of courses and format of the eBook are details that are yet to be finalized. The goals of the pilot are to assess digital demand, assess print option value, examine the Library’s role and develop a new sustainable model.
E-books can be provided to students at roughly 50 percent of the cost of a new hard copy. These savings occur because publishers do not have to incur printing or production costs. In addition it is much easier and cheaper to update an e-book.

Open Education Resources involves the sharing of digital learning resources at no charge over the internet. OERs have been around for more than 10 years. The often cited Multimedia Educational Resource for Learning and Online Teaching (MERLOT) developed by California State University (CSU) is an example of how OERs could work. MERLOT contains 16,000 teaching materials and allows faculty collaboration and development of course materials.

Similarly, Connexions, and Open Education Resources project at Rice University uses materials gathered from professors as well as students to develop courses and freely share the materials.

Print on Demand Services use a digital download to print, bind and cover a textbook. Colleges and bookstores purchase machines to print course materials available in print-on-demand format or those available in the public domain. The University of Texas Co-op Bookstore uses a print-on-demand machine to print course packs and textbooks. Students pay only the costs of printing the materials.

Recommendations of the Textbook Study Group

Changing technology and changes in the delivery of knowledge on campuses across the country are reshaping the textbook industry. Eventually the industry will become a digital marketplace where printed course materials are no longer what are expected.

The industry is beginning to embrace these changes and together with colleges and universities are exploring models that will yield profit to the industry as well as deliver the needed course materials to students and faculty. In addition, digital textbooks would always be current and provide more equal access to learning materials.

In the short term college administrators and faculty should do the following:

- require that textbook lists are in early enough for bookstores to take advantage of buybacks and used textbook market,
- urge faculty to consider multi-semester adoptions,
- use old editions even though the revised edition is released,
- post textbook lists and ISBNs online in a timely manner so that students can shop the least expensive alternative, ² and
- use bundled textbooks and associated materials only when materials will be actively used by the instructor.

² The best ‘timely manner’ is to post the required textbook ISBN’s on the university course schedule. If the required books for the courses are not known at the time when the course schedule is developed, the instructor should notify the appropriate university office as soon as the required textbooks (ISBNs) are known. Providing ISBNs on a timely basis will require cooperation amongst instructors, academic departments, college bookstores and registrar’s offices.
Additionally, institutions should use their influence or contracting power to encourage publishers and bookstores to limit textbook prices and offer used books or less-expensive alternatives until such time that more sophisticated electronic solutions become available to reduce textbook costs, the committee recommends that the Faculty Advisory Council of the University of Texas System adopt these recommendations and forward them to the campus faculty governing groups and campus administrators for action. This recommended action is similar to the action taken by the Academic Senate of the California State University System in March, 2006.

Appendix A

Shopping for Textbooks-A Look at Four Popular Majors at the University of Texas at Austin

Courses marked with an asterisk (*) next to the course number are multi-section courses with different reading requirements. Textbook costs will vary with the section chosen.

Where multiple affiliated establishments offered a used textbook, the cheapest listed price is shown in the tables. Figures in the tables do not include shipping and/or taxes.

Costs shown do not reflect sales tax. Sales tax would be charged for UT Coop purchases but not from .com establishments, except in cases where the .com has a brick and mortar presence in the state.

Shipping costs might be incurred but are not included. Amazon.com for example does not charge shipping for orders over $25. Affiliated establishments, those listed on the Amazon.com site, generally charge $3.99 per book.

Table 1: Course Schedule for an Electrical and Computer Engineering Major, Second Year, Spring 2008, 15 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>New</td>
<td>Used</td>
</tr>
<tr>
<td>EE 313</td>
<td>Linear Systems and Signals</td>
<td>Linear Systems and Signals</td>
<td>$123.00</td>
<td>$92.25</td>
</tr>
<tr>
<td>EE 316</td>
<td>Digital Logic and Design</td>
<td>Fundamentals of Logic Design</td>
<td>$131.35</td>
<td>$98.50</td>
</tr>
<tr>
<td>EE 319K</td>
<td>Introduction to Microcontrollers</td>
<td>HKN Notes¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E 316K*</td>
<td>Masterworks of Literature</td>
<td>Classic American</td>
<td>$7.95</td>
<td>$5.95</td>
</tr>
</tbody>
</table>
For this student and this configuration of courses, the total cost of textbooks would range from $307.74 to $527.82. In this example the greatest savings would be realized if the student purchased the required materials from Amazon.com. The total costs include shipping and taxes where applicable.
Table 2: Option 1 Bachelor of Science in Computer Sciences, Spring Semester, Second Year-Four Year Degree Plan, 15 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop New</th>
<th>UT Coop Used</th>
<th>Amazon.com New</th>
<th>Amazon.com Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 325K</td>
<td>Discrete Mathematics</td>
<td>Discrete Mathematics</td>
<td>$170.00</td>
<td>$127.50</td>
<td>$159.00</td>
<td>$69.98</td>
</tr>
<tr>
<td>CS 337</td>
<td>Theory in Programming Practice</td>
<td>No textbook. Class handouts</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>CS 345</td>
<td>Programming Languages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Programming Languages</td>
<td></td>
<td>$140.35</td>
<td>$105.25</td>
<td>$131.56</td>
<td>$69.50</td>
</tr>
<tr>
<td></td>
<td>C: A Reference Manual (Paperback)</td>
<td></td>
<td>$50.25</td>
<td>$37.70</td>
<td>$31.66</td>
<td>$29.84</td>
</tr>
<tr>
<td>CS 352</td>
<td>Computer Systems Architecture</td>
<td>Computer Systems: A Programmer's Perspective</td>
<td>$132.00</td>
<td>$99.00</td>
<td>$128.24</td>
<td>$44.44</td>
</tr>
<tr>
<td>HIS 315K</td>
<td>American History</td>
<td>James K Polk and the Expansionist Impulse</td>
<td>$20.65</td>
<td>$15.50</td>
<td>$20.67</td>
<td>$12.15</td>
</tr>
<tr>
<td></td>
<td>Undaunted Courage: Meriwether Lewis, Thomas Jefferson, and the Opening of the American West</td>
<td>$17.00</td>
<td>$12.75</td>
<td>$11.56</td>
<td>$0.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>American Passages: A History of the United States, Vol. I: To 1877</td>
<td>$96.00</td>
<td>$72.00</td>
<td>$128.24</td>
<td>$44.44</td>
<td></td>
</tr>
</tbody>
</table>

For this student and this configuration of courses, the total cost of textbooks would range from $377.72 to $686.82. The total costs include shipping and taxes where applicable.
Table 3: Government Major, Spring Semester First Year 15 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>New</td>
<td>Used</td>
</tr>
<tr>
<td>E 316K</td>
<td>Masterworks of Literature</td>
<td>Death of a Salesman (Paperback)</td>
<td>$12.00</td>
<td>$9.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maggie Girl of the Streets and Other</td>
<td>$8.95</td>
<td>$6.70</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New York Writings (Paperback)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Bell Jar (Paperback)</td>
<td>$13.95</td>
<td>$10.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Road (Paperback)</td>
<td>$14.95</td>
<td>$11.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concise Anthology of American Literature</td>
<td>$82.00</td>
<td>$61.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Paperback)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the Lake of the Woods (Paperback)</td>
<td>$15.00</td>
<td>$11.25</td>
</tr>
<tr>
<td>AST 309L</td>
<td>Search for Extraterrestrial Life</td>
<td>Extraterrestrial Life (Custom)</td>
<td>$50.65</td>
<td>$50.65</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact (Paperback)</td>
<td>$7.99</td>
<td>$6.00</td>
</tr>
<tr>
<td>PHL 312</td>
<td>Introduction to Logic</td>
<td>Introduction to Logic (Paperback)</td>
<td>$39.95</td>
<td>$29.95</td>
</tr>
<tr>
<td>GOV 312L</td>
<td>Issues and Policies in American Government</td>
<td>Democracy in America (Perennial Classics</td>
<td>$22.95</td>
<td>$17.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Edition) (Paperback)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 315L</td>
<td>United States since 1865</td>
<td>Inventing America Volume 2</td>
<td>$86.65</td>
<td>$65.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Paperback)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For this student and this configuration of courses, the total cost of textbooks would range from $192.60 to $387.58. In this example the student would save $194.98. To realize these savings, the student would have to purchase some textbooks from the UT Coop and some from Amazon.com. The total costs include shipping and taxes where applicable.

Table 4: Bachelor of Arts in Finance, Spring Semester, First Year, 13 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>New</td>
<td>Used</td>
</tr>
<tr>
<td>BA</td>
<td>Career Planning</td>
<td>No textbook required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For this student and this configuration of courses, the total cost of textbooks would range from $385.37 to $502.80. The total costs include shipping and taxes where applicable. In this example buying used books from the UT Coop is the cheapest solution.
Appendix B

Proposed Legislation from the 80th Texas Legislature

HB 956 by Hochberg would have required faculty members to consider less expensive materials and would have allowed ‘bundling’ of learning materials only under special criteria. Textbooks would have a minimum adoption period of three years, unless significant changes required an updated version. Each institution would have been required to compile a list of required textbooks for each course and post the list on website.

HB 960 by Herrero would have required higher education institutions that offer courses in the core curriculum to adopt a policy that regulates the use of textbooks required for the course curriculum courses at that institution.

HB 2009 by Rose would have required institutions to provide a list of required instructional materials to any retailer requesting the list.

HB 2965 by Vo would have required instructors to use a textbook for a minimum of three years. Further only textbooks where the publisher provides for sale at the bookstore, inserts that may be used to update the textbook. The bill would have allowed the chair of a department or his/her designee to allow switching to a new edition or new textbook.

SB 114 by Van de Putte would have required higher education institutions provide, on request, the list of required or recommended instructional materials to a retailer or other provider of instructional materials at the same time the list is provided to a university -- affiliated bookstore. This bill that would have instructed universities to provide the same opportunity for all retailers to participate in any programs related to the dissemination of instructional materials including providing information at student orientation. All retailers would have been given equal access to the opportunity to use or develop a method for the extension of credit or the ability to charge or delay payment of the cost of instruction materials.
RESOLVED: That consistent with the fundamental right and responsibility of faculty to select course materials, the principles of academic freedom, and the goal of providing high quality education, the Academic Senate California State University (CSU) reaffirm the fundamental right and responsibility of the faculty to set curriculum and select those materials, either traditional or alternative, that are pedagogically most appropriate for delivering that curriculum; and be it further

RESOLVED: That consistent with these principles, which ensure the academic and intellectual soundness of course materials, the Academic Senate CSU encourage CSU faculty to consider—when appropriate, pedagogically sound and feasible -- selecting course textbooks and materials that minimize the cost to students; and be it further

RESOLVED: That the Academic Senate CSU recommend that the campus academic senates, where necessary, work with bookstores to arrive at mutually acceptable timelines for text adoption; and be it further

RESOLVED: That the Academic Senate CSU encourage faculty to submit their textbook requests within these timelines to ensure the availability of textbooks through the campus and other local bookstores; and be it further

RESOLVED: That the Academic Senate CSU encourage faculty to notify their campus bookstores as early as possible about re-adoptions of previously used textbooks to allow current students who wish to sell their copies back to the campus bookstore, which would also provide a larger quantity of cheaper, used textbooks for future students; and be it further

RESOLVED: That the Academic Senate CSU encourage faculty and campus bookstores to communicate clearly with publisher representatives about textbook pricing concerns and options; and be it further

RESOLVED: That the Academic Senate CSU reaffirm the fundamental right and responsibility of faculty to select traditional textbooks, alternative formats, and ancillary items with intellectual content and teaching effectiveness as the prime considerations.

RATIONALE: The Academic Senate CSU recognizes that the high cost of certain textbooks and ancillaries can adversely affect the affordability of higher education for CSU students; it also recognizes that the California State Student Association (CSSA) and the California legislature have expressed ongoing concerns about the rapid rise in textbook prices for CSU students and about associated cost factors such as the bundling of textbooks with sometimes unneeded supplements.
Academic Senate
June 18, 2008

These problems have received attention in the national media and in other legislatures as well. In 2004, the California Legislature and the Governor approved legislation (AB 2477) urging book publishers to offer lower-price textbook options whenever possible and encouraging campus faculty and bookstores to do likewise and to generally pursue more economical textbook pricing practices. Among options available to faculty are

- adopting the least expensive edition of books they wish to use;
- using the same book and edition as long as it remains appropriate pedagogically;
- telling students the probable cost of books and materials for their class(es);
- reviewing textbook adoption timelines and procedures with the campus bookstore;
- working with publishers and bookstores if bundles are necessary to ensure that they are economically sound;
- adopting texts and materials in a manner that allows students to buy parts of a bundle;
- developing coursepacks (course readers),
- using e-reserves.

While the Academic Senate CSU recognizes that course packs and e-reserves help reduce costs to students, it also urges faculty to remember that content included in such delivery mechanisms must follow federal fair use and copyright guidelines.

Even though they understand the financial constraints with which many students are faced, the Academic Senate CSU and the CSU must also protect the academic freedom necessary for and inherent to effective and independent faculty selection of textbooks. This resolution proposes that faculty can develop ways of both maintaining their professional and curricular integrity and helping students contain the cost of their education.

APPROVED – May 4-5, 2006
References


Harper, Georgia, “Subject: Possible copyright issues – Granof textbook license plan”, UT System Administration,


Dr. Daniel considers this a very serious issue that should be given a great deal of attention.

Drs. Wildenthal and Jamison have been given the task to research this issue and bring down the cost for UT Dallas students.
Academic Senate
June 18, 2008

Dr. Redman moved to table this item until the August meeting due to the importance of issue and the need for further information. Dr. Kaplan seconded the motion. The motion to table carried.

11. ADJOURNMENT

Dr. Daniel asked for motion to adjourn the meeting. There were multiple makers and seconds. The motion carried.

APPROVED: ______________________________                     DATE: _____________

Speaker of the Faculty
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<td>7.</td>
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COMMITTEE NAME: ADVISORY COMMITTEE ON RESEARCH
Charge: Policy Memorandum 02-III.27-86
Senate Concurrent

EX-OFFICIO (with vote)
Dean of Natural Sciences & Mathematics
Dean of Behavioral & Brain Sciences
Dean of Engineering & Computer Science

SPECIAL REQUIREMENTS:
At least 11 voting members of the general faculty, 7 of which shall be representatives from areas with the most involvement with and dependence on external funding
2-year terms
Deans of ECS, BBS & NSM
1 Dean (with vote) of remaining school
1 year term

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Research & Economic Development

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Alain Bensoussan (M) (8/31/2009)
XinChou Lou (N) (8/31/2009)
Juan Gonzalez (N) (8/31/2009)
Gopal Gupta (EC) (8/31/2009)
Mihai Nadin (A) (8/31/2009)
Phillip Loizou (EC) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Kenneth Balkus (N) (8/31/2008)
Harold Clarke (EP) (8/31/2008)
Bruce Gnade (EC) (8/31/2008)
Vacant

REPLACEMENTS NEEDED
Mustapha Ishak-Boushaki (N) (8/31/2009)
Todd Sandler (EP) (8/31/2009)
Duncan MacFarlane (EC) (8/31/2009)
Aage Moller (B) (8/31/2009)

*DEAN: Hasan Pirkul (2009)

CHAIRPERSON: Kenneth Balkus (N)    Alain Bensoussan (M)
VICE CHAIRPERSON: Alain Bensoussan (M)    Phillip Loizou (EC)
COMMITTEE NAME: CHANCELLOR’S COUNCIL/PRESIDENT’S OUTSTANDING TEACHING AWARDS COMMITTEE

Charge: Policy Memorandum 00-III.21-83 Senate Concurrent Committee

EX-OFFICIO (with vote)
Dean of Undergraduate Education
President of the Student Government

SPECIAL REQUIREMENTS:
Dean of Undergraduate Education
President of the Student Government
5 members
3 year terms
3 faculty (3 previous award winners)
Chair - longest standing faculty member on committee

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Gregory Thielemann (EP) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Robert Nelsen (A) (8/31/2008)
Vacant

REPLACEMENTS NEEDED
Michael Kilgard (B) (8/31/2011)
John Pomara (AH) (8/31/2011)

STUDENT: Ben Dower (UG) (8/31/2008)

CHAIRPERSON: Robert Nelsen (A) Gregory Thielemann (EP)

VICE CHAIRPERSON: _____________________
COMMITTEE NAME: COMMITTEE ON ACADEMIC INTEGRITY
Charge: Policy Memorandum 05-III.21-90 Senate Concurrent Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
9 faculty, at least one from each school
2 students
2 years, staggered

RESPONSIBLE UNIVERSITY OFFICIAL
Assistant Vice President for Student Affairs and Dean of Students

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Cyrus Cantrell (EC) (8/31/2009)
Robert Glosser (N) (8/31/2009)
William Pervin (EC) (8/31/2009)
Jackson Rushing (A) (8/31/2009) leaving UT Dallas
Edwin Sha (EC) (8/31/2009)
Alice O’Toole (B) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Sean Cotter (A) (8/31/2008)
Marilyn Kaplan (M) (8/31/2008)
Elizabeth Salter (G) (8/31/2008)

STUDENTS:
Arie Litovsky (UG) (8/31/2008)
Molly Wurzer (UG) (8/31/2008)

REPLACEMENTS NEEDED
FACULTY:
Michelle Nickerson (A) (8/31/2010)
Marilyn Kaplan (M) (8/31/2010)
Elizabeth Salter (G) (8/31/2010)

STUDENTS:
________________________ (UG) (8/31/2009)
________________________ (UG) (8/31/2009)

CHAIRPERSON: Cyrus Cantrell (EC) Cyrus Cantrell (EC)
VICE CHAIRPERSON: Jackson Rushing (A) Robert Glosser (N)
COMMITTEE NAME: COMMITTEE ON CORE CURRICULUM
Charge: Policy Memorandum 95-III.25-66
Senate Concurrent Committee

EX-OFFICIO (without vote)
Dean of Undergraduate Education
University Registrar & Director of Academic Records

EX-OFFICIO (with vote)
Chair, CEP:
Cyrus Cantrell

SPECIAL REQUIREMENTS:
7 voting members from faculty
all schools represented
4 students (without vote)
Degree seeking undergraduates including one lower division & one upper division transfer student
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Dean of Undergraduate Education

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Mary Chaffin (M) (8/31/2009)
Kruti Dholakia (EP) (8/31/2009)
Simeon Ntafos (EC) (8/31/2009)
Liz Salter (G) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Duane Buhrmester (B) (2008)
John Hoffman (N) (8/31/2008)
Michael Wilson (A) (8/31/2008)

STUDENTS:

REPLACEMENTS NEEDED
Duane Buhrmester (B) (8/31/2010)
John Hoffman (N) (8/31/2010)
Shelley Lane (A) (8/31/2010)

CHAIRPERSON: John Hoffman (N)

VICE CHAIRPERSON: Mary Chaffin (M)

Mary Chaffin (M)
Simeon Ntafos (EC)
COMMITTEE NAME: COMMITTEE ON DISTANCE LEARNING
Charge: Policy Memorandum 97-III.20-80
Senate Concurrent Committee

EX-OFFICIO (with vote)
Dean of Graduate Studies (Austin Cunningham)
Chief Information Officer
Dean, School of Engineering &
    Computer Science (Robert Helms)
Vice President for Student Affairs (Darlene Rachavong)
Dean, School of Management (Hasan Pirkul)
Distance Learning Coordinator (Rhonda Blackburn)

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President and Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Wendy Hassett (EP) (8/31/2009)
Peter Lewin (M) (8/31/2009)
John Fonseka (EC) (8/31/2009)

LIBRARY REPRESENTATIVE
Carol Oshel (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
John Gooch (A) (8/31/2008)
Marilyn Kaplan (M) (8/31/2008)
Kyeongjae Cho (N) (8/31/2008)

REPLACEMENTS NEEDED
David Parry (A) (8/31/2010)
Marilyn Kaplan (M) (8/31/2010)
Homer Montgomery (N) (8/31/2010)

CHAIRPERSON: Marilyn Kaplan (M)
VICE CHAIRPERSON: John Gooch (A)

S - 5
COMMITTEE NAME: COMMITTEE ON EDUCATIONAL POLICY
Charge: Policy Memorandum 78-III.21-11 Senate Concurrent Committee

EX-OFFICIO

With vote
Chair, Committee on Core Curriculum

Without vote
Dean of Graduate Studies
Dean of Undergraduate Education
Assistant Provost
University Registrar & Director of Academic Records

SPECIAL REQUIREMENTS:
13 faculty members
2 from each school, except for 1 from General Studies
2 students (non-voting)
1 graduate
1 undergraduate
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Dean of Graduate Studies
Dean of Undergraduate Education

MEMBERS WHOSE TERMS ARE CONTINUING

FACULTY:
Dennis Miller (N) (8/31/2009)
William Pervin (EC) (8/31/2009)
Cheilliah Sriskandarajah (M) (8/31/2009)
Walter Jay Dowling (B) (8/31/2009)
Vacant (A) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING

FACULTY:
Kurt Beron (EP) (8/31/2008)
Lee Bulla (N) (8/31/2008)
Cyrus Cantrell (EC) (8/31/2008)
Jay Dowling (B) (8/31/2008)
Karen Prager (G) (8/31/2008)
Tim Redman (A) (8/31/2008)
Young Ryu (M) (8/31/2008)

REPLACEMENTS NEEDED

Paul Tracy (EP) (8/31/2010)
Robert Hilborn (N) (8/31/2010)
Cyrus Cantrell (EC) (8/31/2010)
Duane Buhrmester (B) (8/31/2010)
Karen Prager (G) (8/31/2010)
Theresa Towner (A) (8/31/2010)
Mike Peng (M) (8/31/2010)

STUDENTS:
____________________ (UG) (8/31/2008)
____________________ (UG) (8/31/2008)

CHAIRPERSON: Cyrus Cantrell (EC)
VICE CHAIRPERSON: Dennis Miller (N)

Sean Cotter (A)
COMMITTEE NAME: COMMITTEE ON EFFECTIVE TEACHING
Charge: Policy Memorandum 94-III.21-64 Senate Concurrent Committee

EX-OFFICIO (without vote)
Dean of Undergraduate Education

SPECIAL REQUIREMENTS:
9 voting members
6 faculty members
1 from each school except for General Studies
2 students
1 technical expert
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Mark Anderson (M) (8/31/2009)
Kruti Dholakia (EP) (8/31/2009)
Cynthia Ledbetter (N) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Charles Baumbach (A) (8/31/2008)
Emily Tobey (B) (8/31/2008)
Edwin Sha (EC) (8/31/2008)

STUDENTS:
Farzan Ghodsianzadeh (UG) (8/31/2008)
Jessie Harpham (UG) (8/31/2008)

REPLACEMENTS NEEDED
Monica Rankin (A) (8/31/2010)
John Santrock (B) (8/31/2010)
Mathew Goeckner (EC) (8/31/2010)

TECHNICAL EXPERT
Joylynn Reed left UT Dallas
Rhonda Blackburn (OEE)

CHAIRPERSON: Emily Tobey (B) Mark Anderson (M)
VICE CHAIRPERSON: Mark Anderson (M) Matthew Goeckner (EC)
COMMITTEE NAME: COMMITTEE ON FACULTY MENTORING
Charge: Policy Memorandum 04-1.2-89
Senate Concurrent Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
14 Faculty Members
In consultation with the Core Committee for the Support of Women & Minorities

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Diversity, Community Engagement (Magaly Spector)

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Surya Janakiraman (M) (8/31/2009)
Robert Glosser (N) (8/31/2009)
Rachel Croson (EP) (8/31/2009)
Arienne McLean (A) (8/31/2009)
Anne van Kleeck (B) (8/31/2009)
Karen Prager (G) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Donald Arbuckle (EP) (8/31/2008)
David Ford (M) (8/31/2008)
Jason Jue (EC) (8/31/2008)
Inga Musselman (N) (8/31/2008)
Jackson Rushing (A) (8/31/2008)
Kathryn Stecke (M) (8/31/2008)
Vacant
Vacant

REPLACEMENTS NEEDED
Paul Jargowsky (EP) (8/31/2010)
Orlando Richard (M) (8/31/2010)
Hlaing Minn (EC) (8/31/2010)
Robert Hilborn (N) (8/31/2010)
Russell D. Edmunds (A) (8/31/2010)
Kathryn Stecke (M) (8/31/2010)
Venus O’Reese (A) (8/31/2010)
Sheryl Skaggs (EP) (8/31/2010)

CHAIRPERSON: Donald Arbuckle (EP) Rachel Croson (EP)

VICE CHAIRPERSON: Kathryn Stecke (M)
COMMITTEE NAME: COMMITTEE ON FACULTY STANDING & CONDUCT
Charge: Policy Memorandum 78-III.21-13
Senate Concurrent Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
5 faculty members
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Roderick Heelis (N) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Stan Liebowitz (M) (8/31/2008)
Ivor Page (EC) (8/31/2008)
Anne Van Kleeck (B) (8/31/2008)
William Cready (M) (8/31/2010)
Ivor Page (EC) (8/31/2010)
Melanie Spence (B) (8/31/2010)

CHAIRPERSON: Stan Liebowitz (M) Richard Scotch (EP)
VICE CHAIRPERSON: Richard Scotch (EP) Ivor Page (EC)
COMMITTEE NAME: COMMITTEE ON QUALIFICATIONS OF ACADEMIC PERSONNEL
Charge: Policy Memorandum 78-III.21-16
Senate Concurrent Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
12 tenure faculty two from each school
(with the exception of General Studies)
preferably at rank of Professor - no one
holding an administrative appointment
above the rank of Department Head shall
be eligible to serve
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Christine Dollaghan (B) (8/31/2009)
Catherine Eckel (EP) (8/31/2009)
Clay Reynolds (A) (8/31/2009)
Kathryn Stecke (M) (8/31/2009)
Kang Zhang (EC) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Peter Assmann (B) (8/31/2008)
William Cready (M) (8/31/2008)
John Ferraris (N) (8/31/2008)
Philip Loizou (EC) (8/31/2008)
James Marquart (EP) (8/31/2008)
Viswanath Ramakrishna (N) (2008)
Theresa Towner (A) (8/31/2008)

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Christine Dollaghan (B) (8/31/2009)
Catherine Eckel (EP) (8/31/2009)
Clay Reynolds (A) (8/31/2009)
Kathryn Stecke (M) (8/31/2009)
Kang Zhang (EC) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Peter Assmann (B) (8/31/2008)
William Cready (M) (8/31/2008)
John Ferraris (N) (8/31/2008)
Philip Loizou (EC) (8/31/2008)
James Marquart (EP) (8/31/2008)
Viswanath Ramakrishna (N) (2008)
Theresa Towner (A) (8/31/2008)

REPLACEMENTS NEEDED
Richard Golden (B) (8/31/2010)
Brian Ratchford (M) (8/31/2010)
Robert Stern (N) (8/31/2010)
Aria Nosratinia (EC) (8/31/2010)

CHAIRPERSON: John Ferraris (N)

VICE CHAIRPERSON: Theresa Towner (A)

Catherine Eckel ? (EP)
(she wants to meet with the Provost before
she commits to the Chair position)

Robert Stern (N)
(if Catherine says no)
COMMITTEE NAME: COMMITTEE ON STUDENT SCHOLARSHIPS
Charge: Policy Memorandum 78-III.21-18 Senate Concurrent Committee

EX-OFFICIO
(with vote)
Dean of Graduate Studies
Dean of Undergraduate Education

(without vote)
Director of Financial Aid
Director of Endowment Services and Compliance

SPECIAL REQUIREMENTS:
2 year terms
7 members from among the
Associate Deans for Undergraduate
Education, or heads of graduate
programs in the 7 schools

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Student Affairs

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
John Hoffman (N) (8/31/2009)
Simeon Ntafos (EC) (8/31/2009)
Douglas Eckel (M) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
REPLACEMENTS NEEDED
FACULTY:
Liz Salter (G) (8/31/2008) Elizabeth Salter (G) (8/31/2010)
Vacant Robert Stillman (B) (8/31/2010)

CHAIRPERSON: Liz Salter (G) Liz Salter (G)
VICE CHAIRPERSON: John Hoffman (N) John Hoffman (N)
COMMITTEE NAME: LIBRARY COMMITTEE
Charge: Policy Memorandum 78-III.21-14
Senate Concurrent Committee

EX-OFFICIO (without vote)
Dean of Libraries
General Administration (one member)

SPECIAL REQUIREMENTS:
16 voting members
2 students, including one undergraduate & one graduate student
7 faculty - one from each school
7 members, one from each School’s Library Acquisition Committee nominated by School Deans
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Dean of Libraries

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Steve Neilson (N) (8/31/2009)
Susan Chizeck (G) (8/31/2009)
Richard Golden (B) (8/31/2009)
Vacant (B) (8/31/2009) Jeffrey Martin (B)
Michael Tiefelsdorf (EP) (8/31/2009)
Vacant (N) (8/31/2009) Rockford Draper (N)
Ming Dong Gu (A) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
John Fonseka (EC) (8/31/2008)
David Parry (A) (8/31/2008)
B.P.S. Murthi (M) (8/31/2008)
Barry Seldon (EP) (8/31/2008)
Mary Urquhart (N) (8/31/2008)
Daniel Wickberg (A) (8/31/2008)
Yexiao Xu (M) (8/31/2008)
Nasser Kehtarnavaz (EC) (8/31/2010)
John Mike Farmer (A) (8/31/2010)
Suresh Radhakrishnan (M) (8/31/2010)
Titu Andreescu (N) (8/31/2010)
Natalie Ring (A) (8/31/2010)
Jane Salk (M) (8/31/2010)

STUDENTS:
Vacant
Vacant

REPLACEMENTS NEEDED

CHAIRPERSON: Daniel Wickberg (A)
Susan Chizeck (G)

VICE CHAIRPERSON:
John Mike Farmer (A)
COMMITTEE NAME: ACADEMIC PROGRAM REVIEW COMMITTEE
Charge: Policy Memorandum 94-III.24-63
University-Wide Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
3  Faculty members
3  Deans
3  Year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Gregory Dieckman (N) (8/31/2010)
Robert Stillman (B) (8/31/2010)
Myron Salamon (N & Dean) (8/31/2010)
Hasan Pirkul (M & Dean) (8/31/2009)
Duncan MacFarlane (EC) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Brian Berry (EPPS & Dean) (8/31/2008)

REPLACEMENTS NEEDED
Mark Spong (EC) (8/31/2011)

CHAIRPERSON: Duncan MacFarlane (EC)

VICE CHAIRPERSON: Gregg Dieckman (N)
COMMITTEE NAME: ACADEMIC CALENDAR COMMITTEE
Charge: Policy Memorandum 02-I.2-85 University-Wide Committee

EX-OFFICIO
University Registrar and Director of Academic Records

SPECIAL REQUIREMENTS:
10 Voting members
1 University Registrar and Director of Academic Records (w/vote)
2 Administration
3 Faculty
2 Student Government
2 Staff

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Student Affairs

MEMBERS WHOSE TERMS ARE CONTINUING

FACULTY:
Austin Cunningham (N) (8/31/2008)
Sheila Gutierrez-Pineres (EP) (8/31/2008)
B. Prabahakaran (EC) (8/31/2008)

ADMINISTRATION:
John Wiorkowski (N) (8/31/2008)
Douglas Eckel (M) (8/31/2008)

STAFF:
David Maldonado (8/31/2008)
Cheryl Friesenhahn (8/31/2008)

STUDENTS
Steven Rosson (UG) (8/31/2008)
Yen Yoon (UG) (8/31/2008)

REPLACEMENTS NEEDED

Austin Cunningham (N) (8/31/2009)
Sheila Gutierrez-Pineres (EP) (8/31/2009)
Andras Farago (EC) (8/31/2009)

John Wiorkowski (N) (8/31/2009)
Douglas Eckel (M) (8/31/2009)
David Maldonado (8/31/2009)
Cheryl Friesenhahn (8/31/2009)

CHAIRPERSON: John Wiorkowski (N)
VICE CHAIRPERSON: B. Prabahakaran (EC)
COMMITTEE NAME: CAMPUS FACILITIES COMMITTEE
Charge: Policy Memorandum 81-I.2-42                University-Wide Committee

EX-OFFICIO (without vote)
Dean of Graduate Studies
Chief Information Security Officer
Asst Vice President for Facilities Management
Exec. Director of Strategic Planning & Analysis
Exec. Vice President & Provost
Staff Council Member

SPECIAL REQUIREMENTS:
No fewer than 9 voting members
4 faculty
2 deans
1 student
1 representative from Student Affairs
1 off campus
1 Staff Council
3 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Business Affairs

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Midori Kitagawa (A) (8/31/2009)
Xinchou Lou (N) (8/31/2009)
Hasan Pirkul (M & Dean) (8/31/2009)
Andrew Blanchard (ECS & Dean) (8/31/2010)
Murray Leaf (EP) (8/31/2010)
Thomas Linehan (A) (8/31/2010)

STUDENTAFFAIRSSTAFF(EX-OFFICIO):
Donna Rogers (8/31/2010)

STAFF COUNCIL:
Daniel Calhoun (8/31/2010)

MEMBERS WHOSE TERMS ARE EXPIRING
REPLACEMENTS NEEDED
NON-UTD:
Patti Henry-Pinch (8/31/2008) _____________________ ( ) (8/31/2011)

STUDENT:
Manfred Mecoy (UG) (8/31/2008) _____________________ ( ) (8/31/2009)

CHAIRPERSON: Murray Leaf (EP)            Murray Leaf (EP)
VICE CHAIRPERSON: Thomas Linehan (A)        Thomas Linehan (A)
COMMITTEE NAME: COMMENCEMENT COMMITTEE
Charge: Policy Memorandum 83-I.2-44

EX-OFFICIO (without vote)
Assistant Vice President for Student Affairs and Dean of Students
Director of University Events
Speaker of the Faculty, Vice Chair
Dean of Graduate Studies
Dean of Undergraduate Education
Chief of Police
Asst Vice President for Facilities Management
Bookstore Manager
Coordinator of Student Health Services
Representative from Media Services
Representative from Alumni Services
University Registrar & Director of Academic Records
Special Events Coordinator

SPECIAL REQUIREMENTS:
2 faculty
2 student representatives (including the president of the student body)
3 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Fang Qui (EP) (8/31/2010)

MEMBERS WHOSE TERMS ARE EXPIRING
STUDENTS:
Ben Dower (UG) (8/31/2008)
Benedict Voit (UG) (8/31/2008)

FACULTY:
Kathryn Evans (A) (8/31/2008)

REPLACEMENTS NEEDED
____________________ ( ) (8/31/2011)
____________________ ( ) (8/31/2011)

Kathryn Evans (A) (8/31/2011)

CHAIRPERSON: Judi Hensley

VICE CHAIRPERSON: Murray Leaf (EP)
COMMITTEE NAME: COMMITTEE ON PARKING & TRANSPORTATION
Charge: Policy Memorandum 78-III.21-15
University-Wide Committee

EX-OFFICIO (without vote)
Chief of Police
Assistant Vice President for Facilities
Management or a designee
Safety Officer
Director of Disability Services (Kerry Tate)

SPECIAL REQUIREMENTS:
10 voting members
Including:
  5 faculty
  2 staff
  2 students
1 staff council
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Business Affairs

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Bruce Jacobs (EP) (8/31/2009)
Peter Park (A) (8/31/2009)

STAFF:
Kent Mecklenberg (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Monica Evans (A) (8/31/2008)
Teresa Nezworski (B) (8/31/2008)
Paul Pantano (N) (8/31/2008)

STAFF:
Don Davis (8/31/2008)
Brenda Mahar (8/31/2008)

STAFF COUNCIL:
Brenda Mahar (8/31/2008)

STUDENTS:
Ben Dower (UG) (8/31/2008)
Snir Cohen (UG) (8/31/2008)

REPLACEMENTS NEEDED
Laurie Ziegler (M) (8/31/2010)
Lucinda Dean (B) (8/31/2010)
Mahaele Iovu (N) (8/31/2009)

CHAIRPERSON: Calvin Jamison

VICE CHAIRPERSON: ___________________ ___________________
COMMITTEE NAME: COMMITTEE ON RESEARCH INVOLVING HUMAN SUBJECTS (IRB)
Charge: Policy Memorandum 79-I.21-31
University-Wide Committee

EX-OFFICIO (with vote)
Vice President for Research & Economic Development

SPECIAL REQUIREMENTS:
No fewer than nine members
1 from off campus
2 year terms
Male & female members & variety of professions
1 member whose primary expertise is in a non-scientific area
(See charge for more requirements)

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Research & Economic Development

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
John Burr (N) (8/31/2009)
Rachel Croson (EP) (8/31/2009)
Shayla Holub (B) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Jay Dowling (B) (8/31/2008)
Ernan Haruvy (M) (8/31/2008)
Fabrice Jotterand (A) (8/31/2008)
Aage Moller (B) (8/31/2008)

NON-UTD:
* Judge Daniel Curran (8/31/2008)
* Randal Boss (8/31/2008)
* These are not approved by Senate

REPLACEMENTS NEEDED
Walter Jay Dowling (B) (8/31/2010)
Ernan Haruvy (M) (8/31/2010)
William Kate (B) (8/31/2010)
Aage Moller (B) (8/31/2010)

STAFF:
James Cannici (8/31/2008)
Susie Milligan (8/31/2008)
Kerry Tate (8/31/2008)
Sanaz Okhovat (8/31/2008)

STUDENT:
Belinda Smith (UG) (8/31/2008)

CHAIRPERSON: Aage Moller (B)
VICE CHAIRPERSON: Jay Dowling (B)

(continued on next page)
COMMITTEE NAME: COMMITTEE FOR THE SUPPORT OF DIVERSITY AND EQUITY
Charge: Policy Memorandum 97-1.2-81
University-Wide Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
11 faculty members (from each of the seven Schools)
3 Academic Administrators
8 staff members
2 year terms

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President of Diversity, Community Engagement (Magely Spector)

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Jorge Cobb (EC) (8/31/2009)
Jin Liu (EC) (8/31/2009)
Holly Lutz (M) (8/31/2009)
Peter Park (A) (8/31/2009)
Orlando Richard (M) (8/31/2009)

ACADEMIC ADMINISTRATORS:
Abby Kratz (8/31/2009)
Sherry Marek (8/31/2009)
Diana Willis (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Susan Briante (A) (8/31/2008)
Mandy Maguire (B) (8/31/2008)
Susan McElroy (EP) (8/31/2008)
Erin Smith (G) (8/31/2008)
Bhavani Thuraisingham (EC) (8/31/2008)

STAFF:
Arthur Gregg (8/31/2008)
Jacqueline Long (8/31/2008)
Alex Nester (8/31/2008)
Yolande Porter (8/31/2008)
Vivian Rutledge (HRM) (8/31/2008)

CHAIRPERSON: Abby Kratz
VICE CHAIRPERSON: Erin Smith (G)

REPLACEMENTS NEEDED
FACULTY:
Pat Michaelson (A) (8/31/2010)
Margaret Owen (B) (8/31/2010)
Erin Smith (G) (8/31/2010)
Gail Breen (N) (8/31/2010)

STAFF:
Arthur Gregg (8/31/2010)
Jacqueline Long (8/31/2010)
Alex Nester (8/31/2010)
Yolande Porter (8/31/2010)
Vivian Rutledge (8/31/2010)
COMMITTEE NAME: INFORMATION RESOURCES SECURITY, PLANNING, AND POLICY COMMITTEE

Charge: Policy Memorandum 03-I.2-88

EX-OFFICIO (with vote)
Chief Information Security Officer

SPECIAL REQUIREMENTS:
13 Voting Members
(7 tenure track faculty w/2 @ position of Dean or above)
1 staff - Audit and Compliance
1 staff - Academic Affairs
1 Staff Council
1 Staff - Office of VP for Research
1 Staff - Business Affairs

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President, Chief Information Officer

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Joe Izen (N) (8/31/2009)
Dennis Kratz (A & Dean) (8/31/2009)
Young Ryu (M) (8/31/2009)
Dean Terry (A) (8/31/2009)

STAFF COUNCIL:
Irene Marroquin (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY
Latifur Kahn (EC) (8/31/2008)
Hasan Pirkul (M & Dean) (8/31/2008)

REPLACEMENTS NEEDED
Balaji Raghavachari (EC) (8/31/2010)
Mark Spong (EC Dean) (8/31/2010)

STAFF:
Rhonda Blackburn (8/31/2008)
Wanda Mizutowicz (8/31/2008)
Rene Herrera (8/31/2008)
Sanaz Okhovat (8/31/2008)

__________________________ (8/31/2010)
__________________________ (8/31/2010)
__________________________ (8/31/2010)
__________________________ (8/31/2010)

CHAIRPERSON: Young Ryu (M)

VICE CHAIRPERSON: Dean Terry (A)
COMMITTEE NAME: INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE
Charge: Policy Memorandum 79-I.2-30 University-Wide Committee

EX-OFFICIO
Vice President for Research & Economic Development (with vote)

SPECIAL REQUIREMENTS:
6 members
3 year terms
1 member Doctor of Veterinary Medicine
1 must be a community member
1 must be a practicing scientist experienced research involving animals
1 member must be a person who’s primary concerns are in a non-scientific area

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Research & Economic Development

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Marco Atzori (B) (8/31/2009)
Ernest Hannig (N) (8/31/2009)
Michael Kilgard (B) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Jeff DeJong (N) (8/31/2008)
Betty Pace (N) (8/31/2008)

REPLACEMENTS NEEDED
Gail Breen (N) (8/31/2011)
Lee Bulla (N) (8/31/2011)

NON-UTD:
* Lynn Gibson (8/31/2008) _________________ ( ) (8/31/2011)
* Tony Myers (8/31/2008) _________________ ( ) (8/31/2011)
* Egeenee Q. Daniels (8/31/2008) _________________ ( ) (8/31/2011)
* These are not approved by the Senate

CHAIRPERSON: Michael Kilgard (B)
VICE CHAIRPERSON: Ernest Hannig (N)
COMMITTEE NAME: INSTITUTIONAL BIOSAFETY COMMITTEE
Charge: Policy Memorandum 79-1.2-27

EX-OFFICIO
Vice President for Research & Economic Development
Safety Director
Biosafety Director

SPECIAL REQUIREMENTS:
No fewer than five members
2 (members at least not/not less than 20%) shall not be affiliated with the University
3 year terms
Chair 2 year term & a member of the University Safety Council

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Business Affairs

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Dennis Miller (N) (8/31/2010)
Stephen Spiro (N) (8/31/2010)
Santosh D’Mello (N) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY
John Burr (N) (8/31/2008)
Gregg Dieckmann (N) (8/31/2008)

NON-UTD
Steve Dossett
Nancy Viamonte

REPLACEMENTS NEEDED
Jeff De Jong (N) (8/31/2011)
Betty Pace (N) (8/31/2011)

CHAIRPERSON: Dennis Miller (N)
VICE CHAIRPERSON: Stephen Spiro (N)
COMMITTEE NAME: INTELLECTUAL PROPERTY ADVISORY COMMITTEE  
Charge: Policy Memorandum 79-I.2-36

EX-OFFICIO
Dean of Graduate Studies (Austin Cunningham)
Vice President for Business Affairs (Calvin Jamison)
Associate Vice President for Research (Rafael Martin)

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Research & Economic Development

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Stan Liebowitz (M) (8/31/2009)
Roderick Heelis (N) (8/31/2009)
Tomislav Kovandzic (EP) (8/31/2009)
Duncan MacFarlane (EC) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Ray Baughman (N) (8/31/2008)
Nasser Kehtarnavaz (EC) (8/31/2008)
Linda Thibodeau (B) (8/31/2008)

STAFF:
Rochelle Pena (8/31/2008)

NON-UTD:
Daniel Chalker (8/31/2008)
Edwin Flores (8/31/2008)
Rob Miles (8/31/2008)

REPLACEMENTS NEEDED
FACULTY:
Anvar Zakhidov (N) (8/31/2010)
John Fonseka (EC) (8/31/2010)
Lawrence Cauller (B) (8/31/2010)

STAFF:
Rochelle Pena (8/31/2010)

CHAIRPERSON: Ray Baughman (N)  
Duncan MacFarlane (EC)

VICE CHAIRPERSON: Duncan MacFarlane (EC)  
John Fonseka (M)
COMMITTEE NAME: RADIATION SAFETY COMMITTEE

Charge: Policy Memorandum 92-I.3-55, University-Wide Committee

EX-OFFICIO (without vote)
University Environmental Health and Safety Director
Vice President for Research & Economic Development

SPECIAL REQUIREMENTS:
At least three faculty members
Radiation Safety Officer (Chair)
3 year terms

STAFF
Radiation Safety Officer, Chairperson

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Business Affairs

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Ervin Fenyves (N) (8/31/2010)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
John Burr (N) (8/31/2008)
Dennis Miller (N) (8/31/2008)

REPLACEMENTS NEEDED
Stephen Levene (N) (8/31/2011)
Lawrence Reitzer (N) (8/31/2011)

CHAIRPERSON: Radiation Safety Officer (Kathy White)

VICE CHAIRPERSON: John Burr (N)
Ervin Fenyves (N)
COMMITTEE NAME: UNIVERSITY SAFETY AND SECURITY COUNCIL
Charge: Policy Memorandum 91-1.3-53 University-Wide Committee

EX-OFFICIO
Chief of Police
Assistant Vice President for Student Affairs and Dean of Students
Assistant Vice President for Facilities Management
University Environmental Health and Safety Director
Emergency Management Coordinator

SPECIAL REQUIREMENTS
4 members from faculty
6 members from staff
1 Callier Physical Plant
1 Workers Comp. Ins. Rep. from the Office of Environmental Health & Safety
1 Science Laboratories
1 ADA Comp. Officer
1 Staff Council
Chairs of these Committees:
Campus Facilities
Institutional Biosafety
Parking and Security

SPECIAL REQUIREMENTS CONT.
1 Student Life (Disability Services)
2 Year Terms
2 Students- 1 Undergraduate, 1 Graduate
Chair-Faculty Member
V.Chair- Staff Member

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Business Affairs

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
J.B. Lee (EC) (8/31/2009)
Phillip Anderson (N) (8/31/2009)

STAFF COUNCIL:
Lynne Boyer (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Robert Wallace (EC) (8/31/2008)

REPLACEMENTS NEEDED
STAFF:
Zeke Barrera (EH&S) (2008) left UT Dallas
Ricky Robinson (FM) (2008)
Vivian Rutledge (HRM) (2008)
Kerry Tate (Student Life) (2008)
Steven Walters (NSM) (2008)

Jamie Finch (EH&S) (8/31/2010)
Ricky Robinson (FM) (8/31/2010)
Vivian Rutledge (HRM) (8/31/2010)
Kerry Tate (St.Lf) (8/31/2010)
Steven Walters (NSM) (8/31/2010)

STUDENTS:
Liam Skoyles (UG) (8/31/2008)
Tiffany Ornelas (UG) (8/31/2008)

Lawrence Overzet (EC) (8/31/2010)

CHAIRPERSON: Robert Wallace (EC)
VICE CHAIRPERSON: Kathy White (EH&S)
CHAIRPERSON: Lawrence Overzet (EC)
VICE CHAIRPERSON: Kathy White (EH&S)
COMMITTEE NAME: STUDENT FEE ADVISORY COMMITTEE
Charge: Policy Memorandum 90-III.21-51
University-Wide Committee

EX-OFFICIO

SPECIAL REQUIREMENTS:
9 voting members
Including: 5 students
(3-2 year/2-1 year)
4 from faculty & staff
2 year terms
Committee elects chair

RESPONSIBLE UNIVERSITY OFFICIAL
Vice President for Student Affairs

MEMBERS WHOSE TERMS ARE CONTINUING:
STAFF: Amanda Smith (8/31/2009)
STUDENTS: Ben Dower (UG) (8/31/2009)
Ana Tavares (UG) (8/31/2009)

MEMBERS WHOSE TERMS ARE EXPIRING:
Ivor Page (EC) (8/31/2008)
Stephanie Newbold (8/31/2008)

REPLACEMENTS NEEDED:
Simeon Ntafos (EC) (8/31/2010)
Laurie Zielger (M) (8/31/2010)

STUDENTS:
Anthony Brodrick (UG) (8/31/2008)
Snir Cohen (UG) (8/31/2008)
Iris Kwong (UG) (8/31/2008)

STAFF:
Amanda Ingram (8/31/2008)

CHAIRPERSON: (selected at first meeting)

VICE CHAIRPERSON: (selected at first meeting)
COMMITTEE NAME: UNIVERSITY RESEARCH INTEGRITY COMMITTEE
Charge: Policy Memorandum 95-III.21-67    University-Wide Committee

EX-OFFICIO (with vote)
Dean of Graduate Studies
Vice President for Research &
Economic Development, Chair

SPECIAL REQUIREMENTS:
8 tenured faculty at rank of full professor
3 year terms
Each school, except for General Studies should be represented

RESPONSIBLE UNIVERSITY OFFICIAL
Executive Vice President & Provost

MEMBERS WHOSE TERMS ARE CONTINUING
FACULTY:
Sam Efroimovich (N) (8/31/2009)
Shun-Chen Niu (M) (8/31/2009)
Robert Serfling (N) (8/31/2010)
Laksham Tamil (EC) (8/31/2010)

MEMBERS WHOSE TERMS ARE EXPIRING
REPLACEMENTS NEEDED
FACULTY:
Sandra Chapman (B) (8/31/2008)    Bart Rympa (B) (8/31/2011)
Rainer Schulte (A) (8/31/2008)    Charles Bambach (A) (8/31/2011)

CHAIRPERSON:    V.P. for Research & Economic Development (Bruce Gnade)

VICE CHAIRPERSON:    Anthony Champange    Anthony Champange (G)
COMMITTEE NAME: AUXILIARY SERVICES ADVISORY COMMITTEE
Charge: Policy Memorandum 96-I.2-71 University Wide Committee

EX-OFFICIO (without vote)
Assistant Vice President for Student Affairs & Dean of Students
Director of Food Services
Contract and Services Manager
UTD Bookstore Manager
Director of the Student Union

SPECIAL REQUIREMENTS:
7 voting members
3 from faculty and staff
4 students
1 year term

RESPONSIBLE UNIVERSITY OFFICIAL
Assistant Vice President for Procurement Management

MEMBERS WHOSE TERMS ARE CONTINUING

MEMBERS WHOSE TERMS ARE EXPIRING
FACULTY:
Sheila Pineres (EP) (8/31/2008)
Linda Keith (EP) (8/31/2008)

STAFF:
Patsy Aguilera (8/31/2008)

STUDENTS:
Dustin Bowen (UG) (8/31/2008)
Luis Torres (UG) (8/31/2008)
Steven Rosson (UG) (8/31/2008)
Fern Yoon (G) (8/31/2008)

REPLACEMENTS NEEDED
Sheila Amin Gutierrez-Pineres (EP) (8/31/2009)
Patsy Aguilera (8/31/2009)

CHAIRPERSON: Peter Bond

VICE CHAIRPERSON: Sheila Amin Gutierrez-Pineres (EP)
Master of Arts in Political Science

Faculty

Associate Professors: Thomas Brunell, Marie I. Chevrier, Jennifer S. Holmes, Gregory S. Thielemann
Assistant Professors: Patrick Brandt, Linda Camp Keith, Clint Peinhardt, Carole J. Wilson
Senior Lecturers: Brian Beary, Karl Ho

Mission Statement

The mission of the Master of Arts in Political Science (MAPS) degree is to offer advanced instruction in the social science literature and theories about politics, citizenship and governance. The program serves the interests and needs of talented students who can commit initially to a 30-hour program but may be attracted subsequently to the Ph.D. program, as well as those who can commit initially to the doctoral program but subsequently decide not to complete the program. The Master of Arts in Political Science further can satisfy the interests and talents of students who “fast-track” in the Political Science undergraduate program and who want an additional year of more rigorous, sharply focused graduate coursework in Political Science.

Objectives

Students in the Master of Arts in Political Science program will:

- Demonstrate the ability to apply political science theories and concepts to the study of citizenship, governance and politics.
- Develop a competency in one of the fields of Democratization, Globalization and International Relations; Government and Political Institutions and Processes; or Decision Making and Public Management.
- Develop basic skills in professional communication appropriate to political science research and analysis.
- Develop competency in analysis, evaluation, and research design relevant to political science research and analysis.

Facilities

Students have access to the computing facilities in the School of Economic, Political and Policy Sciences and the University’s Computing Center. The School has two computing laboratories that have over 30 computers that are network linked and equipped with major social science software packages, including E-Views, R. Rats, SPSS, and STATA. A computerized geographic information system, the Lexis Nexis Database and WestLaw are also available for student use. The University’s Computing Center provides personal computers and UNIX Workstations. Many important data and reference materials are available online from professional associations or at UTD via the Library's and School's memberships in the American Political Science Association, the European Consortium for Political Research, the Inter University Consortium for Political and Social Research, the Roper Center, and the University Consortium for Geographic Information Systems, and other organizations.

Admissions Requirement

The University’s general admission requirements are discussed here.
The Master of Arts in Political Science seeks applications from students with a baccalaureate degree from an accredited university or college. Although applications will be reviewed holistically, in general, entering students have earned a 3.0 undergraduate grade point average (on a 4.0 scale), and a combined verbal and quantitative score of at least 1100 on the Graduate Records Examination (GRE). Standardized test scores are only one of the factors taken into account in determining admission. Students should also submit all transcripts, three letters of recommendation, and a one-page essay outlining the applicant’s background, education, and professional objectives. Applications are reviewed by the Political Science Program Committee in the School of Economic, Political and Policy Sciences.

Undergraduate students who are interested in completing their undergraduate degrees while simultaneously taking graduate courses in the M.A. in Political Science program are expected to meet the School’s “fast-tracking” requirements.

**Prerequisites**

While there are no specific course prerequisites, entering students will benefit from exposure to undergraduate courses in the Economic, Political and Policy Sciences, statistics, and research design. In cases where undergraduate preparation is not adequate, students may be required to take additional course work before starting the master's program.

**Transfer Policies**

Students who have previous graduate work pertinent to the requirements of a master’s program may be given up to 12 hours of transfer credit, and the hours of coursework required for the degree will be reduced accordingly. Students desiring to transfer graduate courses thought to be equivalent to core courses may be required to demonstrate competency through examination. The award of such transfer credit must be consistent with the University’s “Transfer of Credit” policy.

**Degree Requirements**

The University’s general degree requirements are discussed on pg. 18.

Students seeking a Master of Arts in Political Science must complete at least 30 semester credit hours of work in the program, and must maintain at least a 3.0 grade point average to graduate.

The curriculum has two components:
1. Fifteen semester hours of required coursework
2. Fifteen semester hours of prescribed electives

**Required Courses (15 hours)**

All students should complete the core courses as soon as possible.

All of the following:
- PSCI 5350 Logic, Scope and Methodology of Political Science
- PSCI 5352 Empirical Democratic Theory
- PSCI 5360 Data Collection and Analysis

Two of the following:
- PSCI 5301 Proseminar in Democratization, Globalization, and International Relations
- PSCI 5303 Proseminar in Institutions and Processes
- PSCI 5305 Proseminar in Decision Making and Public Management
Item #7

Prescribed Electives (15 hours)

a) Two additional courses at the 5000 or 6000 level in the Democratization, Globalization and International Relations field; the Institutions and Processes field; or the Decision Making and Public Management field.

b) Three additional courses at the 5000 or 6000 level in one of the above fields, or methodology courses such as multivariate models (PSCI 5362) or other methods courses offered throughout the School, or up to three credits of optional thesis (independent study).
Master of Arts in Constitutional Law Studies

Faculty

Professors: Anthony M. Champagne, Harold D. Clarke, Murray Leaf, James Marquart, Marianne C. Stewart, Paul Tracy, John Worrell
Associate Professors: Thomas Brunell
Assistant Professors: Denise Boots, Paul Battaglio, Patrick Brandt, Linda Camp Keith, Stephanie Newbold, Carole J. Wilson

Mission Statement

The mission of the Master of Arts in Constitutional Law Studies degree is to provide students with the reasoning and analytic skills necessary to understand the technical rules of law, legal practices and policies, and law more generally as a social phenomenon. It serves the interests and needs of students who want an intellectually rigorous legal education as preparation for law school, for more advanced graduate learning, or for law-related careers in teaching, journalism, government, policy-making, or the private sector.

Objectives

Students in the Master of Arts in Constitutional Law Studies program:
- Demonstrate the ability to apply social science theories and concepts to the study of law and courts.
- Acquire detailed knowledge of the role of the Supreme Court and public law in governance and policy.
- Develop basic skills in professional communication appropriate to research and analysis on law and courts.
- Develop competency in analysis, evaluation and research design relevant to the study of law and courts.

Facilities

Students have access to the computing facilities in the School of Economic, Political and Policy Sciences and the University’s Computing Center. The School has two computing laboratories that have over 30 computers that are network linked and equipped with major social science software packages, including E-Views, R. Rats, SPSS, and STATA. A computerized geographic information system, the Lexis Nexis Database and WestLaw are also available for student use. The University’s Computing Center provides personal computers and UNIX Workstations. Many important data and reference materials are available online from professional associations or at UTD via the Library's and School's memberships in the American Political Science Association, the European Consortium for Political Research, the Inter University Consortium for Political and Social Research, the Roper Center, and the University Consortium for Geographic Information Systems, and other organizations.

The Center for American and International Law, an internationally known organization that provides professional development to lawyers, judges, and law enforcement officers, helps to administer the Capstone Seminar in Constitutional Law Studies in which leading lawyers and judges provide lectures on law and the legal process.
Admissions Requirement

The University’s general admission requirements are discussed here.

The Master of Arts in Political Science seeks applications from students with a baccalaureate degree from an accredited university or college. Although applications will be reviewed holistically, in general, entering students have earned a 3.0 undergraduate grade point average (on a 4.0 scale), and a combined verbal and quantitative score of at least 1100 on the Graduate Records Examination (GRE). Standardized test scores are only one of the factors taken into account in determining admission. Students should also submit all transcripts, three letters of recommendation, and a one-page essay outlining the applicant’s background, education, and professional objectives. Applications are reviewed by the Political Science Program Committee in the School of Economic, Political and Policy Sciences.

Undergraduate students who are interested in completing their undergraduate degrees while simultaneously taking graduate courses in the M.A. in Constitutional Law Studies program are expected to meet the School’s “fast-tracking” requirements.

Prerequisites

While there are no specific course prerequisites, entering students will benefit from exposure to undergraduate courses in the Economic, Political and Policy Sciences, statistics, and research design. In cases where undergraduate preparation is not adequate, students may be required to take additional course work before starting the master's program.

Transfer Policies

Students who have previous graduate work pertinent to the requirements of a master’s program may be given up to 12 hours of transfer credit, and the hours of coursework required for the degree will be reduced accordingly. Students desiring to transfer graduate courses thought to be equivalent to core courses may be required to demonstrate competency through examination. The award of such transfer credit must be consistent with the University’s “Transfer of Credit” policy.

Degree Requirements

The University’s general degree requirements are discussed on pg. 18.

Students seeking a Master of Arts in Constitutional Law Studies must complete at least 30 semester credit hours of work in the program, and must maintain at least a 3.0 grade point average to graduate.

The curriculum has two components:

(1) Eighteen semester hours of required coursework
(2) Twelve semester hours of prescribed electives

Required Courses (18 hours)

All students should complete the core courses as soon as possible.

One of the following:
PSCI 5350 Logic, Scope and Methodology of Political Science
PSCI 5360 Data Collection and Analysis
All of the following:
PSCI 5302  Law and the Policy Process
PSCI 6301  Constitutional Law
PSCI 6303  Legal Research and Writing
PSCI 6302  Capstone Seminar in Legal Studies
PSCI 63xx  Workshop in Constitutional Law Studies

Prescribed Electives (12 hours)

Four of the following:
CRIM 6305  Law and Social Control
CRIM 6311  Criminal Justice Policy
CRIM 6317  The Courts
CRIM 6348  Drugs and Crime
PA 5308  Ethics, Culture and Public Responsibility
PA 5319  Topics: Administrative Law
PA 5343  Human Resources Management
PSCI 5362  Multivariate Models for Analyzing Political and Social Science Data
PSCI 6331  Executives, Legislatures, and Public Policy
PSCI 63xx  Human Rights and International Law
Master of Arts in Legislative Studies

Faculty

Professors: Anthony M. Champagne, Harold D. Clarke, Euel Elliott, Edward J. Harpham, Robert C. Lowry, Marianne C. Stewart
Associate Professors: Thomas Brunell, Marie I. Chevrier, Gregory S. Thielemann
Assistant Professors: Patrick Brandt, Linda Camp Keith, Carole J. Wilson

Mission Statement

The mission of the Master of Arts in Legislative Studies degree is to offer pre-professional instruction for students interested in positions as legislative staff, political consultants, or other careers in professional politics. Students will receive instruction that moves beyond the standard coursework in American and Texas government and politics by advancing their knowledge of legislative processes and the role that legislatures play at the local, state, and national levels of government. Graduates will have the communication, research and project management skills that are necessary for undertaking policy or political analysis in legislative and/or public affairs offices of the state of Texas and elsewhere.

Objectives

Students in the Master of Arts in Legislative Studies program will:

- Demonstrate the ability to apply political science theories and concepts to the practice of politics.
- Acquire detailed practical knowledge of the working of institutions and processes related to legislatures in Texas and the United States.
- Develop basic skills in professional communication appropriate to political professionals.
- Develop competency in analysis, evaluation and research design relevant to the practice of politics.

Facilities

Students have access to the computing facilities in the School of Economic, Political and Policy Sciences and the University's Computing Center. The School has two computing laboratories that have over 30 computers that are network linked and equipped with major social science software packages, including E-Views, R. Rats, SPSS, and STATA. A computerized geographic information system, the Lexis Nexis Database and WestLaw are also available for student use. The University’s Computing Center provides personal computers and UNIX Workstations. Many important data and reference materials are available online from professional associations or at UTD via the Library's and School's memberships in the American Political Science Association, the European Consortium for Political Research, the Inter University Consortium for Political and Social Research, the Roper Center, and the University Consortium for Geographic Information Systems, and other organizations.

Students also have access to the non-partisan Center for the Study of Texas Politics. The Center develops opportunities for North Texans to interact with Texas’ leading policy-makers while simultaneously enhancing the quality of instruction, research and service that exists in the School of Economic, Political and Policy Sciences.

Admissions Requirement

The University’s general admission requirements are discussed here.
The Master of Arts in Political Science seeks applications from students with a baccalaureate degree from an accredited university or college. Although applications will be reviewed holistically, in general, entering students have earned a 3.0 undergraduate grade point average (on a 4.0 scale), and a combined verbal and quantitative score of at least 1100 on the Graduate Records Examination (GRE). Standardized test scores are only one of the factors taken into account in determining admission. Students should also submit all transcripts, three letters of recommendation, and a one-page essay outlining the applicant’s background, education, and professional objectives. Applications are reviewed by the Political Science Program Committee in the School of Economic, Political and Policy Sciences.

Undergraduate students who are interested in completing their undergraduate degrees while simultaneously taking graduate courses in the M.A. in Legislative Studies program are expected to meet the School’s “fast-tracking” requirements.

Prerequisites

While there are no specific course prerequisites, entering students will benefit from exposure to undergraduate courses in the Economic, Political and Policy Sciences, statistics, and research design. In cases where undergraduate preparation is not adequate, students may be required to take additional course work before starting the master's program.

Transfer Policies

Students who have previous graduate work pertinent to the requirements of a master’s program may be given up to 12 hours of transfer credit, and the hours of coursework required for the degree will be reduced accordingly. Students desiring to transfer graduate courses thought to be equivalent to core courses may be required to demonstrate competency through examination. The award of such transfer credit must be consistent with the University’s “Transfer of Credit” policy.

Degree Requirements

The University’s general degree requirements are discussed on pg. 18.

Students seeking a Master of Arts in Legislative Studies must complete at least 30 semester credit hours of work in the program, and must maintain at least a 3.0 grade point average to graduate.

The curriculum has three components:

1. Fifteen semester hours of required coursework
2. Nine semester hours of prescribed electives
3. Six semester hours of internship.

Required Courses (15 hours)

All students should complete the core courses as soon as possible.
PSCI 5360 Data Collection and Analysis
PSCI 5362 Multivariate Models for Analyzing Political and Social Science Data
PSCI 5364 Public Opinion and Survey Research
PSCI 6324 Local and State Government and Politics
PSCI 6331 Executives, Legislatures, and Public Policy
Prescribed Electives (9 hours)

Three additional courses at the 6000 level on political and civic organizations, bureaucracy and public policy, campaigns and media, Congress, or the Texas legislature.

Internship (6 hours)

Each student’s degree program concludes with a six-credit hour internship over the summer semester. Internships will be done in the state legislature in Austin, in Congress in Washington DC, or at some other state or local agency.
NAME OF INSTITUTION:
The University of Texas at Dallas

NAME OF PROPOSED PROGRAM:
Master of Science in Biomedical Engineering
Doctor of Philosophy in Biomedical Engineering
Participation in the currently existing PhD and MS program coordinated by UTSW and UTA

Display how proposed program(s) would appear on the Coordinating Board inventory; include Texas CIP code designation(s).
14.0501.00 06, Biomedical/Medical Engineering

How would name(s) of program(s) appear on student diplomas?
Master of Science in Biomedical Engineering
Doctor Of Philosophy in Biomedical Engineering

How would name(s) of program(s) appear on student transcripts?
Master of Science in Biomedical Engineering
Doctor Of Philosophy in Biomedical Engineering

Administrative Unit(s) responsible for the program(s):
Department of Bioengineering
A Joint department between The University of Texas at Dallas and The UT Southwestern Medical Center at Dallas

Proposed date for implementation of program:
September 1, 2009

Person to be contacted for further information about proposed program(s):
Name: Dr. Mark Spong
Title: Dean, Engineering and Computer Science
Phone: 972-883-2974

Signatures:

_____________________________ _________________________
Campus Chief Executive Officer  Date

_____________________________ _________________________
System Chief Executive Officer  Date
(As appropriate)

Governing Board approval date:______________________________
Executive Summary

The fraction of engineers who practice Biomedical Engineering in the Metroplex is expanding because of the presence of some of the Nation’s premier research medical facilities and health care providers. Many of these companies are in close proximity to The University of Texas at Dallas. Biomedical engineering is a relatively new field, especially given the explosion of technology related innovations applied to biotechnology applications. In several of these companies, more than 50% of the engineering workforce is over 50 years of age. Success in supplying new engineering graduates to replace those who will retire between 2007 and 2020 will profoundly affect the continued vitality of some of the largest employers of engineers in the State of Texas.

The leadership for sustaining and refreshing engineering jobs comes in part from Ph.D. level personnel. The interplay between a high-technology cluster and a local, research-oriented university is an essential element of long-term economic health. Because of the expanding requirement of biomedical engineering technologies in medical-related industries in the Metroplex, it is strategically imperative to increase the production of Ph.D. graduates in areas of biomedical engineering that will help maintain and improve the competitive position of local medically related companies and service providers.

Both engineering Ph.D. production and, commensurately, Federal research funding levels, must be raised in the Dallas/Fort Worth region. Statistics from the American Society for Engineering Education, as well as Federal economic data, describe an important need for engineering Ph.D. production in the DFW area. The state of Texas accounts for 7.6% of the U.S. population and contributes 7.6% to the U.S. GDP. However, despite excellence in the defense and medical sectors of the economy, Texas garners only 6.2% of Federal engineering research funding. The shortfall in the DFW area is even worse. The DFW area has 2% of the U.S. population and contributes 2.4% of the U.S. GDP. However, the DFW area produces only 1% of engineering Ph.D.s and only 0.4% of Federal engineering research funding. The region could see a factor of 2 increase in the production of Ph.D.s and a factor of 5 increase in Federal engineering research funding. U. T. Dallas is in an excellent position to contribute to a significant reduction in this shortfall.
The University of Texas at Dallas (UTD) and UT Southwestern Medical Center at Dallas (UTSW) propose to create a joint Department of Bioengineering that will become one of the best bioengineering programs in the nation within the next decade. The near-term (approximately 5 to 8-year) goal is to create a Department with 15 FTE faculty members who will be located at both host institutions. Enrollment within 8 years is expected to include approximately 300 new undergraduate students and 100 additional graduate students. Annual extramural research expenditures are expected to top $4 M within this time frame, and eventually much more. Initial focus areas will be neuroscience/engineering, bio/nano applications (particularly in bio materials and tissue engineering), electronic sensors and medical devices, advanced imaging research, surgical procedures and interventions, and cancer treatment.

The Department Head will have the primary responsibility for working with fellow faculty members and administrators in leading the recruitment of new faculty members, managing the delivery of classes and instruction, and establishing priorities for research initiatives. The Department Head will develop a broad network of interdisciplinary collaborations and lead the effort to establish the Department as a significant contributor to the forefront of biomedical engineering education and research on the international level.

The Department Head will report to a committee consisting of the Dean of Medicine at UTSW, the Dean of the School of Engineering and Computer Science at UTD, and on a rotating basis, the Provost of one of the two partner institutions. Along with other members of the Department’s faculty, the Department Head will have a primary tenured appointment in Bioengineering at either UTD or UTSW and a courtesy appointment from the other institution.

2. Describe responsibilities for student advisement and supervision.

Faculty. To achieve a credible Department that is capable of competing with the best in the nation, we plan to hire approximately 15 FTE faculty members into the Department in the first phase, which we expect to last 5 to 8 years. This hiring plan does not include the numerous faculty members from both institutions who we expect to request either a full-time appointment or more likely a courtesy appointment in the Department so that they can participate in supervising graduate students and be involved with other activities of the Department. The department administration will also include a graduate advisor who will guide graduate student recruiting, guide the faculty in academic program development and be responsible for other duties normally associated with the graduate program within the department.

3. If the program would be administered by more than one administrative unit, what factors make this desirable?
For three decades, UTSW and the University of Texas at Arlington (UTA) have offered joint MS and PhD degrees in biomedical engineering. Current enrollment is approximately 150 graduate students, with 90 students in the MS program and 60 in the PhD program. The two institutions have proposed that UTD join this group and that the degree become a three-way joint graduate degree in biomedical engineering. This approach is designed to support and encourage inter-institutional cooperation and collaboration. With the introduction of UTD into the joint biomedical engineering degree program, the size of the program will increase significantly especially among students who are seeking the PhD degree. UT Dallas would eventually develop a baccalaureate degree separately via the proposed Department that will help to feed the joint program.

UT Dallas is a relatively young institution – its engineering school was founded in 1986 and is only 22 years old. Strengths are in electrical engineering and computer science, with emerging capabilities in materials science and mechanical engineering. In addition, capabilities exist in systems engineering, and strong nanoscience capabilities are found in chemistry and biology. In 2008 U.S. News and World Report ranked UTD’s graduate engineering program No. 4 in Texas, trailing Rice, Texas A&M, and UT Austin.

UT Southwestern is the top-ranked medical school in Texas and one of the world’s foremost and successful medical research institutions. UT Southwestern is particularly noted for its top quality faculty (4 Nobel laureates, 17 members of the National Academy of Sciences, and 19 members of the Institute of Medicine), large and productive research programs ($350 M in annual research expenditures), and transformative discoveries across an array of basic biomedical and clinical research areas.

UT Arlington is a comprehensive university with rapidly expanding research capabilities. The Department of Bioengineering at UT Arlington offers MS and PhD degrees through the joint graduate degree program with UTSW. The Department offers a combined 5-year degree program leading to BS in biology and MS in Biomedical Engineering. The five research thrust areas for the Department are bioinstrumentation and human performance, biomaterials and tissue engineering, biomechanics and orthopedics imaging, and molecular and computational engineering.

UT Dallas, UTSW, and UTA already collaborate deeply on numerous research projects. The Advanced Imaging Research Center, for example, is jointly managed by UTD and UTSW. The UTD Callier Center for Communication Disorders is a major research and treatment facility, and is located adjacent to the UTSW campus. The UTD Center for Brain Health is located close to the UTSW campus. Recently, UT Dallas started daily shuttle bus service between its Richardson campus and UTSW (15 miles apart), reflecting the deep level of current engagement of UTD students and faculty on the UTSW campus. Also, in the past year UTD and UTA launched a joint collaborative research program designed to foster collaborative research. In addition UTSW funded research projects with UTD and with UTA to encourage expanded research collaborative research amount the faculty members of the three institutions.

B. If some non-academic administrative units, e.g., "institute," or "center" would be involved in administering the program, describe the relationships.

None
C. If a new organizational unit would be created or an existing organizational entity modified as a result of this program, identify and describe the anticipated result. (Reference: "Format for Administrative Change Request," Fall 1992.)

The University of Texas at Dallas (UTD) and UT Southwestern Medical Center at Dallas (UTSW) propose to create a joint Department of Bioengineering that will house one of the best biomedical engineering programs in the nation within the next decade. The near-term (approximately 5 to 8-year) goal is to create a Department with 15 FTE faculty members who will be located at both host institutions. Enrollment within 8 years is expected to include approximately 300 new undergraduate students and 100 additional graduate students. Annual extramural research expenditures are expected to top $4 M within this time frame, and eventually much more. Initial focus areas will be neuroscience/engineering, bio/nano applications (particularly in bio materials and tissue engineering), electronic sensors and medical devices, advanced imaging research, surgical procedures and interventions, and cancer treatment.

II. PROGRAM DESCRIPTION

A. Educational Objectives

1. Describe the educational objectives of the program. (Include reference to the preparation of students for licensure or certification appropriate and any special outcomes or competencies which the program would provide that are not available from existing degree programs.)

The Erik Jonsson School of Engineering and Computer Science seeks approval to supplement the existing Biomedical Engineering MS and Ph.D. degree program Currently offered by the UTSW and UTA in Biomedical Engineering (CIP Code 14.0501.00 06, Biomedical/Medical Engineering). These degrees are required to meet the needs of the community served by U T Dallas. They will support a research program for the faculty to be hired for the currently existing joint degree programs offered at UTSW and UTA. A new Department of Bioengineering is also proposed. These proposals are fully aligned with the recommendations made by the Washington Advisory Group in 2004: “The School of Engineering should expand the number of departments over the next 10 years. Because of the requirements of the surrounding industry, and the UTD designated foci, the following areas should be considered: Industrial Engineering and Manufacturing Systems, Mechanical and Materials Engineering, Chemical and Bioengineering. This expansion of the engineering mission would give the College a modern and comprehensive look and a more realistic base from which to achieve its stated goals.” The proposed collaboration with UTSW and UTA would broadened the capability of Bioengineering related fields servicing the State of Texas and the specifically the North Texas area. The rationale for this expansion follows.

The fraction of engineers who practice Biomedical Engineering in the Metroplex is expanding because of the presence of some of the Nation’s premier research medical facilities and health care providers. Many of these companies are in close proximity to The University of Texas at Dallas. Bioengineering is a relatively new field, especially given the explosion of technology related innovations applied to biotechnology applications. In several of these companies, more than 50% of the engineering workforce is over 50 years of age. Success in supplying new engineering graduates to replace those who will retire between 2007 and 2020 will profoundly affect the continued vitality of some of the largest employers of engineers in the State of Texas.

The leadership for sustaining and refreshing engineering jobs comes in part from Ph.D. level personnel. The interplay between a high-technology cluster and a local, research-oriented university is an essential
element of long-term economic health. Because of the expanding requirement of bioengineering technologies in medical-related industries in the Metroplex, it is strategically imperative to increase the production of Ph.D. graduates in areas of Bioengineering that will help maintain and improve the competitive position of local medically related companies and service providers.

Both engineering Ph.D. production and, commensurately, Federal research funding levels, must be raised in the Dallas/Fort Worth region. Statistics from the American Society for Engineering Education, as well as Federal economic data, describe an important need for engineering Ph.D. production in the DFW area. The state of Texas accounts for 7.6% of the U.S. population and contributes 7.6% to the U.S. GDP. However, despite excellence in the defense and medical sectors of the economy, Texas garners only 6.2% of Federal engineering research funding. The shortfall in the DFW area is even worse. The DFW area has 2% of the U.S. population and contributes 2.4% of the U.S. GDP. However, the DFW area produces only 1% of engineering Ph.D.s and only 0.4% of Federal engineering research funding. The region could see a factor of 2 increase in the production of Ph.D.s and a factor of 5 increase in Federal engineering research funding. U. T. Dallas is in an excellent position to contribute to a significant reduction in this shortfall.

2. If the program design includes multiple curricula (concentrations, emphases, options, specializations, tracks), describe the educational objectives of each. (Each of these curricula including Texas CIP code must be identified on the title page. Reference: "Guidelines for Recognition and Classification of Courses and Degree Program Offerings," adopted July 20, 1979 and revised to conform to new CIP codes, Fall 1992.)

N/A

B. Admissions Standards

1. State admission requirements for the program. (If there are different categories of admission, e.g., unconditional or probationary, describe each.)

Admission to the proposed Doctor of Philosophy in Biomedical Engineering degree program will require that students meet standards equivalent to those currently required for admission to the Ph.D. degree programs in Electrical Engineering, Chemistry, Physics, or Biology. The requirements for unconditional admission are a Bachelor of Science degree in Biomedical Engineering or a closely related discipline; a grade-point average in graduate-level course work of 3.5 or better on a 4-point scale; and GRE scores of 1100 (for the total score). Students who fulfill some of the above requirements, if admitted conditionally, will be required to take graduate level courses as needed to make up any deficiencies.

C. Degree Requirements

1. In tabular form, indicate the semester credit hour (SCH) requirements in each of the following categories applicable to the proposed program; include the total SCH requirement for the degree:

   a. Foundation Courses

      (1) for undergraduate programs, general education/core curriculum;

   N/A
(2) for graduate programs, prerequisite/leveling courses;

Students entering the MS or Doctor of Philosophy in Biomedical Engineering program will be required to have a Bachelor of Science degree in Bioengineering, Biomedical Engineering or a closely related field of study in engineering or science. Students whose preparation is deficient in some respects will be required to take leveling or prerequisite courses. A student may use at most three semester credit hours of 5000-level courses in this category towards meeting the graduation requirements for the MS or Doctor of Philosophy in Biomedical Engineering. On the basis of previous experience with applicants for the doctoral degree program in Electrical Engineering, it is expected that most applicants for the MS or Doctor of Philosophy degree will be sufficiently well prepared in Biomedical Engineering or closely related fields that few students will be required to take more than 6 to 9 SCH to alleviate deficiencies.

b. courses required of all students in the proposed program;

For the proposed Ph.D. program, all students must pass the following courses with a grade of B or better:
- BME 5101 Seminar in Biomedical Engineering
- BME 5306 Biochemistry
- BME 5309 Human Physiology
- BME 6103 Ph.D. Seminar in Biomedical Engineering (must be taken twice)
- BME 6194 Ph.D. Diagnostic Exam I
- BME 6195 Ph.D. Comprehensive Exam II
- BME 6999 Dissertation Exam

For the proposed M.S. program, all students must pass the following courses with a grade of B or better:
- BME 5101 Seminar in Biomedical Engineering
- BME 5309 Human Physiology

c. elective courses prescribed for those students;

In addition to the required courses above a Ph.D. student must take one Biomedical Engineering Laboratory course from the following list:
- BME 5382 Laboratory Principles
- BME 5365 Tissue Engineering Lab
- Or other approved Biomedical Engineering Laboratory course.

In addition to the courses above a Ph.D. student must take seven graduate level Engineering courses with at least 6 in Biomedical Engineering

In addition to the courses above a Ph.D. student must take three graduate level Life Science courses from the following list:
- BME 5307 Human Anatomy Lecture
- BME 5308 Human Anatomy Laboratory
- Or other approved Life Science course
In addition to the courses above a Ph.D. student must take two graduate level Mathematics, Statistics or Physical Science courses with at least one in Statistics.

In addition to the required courses above an M.S. student must take one Biomedical Engineering Laboratory course from the following list:
- BME 5382 Laboratory Principles
- BME 5365 Tissue Engineering Lab
- Or other approved Biomedical Engineering Laboratory course.

In addition to the courses above an M.S. student must take five graduate level Engineering courses with at least 4 in Biomedical Engineering

In addition to the courses above an M.S. student must take three graduate level Life Science courses from the following list:
- BME 5307 Human Anatomy Lecture
- BME 5306 Biochemistry
- Or other approved Life Science course

In addition to the courses above an M.S. student pursuing the thesis option must take one of the courses from the following list:
- BME 5698 Thesis
- BME 5098

In addition to the courses above an M.S. student pursuing the thesis option must take BME 5293 (Masters Comprehensive Exam), one 3 hour approved elective and one of the courses from the following list:
- BME 5390 Research Project
- BME 6395 Industrial Internship

The Ph.D. program consists of a minimum of 58 credit hours of course work, plus a minimum of 30 research hours beyond the bachelor’s degree level. The total number of credit hours required for the M. S. degree (thesis option) will be 31. The remaining credit hours are to be taken from the following list of Specialized Courses at UTD, UTA, or UTSW (or as approved by the advisor).

UT Dallas Courses
- ACN 6340 Cellular Neuroscience
- ACN 6346 Integrative Neuroscience
- BIOL 5376 Applied Bioinformatics
- BIOL 5440 Cellular Function
- CS 6372 Biological Database Systems and Data Mining
- CS 6325 Bioinformatics
- EE 6331 Linear Systems
- EE 6343 Detection and Estimation Theory
- EE 6349 Random Processes
- EE 6350 Signal Theory
- EE 6360 DSP I
d. courses freely elected by students;

Not applicable

e. other, specify.

None

2. Identify and describe special requirements for the program, e.g., clinicals, field experience, internship, practicum, thesis, etc.

Each student must carry out original research in the area of Biomedical Engineering, under the direction of a member of the Bioengineering Affiliated Faculty, and complete and defend dissertations on the research project. A Supervisory Committee will be appointed once the faculty member accepts the student for a research project. Students must be admitted to doctoral candidacy by passing a Qualifying Exam, which will be administered at approximately the time that the students have completed their course work. The rules for the dissertation research and defense are specified by the Office of the Dean of Graduate Studies.

3. If transfer students would be admitted to the program, list agreements completed, in negotiation, or planned.

A student may petition to have appropriate graduate coursework taken at another institution be counted towards satisfaction of a portion of the required organized course hours for the MS or Ph.D. degree in Biomedical Engineering. Transfer petitions will be processed according to the general policies and procedures described in the UTD graduate catalog. The Bioengineering Affiliated Faculty, or a designated committee, will determine whether the course content is appropriate for transfer credit towards the MS or Ph.D. degree in Biomedical Engineering. Final approval for all such transfer petitions requires the endorsement of the Graduate Dean. However, since the emphasis in the MS and Ph.D. program is on preparing leading scientists and engineers for industry and academic positions, it is anticipated that most students will enter the program directly from excellent undergraduate institutions.

D. Curriculum

1. Identify by prefix, number, title, and description (including prerequisites) courses to be required or elected in the proposed program. (Identify with an asterisk (*) courses added during the last 3 academic years, and with 2 asterisks (**) courses to be added if the program is authorized.)

UT Dallas Courses

ACN 6340 Cellular Neuroscience (3 semester credit hours)
Basic neural biology and physiology and principles of synaptic transmission. (3-0)

ACN 6346 Integrative Neuroscience
Integrative systems level study of the nervous system. Aspects of neural mechanisms and circuitry underlying regulation of motor behaviors, sensory and perceptual processing, biological homeostasis, and higher cognitive functions.

BIOL 5376 Applied Bioinformatics
Genomic information content; data searches and multiple sequence alignment; mutations and distance-based phylogenetic analysis; genomics and gene recognition; polymorphisms and forensic applications; nucleic-acid and protein array analysis; structure prediction of biological macromolecules. Introductory statistics and 2 semesters of calculus required. (3-0) T

BIOL 5440 Cellular Function
Molecular architecture and function of cells and subcellular organelles; structure and function of membranes; hormone and neurotransmitter action; growth regulation and oncogenes; immune response; eukaryotic gene expression.
Prerequisites: BIOL 5410 and BIOL 5420, or the equivalent, or permission of the instructor. (4-0) Y

BME 63XX (EE 63XX*) Cellular Microscopy
A research level course whose aim is the introduction of approaches to light microscopy of cells. The investigation of cellular events is a major aspect in modern biological research. A large number of different dynamical events occur in cells that govern the functioning of the cells. Microscopy is one of the major tools for the investigation of such cellular processes. Major advances in molecular biology have revolutionized sample preparation. Recent progress in hardware and detector technology make new experiments possible. The course is primarily aimed at students with a technical background who are interested in developing an understanding of light microscopy and its role in biological research. It requires significant input by the student. Current technical literature will be discussed in the course.

BME 63XX (EE 63XX*) Science of Human Communication
This course represents an introduction to the fundamentals of human speech communication, introducing aspects of physical speech production, auditory processing and psychoacoustics, and language. This interdisciplinary course covers how human thought is transmitted from the brain of a speaker to the brain of a listener. The complex interaction of acoustics, speech physiology, anatomy, neurobiology, hearing, and psychology all play integral role in human communication. The course covers the fundamentals of the physics and biology of spoken language as well as how the communication process is observed and measured. Finally, we will learn about how technology plays a role in the speech chain, including voice communication systems, assistive technology for individuals with communication disabilities, and emerging commercial speech

CS 6372 Biological Database Systems and Data Mining
Describes relational data models and database management systems; teaches the theories and techniques of constructing relational databases to store various biological data, including sequences, structures, genetic linkages and maps, and signal pathways. Introduces relational database query language SQL, with an emphasis on answering biologically important questions. Summarizes currently existing biological databases. Addresses questions in data integration from various sources and security. Introduces novel data mining methods in bioinformatics area with an emphasis on protein structure prediction, homology search, genomic sequence analysis, gene finding and gene mapping. The future directions for biological database development are also discussed. Prerequisites: BIOL 5373 (Proteomics), BIOL 5381 (Genomics), Data structures (satisfied by taking CS 5343: Data Structures and Algorithms): lists, stacks, queue, searching, sorting, binary search tree, hashing, priority queues, graphs).(3-0) Y.

CS 6325 Bioinformatics
This course will provide an overview of bioinformatics, the application of computational methods to interpret the rapidly expanding amount of biological information. Following the natural flow of this information in the cell, the course will begin with the analysis of gene sequences and progress to the study of protein structures. The classic dynamic programming method of sequence alignment will be presented first, and then it will be shown how this can be extended to allow rapid searching and scoring of the thousands of sequences in a genome. This will naturally lead to the question of how large amounts of biological information can be intelligently organized into a database. Discussion of sequence-structure relationships will form the bridge to protein structure. Particular emphasis will be placed here on statistically based “predictions” of secondary structure and 3D structure. Microarray data analysis, Proteomic data analysis, Single Nucleotide Polymorphism (SNPs) analysis will also be covered in this class. Finally, the integration of the bioinformatics resources will be discussed.

EE 6331 Linear Systems
Systems and control theory: state space, convolution integrals, transfer functions, stability, controllability, observability, feedback. Prerequisites: linear algebra, differential equations, and systems and controls

EE 6343 Detection and Estimation Theory
Parameter estimation. Least-square mean-square, and minimum-variance estimators. Maximum A Posteriori (MAP) and Maximum-Likelihood (ML)

EE 6349 Random Processes
Random processes concept. Stationarity and independence. Auto-correlation and cross-correlation functions, spectral characteristics. Linear systems with random inputs. Special topics and applications. Prerequisite: EE 3341 or equivalent.

EE 6350 Signal Theory
Signal processing applications and signal spaces, vector spaces, matrix inverses and orthogonal projections, four fundamental subspaces, least squares and minimum norm solutions, the SVD and principal component analysis, subspace approximation, infinite dimensional spaces, linear operators, norms, inner products and Hilbert spaces, projection theorems, spectral properties of Hermitian operators, Hilbert spaces of random variables, linear minimum variance estimation and the Levinson-Durbin algorithm, general optimization over Hilbert spaces, methods and applications of optimization. Prerequisite: EE 3302 or equivalent.

EE 6360 DSP I
Analysis of discrete time signals and systems, difference equations, Z-transform, Fourier and discrete Fourier transform, fast Fourier transform, analysis and design of digital filters. Prerequisite: EE 3302 or equivalent.

EE 6362 DSP II
Continuation of EE 6360. Includes advanced topics in signal processing such as: Digital filter structures and finite word-length effects, Digital filter design and implementation methods, Multirate digital signal processing, Linear prediction and optimum filtering, Spectral analysis and estimation methods. Prerequisite: EE 6360.

EE 6363 Digital Image Processing
Image formation, image sampling, 2D Fourier transform and properties, image wavelet transform, image enhancement in spatial and frequency domains, image restoration, color image processing, image segmentation, edge detection, morphological operations, object representation and description, introduction to image compression. Prerequisites: EE 6360, knowledge of C or MATLAB.

EE 6364 Pattern Recognition
Pattern recognition system, Bayes decision theory, Maximum likelihood and Bayesian parametric classifiers, linear discriminant functions and decision boundaries, density estimation and nonparametric classifiers, unsupervised classification and clustering, multilayer neural networks, decision trees, classifier comparison, Prerequisite: EE 6349 and knowledge of C or Matlab.

BME 63xx Analog Circuit Applications in Biological systems
Topics include the development of advanced analog circuits and systems that optimized the interface to biological systems. Analysis of impedance, noise and
system performance topics are covered. Laboratory experience with biological systems and sensors will also be included.

BME 63XX RF Circuit Applications in Biological systems
Wireless interfaces are considered the norm in most analog or digital sensor systems. RF interfaces and design techniques specific to biological environments will be covered. Topics include loss, dispersion, frequency selection, coupling and antenna design considerations, and material compatibility.

BME 63xx Nanomaterial Applications in Biological Systems
Topics include: nanosensors and nanodevices for clinical diagnostics; nanostructures for drug delivery; nanoarrays and nanodevices; use of nanoanalytical devices and systems; methods and techniques for modification or functionalization of nanoparticles and nanostructures with biological molecules; treatment approaches using nanostructured materials. Prerequisites: Graduate standing.

BME 63xx Biological Robotics
Course material combining the design, analysis of machines interacting with biological systems. Topics include understanding the mechanics and kinematics of human systems, as well as the design of surgical robotics, analysis tools, and micro and nano based laboratory systems.

BME 63xx Wireless Sensor Network Applications in Biological Systems
Topics focus on networking strategies associated with biological and biomedical systems. Course material includes the design and analysis of wireless networks for focused biointerfaces as well as more global hospital based management systems. The intent is to provide students with an ability to identify system descriptors and conceptualize design requirements. Project based outcomes are designed into the course material.

BME 7V80** Special Topics in Biomedical Engineering (1-6 semester hours) For letter grade credit only. (May be repeated to a maximum of 9 hours.) ([1-6]-0) S

BME 8V40** Individual Instruction in Biomedical Engineering (1-6 semester hours) (May be repeated for credit.) For pass/fail credit only. ([1-6]-0) R

BME 8V70** Research In Biomedical Engineering (3-9 semester hours) (May be repeated for credit.) For pass/fail credit only. ([3-9]-0) R

BME 8V98** Thesis (3-9 semester hours) (May be repeated for credit.) For pass/fail credit only. ([3-9]-0) S

BME 8V99** Dissertation (3-9 semester hours) (May be repeated for credit.) For pass/fail credit only. ([3-9]-0) S
2. If the program design includes multiple curricula (concentrations, emphases, options, specializations, tracks, or related items), identify courses unique to each alternative.

N/A

3. Provide a semester-by-semester projection for offering of the required and prescribed courses during the first five years.

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4. Describe arrangements that would serve non-traditional students, e.g., non-traditionally scheduled classes, delivery of instruction by telecommunications and/or off-campus instruction sites, library services, student advisement, and related items if applicable.

Some of the students in the proposed program are expected to have full-time jobs in the local medical, semiconductor and aerospace industry. In those cases, research and advisement meetings will be arranged at hours that are mutually convenient for the student and the research supervisor. Many of the courses for the Ph.D. in BME program are also part of the M.S. in BME degree program and since many M.S. students will have full-time jobs, those courses will be regularly offered during evening hours, and some may be offered via telecommunications and/or off-campus instruction sites. Approval for the use of distance learning methods will be applied for as needed. The U.T. System digital library will be available to students in the proposed program.
5. If the general education/core curriculum component of the proposed program differs from that required for all or most undergraduate programs at the institution, indicate how and why.

N/A

E. Supporting Fields

1. Identify existing degree programs and non-degree supporting fields that would complement the proposed program; describe the relationship of each to the proposed program.

The MS and Ph.D. programs requested here will significantly enrich the educational opportunities for Jonsson School students at all levels in part by providing a broader, multidisciplinary experience. The envisioned emphasis on a modern biotechnologies emphasized in the proposed Biomedical Engineering MS and Ph.D. program will complement and build on strength in these areas in the existing graduate programs in electrical engineering, Mechanical Engineering, Computer Science, chemistry and physics. New Bioengineering faculty with expertise in biological/technology interfaces will significantly strengthen the existing academic and research programs in Electrical Mechanical and Computer Engineering. The addition of Bioengineering faculty with expertise in computational modeling will create synergy with the Computer Science Department, in accordance with the recommendations made by a distinguished review panel in a 2007 study of the graduate programs in Computer Science and Software Engineering at U. T. Dallas. Finally, Bioengineering Affiliated Faculty with requirements in novel materials and MEMS will substantially strengthen the doctoral and Master’s programs in Material Science and Engineering, and Mechanical Engineering.

2. If the existing programs or supporting fields would require updating or expansion because of the new program, explain how and why.

None of the existing programs should require updating. The BME program will complement the existing programs.

F. Effect on Existing Programs

1. Describe how existing courses would be affected by enrollments generated in the proposed program, including information on, but not limited to, the potential need for additional sections or increased class sizes, the faculty, library resources, equipment, supplies, and/or space.

Since the proposed BME program is graduate only, the additional enrollment should not require new sections for existing classes. Classes that are cross-listed with Chemistry, Physics, EE and Biology will increase in size, but not enough to require new sections. New faculty will be added to the BME program over the next three to five years as part of the School of Engineering growth plan. The current Engineering and Computer Science Complex at UTD, along with the planned Natural Science and Engineering Building will provide adequate laboratory, office, and classroom space for the BME program. New equipment will be included in the normal new faculty start-up packages. New requirements for the library should fall within the normal annual acquisition budget for the library. The current electronic resources provided within the UT system should be adequate for the BME program.
2. For a graduate program, describe how related undergraduate programs would be affected by enrollments in the proposed program, including changes anticipated in the rank and/or credentials of faculty teaching in the undergraduate program, and use of graduate student Teaching Assistants, Graduate Assistants, and Assistant Instructors, etc., and their credentials. Provide evidence that faculty (full-time, part-time, or Teaching Assistants) in the proposed program, or who would replace current faculty reassigned to the proposed program, would meet Southern Association minimum standards for credentials and experience.

The current members of the BME Affiliated Faculty are listed in Section VI.A.3. They all meet Southern Association minimum standards. New faculty brought into the program will be required to meet these standards as a minimum. Current undergraduate programs will only be affected in a positive manner in that as we add new faculty with experience in Biomedical Engineering, they will bring that expertise to the classroom. Also, we plan to recruit heavily from the best UTD undergraduates to join the BME graduate program.

G. Accreditation

1. If there is a professional program accreditation procedure in this field, attach current standards.

2. State intention regarding accreditation.

UT Dallas undergoes its standard SACS accreditation process and the new programs will be integrated as part of the regular review and assessment procedures associated with this program. The ABET accreditation process is associated with undergraduate degree program and the Department will apply for accreditation under ABET requirements when it institutes its undergraduate degree in Biomedical Engineering.

III. EVALUATION

A. 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 survey, or other procedures. How would evaluations be carried out?

The procedures to be used for the institutional evaluation of the proposed program, as well as for any existing graduate programs, have been established by The University of Texas at Dallas and are described in Policy Memorandum 94-III.24-63 Academic Program Review. In accordance with this policy the proposed program will be reviewed every five years. In addition, there will be periodic internal evaluations, which will encompass job offerings, initial salary, institutional wide assessment and supervisor satisfaction.

IV. PROGRAM NEED/DEMAND

A. Identify similar programs at:
1. Texas public and independent universities; or

In the U.S., undergraduate engineering programs are accredited by ABET, Inc., which prior to 2005 was known as the Accreditation Board for Engineering and Technology. As of October 1, 2007, there were 49 ABET-accredited programs in bioengineering or biomedical engineering. Only two are in Texas: Texas A&M University and UT Austin. The head count of majors in Fall 2007 for BS/MS/PhD was: 377/46/29 at Texas A&M and 453/46/57 at UT Austin. Thus, of the nation’s 5000 bioengineering graduate students, Texas enrolls only 178 or 3.6% of the nation’s total in accredited programs.

For three decades, UTSW and the University of Texas at Arlington (UTA) have offered joint MS and PhD degrees in biomedical engineering. Current enrollment is approximately 150 graduate students, with 90 students in the MS program and 60 in the PhD program. The three institutions have proposed that UTD join this group and that the degree become a three-way joint graduate degree in biomedical engineering. This approach is designed to support and encourage inter-institutional cooperation and collaboration. With the introduction of UTD into the joint biomedical engineering degree program, the size of the program will increase significantly especially among students who are seeking the PhD degree.

2. Out-of-state institutions, if the proposed program would be unique in Texas.

N/A

B. Describe justification for the proposed program in terms of the following, as applicable:

1. Local, regional, state, national and international needs. NOTE: State need is the preeminent criterion for consideration of new degree programs (Reference: Coordinating Board "Standards for Consideration of New Doctoral Program Requests," July 1982 and revised Fall 1992).

The past two decades have witnessed rapid expansion of new bioengineering and biomedical engineering programs around the nation. This growth was born from a combination of need and opportunity, and facilitated by infusion of significant external dollars such as from the newly created National Institute of Biomedical Imaging and Bioengineering, which supports about $300 M per year for research from the National Institutes of Health. Nationwide, there are currently about 15,000 undergraduate students and 5,000 graduate students studying bioengineering.

According to the Biomedical Engineering Society, the principal areas of focus in biomedical engineering programs around the nation are the following:

- Instrumentation – application of electronics to sensing, diagnosis, and treatment
- Biomaterials – tissue and artificial materials used for replacement or implantation
- Biomechanics – application of mechanics (motion, heat transfer, etc.) to medicine
- Cellular, tissue, and genetic engineering – microscopic-level work addressing medical application
- Clinical engineering – application of systems engineering principles to hospital health care systems, integrating computer and information systems with patient care
- Imaging – development of improved medical imaging devices and data analysis methods
- Orthopedic engineering – application of engineering to solution of orthopedic problems such as bones, joints, and muscles
- Rehabilitation engineering – addresses quality of life issues such as prosthetics, hearing loss, and home/work enhancements
- Systems physiology – engineering applied to function of living organisms.
As seen from this list, biomedical engineering is a very broad field and could include virtually any application of engineering to medicine, biology, or health care. The field is far too broad for any institution to be excellent in all areas of application.

2. The long-range academic plan of the institution.

The Erik Jonsson School of Engineering and Computer Science was created in 1986 through the efforts of local microelectronics and telecommunications industry leaders. The proposed Doctor of Philosophy and MS in BME program fits into the mission and scope of The University of Texas at Dallas and the Erik Jonsson School. In the next five years, the goal of the Jonsson School is to become the leading producer of BME graduates and the leader in materials research in the local area and the state of Texas by:

- Leveraging its faculty’s broad expertise in life science and engineering
- Offering uniquely excellent and synergistic degree programs in Biomedical Engineering, Electrical Engineering, Mechanical Engineering, and Materials Science and Engineering
- Meeting the needs of the School’s neighboring Biotechnology, Healthcare and Research industries

In FY 2007, the Erik Jonsson School of Engineering and Computer Science received over $17 million in external funding, or approximately $170,000 per tenured or tenure-track faculty member. In the same time period, the existing Electrical Engineering and Computer Science faculty published 125 journal articles, or an average of approximately two journal articles per year, per tenured or tenure-track faculty member. It is expected that the average productivity of new tenure-track faculty members will adhere to or exceed these norms.

3. Demand from prospective students.

Biomedical engineering is by far the most rapidly growing engineering discipline in terms of student enrollment and degrees granted. For example, from 1999 to 2007 the number of Master’s degrees granted in biomedical engineering grew by a factor of 2.70,1 for a nine-year compound annual growth rate of 11.67%. This rate of growth contrasts with much lower annual growth rates of the number of Master’s degrees in long-established engineering fields such as Mechanical Engineering (3.44%) and Electrical Engineering (2.68%). The very rapid growth in the number of biomedical engineering degrees granted nationwide attests to the recognition of substantial career opportunities in biomedical engineering by prospective students.

Because of the location of the joint bioengineering program in the Dallas/Fort Worth Metroplex, the engagement of three institutions in the graduate degree program, and the unique impact and quality of UTSW, the graduate student enrollment should realistically surpass the enrollment in the other bioengineering programs in Texas.

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1 Profiles of Engineering and Engineering Technology Colleges, American Society for Engineering Education, 2008
Over the next five years the Department of Bioengineering will grow to approximately twelve full time equivalent faculty members by hiring jointly and in concert with UTSWMC. The hiring profile will be such that each faculty, on average, will attract funding at a level of approximately $300k/year, and thereby support a Ph.D. population of approximately 30 students. From ASEE data, and from discussions with UTSWMC and UTA, it is projected that the M.S. population will be approximately 75, and the undergraduate population will be approximately 150. More detailed projections of student population and population growth will be provided when specific degree programs are proposed.

The accompanying chart of total U.S. enrollment in biomedical engineering shows the level of interest for this degree from students and indicates a strong potential for healthy enrollments at both undergraduate and graduate levels. According to this ASEE data, biomedical engineering is the fastest growing engineering discipline over that past five years. Specific cases add to this picture. For example, UCLA had over 2000 applications for its first degree class in biomedical engineering, a class they capped at 35 places. In 2004, approximately half of the 2000 Duke engineering freshmen wanted to major in biomedical engineering.

Current industry in the biotechnology and biomedical engineering sector that resides in North Texas is significant. The following local manufacturers of medical devices account for approximately 4000 local employees: Advanced Neuromodulation Systems (medical devices), Avail Medical Products (disposable medical products), Avcor (medical supplies), B. Braun Medical (IV Pumps), Bledsoe Brace Systems (surgical appliances), Chase Medical (surgical and medical instruments), Galt Medical Corp. (surgical and medical instruments), Hydro-Med Products (disposable medical surgical specialty products), Innovative Spinal Technologies (surgical and medical instruments), MicroFab (tissue engineering), National Heritage (safety needle devices), Osteo Med L. P. (medical devices and surgical implants), Plexon (brain-machine interface technology), Quest Medical (surgical and medical instruments, electromedical equipment), Retractable Technologies (safety needle devices), Thermotek Inc. (surgical appliances, surgical and medical instruments), and Tyco Healthcare Group (medical supplies). The following local manufacturers of pharmaceutical and biochemical manufacturers account for approximately 5000 local employees: Abbott Laboratories (diagnostic instrumentation), Access Pharmaceuticals (pharmaceuticals), Adams Laboratories (pharmaceuticals), Alcon (ophthalmic medical products), American Embryo (vaccines for veterinary use), Bio-Synthesis (custom DNA peptide antibodies), Boehringer Ingelheim Corp. (pharmaceutical preparations), Carrington Laboratories (pharmaceutical preparations), Cumbre (discovery and development of pharmaceuticals), Macrocyclics (pharmaceutical research), and MPM Medical Inc. (medical devices for wound care and oncology care).

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2 Janie Fouke, National Trends in Bioengineering, invited lecture at The University of Texas at Dallas, November 19, 2004.
3 Ibid.
Biomedical engineering Master’s graduates enter the workforce as implementers of new technology; biomedical engineering doctoral graduates typically embark on a research career track, making discoveries and inventions that define new technology. Substantial numbers of both Master’s and doctoral graduates in biomedical engineering will be necessary to staff the emerging biomedical industry in Texas and the Metroplex. The rapid growth in the number of biomedical engineering degrees granted is evidence of strong market forces driving the emergence of a new major field of engineering.

Potential employers of U. T. Dallas biomedical engineering graduates at the present time include the following:

**UTSW:** Dr. Peter Antich, Ph.D., Program Chair, Biomedical Engineering, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Blvd., Dallas, Texas 75390-9058, (214) 648-2856

Baylor health care: Dr. Paul Convery, M.D., Senior Vice President and Chief Medical Officer, Baylor Health Care System

Texas Instruments: Dr. Shekar Rao, World-Wide Manager, Medical Electronics Solutions, (214) 480-1756

5. Educational and cultural needs of the community.

The focus areas for the Department, in no particular order of priority and with some overlap between priority areas, driven by the needs of the local community, are the following:

- Electronic sensors and devices, exploiting the strengths of UTD in electronics, the urgent need for biosensors and control devices for medical intervention, and strong interest of area businesses in advancing into these areas of technology development;

- Neuroscience and engineering, leveraging capabilities in neurosciences at both institutions, the strengths in basic neuroscience, neurology, psychiatry, and neurosurgery at UTSW and in brain sciences at UTD, interest in electronic intervention devices, and strong interest in medical devices within the technology business community of the region.

- Surgical procedures and interventions, combining the strong capacity for surgical advancements at UTSW with engineering expertise at UTD to become a national leader in advancing surgical technology.

- Bio/nano applications to materials and medicine, leveraging capabilities in chemistry, biology, therapeutics, and nanosciences at both institutions, and leveraging the strong nanotechnology program at UTD and high interest level of local businesses in nano-scale materials and manufacturing.

- The development of new technologies for cancer detection, control, and treatment combining the considerable experience and expertise across a range of scientific fields at UTSW with developing capabilities in mechanical engineering, electrical engineering, and materials science at UTD.

- Advanced imaging research, strengthening the work that is already underway at the Advanced Imaging Research Center, which is jointly operated by UTSW and UTD, and which studies numerous applications and scales of imaging. These techniques are especially relevant to...
disease-oriented research involving cancer, psychiatric and neurological diseases, and metabolic diseases.

6. Plan to recruit students: from underrepresented groups

The historically underrepresented groups in engineering include African-Americans, Hispanic-Americans and women. The future of engineering jobs in Texas and the Nation depends on success in recruiting future engineers from these groups to replace expected retirements and enable growth in the number of engineers available to fill jobs in Texas and the U.S. Biomedical engineering, in particular, appeals strongly to women. In 2007, 39.6% of the Master’s degrees granted in biomedical engineering in the U.S. went to women, in sharp contrast to the proportions of women graduates in other engineering disciplines such as Electrical Engineering (19.9%) and Mechanical Engineering (13.7%).

U. T. Dallas has historically graduated a higher proportion of women than the national average in both Electrical Engineering and Computer Science. For example, in 2006-2007, 28.9% of the students who earned Master’s degrees in Electrical Engineering at U. T. Dallas were women; the national average is 19.9%. We attribute this relatively modest success to a welcoming culture and a strong system of support through student organizations such as the Society of Women Engineers. At the undergraduate level, U. T. Dallas has established a strong reputation in terms of recruitment and retention of minority students through the Academic Bridge Program under the leadership of Dean George Fair. Expanded post-enrollment support programs will be essential in maintaining a reputation that will encourage students from underrepresented groups to apply to U. T. Dallas.

Going forward, it is clear that no engineering school can afford to limit its efforts with respect to students from underrepresented groups to post-enrollment support and retention. U. T. Dallas will broaden and deepen its recruitment efforts for graduate students beyond our current Metroplex constituency to target baccalaureate graduates from Texas colleges and universities, especially historically minority institutions. The expanded recruitment effort will be staffed and operated in the Erik Jonsson School, working closely with the office of the recently hired Vice President for Enrollment Management and the Vice President for Diversity.

V. PROGRAM POTENTIAL

A. Estimate the cumulative headcount and full-time equivalent (FTE) enrollment for each of the first 5 years (majors only, considering expected attrition and graduation) and indicate the number expected to be new to the institution each year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Majors (FT)</th>
<th>Majors (PT)*</th>
<th>Attrition</th>
<th>Graduation</th>
<th>Majors (Total)</th>
<th>FTE's</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10(6)</td>
<td>5(3)</td>
<td>2(1)</td>
<td>0</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>15(8)</td>
<td>8(6)</td>
<td>2(2)</td>
<td>2(0)</td>
<td>33</td>
<td>30</td>
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<tr>
<td>3</td>
<td>20(15)</td>
<td>10(8)</td>
<td>2(2)</td>
<td>5(1)</td>
<td>53</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>28(20)</td>
<td>12(9)</td>
<td>3(2)</td>
<td>8(3)</td>
<td>69</td>
<td>58.5</td>
</tr>
<tr>
<td>5</td>
<td>35(25)</td>
<td>13(10)</td>
<td>3(2)</td>
<td>10(5)</td>
<td>83</td>
<td>71.5</td>
</tr>
</tbody>
</table>

*Defined as half-time, #’s MS (PhD):

4 Profiles of Engineering and Engineering Technology Colleges, American Society for Engineering Education, 2008

21
B. Explain assumptions used in making these estimates.

We have assessed interest in student in the North Texas area and conclude that there is a considerable need for degrees in the Biomedical Engineering arena. These estimates allow the program to grow to a position of increasing the total production of graduate students in Biomedical Engineering in the State of Texas by 50% within the first 5 years of operation. This is a conservative estimate given our current graduate degree program in like focused technical areas. The North Texas area has a growing population base driven by the expansion of high technology businesses within the region. The healthcare related industries are one of the fastest growth business segments within the region. Service to that segment by institutions of higher education is critical to the continued successful expansion of this new Texas high technology base.

VI. RESOURCES

A. Personnel

1. Describe any personnel additions or changes in the past three years made in anticipation of the program.

UT Dallas, UTSW, and UTA already collaborate deeply on numerous research projects. The Advanced Imaging Research Center, for example, is jointly managed by UTD and UTSW. The UTD Callier Center for Communication Disorders is a major research and treatment facility, and is located adjacent to the UTSW campus. The UTD Center for Brain Health is located close to the UTSW campus. Recently, UT Dallas started daily shuttle bus service between its Richardson campus and UTSW (15 miles apart), reflecting the deep level of current engagement of UTD students and faculty on the UTSW campus. Also, in the past year UTD and UTA launched a joint collaborative research program designed to foster collaborative research. In addition UTSW funded research projects with UTD and with UTA to encourage expanded research collaborative research amount the faculty members of the three institutions.

2. Indicate for the first five years the cumulative number of FTE personnel who would be involved in delivery of the program in each of the following categories:

a. released time for administration and other services,

Given the requirements for the initial formation of the department and execution of the curriculum, approximately 2 FTE would be required to administer the program. This would be split between Department head duties, Graduate program admissions, curriculum development, and faculty and student recruiting activities.

b. full-time faculty,

we plan to hire approximately 15 FTE faculty members into the Department in the first phase, which we expect to last 5 to 8 years. An additional 8 FTE of existing faculty would collaborated as part of Bioengineering Affiliated Faculty.

c. part-time faculty,

See above.

d. graduate student assistants,
We estimate that more than 70 RA/TA graduate assistants would be available to the program either at the MS or PhD level.

e. clerical/support staff, and

The department could function reasonably on 3 administrative assistants towards the end of its first phase of deployment.

f. others, specify

Additional technical staff would nominally be supported on external research funds and would be dictated by the level of external support.

3. List current faculty members, indicating highest earned degree/institution, field of study, current teaching and research assignments, dates of appointment, and anticipated contribution to the program. Specify course(s) each faculty member would teach.

Raymond Ober
Education
• Ph.D., Engineering, Cambridge University, UK (1987)
• M.Phil., Operations Research and Control Engineering, Cambridge University, UK (1985)
• ‘Vordiplom in Mathematik,’ ‘Zwischenpruefung in Physik,’ Tuebingen University, Germany (1982)
Research Interests
• Fluorescence Microscopy (including Single Molecule Microscopy) for the Study of Cellular Dynamics
• Immunology
• Image Processing
• Signal Processing
• Systems Biology
• Surface Plasmon Resonance Experiments for the Study of Molecular Interactions

Philipos Loizou
Education
• Ph.D., Electrical Engineering, Arizona State University (1995)
• M.S., Electrical Engineering, Arizona State University (1991)
• B.S., Electrical Engineering, Arizona State University (1989)
Research Interests
• Speech Processing: Enhancement, Compression, and Recognition
• Signal Processing for Cochlear Implants
• Signal Processing and Adaptive Signal Processing Algorithms
• Speech Perception

Several million Americans today have profound hearing loss, and for years they have had to rely on conventional hearing aids. Although hearing aids have been found to benefit those with moderate deafness, they have not been found to benefit individuals with severe (sensorineural) deafness. Cochlear implants have now been established as a new option for individuals with profound hearing impairments. Many of these individuals, who are implanted with cochlear prosthesis, are able to understand some speech without lip-reading. Several speech-sound processing techniques have been developed over the years that improved the benefits derived from the cochlear implant. Moderate levels of speech understanding can now be achieved with
current speech processing techniques. Dr. Loizou’s research focuses on the development of new speech-sound processing strategies that improve the levels of speech performance even further. This research includes the development of signal processing algorithms for cochlear implant processors, the development of speech coding algorithms for music, the development of noise reduction algorithms for cochlear implants, speech perception by cochlear implant patients, the fixed-point implementation of speech processing algorithms on Texas Instrument’s TMS320C54x DSPs, and the optimization of signal processing algorithms on TMS320C6x DSP.

Dinesh Bhatia
Education
• Ph.D., Computer Science, The University of Texas at Dallas (1990)
• M.S., Computer Science, The University of Texas at Dallas (1987)
• B.S., Electrical Engineering, Regional Engineering College, Suratkal, India (1985)
Research Interests
• Reconfigurable and Adaptive Computing
• Architecture and CAD for Field Programmable Gate Arrays
• Design Automation for VLSI Systems
• Ultra Low Power Sensor Networks and Applications
• Energy Scavenging and Power Management for Wireless Networks
• Graph Theory and Applications in VLSI

Wireless sensor networks have the potential to impact many aspects of human life by ubiquitously sensing, processing, and transmitting information. Medical care is one such area, where Dr. Bhatia’s research group is exploring many applications in support of health monitoring and telemedicine. By outfitting patients with wireless and wearable vital sign sensors, real time data is collected for determining the physiological status of a patient. Dr. Bhatia’s current research focus is on designing physical layer wireless nodes, network protocols, and security issues in managing patient health data.

John Hansen
Research Interests
• Robust Speech Processing & Recognition
• Analysis of Speech and Speaker Traits
• Speech Enhancement and Feature Estimation
• Robust Speaker Recognition
Education
• Ph.D., Electrical Engineering, Georgia Institute of Technology (1988)
• M.S., Electrical Engineering, Georgia Institute of Technology (1983)
• B.S.E.E. (Highest Honors), Rutgers University (1982)

Dr. Hansen’s research projects are focusing on the modeling and algorithm development of speech and language processing methods to detect dialects of English, Spanish, and Arabic. The U.S. Air Force funds this effort. Dr. Hansen’s work is focused on defining strategies for normalizing speech and feature sequences to maintain robust speech system performance in the presence of interfering background noise, speaker variability due to Lombard effect, stress, emotion, accent, and dialect.

Walter Hu
Research Interests
• Nanoimprint, e-Beam Lithography, Plasma Etching and Deposition
• Biomedical Nanoelectromechanical Systems (bio-NEMS)
• Nanostructured Biomaterials for Tissue Engineering
• Photonic and Molecular Nanodevices and Nanosystems
Education
• Post-Doctoral Work, University of Michigan, Ann Arbor, MI (2005)
• Ph.D., Electrical Engineering, University of Notre Dame, IN (2004)
• M.S.E.E., University of Notre Dame, IN (2001)
• B.S., Electronics, Peking University, Beijing, China (1999)

Several project that deal with the nano-manipulation and analysis of DNA and other biospecies are being conducted. The work has been performed in collaboration with chemists and biologists at UTD and physicists at The University of Texas at Arlington. Dr. Hu’s team is designing and fabricating the nanostructured biomaterials needed for artificial corneas and for tissue engineering in general. This research is being performed in collaboration with The University of Texas Southwestern Medical Center at Dallas.

Yi Zhang
Education

B.S., Chemistry, Zhongshan University, China  Ph.D., Biochemistry, University of California, Los Angeles  Postdoctoral Fellow, Biology, MIT

Dr. Li Zhang has made major contributions to understanding the molecular mechanisms underlying heme signaling in eukaryotic cells. Heme is central to oxygen sensing and utilization in virtually all living organisms. In mammals, heme is critical for erythroid, hepatic, and neuronal functions. Oxygen sensing is directly related to many fundamental physiological and pathological processes, including angiogenesis, tumor development, and ischemia. Investigating the molecular mechanism of oxygen sensing and heme signaling is the main objective of Dr. Zhang’s lab. Furthermore, Dr. Zhang's lab is interested in investigating the molecular mechanisms by which common neurotoxicants act in neural cells, because studies of neurotoxicants should facilitate the understanding of many neural functions and neurological diseases. Dr. Zhang's lab combines approaches of molecular and cellular biology with genomics and computational approaches to elucidate the global molecular mechanisms underlying cellular responses to environmental stressors, including hypoxia and environmental toxicants.

Jinming Gao
Education

1991  Peking University  B.S. Chemistry
1996  Harvard University  Ph.D. Medicinal Chemistry

Research Interests
The Gao Lab combines research expertise in materials science, molecular imaging and cancer biology to establish integrated nanomedicine platforms for early detection and intervention of cancer. The underlying theme of our research is to translate key advances in materials science and nanotechnology into better clinical diagnosis and therapy of cancer.

4. If current faculty would be teaching new courses, how would their teaching assignments change, and how would their current assignments be accommodated?

In many cases existing faculty would teach courses that have dual acceptance in several departments. Teaching assignments in these cases would not need to be altered. In the cases where faculty teach courses instead of their normal home department teaching load, credit would be give for the course taught in the Biomedical Engineering degree program.
5. List all new positions (faculty, graduate assistant, clerical/support, etc.) required during the first five years of the program and indicate whether the positions would be additions or reassignments. If reassignments, indicate the source.

We estimate 9 Tenure/TT faculty positions, 10 new hires, 3 reassignments (primarily from the existing faculty in the EE, ME or CS departments). Approximately 70 paid RA/TA assignments at the end of the 5 year period. Three new clerical appointments would be required. Approximately 5 technical staff supported by external research programs would nominally be added to the department.

6. Describe qualifications that would be sought in new faculty, indicate the expected level of appointment and anticipated contributions to the program (including research grants, contract resources, etc.)

Only national capable tenured or tenure track faculty with PhD would be recruited to the department. Demonstrated expertise in acquiring, managing and capitalizing of externally funded program would be required of all candidates. Early program hires would naturally include senior faculty with demonstrated research performance. Later junior faculty would be recruited to the program. Recommendations for appointments to tenure-system faculty positions and for awarding of tenure or promotion by the Department Head will be based on recommendations by faculty committees that have equal representation from the two institutions. Similarly, faculty search committees will be comprised of faculty from both institutions and will provide recommendations for hiring to the Department Head, who in turn will make hiring recommendations to the appropriate Dean. Courtesy and full-time appointments from existing faculty at either institution will be made following the same procedure.

7. For graduate programs:

   a. describe departmental faculty policy regarding chairing or serving on thesis/dissertation committees and numbers of students supervised at one time.

Any tenure-track faculty member may supervise Ph.D. dissertations and serve on supervising committees. No limits are imposed on the number of students that may be supervised simultaneously. We expect that on average, a faculty member will supervise 3-5 M.S. students, in addition to 3-5 Ph.D. students.

   b. identify faculty who would supervise theses, dissertations, and internships; provide examples of their ongoing research projects and scholarly publications.

Refer to the Bioengineering Affiliated Faculty vitae in the Appendix.

B. Library

   1. List any library holdings added in the past three years in anticipation of the program.

The Library continues to build its collections in support of all programs at UT Dallas. The Library continually updates the Book Approval Program used to acquire
2. Describe library holdings specifically relevant to the proposed program, noting strengths and weaknesses. If there are guidelines for the discipline, do current holdings meet or exceed standards? Describe planned actions that would maintain strengths and/or remedy weaknesses.

JOURNALS. The Library used a number of resources to analyze the collection in biomedical engineering including Ulrich’s Periodicals Directory and the Journal Citation Reports from ISI. The Journal Citation Reports considers 42 biomedical engineering journals as most relevant.

At present, the University of Texas at Dallas has 30 (71%) of the 42 active, academic/scholarly journals in biomedical engineering. Of the titles not currently received by the Library, an additional 21% of the titles are owed by the University of Texas Southwestern Medical Center at Dallas or the University of Texas at Arlington.

The Library is particularly strong in its journal offerings because of the University of Texas System Digital Library which enables component schools to consortially purchase journals. This arrangement provides UT Dallas access to many medical periodicals owned by the System’s health related components. At this time, no additional funds are required to purchase additional journal titles. The journal collection available at UT Dallas is more than adequate to begin a program. The addition of 4 titles should be added within the first 3 years of initiation of the program. They are the ASAIO Journal, Biorheology, Journal of Biomechanics, and the International Journal of Artificial Organs at an annual cost of $3,100.

ARTICLE DATABASES. Research suggests that the UT Dallas Libraries have superior database coverage for bioengineering, biomaterials, and biomedical research. The Library’s complement of engineering and medical databases preclude the need to add any products in this area. CSA’s Bioengineering database was considered but not recommended in light of research that shows that over 90% of the literature covered in it is duplicated in Compendex (Engineering Village), INSPEC and Chemical Abstracts (in SciFinder Scholar), all of which we currently subscribe to.

BOOKS. The University of Texas at Dallas book collections were reviewed using two different approaches: searching library catalogs by subject across three institutions and analyzing possible titles which could have been acquired through our book
approval plan from Blackwell. The approval plan preorders materials for UT Dallas based on a set of criteria determined by the librarians. The materials are received as they are published.

The Engineering and Computer Science Librarians reviewed the book collections in the field of biomedical engineering for 2 institutions granting a doctorate (Rice University and Carnegie Mellon University). The decision to compare these two institutions was based on the quality of their degree programs and approximate size of the institutions. The collections were compared to see what titles might be needed for the proposed new classes and the number and cost of titles necessary to support future research.

The librarians compared the book collection for the years 2000-June 2006. A search of McDermott Library catalog for “biomedical engineering” as a subject returned 21 titles for the years 2002-2006. The same search at Carnegie Mellon returned 28 titles. For Rice University’s Fondren Library, the search yielded 56 titles.

A search of the approval plan database showed that if UT Dallas had selected the appropriate subjects in the approval plan, the Library should have purchased 79 titles at a cost of $10,111.00. NOTE: The average cost of a book in biomedical engineering (based on Blackwell) is $128.00.

SUMMARY. The Library is deficient in book material and would need to purchase a retrospective collection (2000-2006) of 80 titles ($10,240). In addition, the Library would purchase a new, major reference work, Wiley Encyclopedia of Biomedical Engineering (6 vol. set) ($1,650) to begin the program. In anticipation of the biomedical engineering programs, the Library activated the relevant sections of the approval plan in order to expand the collection at a rate of 35 additional titles per year over the present spending patterns ($4,500).

Overall, the biomedical engineering collection will require increased spending during the first 3 years of the program to become adequate for graduate and faculty research:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 additional journals ($3,100 per year)</td>
<td>$9,300</td>
</tr>
<tr>
<td>1 major reference work</td>
<td>$1,650</td>
</tr>
<tr>
<td>80 retrospective books (2000-2006)</td>
<td>$10,240</td>
</tr>
<tr>
<td>35 additional books per year through expanding our approval plan ($4,500 per year)</td>
<td>$13,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$34,690</strong></td>
</tr>
</tbody>
</table>

3. Describe cooperative library arrangements that would be available to students in this program.

The Libraries of the University of Texas at Dallas are active participants in Interlibrary Loan Services as administered by Amigos-OCLC. As a participant, the Library can borrow materials from other libraries willing to loan their items. In general, the Library can borrow most items for a user for a period of 3 weeks. In
addition, the Library provides articles from journals not owned. The article is delivered electronically to an email address.

Secondly, the Library subscribes to thousands of electronic resources through cooperative agreements including the UT System, TexShare (Texas State Library and Archives), Amigos, and the local Phoenix library consortium.

4.  Provide library director's assessment of library resources necessary for the proposed program.

Currently the Libraries of the University of Texas at Dallas do not contain adequate material for the Biomedical Engineering program, but the Libraries can obtain an adequate collection. About $35,000 will be necessary to catch up to an adequate level with an ongoing cost of about $14,000 per year. In the meantime, because of our proximity to the good collections at UT Arlington and UT Southwestern Medical Center, the University can start the programs by utilizing Interlibrary Loan and electronic transfer of materials from other libraries.

C.  Equipment

1.  List any equipment acquired in the past three years in anticipation of the program.

N/A

2.  Itemize expenditures projected during each of the first five years for equipment and supplies specifically for the proposed program.

See Below

D.  Facilities

1.  Describe any facility added or modified in the past three years in anticipation of the program.

See below

2.  Describe the availability and adequacy of existing facilities that would be used for the proposed program.

See below

3.  Describe planned alteration or renovation of existing facilities needed for the program; estimate date of availability and display estimated cost in Item VII.

See below

4.  Describe planned new facilities needed for the program; estimate dates of availability and display estimated cost in Item VII.

The UT Dallas strategic plan for institutional growth estimates that, exclusive of classroom space, the average space requirement for new faculty members is 3,600 sq ft per person. Thus, the addition of 15 new FTE faculty members will require about 50,000 gross square feet of new space (nearly all of it
research and office space for faculty and research staff, although some space will be needed for administration of the Department), exclusive of classroom and other space. This amount of space can be made available at the two institutions. At UT Dallas, a minimum of 15,000 sq ft, and perhaps up to 20,000 or more gross sq ft of research space is available in the new Natural Science and Engineering Research Laboratory. An additional 5,000 to 10,000 sq ft of space can be made available in the existing Engineering Building to facilitate the Department’s administrative offices, i.e., department head, undergraduate student advisors, etc. Other space such as for instructional laboratories can be made available. Adequate room exists in the current UTD library for new materials to support Biomedical Engineering, but start-up funds will be needed to acquire the necessary library materials to support program start-up.

Significant space at UTSW, more than adequate in combination with UTD space to meet the need of 50,000 square feet of space over the next 5 to 8 years, will become available in the Biotech Park, scheduled to open in Spring, 2010, and expected to expand shortly thereafter. Significant additional space is also programmed to come on line at UTSW in 2011 in the surgical research area. Swing space can be made available earlier, if needed.

The Department will attempt to locate faculty members at the most sensible site (UTD or UTSW) in terms of optimizing research productivity and collaborations. Strong consideration will also be given to provision of space for some faculty at both sites to accommodate broad interactions and collaborations. Space must be designed with such special needs at the forefront.

VII. COSTS

On the attached forms, provide estimates of new costs to the institution related to the proposed program(s) and provide information regarding sources of the funding that would defray those costs.

VIII. ADDITIONAL GUIDELINES HELPFUL FOR THE COORDINATING BOARD IN EVALUATING THIS PROGRAM REQUEST.

NOTE: See additional Coordinating Board criteria for doctoral program review:

- Distinctions between EdD and PhD Programs in Education, July 1990.
- Guidelines for Developing Cooperative Doctoral Programs.
- Standards for EdD Programs in Educational Administration/Leadership.
- Degree Programs, Support Areas, and Degree Titles, October 1986.
- Guidelines for Recognition and Classification of Courses and Degree Program Offerings.
## COSTS TO THE INSTITUTION OF THE PROGRAM/ADMINISTRATIVE CHANGE

Note: Use this chart to indicate the dollar costs to the institution that are anticipated from the change requested.

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost Sub-Category</th>
<th>Before Approval Year*</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>
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<tr>
<td>Faculty Salaries</td>
<td>(New)</td>
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<td>$180,000</td>
<td>$400,000</td>
<td>$750,000</td>
<td>$900,000</td>
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<td>(Reallocated)</td>
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<td>Included in faculty salaries(1)</td>
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<tr>
<td></td>
<td>(Reassignments)</td>
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<td>$140,000</td>
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<td>(Reallocated)</td>
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<td>Clerical/Staff</td>
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<td>$5,000,000</td>
<td>$2,500,000</td>
<td>$15,500,000</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>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>$280,000</td>
<td>$3,565,000</td>
<td>$5,820,000</td>
<td>$8,220,000</td>
<td>$9,910,000</td>
<td>$9,760,000</td>
<td>$37,555,000</td>
<td></td>
</tr>
</tbody>
</table>

* Include costs incurred for three years before the proposal is approved by the Board (e.g., new faculty, library resources, equipment, facilities remodeling, etc.).

** IT = Instructional Technology

Explanations:
## ANTICIPATED SOURCES OF FUNDING

Note: Use this chart to indicate the dollar amounts anticipated from various sources. Use the reverse side of this form to specify as completely as possible each non-formula funding 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>I. Formula Income*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,192,400</td>
</tr>
<tr>
<td>II. Other State Funding*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$30,000,000</td>
</tr>
<tr>
<td>III. Reallocation of Existing Resources*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,400,000</td>
</tr>
<tr>
<td>IV. Federal Funding*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(In-hand only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Other Funding*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,527,200</td>
</tr>
</tbody>
</table>

*Note: Dollar amounts are in thousands.*
| TOTALS | $5,540,000 | $5,604,000 | $7,253,600 | $8,734,900 | $8,987,100 | $36,119,600 |

*For more information, please refer to the accompanying Anticipated Sources of Funding: ExplanNotes and Examples.*
### NON-FORMULA SOURCES OF FUNDING

Note: Use this form to specify as completely as possible each of the non-formula funding sources for the dollar amounts listed on the reverse side of this 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 UT System of funding over 3 years to finish out labs, for faculty start-up, for Departmental office space, for classroom/seminar upgrades, and for technology implementation.</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>III. Reallocation of Existing Resources*</td>
<td>#1 Current faculty that would move to the new department</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>IV. Federal Funding*</td>
<td>#1</td>
</tr>
<tr>
<td></td>
<td>#2</td>
</tr>
<tr>
<td>V. Other Funding*</td>
<td>#1 Tuition for MS and PhD students</td>
</tr>
<tr>
<td></td>
<td>#2Funds from UTD and UTSW Enhancement, endowment and Scholarship funding sources.</td>
</tr>
</tbody>
</table>

*For more information, please refer to the accompanying Anticipated Sources of Funding: Explanatory Notes and Examples.

Explanations:
ANTICIPATED SOURCES OF FUNDING: EXPLANATORY NOTES AND EXAMPLES

I. Formula Income

A. The first two years of any new program should not draw upon formula income to pay for the program.

B. For each of Years 3 through 5, enter the smaller of:
   1. the new formula income you estimate the program would generate, based on projected enrollments and formula funding rates; or
   2. half of the estimated program cost for that year.

C. Because enrollments are uncertain and programs need institutional support during their start-up phase, it is the Coordinating Board's policy to require institutions to demonstrate that they can provide:
   1. 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
   2. half of the costs of the new program during years three through five from sources other than state formula funding.

D. When estimating new formula income, institutions should take into account the fact that students switching programs do not generate additional formula funding to the institution. For example, if a new master's program has ten students, but five of them switched into the program from existing master's programs at the institution, only five of the students will generate new formula income to help defray the costs of the program.

II. Other State Funding

This 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, etc.).

III. Reallocation of Existing Resources:

If faculty in existing, previously budgeted positions are to be partially or wholly reallocated to the new program, you should explain in the text of your proposal how the institution will fulfill the current teaching obligations of those faculty and include any faculty replacement costs as program costs in the budget.

IV. Federal Funding  [NOTE: as of 2007, funds from research may be used in some circumstances. See document for the CB 12/1/06 Workshop.]

Only federal monies from grants or other sources currently in hand may be included. 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.
Other Funding

This category could include Auxiliary Enterprises, special endowment income, or other extramural funding.
Proposed Academic Certificate Program
Title: Graduate Certificate in Infrared Technology
School: Engineering and Computer Science
Department: Electrical Engineering

Contacts: C. D. Cantrell, Director, PhoTEC
972-883-2868

Implementation Date: 9/1/2008

Introduction/Description: The Advisory Council of the Erik Jonsson School of Engineering and Computer Science has strongly urged the School to institute an academic certificate program in infrared technology. The Electro-Optics Subcommittee of the Advisory Council has contributed substantially to discussions of the scope and content of the proposed certificate program.

Academic Focus of the Certificate: The requirements for successful completion of the proposed program are as follows:

1. Completion of 15 hours of prescribed courses:
   - EE 6316, Fields and Waves
   - EE 6317, Physical Optics
   - EE 6309, Fourier Optics
   - EE 6315, Engineering Optics
   - EE 6335, Engineering of Infrared Imaging Systems

2. Academic good standing at the time of completion of all required courses

It is to be hoped and expected that some students who enter the certificate program will elect to apply for admission to the M.S.E.E. degree program. Offering the courses listed above on a regular, predictable schedule is also likely to increase enrollment in the optics M.S.E.E. concentration from among our undergraduates who enroll in graduate school.

Job Market for the Certificate: Richardson and its neighboring communities are home to one of the greatest concentrations of industry in the United States in the area of infrared imaging technology, which enables the creation of night vision systems for military and recreational use. Over 50% of the engineering workforce in infrared technology in the North Texas area is expected to reach retirement age within the next decade. Few universities in the Nation, and none in North Texas, provide the combination of education and practical skills that is necessary for engineers to contribute to infrared imaging projects. Initial queries in industry have revealed considerable interest in the certificate program proposed here, as well as some interest in the M.S.E.E. program.
Admission Policy: Existing admission policy for graduate study in Electrical Engineering

Organizational Arrangement: Administered within the Department of Electrical Engineering

Credit Hours and Degree Programs: 15 SCH, transferable for credit towards the M.S.E.E. degree

Course Offerings and Site Locations (note new courses with an asterisk): Current plans call for all courses to be offered on the UT-Dallas campus. Offerings at other sites will depend on enrollment.

Faculty/Staffing (assign each course to a faculty member):

- EE 6316, Fields and Waves: Duncan L. MacFarlane
- EE 6317, Physical Optics: C. D. Cantrell
- EE 6309, Fourier Optics: To be arranged (several faculty can teach this course)
- EE 6315, Engineering Optics: Part-time or Senior Lecturer
  *EE 6335, Engineering of Infrared Imaging Systems: Part-time or Senior Lecturer

Additional Information:
Certificate Program Assessment Plan  
Department of Electrical Engineering  
Erik Jonsson School of Engineering and Computer Science

Program: Graduate Certificate in Infrared Technology  
Sem. Covered: Begins Fall 2008

Program Head: C. D. Cantrell, Ph.D., P.E., Director, PhoTEC  
Phone: 2868  
Email: cantrell@utdallas.edu

Mission Statement:
The mission of the Graduate Certificate Program in Infrared Technology is to provide students with an advanced education in optics and its applications to infrared imaging systems, thereby preparing them for successful careers in industry. We prepare those who complete this program to be key contributors to infrared optical design, and to further their education by entering the M.S.E.E. degree program.

Class Hours: 45 contact hours per course at 5 courses = 225 class hours total

Approximate Credit Hours: 15 semester credit hours

<table>
<thead>
<tr>
<th>Certificate Program Learning Goals</th>
<th>Assessment Procedures/Methods</th>
<th>Criterion of Success</th>
<th>Data Collection Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students will demonstrate a broad knowledge of optics</td>
<td>For each class that supports this objective, the ability to apply a broad knowledge of optics and/or electromagnetics will be assessed on a scale of 1 to 5. The following courses pertain to this objective: EE 6316, Fields and Waves EE 6317, Physical Optics EE 6315, Engineering Optics EE 6309, Fourier Optics</td>
<td>Goal will be met if an average of 3.75 or higher for this objective is recorded in every class that measures this objective</td>
<td>Annual</td>
</tr>
<tr>
<td>2. Students will demonstrate a focused understanding of infrared imaging systems</td>
<td>For each class that supports this objective, the ability to apply a focused knowledge of infrared optics will be assessed on a scale of 1 to 5. The following courses pertain to this objective: EE 6309, Fourier Optics EE 6335, Infrared Imaging Systems</td>
<td>Goal will be met if an average of 3.75 or higher for this objective is recorded in every class that measures this objective</td>
<td>Annual</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3. Students who are currently employed in infrared technology companies will be better prepared to succeed in their professional roles</td>
<td>A survey will measure the extent to which engineers who are currently employed in infrared technology companies are better prepared for their roles after completion of the certificate program than before.</td>
<td>Goal will be met if an average of 90% or more of the students who are already employed in an infrared technology company report that this certificate has enhanced their professional success</td>
<td>Exit survey conducted for all certificate graduates who are already employed in an infrared technology company</td>
</tr>
</tbody>
</table>
At The University of Texas at Dallas, nontenure-system faculty whose primary appointment is for the conduct of research are classified as “research faculty,” and individuals may be appointed with the following titles: Research Professor, Research Associate Professor, or Research Assistant Professor. These faculty may be hired either on a full-time or a part-time basis. The policy below outlines the hiring procedures for research faculty as well as the duties of and expectations for research faculty. The policy also addresses the review and promotion of research faculty.

GENERAL PRINCIPLES AND GUIDELINES

A. Qualifications

Appointments to the Research Professor, Research Associate Professor, and Research Assistant Professor titles shall require documentation of scholarly credentials comparable to those of tenured or tenure-track faculty at the equivalent academic rank. A minimum of three tenured/tenure-track faculty appointed by the Dean of the School will serve on the search committee that recommends the candidates for initial appointment of research faculty. The Dean will forward the names to the Executive Vice President and Provost, and the Executive Vice President and Provost will appoint those individuals to the appropriate rank as indicated by the individuals’ qualifications.

B. Review

The professional development of research faculty will be nurtured and annually evaluated by the Dean and/or Department Head or Program Head. The annual evaluation process will follow the procedures established for the annual reviews of tenured/tenure-track faculty, and the written results will be forwarded to the Executive Vice President and Provost at the end of each Spring semester. Research faculty will be expected to develop independent research programs and also be involved with activities traditionally thought of as professorial. In hiring and evaluating researchers with professorial titles, the University expects that the faculty member will be engaged in the academic and scholarly life of the University, and such contributions can take many forms, including but not limited to the following examples: performing collaborative research with academic faculty; organizing, attending, or presenting at seminars and colloquia
involving academic faculty and students; teaching courses; supervising undergraduate or graduate student research; serving on School committees.

C. Period of Appointment

Appointments to these titles shall normally be for a period of time not to exceed one academic year. However, with the concurrence of the Executive Vice President and Provost, the Dean of the School may determine it is in the institution’s interest to make appointments for longer periods of time not to exceed three consecutive academic years.

D. Funding

Funding for research appointments for these faculty titles shall primarily be from research, gift, or departmental support sources and may only be from instructional funds when the faculty member is the instructor of record for an organized class and has been appointed to that instructional budget. All research appointments are subject to the availability of funding. Individuals employed in a position or positions for which funding ends during the period of appointment shall be terminated as of the date current funding for that position is exhausted.

E. Teaching

Faculty appointed to one of these research professor titles may teach undergraduate and graduate courses at the discretion of the Dean of the School. With the approval of the Dean of the School and the Dean of Graduate Studies, research faculty may also serve as members on Master’s thesis or Ph.D. dissertation committees with all attendant rights and duties.

F. Research

Faculty members in these titles are eligible for Principal Investigator status on contracts and grants.

G. Tenure and Continued Appointment

Tenure cannot be awarded to individuals appointed to these titles, and academic service with these titles cannot be counted toward the satisfaction of any maximum probationary period. A faculty member appointed to one of these titles should not expect continuing appointment beyond the term of his or her current appointment. All such appointments shall terminate at the expiration of the stated period of appointment without notification of non-renewal. Any commitment to reappoint a nontenure-system member of the faculty beyond the term of his or her current appointment shall have no force and effect until approved by the Board of Regents.

H. Promotion

Recommendations for changes in rank within the research faculty titles will be considered during the normal fall faculty promotion cycle in accordance with Policy Memorandum 07-III.22-96.
General Standards and Procedures for Review of Nontenure-System Faculty. The School requesting the promotion should evaluate the candidate’s university service and research accomplishments as well as the candidate’s record of engagement in the academic life of the School and the University, along with scholarly activities, research support, and outside recognition. Only if the candidate has been involved in teaching organized courses may teaching activities be considered.

I. Termination

Termination of employment before the expiration of the stated period of appointment shall be only for good cause shown, except by resignation, retirement, or loss of funding.
UT System FAC Resolution

Regarding Textbook Study Group Recommendations

Where as; the UT System Faculty Advisory Council recognizes the rising costs of textbooks and supports minimizing those costs while maintaining the academic freedom of faculty,

Be it resolved: the UT System Faculty Advisory Council endorses the Report and Recommendations from the UT System Textbook Study Group.

Passed 5/23/2008
In the fall of 2007, Chancellor Mark Yudof asked Executive Vice Chancellor David Prior to create a study group to develop recommendations on how the University of Texas System, working through its institutions, could reduce the costs students experience in buying textbooks.

This current study group\(^1\) recommends action to be taken by the University of Texas System Faculty Advisory Council and, subsequently, the individual campus faculty senates and administrative officers. In the short-term, faculty members selecting learning materials, being mindful of the costs, are the key to controlling and, possibly reducing the expense student face with regard to textbooks.

**Introduction**

Over the last several years, considerable attention has been focused on the college textbook market. Compared to changes in the Consumer Price Index (CPI), college textbook prices have risen twice as fast as the rate of inflation. Students, faced with ever increasing tuition, have been very vocal about rising textbook costs.

According to a recent survey conducted by The College Board, full-time students on average spent $942 for textbooks in 2006-07. While this figure is absent of any deductions for financial aid, it should be pointed out that, on average, grant aid is insufficient to cover textbook expenses for low-income and moderate-income students.

The American Association of Publishers reports that 20 percent of students go without purchasing textbooks. This could be due to the fact that students use library copies, borrow from friends or forgo using a textbook because of cost.

A recent report issued by the General Accounting Office cites four major reasons for escalating textbook prices. These include textbook bundling, frequent updated textbooks, bookstore markup, and university profit.

Students, college administrators, textbook publishers, bookstore managers, faculty, state and federal legislators are all in engaged in efforts to find a solution to the problem.

**Understanding the Textbook Market**

The textbook market is made up of four segments—new texts; used texts; course packs; and course technology. The majority of the market is new and used texts—although course packs and course technology are being used more frequently. Roughly 98 percent of course material sales are from new and used textbook purchases.

Typically, publishers produce textbooks and market them to instructors who choose and assign textbooks. In 2004, industry consolidation led to five of the largest publishers

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\(^1\)The Study Group members include: Jim Studer, Chair, Office of Academic Affairs, Edward Baldwin, Office of Academic Affairs, Lisa Baird, Office of Finance, Kent Kostka, Office of General Counsel, and Carlos Martinez, Office of Governmental Relations.
providing textbooks for over 80 percent of the market. This consolidation has arguably led to decreased market competition.

Bookstores stock new and used textbooks from wholesalers and student buyback programs. Used books are purchased from a wholesaler or a student for 50 percent of the new retail prices. If the textbook is not going to be used at the institution again but can be used at another institution, the wholesalers buy the textbook and the student gets from 5 to 35 percent of the new retail price. Students may sell their textbooks back to bookstore or to an online buyer or trade the textbook. If a new edition of a textbook is released or no buyback is possible, students get nothing.

Increasingly students are turning to online bookstores in an effort to save money on their textbook purchases. Bigwords.com and Amazon.com are two examples of online companies that stock commonly used collegiate textbooks. Approximately 23 percent of students purchase their textbooks online. The National Association of College Bookstores has estimated that about one-third of those textbooks are purchased from the college bookstore web site.

Appendix A of this report shows 4 examples of typical first and second year Spring 2008 required textbooks of four majors at the University of Texas at Austin. What these examples illustrate is that if a student is resourceful, he/she can realize considerable savings on their textbook purchases. In some cases a student could save over 50 percent of their textbook costs.

College bookstore sales of textbooks are based on requirements by a professor, regardless of format or type of publication. The National Association of College Bookstores estimated U.S. college bookstore sales of $10.5 billion for the 2005-2006 academic year. Roughly 60 percent of the sales revenue of college bookstores, $6.5 billion was from the sale of college textbook/course materials.

**Reasons for Rising Textbook Costs**

**Textbook bundling**

Typically sold as a single unit, “bundles” are packages that contain a textbook along with other course materials that may include study guides, CD-ROMS, and pass codes to textbook-companion web sites. The biggest objection to bundling is that other materials included in the “bundle” are not used enough to justify the extra costs. Those in favor argue that since more and more students arrive for their freshman year unprepared for the rigors of college work, bundles or supplemental materials are essential. A poll released in 2005 by Zogby International found that:

- 75% of professors either required or recommended that their students purchase textbook packages that include supplemental materials,
- 84% professors argued that their students absolutely must have the required textbooks to get a good grade in their courses.
76% actually told their students that they needed to use the texts to get a good grade. 

These findings were echoed in a 2006 study by Zogby International commissioned by the Association of American Publishers. That study found that:

- 55 percent of entering freshman were not ready for college-level studies
- 65 percent of faculty say that supplemental course materials help retain student who might otherwise fail to complete a course or drop out of school
- 80 percent said that less-prepared students would do significantly better in introductory courses if they spent more time using supplementary materials
- 79 percent of this faculty surveyed believed that students would do better if they used supplementary materials.
- 86 percent required or recommended supplementary materials
- 90 percent believed that less prepared students would do better if they spent more time reading the textbook and
- 30 percent of faculty used the publishers’ online homework, while 19 percent used the publishers’ online quizzes

What is generally missing from the discussion of textbook bundling is the cost effectiveness of textbooks and other learning materials. What is known is that pass rates, retention rates and grades improve when students utilize the materials bundles with their textbooks.

**Frequently updated textbooks**

Another argument is that frequently advanced is that updated textbooks negate the used book market. In general new textbooks are bought back from students at 50% of the new price. If textbooks are frequently updated the buyback value declines substantially. Students may be purchasing new textbooks with the expectation that new textbook can be resold to the bookstore.

The 2005 Zogby International survey found that:

- 80% of those professors surveyed believe that it is important that the material in texts used for their courses be as current as possible
- 62% report that they prefer to order texts with the most recent copyright date.

**Bookstore markup and university profit**

According to the National Association of College Stores *NACS 2007 College Store Industry Financial Report* “college bookstores returned an average of 13.3% of sales back to their institution-- average net income of 7.5% of net sales to their institutions and average of 5.8% of net sales to support campus activities such as scholarship funds, donations of merchandise, advertising dollars to school media, store revenue paid to
in institutional accounts, rent paid to the institution, non-store administrative salaries, and alumni gifts". 
Table 1 below shows where the new textbook dollar goes.

<table>
<thead>
<tr>
<th>Cost Element</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher's Paper, Printing, Editorial Costs</td>
<td>All manufacturing costs including paper, editing, storage, distribution, record keeping, billing, publisher’s offices and employee salaries and benefits</td>
<td>.321</td>
</tr>
<tr>
<td>Punisher’s marketing</td>
<td>Marketing, advertising, promotion, publisher’s field staff, professors’ examination copies</td>
<td>.153</td>
</tr>
<tr>
<td>Author Income</td>
<td>Author’s royalty payments</td>
<td>.116</td>
</tr>
<tr>
<td>College bookstore Personnel</td>
<td>Employee Salaries and Benefits</td>
<td>.108</td>
</tr>
<tr>
<td>Publisher’s General Administrative</td>
<td>Federal, State and local taxes</td>
<td>.099</td>
</tr>
<tr>
<td>College Store Operations</td>
<td>Insurance, utilities, building and equipment, rent and maintenance and data processing</td>
<td>.072</td>
</tr>
<tr>
<td>Publisher’s Income</td>
<td>After tax income</td>
<td>.070</td>
</tr>
<tr>
<td>College bookstore Income</td>
<td>Pretax income</td>
<td>.044</td>
</tr>
<tr>
<td>Freight Expense</td>
<td>Freight costs from publisher’s warehouse to college bookstore</td>
<td>.017</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

As the table shows, 76 percent of the new textbook dollar goes to the publisher, while 24 percent goes to the retailer. The single largest cost element of the new textbook dollar, manufacturing costs and publisher employee salaries and benefits, account for 32 percent.
The largest percentage of stores are owned or operated by higher education institutions. While most are institutional, they may also be contract managed, cooperatives, or owned by student associations. Table 2 below indicates the affiliation of UT System academic institutions and bookstores that serve their populations.

<table>
<thead>
<tr>
<th>Institution</th>
<th>Contracted Bookstore</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. T. Arlington</td>
<td>Yes</td>
<td>Follett Corporation</td>
</tr>
<tr>
<td>U. T. Austin</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>U. T. Brownsville</td>
<td>Yes</td>
<td>Barnes and Noble</td>
</tr>
<tr>
<td>U. T. Dallas</td>
<td>Yes</td>
<td>Barnes and Noble</td>
</tr>
<tr>
<td>U. T. El Paso</td>
<td>Yes</td>
<td>Follett Corporation</td>
</tr>
<tr>
<td>U. T. Pan American</td>
<td>Yes</td>
<td>Follett Corporation</td>
</tr>
<tr>
<td>U. T. Permian Basin</td>
<td>Yes</td>
<td>Follett Corporation</td>
</tr>
<tr>
<td>U. T. San Antonio</td>
<td>Yes</td>
<td>Follett Corporation</td>
</tr>
<tr>
<td>U. T. Tyler</td>
<td>Yes</td>
<td>Texas Book Company</td>
</tr>
</tbody>
</table>

1 Informal arrangement of a retail (not textbook) store, to feature books and authors of non-textbooks in its store.

### Solutions

#### Short-term

Short-term solutions involve government intervention into the marketplace, or restrictions on publishers, retailers and faculty at the university level.

At the federal level mandated price controls could be employed to restrict the rate of increase in textbook pricing. At the state and local university level, state legislators and university administrators could restrict the use of revised editions, or employ buying consortiums.

Indeed, legislation proposed by the 80th Texas Legislature was focused on some of these short-term solutions. Appendix B of this report gives a synopsis of proposed legislation from 80th Texas legislative session.

At the university level local administrators and faculty senates could work together to put into practice guidelines that would help students purchase textbooks at a lower cost.

Faculty guidelines could require that textbook lists are submitted early enough for bookstores to take advantage of buybacks and the used textbook market, urge faculty
to consider multi-semester adoptions, use old editions even though the revised edition has been released and post textbook lists and ISBNs online.

Bundled textbooks and associated materials should be used only when materials will be actively used by the instructor.

Most importantly, by making textbook lists available early, students, who wish to do so, can shop for textbooks online and save significant amounts of money (see Appendix A).

In May 2006, the Academic Senate of the California State University system passed resolution AS-2747-06/FA (Faculty Role in Mitigating Textbook Costs) which recommended that their colleagues take the following actions to mitigate the costs of textbooks for California State University System students (see Appendix C):

- work with bookstores to arrive at mutually acceptable timelines for text adoption;
- submit textbook requests within mutually acceptable timelines to ensure the availability of textbooks through the campus and other local bookstores;
- notify campus bookstores as early as possible about re-adoptions of previously used textbooks to allow current students who wish to sell their copies back to the campus bookstore and;
- communicate clearly with publisher representatives and bookstore owners about textbook pricing concerns and options.

Notwithstanding the affordability issue, the resolution also reaffirmed the right and responsibility of faculty to select teaching materials with intellectual content and teaching effectiveness as the prime considerations.

Textbook rentals and textbook swapping as well as increasing library reserves (E-reserves and textbook donations) have also been used at some institutions.

While most solutions focus on making changes directly to the textbook market, others look at providing increased financial aid to help cover rising costs. Bookstores at the University of Washington and Portland State University offer need-based textbook scholarships for students who are having trouble paying for textbooks. Some states have addressed this issue by providing additional aid. Georgia and South Carolina provide extra state aid to help defray textbook costs.

Long-term

The textbook industry is in transition and that transition is in part being driven by technology. Longer-term solutions to the escalating costs of textbooks point to the digital marketplace as a method to lower costs. Those solutions include electronic textbooks, no-cost online textbooks, Open Educational Resources and Print on Demand Services. These longer term solutions are in their infancy and are being tested in a limited number of cases. All provide great promise in helping to hold down prices.
Electronic books (E-books) can be provided to students in various formats from unprintable pdf documents to desk top editions that reside on a student's desktop for the duration of course to textbook on CD. Despite its appeal, research indicates that students still want to have a printed copy of the material.

This fall 2008, The University of Texas at Austin and John Wiley & Sons will partner in a pilot project to provide eBooks to students in certain science and mathematics courses at the University. The exact number of courses and format of the eBook are details that are yet to be finalized. The goals of the pilot are to assess digital demand, assess print option value, examine the Library's role and develop a new sustainable model.

E-books can be provided to students at roughly 50 percent of the cost of a new hard copy. These saving occur because publishers do not have to incur printing or production costs. In addition it is much easier and cheaper to update an e-book.

Open Education Resources involves the sharing of digital learning resources at no charge over the internet. OERs have been around for more than 10 years. The often cited Multimedia Educational Resource for Learning and Online Teaching (MERLOT) developed by California State University (CSU) is an example of how OERs could work. MERLOT contains 16,000 teaching materials and allows faculty collaboration and development of course materials.

Similarly, Connexions, and Open Education Resources project at Rice University uses materials gathered from professors as well as students to develop courses and freely share the materials.

Print on Demand Services use a digital download to print, bind and cover a textbook. Colleges and bookstores purchase machines to print course materials available in print-on-demand format or those available in the public domain. The University of Texas Co-op Bookstore uses a print-on-demand machine to print course packs and textbooks. Students pay only the costs of printing the materials.

**Recommendations of the Textbook Study Group**

Changing technology and changes in the delivery of knowledge on campuses across the country are reshaping the textbook industry. Eventually the industry will become a digital marketplace where printed course materials are no longer what are expected.

The industry is beginning to embrace these changes and together with colleges and universities are exploring models that will yield profit to the industry as well as deliver the needed course materials to students and faculty. In addition, digital textbooks would always be current and provide more equal access to learning materials.

In the short term college administrators and faculty should do the following:

- require that textbook lists are in early enough for bookstores to take advantage of buybacks and used textbook market,
- urge faculty to consider multi-semester adoptions,
Item #11

- use old editions even though the revised edition is released,
- post textbook lists and ISBNs online in a timely manner so that students can shop the least expensive alternative, \(^2\) and
- use bundled textbooks and associated materials only when materials will be actively used by the instructor.

Additionally, institutions should use their influence or contracting power to encourage publishers and bookstores to limit textbook prices and offer used books or less-expensive alternatives.

Until such time that more sophisticated electronic solutions become available to reduce textbook costs, the committee recommends that the Faculty Advisory Council of the University of Texas System adopt these recommendations and forward them to the campus faculty governing groups and campus administrators for action. This recommended action is similar to the action taken by the Academic Senate of the California State University System in March, 2006.

\(^2\) The best ‘timely manner’ is to post the required textbook ISBN’s on the university course schedule. If the required books for the courses are not known at the time when the course schedule is developed, the instructor should notify the appropriate university office as soon as the required textbooks (ISBNs) are known. Providing ISBNs on a timely basis will require cooperation amongst instructors, academic departments, college bookstores and registrar’s offices.
Appendix A

Shopping for Textbooks-A Look at Four Popular Majors at the University of Texas at Austin

Courses marked with an asterisk (*) next to the course number are multi-section courses with different reading requirements. Textbook costs will vary with the section chosen.

Where multiple affiliated establishments offered a used textbook, the cheapest listed price is shown in the tables. Figures in the tables do not include shipping and/or taxes.

Costs shown do not reflect sales tax. Sales tax would be charged for UT Coop purchases but not from .com establishments, except in cases where the .com has a brick and mortar presence in the state.

Shipping costs might be incurred but are not included. Amazon.com for example does not charge shipping for orders over $25. Affiliated establishments, those listed on the Amazon.com site, generally charge $3.99 per book.
Table 1: Course Schedule for an Electrical and Computer Engineering Major, Second Year, Spring 2008, 15 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>New</td>
<td>Used</td>
</tr>
<tr>
<td>EE 313</td>
<td>Linear Systems and Signals</td>
<td>Linear Systems and Signals</td>
<td>$123.00</td>
<td>$92.25</td>
</tr>
<tr>
<td>EE 316</td>
<td>Digital Logic and Design</td>
<td>Fundamentals of Logic Design</td>
<td>$131.35</td>
<td>$98.50</td>
</tr>
<tr>
<td>EE 319K</td>
<td>Introduction to Microcontrollers</td>
<td>HKN Notes(^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E 316K*</td>
<td>Masterworks of Literature</td>
<td>Classic American Autobiographies</td>
<td>$7.95</td>
<td>$5.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Things They Carried</td>
<td>$14.95</td>
<td>$11.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Norton Anthology of American Literature</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shorter Edition Volume 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 340L</td>
<td>Matrices and Matrix Calculations</td>
<td>Linear Algebra and Its Applications (Updated)</td>
<td>$133.35</td>
<td>$100.00</td>
</tr>
</tbody>
</table>

\(^1\)Available for purchase only at Departmental Office for $25.00

For this student and this configuration of courses, the total cost of textbooks would range from $307.74 to $527.82. In this example the greatest savings would be realized if the student purchased the required materials from Amazon.com. The total costs include shipping and taxes where applicable.
Table 2: Option 1 Bachelor of Science in Computer Sciences, Spring Semester, Second Year-Four Year Degree Plan, 15 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>New</td>
<td>Used</td>
</tr>
<tr>
<td>M 325K</td>
<td>Discrete Mathematics</td>
<td>Discrete Mathematics</td>
<td>$170.00</td>
<td>$127.50</td>
</tr>
<tr>
<td>CS 337</td>
<td>Theory in Programming Practice</td>
<td>No textbook. Class handouts</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>CS 345</td>
<td>Programming Languages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Programming Languages</td>
<td></td>
<td>$140.35</td>
<td>$105.25</td>
</tr>
<tr>
<td></td>
<td>C: A Reference Manual (Paperback)</td>
<td></td>
<td>$50.25</td>
<td>$37.70</td>
</tr>
<tr>
<td>CS 352</td>
<td>Computer Systems Architecture</td>
<td>Computer Systems: A Programmer's Perspective</td>
<td>$132.00</td>
<td>$99.00</td>
</tr>
<tr>
<td>HIS 315K</td>
<td>American History</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>James K Polk and the Expansionist Impulse</td>
<td></td>
<td>$20.65</td>
<td>$15.50</td>
</tr>
<tr>
<td></td>
<td>Undaunted Courage: Meriwether Lewis, Thomas Jefferson, and the Opening of the American West</td>
<td></td>
<td>$17.00</td>
<td>$12.75</td>
</tr>
<tr>
<td></td>
<td>American Passages: A History of the United States, Vol. I: To 1877</td>
<td></td>
<td>$96.00</td>
<td>$72.00</td>
</tr>
</tbody>
</table>

For this student and this configuration of courses, the total cost of textbooks would range from $377.72 to $686.82. The total costs include shipping and taxes where applicable.
### Table 3: Government Major, Spring Semester First Year 15 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td>E 316K</td>
<td>Masterworks of Literature</td>
<td>Death of a Salesman (Paperback)</td>
<td>$12.00 $9.00</td>
<td>$9.60 $0.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maggie Girl of the Streets and Other New York Writings (Paperback)</td>
<td>$8.95 $6.70</td>
<td>$8.95 $3.47</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Bell Jar (Paperback)</td>
<td>$13.95 $10.45</td>
<td>$11.86 $0.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Road (Paperback)</td>
<td>$14.95 $11.20</td>
<td>$11.86 $5.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concise Anthology of American Literature (Paperback)</td>
<td>$82.00 $61.50</td>
<td>$82.00 $35.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the Lake of the Woods (Paperback)</td>
<td>$15.00 $11.25</td>
<td>$0.01</td>
</tr>
<tr>
<td>AST 309L</td>
<td>Search for Extraterrestrial Life</td>
<td>Extraterrestrial Life (Custom)</td>
<td>$50.65 $50.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contact (Paperback)</td>
<td>$7.99 $6.00</td>
<td>$2.49 $0.01</td>
</tr>
<tr>
<td>GOV 312L</td>
<td>Issues and Policies in American Government</td>
<td>Introduction to Logic (Paperback)</td>
<td>$39.95 $29.95</td>
<td>$39.95 $32.56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Democracy in America (Perennial Classics Edition) (Paperback)</td>
<td>$22.95 $17.20</td>
<td></td>
</tr>
<tr>
<td>HIS 315L</td>
<td>United States since 1865</td>
<td>Inventing America Volume 2 (Paperback)</td>
<td>$86.65 $65.00</td>
<td>$81.25 $42.98</td>
</tr>
</tbody>
</table>

For this student and this configuration of courses, the total cost of textbooks would range from $192.60 to $387.58. In this example the student would save $194.98. To realize these savings, the student would have to purchase some textbooks from the UT Coop and some from Amazon.com. The total costs include shipping and taxes where applicable.
Table 4: Bachelor of Arts in Finance, Spring Semester, First Year, 13 Semester Credit Hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Textbook</th>
<th>UT Coop</th>
<th>Amazon.com</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>New</td>
<td>Used</td>
</tr>
<tr>
<td>BA 101S</td>
<td>Career Planning Strategies</td>
<td>No textbook required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M 408D</td>
<td>Calculus II</td>
<td>Calculus (Custom)</td>
<td>$151.35 $113.50</td>
<td>$151.35 $135.50</td>
</tr>
<tr>
<td>AST 301</td>
<td>Introduction to Astronomy</td>
<td>Essential Cosmic Perspective with Mastering Astronomy(TM) and Voyager SkyGazer Planetarium Software, The (4th Edition)</td>
<td>$108.35 $81.25</td>
<td>$111.60 $111.60</td>
</tr>
<tr>
<td>CMS 306</td>
<td>Professional Communication Skills</td>
<td>Professional Communication Skills (Custom)</td>
<td>$62.50 $62.50</td>
<td>$62.50 $19.82</td>
</tr>
<tr>
<td>ECO 304L</td>
<td>Principles of Macroeconomics</td>
<td>Principles of Macroeconomics and Student Guide Package</td>
<td>$131.65 $98.75</td>
<td>$177.40 $177.40</td>
</tr>
</tbody>
</table>

For this student and this configuration of courses, the total cost of textbooks would range from $385.37 to $502.80. The total costs include shipping and taxes where applicable. In this example buying used books from the UT Coop is the cheapest solution.
Appended B

Proposed Legislation from the 80th Texas Legislature

HB 956 by Hochberg would have required faculty members to consider less expensive materials and would have allowed 'bundling' of learning materials only under special criteria. Textbooks would have a minimum adoption period of three years, unless significant changes required an updated version. Each institution would have been required to compile a list of required textbooks for each course and post the list on website.

HB 960 by Herrero would have required higher education institutions that offer courses in the core curriculum to adopt a policy that regulates the use of textbooks required for the course curriculum courses at that institution.

HB 2009 by Rose would have required institutions to provide a list of required instructional materials to any retailer requesting the list.

HB 2965 by Vo would have required instructors to use a textbook for a minimum of three years. Further only textbooks where the publisher provides for sale at the bookstore, inserts that may be used to update the textbook. The bill would have allowed the chair of a department or his/her designee to allow switching to a new edition or new textbook.

SB 114 by Van de Putte would have required higher education institutions provide, on request, the list of required or recommended instructional materials to a retailer or other provider of instructional materials at the same time the list is provided to a university -- affiliated bookstore. This bill that would have instructed universities to provide the same opportunity for all retailers to participate in any programs related to the dissemination of instructional materials including providing information at student orientation. All retailers would have been given equal access to the opportunity to use or develop a method for the extension of credit or the ability to charge or delay payment of the cost of instruction materials.
RESOLVED: That consistent with the fundamental right and responsibility of faculty to select course materials, the principles of academic freedom, and the goal of providing high quality education, the Academic Senate California State University (CSU) reaffirm the fundamental right and responsibility of the faculty to set curriculum and select those materials, either traditional or alternative, that are pedagogically most appropriate for delivering that curriculum; and be it further

RESOLVED: That consistent with these principles, which ensure the academic and intellectual soundness of course materials, the Academic Senate CSU encourage CSU faculty to consider—when appropriate, pedagogically sound and feasible -- selecting course textbooks and materials that minimize the cost to students; and be it further

RESOLVED: That the Academic Senate CSU recommend that the campus academic senates, where necessary, work with bookstores to arrive at mutually acceptable timelines for text adoption; and be it further

RESOLVED: That the Academic Senate CSU encourage faculty to submit their textbook requests within these timelines to ensure the availability of textbooks through the campus and other local bookstores; and be it further

RESOLVED: That the Academic Senate CSU encourage faculty to notify their campus bookstores as early as possible about re-adoptions of previously used textbooks to allow current students who wish to sell their copies back to the campus bookstore, which would also provide a larger quantity of cheaper, used textbooks for future students; and be it further

RESOLVED: That the Academic Senate CSU encourage faculty and campus bookstores to communicate clearly with publisher representatives about textbook pricing concerns and options; and be it further

RESOLVED: That the Academic Senate CSU reaffirm the fundamental right and responsibility of faculty to select traditional textbooks, alternative formats, and ancillary items with intellectual content and teaching effectiveness as the prime considerations.

RATIONALE: The Academic Senate CSU recognizes that the high cost of certain textbooks and ancillaries can adversely affect the affordability of higher education for CSU students; it also recognizes that the California State Student Association (CSSA) and the California legislature have expressed ongoing concerns about the rapid rise in textbook prices for CSU students and about associated cost factors such as the bundling of textbooks with sometimes unneeded supplements. These problems have received attention in the national media and in other legislatures as well. In 2004, the California Legislature and the Governor approved legislation (AB 2477) urging book publishers to offer lower-price textbook options whenever possible and encouraging campus faculty and bookstores to do likewise and to generally pursue more economical textbook pricing practices.
Among options available to faculty are

- adopting the least expensive edition of books they wish to use;
- using the same book and edition as long as it remains appropriate pedagogically;
- telling students the probable cost of books and materials for their class(es);
- reviewing textbook adoption timelines and procedures with the campus bookstore;
- working with publishers and bookstores if bundles are necessary to ensure that they are economically sound;
- adopting texts and materials in a manner that allows students to buy parts of a bundle;
- developing coursepacks (course readers);
- using e-reserves.

While the Academic Senate CSU recognizes that course packs and e-reserves help reduce costs to students, it also urges faculty to remember that content included in such delivery mechanisms must follow federal fair use and copyright guidelines.

Even though they understand the financial constraints with which many students are faced, the Academic Senate CSU and the CSU must also protect the academic freedom necessary for and inherent to effective and independent faculty selection of textbooks. This resolution proposes that faculty can develop ways of both maintaining their professional and curricular integrity and helping students contain the cost of their education.

APPROVED – May 4-5, 2006
References


Harper, Georgia, “Subject: Possible copyright issues - Granof textbook license plan”, UT System Administration,