

**THE UNIVERSITY OF TEXAS AT SAN ANTONIO
DOCUMENTS AND PROCEEDINGS OF THE GRADUATE COUNCIL
ACTION MINUTES
ORDER OF BUSINESS**

December 7, 2004

**John Peace Library 4.03.08
3:30 p.m.**

Present: Stephen Amberg, Amie Beckett, Stuart Birnbaum, Stephen Brown, Youn-Min Chou, Paul Cotae, Blanche Desjean-Perrotta, Jim Dykes, Juanita Firestone, Dorothy Flannagan, Lila Truett, James Groff, Jack Himelblau, Fred Hudson, Eugene John, Palani-Rajan Kadapakkam, Debbie Lopez, Tina Lowrey, Bill Mullen, Francine Romero, James Schneider, Alan Shoho, Ted Skekel, Raydel Tullous, Raj Wilson, Mary Zey, Jamal Rhadbane, Teresa Skeete

Absent: Jim Bower, Thomas Bylander, Larry Golden, Neal Guentzel, Hai-Chao Han, Hyunsoo Han, Daniel Hogenauer, Michael Karcher, Kasandra Keeling, Michael Kelly, Don Lien, Randall Manteufel, Neil Maurer, Hugh Maynard, John McCarrey, Cynthia McCluskey, Howard Smith, Jon Thompson, Armando Trujillo, Esther Wheeler, Robert Ayoub, Shawn Crawford, Sandra Guerrero, Sam Slocum, Lorraine Trevino

Excused: Jan Clark, Laura Levi, Judith Sobre

Visitors: Frances Colpitt (Chair, Department of Art and Art History),
Nandini Kannan (Chair, Department of Management Science and
Statistics),
Ken Little (Professor, Department of Art and Art History),
Steve Murdock (Professor, Department of Management Science and
Statistics),
Mehdi Shadaram (Chair, Department of Electrical Engineering),
Diane Walz, Associate Dean for Graduate Studies and Research, College of
Business

I. Call to order and taking of attendance.

The December 7, 2004 meeting of the Graduate Council was called to order at 3:36 pm.

II. Approval of Minutes (Ted Skekel)

After a correction to the list of members present, the Minutes of the November 2, 2004 meeting of the Graduate Council were unanimously approved.

III. Reports

A. **Council Chair (Ted Skekel)**

Dr. Ted Skekel asked Dr. Fred Hudson to introduce the guests who had been invited to answer any questions about program proposals. For the proposed Doctor of Philosophy in Applied Statistics/Demography, Dr. Hudson introduced Drs. Nandini Kannan, Diane Walz, and Steve Murdock. He also noted the presence of Dr. Mary Zey as a member of the Graduate Council. For the proposed Master of Science in Computer Engineering, Dr. Hudson introduced Dr. Mehdi Shadaram and noted that Graduate Council Member Dr. Eugene John was also present. All of these invited visitors were unanimously approved to attend and answer questions about their respective proposals.

B. **Dean of Graduate School (Dorothy Flannagan)**

Dr. Dorothy Flannagan described changes that Educational Testing Service is making to the Graduate Record Exam (GRE). The exam will continue to be computer based; but, in order to increase exam security, there will only be 29 specified test dates. The UTSA may become one of the new test sites. The verbal portion of the GRE currently tests low-level skills (e.g.; antonyms and synonyms) and high-level skills (e.g.; reading comprehension and question answering). The new GRE is expected to eliminate the testing of low-level skills and increase the testing of reading comprehension. The current quantitative portion of the GRE is not as effective as it might be, because the skills measured are too easy for some programs and too difficult for other programs. It is possible that there may be two levels of quantitative testing in the future.

C. **Secretary (Jim Dykes)**

Two changes to the Graduate Programs and Courses Committee were noted: Dr. Amie Beckett will replace Dr. Bridget Drinka and Dr. Rosalind Horowitz (Chair of the Nominating Committee) will find a replacement for Dr. Olivia Yu.

D. **Committee on Academic Policy and Requirements (Stephen Brown)**

No report.

E. **Committee on Graduate Programs and Courses (Fred Hudson)**

Dr. Fred Hudson reviewed two new program proposals: a proposed Master of Science in Computer Engineering and a proposed Doctor of Philosophy in Applied Statistics/Demography. The executive summaries and PowerPoint presentations were distributed (see Attachments A and B, respectively).

Dr. Hudson reminded the Graduate Council that there is a Master of Science in Electrical Engineering with four specializations: Signal Processing, Control, Communications, and Computer Engineering. He reported that Computer Engineering is distinct from the other Electrical Engineering specializations because it focuses on switching and the construction of computers. He also reported that Computer Engineering focuses on hardware, while Computer Science focuses on software. Dr. Hudson noted that the proposed Master of Science in Computer Engineering is supported by both Electrical Engineering and Computer Science, after modifications were made in response to their suggestions. The goal of the proposed program is to provide advanced training in a highly marketable skill. Currently, about 20 UTSA students per year now specialize in Computer Engineering and it is the most popular Master of Science engineering major at UT Austin and Texas A&M. While many leadership positions are available in academics and the marketplace, employers expect a greater depth of training than is currently provided by the Computer Engineering specialization. The proposed Master of Science program includes both thesis and non-thesis options to meet those demands. Dr. Hudson noted that no additional faculty are needed to implement the proposed program, because the specialization is currently supported by two Full Professors, two Associate Professors, four Electrical Engineering faculty, and Computer Science faculty. Recruitment of an additional tenure-track faculty member is on going. Dr. Hudson reported that the proposed Master of Science in Electrical Engineering would recruit new students rather than eliminating the Master of Science in Electrical Engineering and that his Committee on Graduate Programs and Courses recommended approval of the proposal.

In response to a question by Dr. Stuart Birnbaum, Drs. John and Shadaram clarified that the Accreditation Board for Engineering and Technology (ABET) provides accreditation for Computer Engineering. In response to a question by Dr. Raj Wilson, they explained that the program at Texas A&M is similar, but that demand is very high. Based on a question by Dr. Birnbaum, it was noted that the proposed Master of Science degree would make the Computer Engineering specialization in Electrical Engineering a new program. The proposed Master of Science degree in Computer Engineering was unanimously approved.

Dr. Hudson explained that the proposed Doctor of Philosophy in Applied Statistics/Demography would be housed in the Department of Management Science and Statistics in the College of Business, but that there is also critical support from the UTSA Department of Sociology, the University of Texas Health Science Center at San Antonio, and faculty in the San Antonio location of the University of Texas Health Science Center at Houston's School of Public Health. Contingent on Graduate Council approval of Graduate Faculty status, all would be eligible to teach courses

and serve as chairs or members of dissertation committees. Based on national statistics and local surveys, the demand for an applied statistics/demography doctoral program is not currently being met by state public institutions: only Texas A&M offers a doctorate in statistics program and only the University of Texas at Austin and Texas A&M offer doctoral programs in demography. Dr. Hudson indicated that the proposed Doctor of Philosophy in Applied Statistics/Demography at UTSA would have a multidisciplinary, applied focus that is not found in those currently available programs. The proposed program would anticipate admitting approximately 10 full- and part-time students a year (7 FTEs) with 29 active students by the 5th year. The College of Business has planned on 4 tenure-track and 1 non-tenure-track hires over the first five years. The proposed curriculum calls for at least 60 hours of coursework beyond the Master's degree: 48 hours of organized coursework (21 hours of core courses in Business and 27 hours of specialized courses in either a Biostatistics or Applied Demography concentration) and, after the oral and written qualifying exam, a minimum of 12 hours of dissertation credit.

In response to a question by Dr. Juanita Firestone, Dr. Kannan explained that "Applied Statistics" was adopted for the program name in order to provide a broad umbrella that could subsequently include a future Biostatistics specialization. In response to questions by Dr. Firestone and Dr. Steve Amberg, Dr. Zey explained that it is a multidisciplinary program (as opposed to a joint program) and Dr. Murdoch described the importance of Sociology in U.S. programs and Economics in European programs. Dr. Raj Wilson asked about the relationship between the proposed Doctoral program and existing Master of Science degree programs at UTSA. Dr. Kannan explained that the core is already taught in the Master of Science in Statistics program, that the proposed program also expects to draw students from Biology and Sociology, and that faculty is in place to coordinate between the Master of Science degree programs and the proposed Doctoral degree program. Both Dr. Wilson and Dr. Bill Mullen asked about the relationship of the proposed program to other programs in Texas. Dr. Kannan explained that Rice University has a joint program with M. D. Anderson and that Southern Methodist University is starting a program. She cited two possible reasons for the absence of a public Biostatistics program in Texas: loss of critical faculty and the lack of a Health Science Center at College Station. In response to questions by Dr. Birnbaum, Dr. Murdock explained that most students would take three to four years beyond the Master of Science degree in order to earn the Doctoral degree and that anticipated support included Departmental Research and Teaching Assistantships as well as paid internships and research opportunities at the UTHSCSA and the School

of Public Health. Drs. Kannan and Murdock agreed with Dr. Steve Brown that student demand may be larger than estimated and that Geographic Information Systems are important for student training and employment. The proposed Doctor of Philosophy in Applied Statistics/Demography was unanimously approved.

F. Membership Committee (Jon Thompson)

No report.

G. Committee on Graduate Program Evaluation (Victor Heller)

Dr. Victor Heller reviewed his committee's recommendations on the programs evaluated. Those recommendations were emailed to the Graduate Council on November 30th, 2004. Dr. Heller noted that the recommendations for the Master of Arts degree in Political Science would be provided prior to their consideration at the next meeting of the Graduate Council (Tuesday, February 1st, 2005).

The committee recommended that the Master of Arts in Economics program move closer to establishing a Doctoral of Philosophy in Economics degree program. The recommendation was unanimously approved.

Dr. Heller summarized the committee's recommendations for the Master of Arts in Art History program: to increase program funding, to ensure joint planning for the relocation of facilities between the 1604 and Downtown campuses, to fund the Satellite Gallery, to improve faculty morale, and to develop specific goals for the program. In response to questions by Drs. Birnbaum and Mullen, Dr. Frances Colpitt explained that Downtown campus moves by both Art and Art History would be done in phases based on experience gained from the move by Architecture. Dr. Tina Lowry asked about the evaluation process. Dr. Heller explained that the Department/Program prepares a report that is sent to the outside evaluators, who in turn submit a report. The Committee on Graduate Program Evaluation reviews both reports and presents its recommendation to the Graduate Council for a vote. Dr. Skekel noted that programs are evaluated on rolling 7-10 year schedules and that there is a one-year follow up to the Graduate Council's vote. Dr. Amberg asked about the process after the Graduate Council vote and about the one-year follow up. Dr. Flannagan explained that the Graduate Council report is forwarded to the Provost and that the program can use that report to gain resources. At the one-year follow up, the Committee meets with the Department Chair and the Program Chair to review the effects of those resources and to track directed changes to the program. Dr. Skekel noted that there is no requirement to report the results of the one-year follow up to the Graduate Council, unless the results are negative. Dr. Mullen asked about the specific resources needed. Dr. Ken Little reported that there is a need for

more student assistantships and that providing Downtown studio art courses to support the Art History program is a big commitment.

Dr. Heller noted the linkages between the committee's recommendations for the Master of Arts in Art History and the Master of Fine Arts. While some recommendations are specific to the Fine Arts (the role of visiting artists and increasing student cubicles, computers, and lab space availability), many are common: the Downtown moves, the boost in exhibit space, and the curricular linkages between the programs.

An extended discussion ensued about how the Graduate Council could best support the programs. Dr. Hudson asked if there was a way that the Graduate Council could help boost faculty morale. Dr. Heller suggested that the usual approach was for the Department to work together, but that the Graduate Council could help if requested. Dr. Birnbaum focused on the Committee report and the one-year follow-up. Dr. Skekel noted that the reports could provide Graduate Council support to requests by the program. Dr. Heller noted that the reports are also critical for accreditation by the Southern Association of Colleges. Dr. Birnbaum asked if the Graduate Council could request a report on the one-year follow up. Dr. Skekel replied that such a motion could be made as an amendment to the recommendations for a specific program evaluation. In response to a question by Dr. Raydel Tullous, Drs. Skekel and Flannagan explained that the Graduate School supplies the documents to the committee performing the one-year review.

The Committee recommendations for the Master of Arts in Art History were unanimously approved, with the amendment that the committee provide a report of the one-year follow up to the Graduate Council.

The Committee recommendations for the Master of Fine Arts (with the amendment that the committee provide a report of the one-year follow up to the Graduate Council) were also unanimously approved.

IV. Unfinished Business

None.

V. New Business

Dr. Skekel explained that the changes in the Graduate Council Bylaws passed in May 2003 had led to both long term and short-term issues with regard to Graduate Council membership. Dr. Dykes noted two important changes:

- 1) under the previous Bylaws there were three categories of Graduate Faculty membership (Member, Associate, and Special), but under the current Bylaws there are only two categories (Member and Special) and
- 2) under the previous Bylaws all new tenure-track hires had to be submitted to review by the Membership Committee, but under the current

Bylaws all tenured and tenure-track hires are automatically Members of the Graduate Faculty.

As a consequence, there has been confusion at the program level about Graduate Faculty membership and there has been a lag in adding new faculty to the Graduate Faculty list. In order to resolve the long term issues, Drs. Skekel and Flannagan worked on a recommended change to the Bylaws. Dr. Dykes recommended and distributed a draft of that proposed change (Attachment C). Graduate Council Bylaws require that any proposed change to the Graduate Council Bylaws be distributed at least 30 days before a vote. Dr. Dykes will move to consider the proposed change to the Graduate Council Bylaws at the next meeting of the Graduate Council (Tuesday, February 1st, 2005).

Dr. Skekel reminded Dr. Dykes that there was also a short-term issue. Dr. Dykes reported that there was a program whose representative had resigned after the May 2004 meeting of the Graduate Council. Given that there was no runner-up in the previous election, an election was conducted to find a replacement representative for the second year of that person's position on the Graduate Council. Dr. Dykes reported that ballots had not been sent to all faculty qualified to vote and, as a consequence, that the Department Chair had asked that the Graduate Council approve a new vote. In response to a question from the floor, Dr. Dykes offered the opinion that a new vote might not be unanimous. Dr. Firestone provided context by noting that she was elected as the Graduate Council representative for the Master of Science in Sociology program, but is not Chair of the Program Committee. Dr. James Groff proposed referring the issue of a new election to Dr. Jon Thompson's Membership Committee. His motion was seconded and unanimously approved.

VI. Adjournment

The meeting was adjourned at 4:51 pm.

Attachment A

Proposed Master of Science in Computer Engineering**Executive Summary**

A Master of Science in Computer Engineering is proposed by the UTSA College of Engineering in the Electrical Engineering Department. The current Electrical Engineering Master's Degree at UTSA provides expansion of the fundamentals of Electrical Engineering and some specialization, but Computer Engineering is unique from the other fields of specialization at UTSA (Signal Processing, Control and Communications) because it centers on the use of electricity and electronics for the very special purpose of switching. This leads to the focus on digital logic; the propagation of signals as binary data; the organization of digital circuits into computer processors, connecting mechanisms and digital storage (memories); the design of digital components; the programming of processors; the development of digital systems for specialized functions - custom circuits; interfacing computer subsystems and input/output systems; and the application of computing systems as components of larger systems. In order to apply a graduate concentration, most students and employers of those individuals expect a full focus on the topics specific to computer engineering - computer hardware and closely related software. The Electrical Engineering Master's requires at least 20% of the course of study to return to electrical fundamentals; the entering Computer Engineering student is required to have this background on entry. The electrical engineering degree equivalent of studying electrical fundamentals takes away from the Computer Engineering specialization. Entering students, expecting to specialize in Computer Engineering, are frustrated by taking courses that diverge their concentration from computing (Signal Processing, Control and Communications), and prevents students from receiving the depth of training in computer engineering necessary to prepare them for competitive employment opportunities or Doctor of Philosophy programs. A separate Computer Engineering Master of Science program allows the students to completely focus on the computer engineering aspect of electrical engineering.

The Master of Science in Computer Engineering is designed to offer the students the opportunity to prepare for leadership roles in careers with industry, government, or educational institutions. The students enrolled in the Master of Science Degree program in Computer Engineering will have two different options to obtain their degree. They are: (1) Thesis option and (2) Non-thesis option. A thesis option is offered for students who want the opportunity to obtain expertise in research and who may be interested in pursuing the doctoral degree in computer engineering or electrical engineering. A non-thesis option is offered for students who want a practical industrial applications-oriented degree.

The courses for the proposed Master of Science Computer Engineering degree program will consist of existing courses from the University graduate programs and three new courses in Computer Engineering.

The educational objectives of the Master of Science degree program in Computer Engineering are:

- a. To provide graduate students with **advanced training in marketable** areas of Computer Engineering;
- b. To provide graduate students with research opportunities to **solve real-world problems** in Computer Engineering;
- c. To prepare graduate students for **leadership positions** in Computer Engineering.

About twenty students per year have finished Electrical Engineering master's degrees specializing in Computer Engineering over the past two years. The students currently finish their Electrical Engineering master's degrees with courses of study that would be the equivalent of Computer Engineering courses of study at other Universities (e.g., The University of Texas at Austin and Texas A&M University, College Station. The Computer Engineering master's degree is the most popular engineering degree at each institution. The main difference between UTSA's course of study and the courses of study at other universities is that there are required courses at UTSA in other fields of Electrical Engineering that would, effectively, constitute electives for a Computer Engineering master's degree.

The addition of a Computer Engineering masters program, while attracting new students, will result in the master's students who are now seeking Computer Engineering specializations in Electrical Engineering to have the option of having an Electrical Engineering master's degree or a Computer Engineering master's degree. The addition of the new Computer Engineering masters program will not eliminate the Electrical Engineering master's degree with a Computer Engineering specialization. Electrical Engineering masters students in other specializations will continue to take some Computer Engineering courses (including new ones).

Thus, the addition of a new Computer Engineering master's degree program would not obviate any existing program, but would enrich the current Electrical Engineering program. It would augment the current Electrical Engineering program's Computer Engineering specialization. It would build on a course of study that already exists. The new Computer Engineering program will provide a new option that is very popular at other UT component institutions that is very similar to the currently effected Electrical Engineering master's degree that does not have the cache' and attraction that the Computer Engineering degree holds for some.

Attachment B

Proposed Doctor of Philosophy in Applied Statistics/Demography**EXECUTIVE SUMMARY**

A Doctor of Philosophy in Applied Statistics/Demography, housed in the Department of Management Science and Statistics at UTSA, and drawing on the extensive health-related expertise of faculty at the University of Texas Health Science Center at San Antonio and San Antonio based faculty from the School of Public Health in the University of Texas Health Science Center at Houston, is proposed. The proposed program will meet the growing national and state demand for individuals with doctoral training in the areas of biostatistics and applied demography.

There is substantial growth in biomedical research at both the national and state levels, yet only 81 PhD degrees in biostatistics were awarded in 2002, the most recent year for which data are available. Similarly, there is a significant growth in the demand for individuals with doctoral training in demography, yet only 20 doctorates were awarded in this field in 2002, and none of the awarding institutions offered a degree with an applied focus. Currently, Texas A & M University is the only public institution in the state that offers a doctorate in statistics. Texas A & M University and the University of Texas at Austin offer Doctor of Philosophy degrees in demography, but those programs do not have the multidisciplinary, applied focus of the proposed program. Results of surveys administered to prospective students and prospective employers found a significant proportion of both surveyed groups expressed a need for and interest in the proposed program.

The proposed Doctor of Philosophy program in Applied Statistics/Demography will be administered by the Department of Management Science and Statistics in the College of Business. The Chair of the Department of Management Science and Statistics and the Associate Dean for Graduate Study in the College of Business will provide administrative oversight for the program. The proposed Doctor of Philosophy program will be delivered by faculty from the Department of Management Science and Statistics and the Department of Sociology at UTSA as well as faculty from the University of Texas Health Science Center at San Antonio and faculty from the San Antonio location of the University of Texas Health Science Center at Houston's School of Public Health. All contributing faculty members (from UTSA, UTHSCSA and the School of Public Health) will be eligible to teach courses and serve as chairs or members of the graduate committees of students, contingent on approval of graduate faculty status by the Graduate Council at UTSA. It is estimated that four tenure-track faculty and one non-tenure track faculty member will need to be hired during the first five years of the program, and these positions are included in the College of Business' faculty hiring plan.

Admission to the program will be on a competitive basis, determined by a combination of factors, including the adequacy of the applicant's academic preparation,

GPA, GRE scores, letters of recommendation, and when feasible, interviews with members of the admissions committee. Students admitted to the program will be required to complete a minimum of 48 hours of organized coursework and a minimum of 12 hours of dissertation for a total of at least 60 hours beyond the Master's degree. All students will complete 21 hours of core courses offered in the College of Business, as well as 27 hours of specialized courses in one of two areas of concentration: Biostatistics or Applied Demography. After completing the required coursework, students will be eligible to sit for oral and written PhD exams. Once exams are successfully completed, students will begin work on their dissertation.

The proposed program is projected to admit approximately 10 full and part time students (7 FTEs) per year; with an estimated 29 students actively participating in the program by Year 5 (this figure includes estimated attrition).

The proposed Doctor of Philosophy program in Applied Statistics/Demography will draw on experts from a number of academic units within the University of Texas System in the San Antonio area to contribute to important knowledge bases, and in doing so, will offer students training that will allow graduates to address the demands of academic and private-sector markets, and diversify both the professorate and professional bases in its discipline areas. This program will strengthen the base of graduate education at UTSA and the region while meeting state and national academic and professional demands.

Attachment C

ARTICLE III

MEMBERSHIP ON THE GRADUATE COUNCIL

3. Elections

- A. Election of faculty members to the Graduate Council shall be by vote of the Members of the Graduate Faculty of the individual Graduate Program Committees and shall be completed prior to the April meeting of the Council. The Secretary of the Council will arrange the administrative procedures for the election and will conduct the election in each of the Graduate Program Committees. The Secretary will also recommend to the Council prior to the time of election reapportionment of the faculty seats on the Council for each of the Graduate Program Committees based on the graduate enrollment in the degree programs as provided in these Bylaws. New members shall take office on September 1.

Changed to:

3. Elections

- A. Election of faculty members to the Graduate Council shall be for two-year terms (see Article 1.B.1.D). On or before March 1st, the Secretary of the Council will send instructions for holding the election to the Department Chair of each Graduate Program needing to conduct an election. For interdisciplinary programs spanning multiple departments, notification will alternate amongst the relevant Chairs. For each Graduate Program, its Graduate Council Member must be elected from among all faculty eligible to serve as a Member of the Graduate Council, all faculty eligible to serve as a Member of the Graduate Council must receive a ballot, and all elections must be conducted in a manner that assures that each individual vote is confidential. The Secretary will also recommend to the Council prior to the time of election reapportionment of the faculty seats on the Council for each of the Graduate Program Committees based on the graduate enrollment in the degree programs as provided in these Bylaws. Each bi-annual election shall be conducted and the results reported to the Council Secretary prior to the April meeting of the Council. New members shall take office on September 1.