TEXAS TECH UNIVERSITY

LUBBOCK, TEXAS

MINUTES OF BOARD OF REGENTS MEETINGS

1983 - 1984

VOLUME I

MINUTES OF

BOARD OF REGENTS MEETING

March 23, 1984

TEXAS TECH UNIVERSITY
and
TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER
Lubbock, Texas

Minutes

Board of Regents
March 23, 1984

M91. The Board of Regents of Texas Tech University and Texas Tech University Health Sciences Center met in regular session on Friday, March 23, 1984, at 9:00 a.m. in the Board of Regents suite on campus. The following Regents were present: Mr. Joe Pevehouse, Chairman, Mr. John E. Birdwell, Mr. Jerry Ford, Mr. Rex Fuller, Dr. Nathan C. Galloway, Mr. Larry D. Johnson, and Mr. Wesley Masters. Absent were Regents J. Fred Bucy and Anne W. Sowell. University officials and staff present were: Dr. Lauro F. Cavazos, President; Dr. John R. Darling, Vice President, Dr. C. Len Ainsworth, Associate Vice President, Office of Academic Affairs; Dr. Robert H. Ewalt, Vice President for Student Affairs; Dr. Eugene E. Payne, Vice President, Mrs. Marsha Barnes, Assistant Vice President, Office of Finance and Administration; Dr. John R. Bradford, Vice President for Development; Dr. J. Knox Jones, Jr., Vice President for Research and Graduate Studies; Dr. Sam Richards, Vice President for Health Sciences Center; Dr. Marilyn Phelan, General Counsel, Mr. Pat Campbell, Associate General Counsel; Mr. Mike Sanders, Director for Public Affairs; Mr. Robert L. Bray, Director of Office of Planning; Mrs. Bea Zeeck, Director for News and Publications; Mr. Max C. Tomlinson, Associate Vice President for Business Affairs; Mr. Fred J. Wehmeyer, Associate Vice President for Physical Plant and Support Services; Mr. Clyde H. Westbrook, Assistant Vice President for Budget and Financial Services; Mr. Jay W. Lindsey, Assistant Vice President for Investments and Operation Analyses; Mrs. Freda Pierce, Secretary of the Board; Mr. Jack P. Fenwick, Director of Facilities Planning and Construction; Mr. Eric Williams, Director of Facilities and Planning Operations, Mrs. Sherry Wilhelm, Assistant Health Facilities Planner, Health Sciences Center; Mr. Clyde J. Morganti, Executive Assistant to the President, Office of the President; Dr. J. Ted Hartman, Dean, School of Medicine; and Dr. Robert A. Cornesky, Dean, School of Allied Health.

Others present were: Ms. Veronica Young, KCBD-TV, and Mr. Pat Graves, Lubbock Avalanche-Journal.

M92. Chairman Pevehouse called the meeting to order, and read the following statement: "The Board of Regents of Texas Tech University and Texas Tech University Health Sciences Center now having been duly convened in open session, and Statutory notice of these meetings of the Board of Regents having been duly given to the Secretary of State, I, as Chairman of the Board of Regents, hereby publicly announce Executive Sessions of the Board to be held in compliance with Article 6252-17, Texas Civil Statutes, and these Executive sessions are specifically authorized by Section 2 - Paragraphs E, F, and G, of the Statute." The Board reconvened in open session at 9:50 a.m. at the conclusion of the meeting for Texas Tech University Health Sciences Center.

M93. Upon motion made by Mr. Fuller, seconded by Mr. Masters, the Board approved the Minutes of the meeting of January 20, 1984.

M94. Mr. Ford reported for the Academic and Student Affairs Committee. The following eight items (M95 through M102) constitute action taken upon committee recommendation.

M95. Upon motion made by Mr. Ford, seconded by Mr. Birdwell, the following was approved: RESOLVED, that the Board of Regents grants tenure to the faculty of Texas Tech University whose names appear on the attached list, effective this date; Attachment No. M1. Mr. Ford then made the following statement: "As we recognize these new additions to the tenured faculty at Texas Tech I would like to express the congratulations of the committee, and the Board, to these individuals and to thank them for their noteworthy service which has earned them the distinction, as well as the responsibilities of tenure. By these new appointments the Board recognizes the role of tenure in maintaining a high quality faculty and it reaffirms its endorsement of the tenure concept. Also, I wish to take this opportunity to inform the Board that the administration is continuing to assemble, as previously instructed by the Board, data on tenure statistics and projections for the Board to consider as we study the needs and desirability of revisions in the current tenure policy."

M96. Upon motion made by Mr. Ford, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents approves the changes in academic rank as indicated on the attached roster, effective September 1, 1984; Attachment No. M2.

M97. Upon motion made by Mr. Ford, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents designates as Horn Professors Dr. James Gerald Hunt, Professor of Business Administration, Area of Management, and Dr. Joseph E. Minor, Professor of Civil Engineering, effective March 23, 1984.

M98. Upon motion made by Mr. Ford, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents approves the conferral of the honorary degree upon Senator John Goodwin Tower. The Citation to be presented to Senator Tower is attached; Attachment No. M3.

M99. Upon motion made by Mr. Ford, seconded by Mr. Fuller, the following was approved: RESOLVED, that the Board of Regents approves the degree program leading to the Bachelor of Science with major in Cell and Molecular Biology. The degree proposal is attached; Attachment No. M4.

M100. Upon motion made by Mr. Ford, seconded by Mr. Fuller, the following was approved: RESOLVED, that the position of the Vice President for Research and Graduate Studies be abolished at an early date to be decided by the President and that the responsibilities of that position be reassigned, as appropriate, to the Vice President for Academic Affairs and the Vice President for Finance and Administration. BE IT FURTHER RESOLVED, that the title of Vice President for Academic Affairs be changed to Vice President for Academic Affairs and Research upon termination of the position of Vice President for Research and Graduate Studies.

M101. Upon motion made by Mr. Ford, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents ratifies administrative actions as follows: (1) Leaves of Absence for individuals listed on the attachment; Attachment No. M5. (2) Conferral of degrees at the May 11, 1984, Commencement, to candidates certified by the faculty, by the deans of the various colleges and schools and the registrar. (3) Faculty Development Leaves for the individuals listed on the attachment; Attachment No. M6.

M102. Mr. Ford stated that the academic achievement reports and planning statements for the School of Law and the University Libraries were heard and reviewed during the committee meeting.

M103. Mr. Birdwell reported for the Finance and Administration Committee. The following eight items (M104 through M111) constitute action taken upon committee recommendation.

M104. Upon motion made by Mr. Birdwell, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University approves the budget adjustments for the period December 1, 1983, to January 31, 1984, as attached; Attachment No. M7.

M105. Upon motion made by Mr. Birdwell, seconded by Mr. Fuller, the following was unanimously approved: RESOLVED, that the attached policy regarding security and privacy of computer data, software, and hardware be approved; Attachment No. M8.

M106. Upon motion made by Mr. Birdwell, seconded by Mr. Johnson, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University approves Aetna Life Insurance and Annuity Company and Union Mutual Life Insurance Company be added to the existing list as authorized carriers for both Optional Retirement and Tax Sheltered Annuity programs.

M107. Upon motion made by Mr. Birdwell, seconded by Dr. Galloway, the following was unanimously approved: RESOLVED, that the Board of Regents of Texas Tech University approves the attached Board policy revision to Policy No. 04.11 relating to additional provisions concerning minimum quality ratings of certain kinds of collateral pledged by depository banks to secure cash investments of Texas Tech University; Attachment No. M9.

M108. Upon motion made by Mr. Birdwell, seconded by Dr. Galloway, the following was approved: RESOLVED, that the attached Holiday Schedule for Texas Tech University is approved for the 1984-85 fiscal year; Attachment No. M10.

M109. Upon motion made by Mr. Birdwell, seconded by Mr. Masters, the following was approved: RESOLVED, that the agreements with the Dad's Association and the West Texas Museum Association as needed to comply with the provisions of Senate Bill 772 and House Bill 622, be approved; Attachments No. M11 and M12 respectively.

M110. Upon motion made by Mr. Birdwell, seconded by Mr. Johnson, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University declares the electrical power distribution lines at the Pantex Facility

uneconomical and beyond repair using normal funding, and that the lines be sold to Southwestern Public Service Company for $10.00 and other considerations and authorizes the President to execute the required legal documents.

M111. Upon motion made by Mr. Birdwell, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University ratifies the administrative actions as follows: To sign and/or countersign checks drawn on the University's Financial Aids Cashier's Account in the American State Bank, Lubbock, Texas, effective March 23, 1984, and to continue until such time as they are separated from the University or assigned other responsibilities: Employees who may sign or countersign: R. Spencer Gould, Assistant Director of Financial Aids, Graciela Quinonez, Financial Aids Advisor.

M112. Mr. Masters reported for the Campus and Building Committee. The following fourteen items (M113 through M126) constitute action taken upon committee recommendation.

M113. Upon motion made by Mr. Masters, seconded by Mr. Johnson, the following was approved: RESOLVED, that the bid of Stover Electric in the amount of $114,953 be accepted for the installation of a new fire and smoke alarm system in Stangel/Murdough and the President is authorized to duly execute a contract.

M114. Upon motion made by Mr. Masters, seconded by Dr. Galloway, the following was approved: RESOLVED, that the bid of Mike Klein Construction Company in the amount of $143,700 is accepted for the renovation of bathrooms in Murdough Residence Hall, and the President is authorized to duly execute a contract.

M115. Upon motion made by Mr. Masters, seconded by Mr. Birdwell, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University authorizes the President to dispose of the Dormitory Laundry and delete it from the building inventory.

M116. Upon motion made by Mr. Masters, seconded by Mr. Fuller, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University authorizes the President to dispose of the Intramural Gymnasium and delete it from the building inventory.

M117. Upon motion made by Mr. Masters, seconded by Mr. Birdwell, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University appoints the firm of Spencer Associates, Inc., in association with Joe D. McKay, Architect, to prepare design studies and cost estimates for the construction of a multipurpose Athletic and Physical Education Facility; BE IT FURTHER RESOLVED, that the project budget is established at $2,500,000.

M118. Upon motion made by Mr. Masters, seconded by Mr. Fuller, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University authorizes the President to proceed with planning and appoints the firm of Fanning, Fanning and Agnew, Inc., as project engineer for the modification of the existing air conditioning system to achieve temperature and humidity control in the Museum of Texas Tech University. BE IT FURTHER RESOLVED, that the project budget is established at $125,000.

M119. Upon motion made by Mr. Masters, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University approves the revised schematic design and authorization is given to proceed with contract documents and the receipt of bids for the remodeling and completion of the sub-basement of the Art Building.

M120. Upon motion made by Mr. Masters, seconded by Mr. Fuller, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University approves the schematic design and authorization is given to proceed with contract documents and receipt of bids for the sewage effluent storage reservoir.

M121. Upon motion made by Mr. Masters, seconded by Mr. Fuller, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University authorizes the President to dispose of the Pantex buildings listed on the attached sheet, and that the buildings be deleted from the building inventory; Attachment No. M13.

M122. Upon motion made by Mr. Masters, seconded by Mr. Johnson, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University approves the schematic design and authority is given to proceed with contract documents and the receipt of bids for the alterations for the Computer Center in the basement of the Library. BE IT FURTHER RESOLVED, the project budget is reestablished at $1,200,000.

M123. Upon motion made by Mr. Masters, seconded by Mr. Birdwell, the following was approved: RESOLVED, that the Mentone Church Building is accepted by the Board of Regents of Texas Tech University for relocation and restoration at the Ranching Heritage Center, the Museum of Texas Tech University, subject to the approval of the Texas Historical Commission; BE IT FURTHER RESOLVED, that following such relocation the church be used solely for educational services and not used as a church for religious services or civil ceremonies including christenings, funerals and weddings. Mr. Masters commented that the President will determine the site location.

M124. Upon motion made by Mr. Masters, seconded by Mr. Birdwell, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University authorizes the President to award a time purchase agreement to First Municipal Leasing Corporation in the amount of $435,750 payable in five annual installments of $87,150 to install the internal components of the new cooling tower at Central Heating and Cooling Plant #2; BE IT FURTHER RESOLVED, that the project budget is established at $475,000.

M125. Upon motion made by Mr. Masters, seconded by Mr. Johnson, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University approves the schematic design and authorization is given to proceed with contract documents and the receipt of bids for the addition to the Texas Tech Press; BE IT FURTHER RESOLVED, that the project budget is reestablished at $350,000.

M126. Upon motion made by Mr. Masters, seconded by Dr. Galloway, the following was approved: RESOLVED, that the Board of Regents of Texas Tech University ratifies administrative actions relative to completion dates as attached; Attachment No. M14.

M127. Mr. Johnson reported for the Development Committee. Upon motion made by Mr. Johnson, seconded by Mr. Fuller, the following was unanimously approved: RESOLVED, that the Board of Regents of Texas Tech University approves the attached Board policy revision to Policy No. 05.01 relating to the acceptance of gifts and grants; Attachment No. M15.

M128. On behalf of the Public Affairs and University Relations Committee, Dr. Galloway asked for an update on HJR 19 Constitutional Amendment. Dr. Cavazos reported that the Resolution is scheduled to be voted on in November, and that it is very important to us in order to provide a dedicated fund.

M129. Dr. Cavazos announced that Commencement will be held on Friday night, May 11, 1984, and that Senator John Tower is to be the Commencement speaker.

M130. There being no further business, the meeting adjourned.

(Mrs.) Freda Pierce, Secretary

FP:ad

Attachments (March 23, 1984)

M 1. Faculty Granted Tenure; Item M95.
M 2. Changes in Academic Rank; Item M96.
M 3. Citation Conferring Honorary Degree to Senator John Goodwin Tower; Item M98.
M 4. Degree Program for Bachelor of Science in Cell and Molecular Biology; Item M99.
M 5. Leaves of Absence; Item M101.
M 6. Faculty Development Leaves; Item M101.
M 7. Budget Adjustments for December 1, 1983, to January 31, 1984; Item M104.
M 8. Policy 04. Concerning Computer Security and Privacy; Item M105.
M 9. Policy 04.11 Concerning Investments of Local Funds; Item M107.
M10. Holiday Schedule for FY 1984-85; Item M108.
M11. Agreement with Dad's Association; Item M109.
M12. Agreement with West Texas Museum Association; Item M109.
M13. Pantex Buildings Approved for Disposal; Item M121.
M14. Completion Dates Approved; Item M126.
M15. Policy 05.01 Relating to Acceptance of Gifts and Grants; Item M127.

I, Freda Pierce, the duly appointed and qualified Secretary of the Board of Regents, hereby certify that the above and foregoing is a true and correct copy of the Minutes of Texas Tech University Board of Regents meeting on March 23, 1984.

(Mrs.) Freda Pierce, Secretary

SEAL

March 23, 1984

Faculty Granted Tenure

Effective March 23, 1984

| Name | Rank |
|---|---|
| **COLLEGE OF AGRICULTURAL SCIENCES** | |
| *Department of Agricultural Education* | |
| John M. Dillingham | Associate Professor* |
| *Department of Agricultural Economics* | |
| Don E. Ethridge | Associate Professor |
| **COLLEGE OF ARTS AND SCIENCES** | |
| *Department of English* | |
| Julia C. Whitsitt | Assistant Professor |
| *Department of Geography* | |
| John R. Giardino | Associate Professor* |
| *Department of Health, Physical Education and Recreation* | |
| Joyce A. Arterburn | Assistant Professor* |
| *Department of History* | |
| Dan L. Flores | Associate Professor* |
| *Department of Mass Communications* | |
| Ashton G. Thornhill | Associate Professor* |
| *Department of Mathematics* | |
| Gregory A. Fredricks | Associate Professor* |
| David S. Gilliam | Associate Professor* |

Department of Museum Science

| | |
|---|---|
| Sankar Chatterjee | Associate Professor* |

Department of Political Science

| | |
|---|---|
| Nelson C. Dometrius | Associate Professor* |
| Jerry D. Perkins | Associate Professor |

COLLEGE OF BUSINESS ADMINISTRATION

Area of Management

| | |
|---|---|
| John D. Blair | Associate Professor |
| Linda A. Krefting | Associate Professor |

COLLEGE OF EDUCATION

Area of Educational Administration

| | |
|---|---|
| William E. Sparkman | Associate Professor |

Area of Specializations

| | |
|---|---|
| Robert E. Gades | Associate Professor |

COLLEGE OF ENGINEERING

Division of Architecture

| | |
|---|---|
| Joanna W. Mross | Associate Professor* |

Department of Civil Engineering

| | |
|---|---|
| W. Kent Wray | Associate Professor* |

Department of Electrical Engineering

| | |
|---|---|
| Gerhard Schaefer | Associate Professor |

Department of Industrial Engineering

| | |
|---|---|
| James L. Smith | Associate Professor* |

Department of Mechanical Engineering

| | |
|---|---|
| Raouf A. Ibrahim | Associate Professor* |
| J. Walt Oler | Associate Professor* |

COLLEGE OF HOME ECONOMICS

Department of Clothing and Textiles

Samina A. Khan — Associate Professor*

Department of Family Management, Housing and Consumer Science

Janet M. Schrock — Assistant Professor

Department of Home Economics Education

Anna Sue Couch — Associate Professor*

* Also promotion.

Changes in Academic Rank

Effective September 1, 1984

| Name | Current Rank | Proposed Rank |
|---|---|---|
| **COLLEGE OF AGRICULTURAL SCIENCES** | | |
| *Department of Agricultural Education* | | |
| John M. Dillingham | Assist. Prof. | Assoc. Prof. |
| **COLLEGE OF ARTS AND SCIENCES** | | |
| *Department of English* | | |
| Joel C. Weinsheimer | Assoc. Prof. | Professor |
| *Department of Geography* | | |
| John R. Giardino | Assist. Prof. | Assoc. Prof. |
| *Department of Health, Physical Education and Recreation* | | |
| Joyce A. Arterburn | Instructor | Assist. Prof. |
| William Michael Bobo | Assoc. Prof. | Professor |
| *Department of History* | | |
| Francisco Balderrama | Assist. Prof. | Assoc. Prof. |
| Dan L. Flores | Assist. Prof. | Assoc. Prof. |
| *Department of Mass Communications* | | |
| Ashton G. Thornhill | Assist. Prof. | Assoc. Prof. |
| *Department of Mathematics* | | |
| Gregory A. Fredricks | Assist. Prof. | Assoc. Prof. |
| David S. Gilliam | Assist. Prof. | Assoc. Prof. |
| Benjamin S. Duran | Assoc. Prof. | Professor |
| *Department of Museum Science* | | |
| Sankar Chatterjee | Assist. Prof. | Assoc. Prof. |

Department of Music

| | | |
|---|---|---|
| William F. Westney | Assoc. Prof. | Professor |

Department of Political Science

| | | |
|---|---|---|
| Nelson C. Dometrius | Assist. Prof. | Assoc. Prof. |

Department of Psychology

| | | |
|---|---|---|
| Dennis C. Cogan | Assoc. Prof. | Professor |
| Phillip H. Marshall | Assoc. Prof. | Professor |

COLLEGE OF BUSINESS ADMINISTRATION

Area of Information Systems and Quantative Sciences

| | | |
|---|---|---|
| James R. Burns | Assoc. Prof. | Professor |
| James F. Courtney | Assoc. Prof. | Professor |

COLLEGE OF EDUCATION

Area of Educational Psychology

| | | |
|---|---|---|
| D. LaMont Johnson | Assoc. Prof. | Professor |

COLLEGE OF ENGINEERING

Division of Architecture

| | | |
|---|---|---|
| Joanna W. Mross | Assist. Prof. | Assoc. Prof. |

Department of Chemical Engineering

| | | |
|---|---|---|
| Uzi Mann | Assoc. Prof. | Professor |

Department of Civil Engineering

| | | |
|---|---|---|
| C.V. G. Vallabhan | Assoc. Prof. | Professor |
| W. Kent Wray | Assist. Prof. | Assoc. Prof. |

Department of Electrical Engineering

| | | |
|---|---|---|
| Donald L. Gustafson | Assoc. Prof. | Professor |
| Erich E. Kunhardt | Assoc. Prof. | Professor |
| Thomas F. Trost | Assoc. Prof. | Professor |

Department of Industrial Engineering

| | | |
|---|---|---|
| James L. Smith | Assist. Prof. | Assoc. Prof. |

Department of Mechanical Engineering

| | | |
|---|---|---|
| Raouf A. Ibrahim | Assist. Prof. | Assoc. Prof. |
| J. Walt Oler | Assist. Prof. | Assoc. Prof. |

COLLEGE OF HOME ECONOMICS

Department of Clothing and Textiles

| | | |
|---|---|---|
| Samina A. Khan | Assist. Prof. | Assoc. Prof. |

Department of Food and Nutrition

| | | |
|---|---|---|
| Julian E. Spallholz | Assoc. Prof. | Professor |

Department of Home and Family Life

| | | |
|---|---|---|
| Judith L. Fischer | Assoc. Prof. | Professor |
| Paul E. McGhee | Assoc. Prof. | Professor |

Department of Home Economics Education

| | | |
|---|---|---|
| Anna Sue Couch | Assist. Prof. | Assoc. Prof. |

SCHOOL OF LAW

| | | |
|---|---|---|
| Thomas E. Baker | Assoc. Prof. | Professor |

CITATION

TO

ACCOMPANY THE HONORARY DEGREE

DOCTOR OF LAWS

TEXAS TECH UNIVERSITY

PRESENTED

TO

JOHN GOODWIN TOWER

WHEREAS, John Tower has distinguished himself as a United States Senator, university professor, and life-long supporter of education; and

WHEREAS, he has an exemplary record of achievement as Chairman of the Senate Armed Services Committee, the Senate Republican Policy Committee, and the Banking, Housing and Urban Affairs Committee; and

WHEREAS, he has served on several other committees in the Senate, including the Budget Committee; and

WHEREAS, he has won the confidence of the people of Texas, who have reelected him three times; and

WHEREAS, he has devoted his lifetime to solving human and governmental problems, thereby supporting the welfare of the public; and

WHEREAS, he holds the rank of Master Chief Petty Officer in the Naval Reserve and is the only enlisted reservist in the Congress; and

WHEREAS, he has served as trustee of several institutions of higher education; and

WHEREAS, he exemplifies the qualities of extraordinary character and leadership that the State of Texas and the United States of America so greatly need during a most challenging time in our history; and

WHEREAS, he has become an exceedingly trusted and valuable supporter of Texas Tech University;

NOW THEREFORE BE IT RESOLVED, that Texas Tech University, in recognition of John Tower's outstanding service to the University, the State of Texas, and the Nation, hereby awards him the honorary degree, Doctor of Laws, May 11, 1984.

# TEXAS TECH UNIVERSITY

## Request For New Program

## Bachelor of Science in

## CELL AND MOLECULAR BIOLOGY

submitted Fall, 1983

Title Page

NAME OF INSTITUTION: Texas Tech University

NAME OF PROGRAM: Bachelor of Science in Cell and Molecular Biology

Coordinating Board program inventory display:

| PROGRAM TITLE | DEGREE AWARDED | TEXAS-CIP |
|---|---|---|
| Biology (authorized, undifferentiated) | BA MS PhD | 26.0101 |
| Cell and molecular biology, other (new) | BS | 26.0499 |

Name of program on student diplomas: Bachelor of Science in Cell and Molecular Biology

Name of program on student transcripts: Bachelor of Science in Cell and Molecular Biology

Administrative Units responsible for program:

Department of Biological Sciences, College of Arts and Sciences

Proposed date for implementation: Fall semester, 1984

Person to be contacted for further information about proposed program:

Name: Larry S. Roberts Title: Professor and Chairman, Department of Biological Sciences

Phone (806) 742-2715 TEX-STS: 862-2715

Signed:

_____ _____
Chief Executive Officer of campus Date

N/A
_____ _____
Chief Executive Officer of System Date

Date Approved by Governing Board: _____

I. PROGRAM ADMINISTRATION

A. The proposed program will be administered in the Department of Biological Sciences, College of Arts and Sciences.

B. No new organizational entity will be created as a result of this program.

II. PROGRAM DESCRIPTION

A. Objectives

1. Educational objectives: The objectives of this program are to provide an excellent undergraduate preparation in cell and molecular biology. Graduates of this program should be able to fill technical positions in scientific and industrial laboratories engaged in research in molecular biology, as well as being well prepared to pursue graduate degrees in this field. Furthermore, this major will provide excellent preparation for medical, dental, and related health professions.

2. The program design does not include alternative curricula.

B. Requirements for admission to the program: The program is open to highly motivated students with appropriate backgrounds in science and mathematics and who wish to pursue research careers in cell and molecular biology.

C. Degree requirements

1. SCH requirements in the following categories:

| Type | SCH |
|---|---|
| a. General education | 38-46 |
| b. Core required of all students in program | 57 |
| c. Designated electives | 9-12 |
| d. Free electives | 11-19 |
| e. Other (sufficient courses in biology to complete a 39 semester hour major) | 0-3 |

2. Special requirements: None not included above.

3. Alternative curricula: None

D. Curriculum

1. Numbers and titles of required courses and designated electives:

Required courses:

BIOL 1403 Principles of Botany
BIOL 1404 Principles of Zoology
BIOL 2100 The Laboratory Experience
*BIOL 2120 Introduction to Cell and Molecular Biology
BIOL 3301 Genetics
BIOL 3302 Developmental Biology
BIOL 3420 Cell Biology
*BIOL 4320 Molecular Biology
MBIO 3401 Principles of Microbiology
CHEM 1307, 1308 Principles of Chemistry I, II
CHEM 1103, 1104 Principles of Chemistry I, II (Laboratory)
CHEM 3305, 3306, Organic Chemistry
CHEM 3105, 3106, or 3205, 3206 Organic Chemistry Laboratory
CHEM 4306, 4307 Biological Chemistry I, II
PHYS 1306, 1307, 1103, 1104 General Physics and Experimental
General Physics I, II (Laboratory) or 1308, 2301, 1105,
1106, Principles of Physics I, II, and Laboratory

Designated electives

Three courses must be chosen from the following, at least one of which must include a laboratory:

BIOL 4300 Undergraduate Research (counts as a lab course)
BOT 3309 Plant Anatomy
BOT 3401 Plant Physiology
MBIO 4306 Genetics of Bacteria and Their Viruses
MBIO 4310 Introduction to Virology
MBIO 4402 Immunology and Serology
ZOOL 3301 Histology
ZOOL 3303 Parasitology
ZOOL 4203 Principles of Neurophysiology
ZOOL 4304 General Endocrinology
ZOOL 4409 Comparative Animal Physiology

Plus additional courses (including from among the foregoing) in the department to complete a 39 semester-hour major. One semester of calculus is highly recommended.

2. See appendix for descriptions of courses listed above.

E. Supporting fields

1. Majors in cell and molecular biology will minor in chemistry or biochemistry. Therefore, the availability and quality of such courses in the Department of Chemistry is very important to the program. Furthermore, interaction with the Department of Biochemistry at TTUHSC will be valuable.

2. The availability of biochemistry as a major, as proposed by the Department of Chemistry, will mean that cell and molecular biology majors can minor in biochemistry, and vice versa.

F. Accreditation: N/A

III. EVALUATION

The most meaningful evaluation of the program will be the employment and educational success of its graduates. Therefore, we will endeavor to track all graduates as to their subsequent activities in employment and education. Questionnaires will be prepared periodically to determine from graduates the aspects of the program they feel were valuable, suggestions for modification, etc.

IV. PROGRAM NEED/DEMAND

A. Similar programs in Texas: (available majors)

Cell biology: None
Cell and Molecular Biology: None
Molecular Biology: Texas Women's University, University of Texas at Austin

B. Justification in terms of local, regional, state, national, and international needs; long-range academic plan of the institution; student interests; job market needs; and educational and cultural needs of the community.

In the last few years such technology as recombinant DNA methods and preparation and use of monoclonal antibodies have surged to the forefront of biological research. A wide variety of medical, pharmaceutical, industrial, and agricultural research organizations require personnel trained adequately in these and other areas included under the purview of cell and molecular biology. Researchers with doctoral degrees are in current demand, and the proposed degree program will prepare our undergraduates to pursue these areas at the graduate level. Good technicians at the bachelor's level are also in demand. Furthermore, this degree program will be particularly useful in preparation for medical school.

It is widely agreed that the long-range profitability of an industry depends to a great extent on its utilization of the fruits of research. Many industries already located in Texas and many of those which relocate to our state in the decades to come can be expected to make use of the "high tech" of biology, i.e., molecular biology. It makes sense to educate our own students in these areas, rather than import persons educated elsewhere. Furthermore, as the major comprehensive university in West Texas, Texas Tech should make this opportunity available to the citizens of this part of the state.

The proposed program will strengthen the total academic program of the institution. It will provide a possible minor for students in the proposed new biochemistry major, as well as for other majors in biological and agricultural sciences, who are interested in molecular phenomena of cells.

V. PROGRAM POTENTIAL

A. Estimated cumulative headcount enrollment for each of the first five years, majors only

| | |
|---|---|
| 1984-85 | 6 |
| 1985-86 | 12 |
| 1986-87 | 25 |
| 1987-88 | 40 |
| 1988-89 | 60 |

B. Assumptions used in making the above estimates: Knowing the approximate number of majors in all of the biological sciences, and the probability that most of the majors in this program would have otherwise majored in biology, botany, microbiology or zoology, we conclude that majors in cell and molecular biology will be some fraction thereof. Considering that this will be a very demanding program, in which freedom of course choices will be restricted, we assume that the total majors in the program will only be a minority of majors in all of biological sciences.

C. Estimate of the percentage of headcount enrollment of majors that will be new to the institution (i.e., freshmen):

| | |
|---|---|
| 1984-85 | 0 |
| 1985-86 | 33% |
| 1986-87 | 40% |
| 1987-88 | 40% |
| 1988-89 | 40% |

VI. RESOURCES

A. Personnel

1. FTE personnel needed for first five years: (each year)

   a. Released time appointments for administration: 0.5
   b. Full-time faculty: 13
   c. Part-time faculty: 0
   d. Graduate Assistants: 10
   e. Clerical/support staff: 5
   f. Other (laboratory technicians): 1 (others needed to be paid from research grants)

2. Existing faculty

Professors:

Berlin, J. D., Ph.D., Iowa State University. Fine Structure of cells. Ultrastructure of cell growth. Currently teaches cell

biology, electron microscopy. Cell biology is one of the core courses in program.

Burns, J. M., Ph.D., Indiana University. Vertebrate physiology. Reproductive endocrinology. Currently teaches freshman zoology, comparative animal physiology, and endocrinology. Animal physiology and endocrinology are designated elective courses in program; area coordinator for cell and molecular biology in department.

Goodin, J. R., Ph.D., University of California/Los Angeles. Plant physiology. Physiology and biochemistry of environmental stresses in plants. Currently teaches freshman botany. Associate Director of International Center for Arid and Semi-arid Land Studies and Associate Chairman of Department of Biological Sciences.

Jackson, R. C., Ph.D., Purdue University. Genetics. Biosystematics and cytogenetics. Currently teaches genetics, cytogenetics. Genetics is a core course in program.

Roberts, L. S., Sc.D., The Johns Hopkins University. Parasitology. Physiology and biochemistry of helminth parasites. Currently teaches parasitology, marine biology, and coral reef biology. Parasitology is a designated elective in program; Chairman of Department of Biological Sciences (administration of program).

Associate Professors:

Brady, T. E., Ph.D., Yale University. Cell biology. Gene regulation in eukaryotic cells. Currently teaches courses in "laboratory experience" and developmental biology. Both of these courses are required of all students in program.

Coulter, M. W., Ph.D., University of California/Los Angeles. Plant physiology. Regulation of plant growth and development. Currently teaches freshman botany, plant physiology. Plant physiology is a designated elective in program.

Hartman, H. B., Ph.D., University of Connecticut. Neurophysiology. Neural development and regeneration of insect equilibrium organs. Currently teaches freshman zoology, supervises freshman zoology laboratories, and teaches neurophysiology and a "teaching methods" course for graduate students. The freshman zoology for majors is a core requirement in program, and neurophysiology is a designated elective.

Assistant professors:

Bilimoria, S. L., Ph.D., University of Otago (New Zealand). Virology. Molecular biology of baculoviruses. Currently teaches virology, cell and tissue culture, and introductory microbiology. Virology and cell and tissue culture are designated electives in program.

Diffley, P. Ph.D., University of Massachusetts. Immunology. Immunological aspects of host-parasite relationship. Currently teaches immunology and immunochemistry. Immunology is a designated elective in program.

Fuller, B. B., Ph.D., University of Arizona. Cell physiology. Endocrine regulation of cellular differentiation. Currently teaches courses in "biological status of man," developmental biology, and graduate course in molecular biology methods. Developmental biology is a core course in program; will teach new upper division molecular biology course.

Holaday, A. S., Ph.D., University of Florida. Plant biochemistry. Photosynthetic/photorespiratory carbon metabolism. Currently teaches freshman botany, plant physiology. Plant physiology is a designated elective in program.

3. New positions: At present we very much need a microbial geneticist; this position will fill an existing vacancy, and we have already received approval for and are searching to fill it.

4. Qualifications of new faculty: Doctoral degree required, post-doctoral experience desirable. Should be able to establish a strong research program utilizing molecular biology-recombinant

DNA technologies. This person will teach introductory microbiology (core course) and bacterial genetics (designated elective).

B. Library

1. Present library holdings in the relevant fields are adequate to begin the proposed program. The TTU Library and that of the TTUHSC together receive all of the important journals in relevant fields. Current acquisition programs of the libraries of TTU and TTUHSC for books, periodicals, etc. are adequate. Current acquisition levels must be maintained.

2. Faculty and graduate students interested in cell and molecular biology often use the library at the TTUHSC, and the proposed program would not alter the present situation. Other than the library at TTUHSC, use of libraries at other institutions is negligible.

C. Equipment. It is not anticipated that equipment purchases over and above those for programs already in operation will be needed.

D. Facilities

1. Existing facilities: The Department is housed in a 94,000 square foot, eight-story building, completed in 1969. The top floor is a 7400 square foot greenhouse. Each faculty member has an office and one or more research laboratories. Major equipment items include scanning and transmission electron microscopes, spectrophotometers, ultracentrifuges, gas chromatographs, high performance liquid chromatograph, scintillation counter, microscopes equipped with differential interference contrast optics, etc. Faculty in cell and molecular areas have laboratories appropriately equipped for their research. Animal room facilities are adequate for anticipated needs. A total of five walk-in cold rooms are located on two floors, and eight large constant-environment chambers are located on the sixth floor. Several faculty have darkrooms attached to their laboratories, and a departmental darkroom with a new enlarger is available.

2. Renovation: Some renovation of present space is planned, but this is not contingent on approval of the proposed program. Some renovation and new equipment will probably be necessary when we hire the new microbial geneticist. Approval of this program will not result in planning for the addition of new facilities.

3. Planned new facilities needed: None.

VII. COSTS

A. Personnel - It is to be emphasized that the following personnel costs are salaries for personnel who will take part in the program, not new personnel. These faculty and staff are already employed to provide and support the present educational programs of the Department of Biological Sciences.

| | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 |
|---|---|---|---|---|---|
| Faculty | 407,125 | 427,481 | 448,855 | 471,298 | 494,863 |
| Graduate assistants | 56,650 | 59,482 | 62,456 | 65,579 | 68,858 |
| Clerical/support | 53,461 | 56,134 | 58,941 | 61,888 | 64,982 |
| Other (technician) | 17,020 | 17,871 | 18,764 | 19,702 | 20,687 |

The foregoing were estimated by adding 3% to the present (1983-84) budget, then 5% for each of the years thereafter.

B. Library - The annual allotment of acquisitions was $101,932 for FY 1981-82, and the request for FY 1982-83 was $117,222. This represents only acquisitions at the main University Library directly in support of the programs in the Department of Biological Sciences. Though the department will need a modest increase in the allotment during the next five years, this is independent of whether or not the proposed program is approved.

C. Equipment, and D. Facilities. It is not anticipated that costs of equipment and facilities for the department will increase as a result of the new program. The two new courses proposed are lecture courses only; therefore, laboratory expenses will not be incurred. Estimate of 1984-85 maintenance and operation costs for the entire Department of Biological Sciences (including majors ongoing, plus proposed major): $190,729. This is derived by current budget plus 10%. We

should have at least a 10% increase in budget each year simply to maintain programs at present levels. A 10% increase per year to account for inflation is a conservative estimate. In the past decade, cost of scientific supplies and equipment has far outstripped the CPI.

VIII. ADDITIONAL COMMENTS

The intent of this proposed program is to provide a specialized curriculum in an identifiable major. The major is in an area of intense current interest nation-wide and is likely to be so for the foreseeable future. Institution of the major would incur little or no additional cost to the University or state. Teaching load for faculty would be little affected because most of the courses in the curriculum are already being taught.

# APPENDIX 1

## REQUIRED COURSES

COURSE DESCRIPTIONS

BIOL 1403. PRINCIPLES OF BOTANY (4:3:3). A coverage of the structure, function, diversity, and ecology of plants designed to provide a more thorough background in principles and concepts than BIOL 1401. Recommended for students majoring in the biological sciences and related disciplines.

BIOL 1404. PRINCIPLES OF ZOOLOGY (4:3:3). A coverage of the structure, function, behavior, diversity, and ecology of animals designed to provide a more thorough background in principles and concepts than BIOL 1402. Recommended for students majoring in the biological sciences and related disciplines.

BIOL 2100. THE LABORATORY EXPERIENCE (1:0:3). An introductory course in instrumentation, techniques, and methodology commonly used in biological laboratories; considerable exposure to the scientific method.

*BIOL 2120. INTRODUCTION TO CELL AND MOLECULAR BIOLOGY (1:1:0). An introduction to current areas of research and to recent technological advances in the field of cellular and molecular biology.

BIOL 3301. GENETICS (3:3:0). Prerequisite: One year of introductory biology. Principles of heredity with special reference to practical application in human affairs, heredity mechanisms, and problems.

BIOL 3302. DEVELOPMENTAL BIOLOGY (3:2:3). Prerequisite: Introductory biology and genetics. A synthesis of animal and plant development, stressing the basic principles of molecular, cellular, and organismic development.

BIOL 3420. CELL BIOLOGY (4:3:3). Prerequisite: BIOL 3301 and one semester of organic chemistry. An integrated study of the basic principles of cell structure and function.

*BIOL 4320. MOLECULAR BIOLOGY (3:3:0). Prerequisite: BIOL 3302; BIOL 3420. Coverage includes the study of molecular processes involved in cellular functioning of eukaryotic and prokaryotic cells and viruses, and recent technological advances in molecular biology research.

MBIO 3401. PRINCIPLES OF MICROBIOLOGY (4:3:4). Prerequisite: One year of introductory biology; prerequisite or parallel: CHEM 3305 and 3306. Morphology, physiology, and classification of micro-organisms.

CHEM 1307. PRINCIPLES OF CHEMISTRY I (3:3:0). Prerequisite: High school chemistry or CHEM 1305 and a facility with elementary algebra. A study of the fundamental principles of chemistry designed particularly for students who plan careers in the physical or biological or related sciences, premedical studies, and engineering.

CHEM 1308. PRINCIPLES OF CHEMISTRY II (3:3:0). Prerequisite: CHEM 1307. A continuation of CHEM 1307 that will serve as a prerequisite for most of the more advanced chemistry courses.

CHEM 1103. PRINCIPLES OF CHEMISTRY I (LABORATORY) (1:0:3). Prerequisite: CHEM 1307 or concurrent enrollment. Introduction to a wide variety of experimental techniques.

CHEM 1104. PRINCIPLES OF CHEMISTRY II (LABORATORY) (1:0:3). Prerequisite: CHEM 1103 and 1307; concurrent enrollment or credit in CHEM 1308. A continuation of CHEM 1103 that serves as a prerequisite for all advanced laboratory courses in chemistry.

CHEM 3305, 3306. ORGANIC CHEMISTRY (3:3:0 EACH). Prerequisite: CHEM 1307, 1308, and 1103, 1104; parallel registration in CHEM 3105, 3106, or 3205, 3206 required. CHEM 3305 is prerequisite to CHEM 3306. A thorough foundation course in organic chemistry. Prerequisite for all courses in organic chemistry above the junior level.

CHEM 3105, 3106. ORGANIC CHEMISTRY LABORATORY (1:0:3 EACH). Prerequisite: CHEM 1307, 1308, and 1103, 1104; parallel registration in CHEM 3305, 3306 required. CHEM 3105 (or 3205) is prerequisite to CHEM 3106. Fundamental techniques of organic chemistry.

CHEM 3205, 3206. ORGANIC CHEMISTRY LABORATORY (2:0:6 EACH). Prerequisite: CHEM 1307, 1308, and 1103, 1104; parallel registration in CHEM 3305, 3306 required. CHEM 3205 (or 3105) is prerequisite to CHEM 3206. Techniques of preparative organic chemistry. Required for chemistry majors.

CHEM 4306, 4307. BIOLOGICAL CHEMISTRY I AND II (3:2:3 EACH). Prerequisite: CHEM 3305, 3306, 3105, or 3205, 3206. Chemistry of constituents of living systems. Regulation of process of living organisms.

PHYS 1306, 1307. GENERAL PHYSICS (3:3:0 EACH). Prerequisite: MATH 1320 and 1321. A noncalculus introductory physics course designed to provide students with a background for further study in science and related areas. Covers mechanics, heat, sound, electricity and magnetism, light, and modern physics. With laboratories PHYS 1103 and 1104, this course may be counted toward fulfillment of the natural science requirement in Arts and Science.

PHYS 1103. EXPERIMENTAL GENERAL PHYSICS I (LABORATORY) (1:0:2). Prerequisite: PHYS 1306 or concurrent enrollment. Designed to introduce students to a variety of laboratory techniques and to complement the lecture course PHYS 1306.

PHYS 1104. EXPERIMENTAL GENERAL PHYSICS II (LABORATORY) (1:0:2). Prerequisite: PHYS 1103 and 1306; PHYS 1307 or concurrent enrollment. A continuation of PHYS 1103.

PHYS 1308. PRINCIPLES OF PHYSICS I (3:3:0). Corequisite: MATH 1351. Primarily a course in mechanics from Newton's Laws through relativity. Some wave motion.

PHYS 2301. PRINCIPLES OF PHYSICS II (3:3:0). Prerequisite: PHYS 1308, 1105; corequisite: MATH 1352. Electric and magnetic fields, dielectrics, magnetic properties of materials, electromagnetism, geometrical and physical optics.

PHYS 1105. PRINCIPLES OF PHYSICS I (LABORATORY) (1:0:2). Prerequisite: PHYS 1308 or concurrent enrollment. Designed to introduce students to a variety of experimental techniques and to complement the lecture course PHYS 1308.

PHYS 1106. PRINCIPLES OF PHYSICS II (LABORATORY ) (1:0:2). Prerequisite: PHYS 1105 and 1308; PHYS 2301 or concurrent enrollment. A continuation of PHYS 1105 that serves as a prerequisite for all advanced laboratory courses in physics.

# APPENDIX 2

## DESIGNATED ELECTIVES

COURSE DESCRIPTIONS

BIOL 4300. UNDERGRADUATE RESEARCH IN BIOLOGY (3). Prerequisite: 15 hours of biology, junior or senior standing in biology, and consent of instructor. Selected research problems according to the needs of the students. May be repeated or taken parallel for credit in another field or with new materials in the same field.

BOT 3309. PLANT ANATOMY (3:2:3). Prerequisite: Introductory botany. A basic account of the cells, tissues, and organs of flowering plants with emphasis placed on evidence obtained from modern experimental studies. Laboratory emphasis on microtechnique using the rotary microtome.

BOT 3401. PLANT PHYSIOLOGY (4:3:3). Prerequisite: Introductory botany and one year of college chemistry. The physiology of plants with an emphasis on relationships of structure to function in vascular plants.

MBIO 4306. THE GENETICS OF BACTERIA AND THEIR VIRUSES (3:3:0). Prerequisite: BIOL 3301 or MBIO 3301, MBIO 3401, or consent of instructor. The principles of genetic systems existing among bacteria and bacteriophages.

MBIO 4310. INTRODUCTION TO VIROLOGY (3:3:0). Prerequisite: MBIO 3401 or BIOL 3420 or consent of instructor. An introduction to basic concepts in the structure, replication, and ecology of viruses from animals (including insects), plants, and procaryotes.

MBIO 4402. IMMUNOLOGY AND SEROLOGY (4:3:4). Prerequisite: MBIO 3401 or BIOL 3420; 10 hours of chemistry. Theories of infection and resistance, the production and demonstration of antibodies, the action of antigens, and diagnostic tests.

ZOOL 3301. ANIMAL HISTOLOGY (3:2:4). Prerequisite: ZOOL 2405. The study of normal tissues of the human and other mammals. An introductory course recommended for students of pathology, medical sciences, and biomedical sciences.

ZOOL 3303. PARASITOLOGY (3:2:3). Prerequisite: Introductory zoology or equivalent. Morphology, life cycles, and physiology of protozoan and helminth parasites, with emphasis on broad aspects of parasitism and examples with medical and economic interest.

ZOOL 4203. PRINCIPLES OF NEUROPHYSIOLOGY (2:2:0). Prerequisite: Senior standing in zoology or consent of instructor. Consideration of the properties of excitable cells in invertebrates and vertebrates. Topics to be considered include reception, excitation, conduction, transmission, integration, contraction, and simple behaviors.

ZOOL 4304. GENERAL ENDOCRINOLOGY (3:3:0). Prerequisite: BIOL 3420 or ZOOL 4409, organic chemistry. Hormones as chemical coordinators of bodily functions.

ZOOL 4409. COMPARATIVE ANIMAL PHYSIOLOGY (4:3:3). Prerequisite: ZOOL 2405 or 3406, CHEM 1307, 1308; BIOL 3420 recommended. A comparison of physiological functions of animals in the major phyla.

Leaves of Absence

Approve leave of absence without pay for Professor Daniel H. Benson in the School of Law for the period September 1, 1984, through August 31, 1985. Approval of this leave will permit Mr. Benson to engage in private law practice. This experience will be of benefit to himself and the Law School upon his return.

Approve leave of absence without pay for Dr. Jerry Hudson, Associate Professor in the Department of Mass Communications, for the period September 1, 1984, through August 31, 1985. This leave is requested in order to permit him to develop vocational training programs for broadcast in Saudi Arabia. The experience of this work will be of professional benefit to Dr. Hudson, and of subsequent benefit to Texas Tech University.

Approve an additional leave of absence without pay for Dr. Theodore M. Klein, Associate Professor in the Department of Classical and Romance Languages, for the period January 16, 1984, through August 31, 1984. Dr. Klein requests this leave for the purpose of attending to matters of a professional and personal nature, and stated his intention to return to regular duties following the leaves.

Approve a continuation of leave of absence without pay for Dr. Uzi Mann, Associate Professor of Chemical Engineering, for the period January 15, 1984, through May 31, 1984. Approval of this leave will permit him to continue his research at the University of Michigan. Research accomplished will be of benefit to Dr. Mann and to the students in the Department of Chemical Engineering.

Approve leave of absence without pay for Dr. David K. Northington, Associate Professor in the Department of Biological Sciences, for the period September 1, 1984, through August 31, 1985. The purpose for this request is to permit him to do research on wild flowers for the National Wild Flower Research Center. It is understood that Dr. Northington will resume his regular schedule here following the term of this leave.

Faculty Development Leaves

Approve faculty development leave with salary for Dr. Michael L. Angelotti, College of Education, September 1, 1984, through January 15, 1985. The purpose of this leave is to study literature written for adolescents with the intention of improving course content and completing a textbook. The research will be done at Arizona State University, Florida State University and with an artist in Houston.

Approve faculty development leave with one-half salary for Dr. Clifford C. Ashby, Department of Theatre Arts, September 1, 1984, through May 31, 1985. The purpose of the leave will be to complete research for a book manuscript entitled: "A Guide to Ancient Greek Theatres." The research will be conducted in the libraries of Texas Tech and the University of Texas and on-site research will be done in Greece, Sicily, and Turkey.

Approve faculty development leave with salary for Dr. Roger W. Barnard, Department of Mathematics, September 1, 1984, through January 15, 1985. The purpose of the leave is to conduct research at Indiana University and collaborate with Glenn Schober on "Extremal Problem in Complex Function Theory." Results of the research will be used to study problems in force fields, steady temperature states, electric and electrostatic potentials, fluid flows around cylinders, etc.

Approve faculty development leave with salary for Dr. Richard F. Barton, College of Business Administration, January 1, 1985, through May 31, 1985. The purpose will be to develop an interactive computer simulation model for teaching and research of corporations doing business in more than one industry.

Approve faculty development leave with salary for Dr. Kamal C. Chanda, Department of Mathematics, January 15, 1985, through May 31, 1985, for the purpose of working at the Institute of Science and Technology, the University of Manchester, England, and the University of Tampere in Finland, where research will be conducted to develop methodologies which will address the need of data analyses.

Approve faculty development leave with salary for Dr. George Q. Flynn, Department of History, September 1, 1984, through January 15, 1985. The purpose of the leave will be to do research on the impact of the military draft on American society from 1940 to 1973. The goal of the research is a book on this topic. The work will be done in various Archives and Libraries in the Eastern United States.

Approve faculty development leave with salary for Dr. Oscar F. Francke, Department of Biological Sciences, for the period January 15, 1985, through May 31, 1985. The purpose of the leave will be to study the evolutionary relationships and zoogeographical affinities of the scorpions of South America, particularly Chile. The goal of the research is to enhance course curricula and research in the Department of Biological Sciences.

Approve faculty development leave with one-half salary for Dr. Robert J. Freeman, College of Business Administration, Area of Accounting, September 1, 1984, through May 31, 1985. The purpose of the leave is to serve as an Academic Fellow with the Governmental Accounting Standards Board (GASB) in Stamford, Connecticut. The GASB sets minimum national standards of accounting and financial reporting by states and state agencies, counties, etc., in the United States.

Approve faculty development leave with salary for Dr. Curt E. Hamre, Department of Speech and Hearing Sciences, September 1, 1984, through January 15, 1985. Purpose of the leave is to prepare book manuscript entitled: Stuttering: Language Perspectives from research which has largely been completed.

Approve faculty development leave with salary for Dr. H. Bernard Hartman, Department of Biological Sciences, for period of January 15, 1985, through May 31, 1985. The research on tissues and cells responsible for hemocyanin production in the Dungeness crab Cancer magister will be done at the University of Oregon Marine Lab. The results are expected to include learning of new research techniques and applications to teaching.

Approve faculty development leave with salary for Dr. David Leon Higdon, Department of English, for the period of January 15, 1985, through May 31, 1985. The purpose of the leave is to study the manuscripts of Graham Greene at the Humanities Research Center, University of Texas-Austin, McFarlin Library, University of Tulsa, New York and London. This research will have an immediate impact on both undergraduate and graduate courses in the English department.

Approve faculty development leave with one-half salary for Dr. Stephen C. Hora, College of Business Administration, Area of Information Systems and Quantitative Science, for period September 1, 1984, through May 31, 1985. The purpose of this leave is to develop statistical tools useful in the analysis of risks from nuclear energy sources. The research work will be conducted at Sandia National Laboratories, Albuquerque, New Mexico.

Approve faculty development leave with salary for Dr. Gerald M. Jurica, Department of Geosciences, September 1, 1984, through January 15, 1985. Purpose of the leave is to become proficient in the operation of a numerical model of convective development and to apply the model to data already obtained. Findings will be incorporated into teaching at Texas Tech.

Approve faculty development leave with salary for Dr. Kenneth L. Ketner, Department of Philosophy, January 15, 1985, through May 31, 1985. Purpose of the leave is to complete two writing projects related to Peirce's essays and a textbook/software package for teaching introductory logic. Part of the work will be done at Harvard and Princeton.

Approve faculty development leave with salary for Dr. William J. Mayer-Oakes, Department of Anthropology, January 15, 1985, through May 31, 1985. The leave will be used to study data already gathered from excavations at an "Early Man" archeological site near Quito, Ecuador. The findings will culminate in the possibility of an Ecuadorian academic interchange.

Approve faculty development leave with one-half salary for Dr. Paul E. McGhee, Department of Home and Family Life, September 1, 1984, through May 31, 1985. Purpose of leave is to obtain a knowledge of French research on humor, the completion of cross-cultural study of humor development among French, Israeli and American children and the preparation of an edited book dealing with methodological and measurement issues associated with the study of humor.

Approve faculty development leave with salary for Dr. Pill-Soon Song, Department of Chemistry, January 15, 1985, through May 31, 1985. The leave will be to Okazaki, Japan, to obtain critical data related to research by using the large monochromator (spectrograph), the only one of its kind, to study polydynamic killing of cells in animals. The result of this research is expected to have implications in photobiology in the field of photopathology of domestic animals.

TEXAS TECH UNIVERSITY BUDGET ADJUSTMENTS (12/ 1/83 - 1/31/84)

| NO. | ACTIVITY | SOURCE OF FUNDS OTHER | SOURCE OF FUNDS INCOME | EXPENSE | REMARKS |
|---|---|---|---|---|---|
| BOARD APPROVAL: None. | | | | | |
| BOARD RATIFICATION: | | | | | |
| | Restricted Funds: | | | | |
| 420765 | National School of Applied Economics Rural Management | $ 0 | $490,000 | $490,000 | Addition to existing budget of $50,000, with Agency for International Development to support cooperative program of education with Senegal. |
| | Subtotal, Restricted Funds | $ 0 | $490,000 | $490,000 | |
| | TOTAL RATIFICATION | $ 0 | $490,000 | $490,000 | |
| | Grand Total-TTU | $ 0 | $490,000 | $490,000 | |

04. Computer Security and Privacy

(1) All faculty/staff employees and students are responsible for complying with this policy on computer security and privacy.

(2) The University President shall appoint an administrator responsible for developing and maintaining University regulations and procedures regarding security and privacy of computer data, software, and hardware.

(3) Any student's or faculty/staff employee's use of University computing facilities is a privilege that may be revoked for violation of this policy regardless of the need for computer use in performing assigned duties.

(4) Any student or faculty/staff employee found involved in infractions of this policy, or University policy, or civil or criminal laws regarding computer security and privacy will be subject to disciplinary actions such as revocation of computing privileges, suspension, dismissal, prosecution, and restitution for damages regardless of employment contracts, or tenure status. Involvement, as used here, includes participating, encouraging, aiding, or failing to report known infractions.

(5) Some jobs or activities of the University involve access to resources critical to computer security and privacy. The University may require faculty/staff employees or students involved in these jobs or activities to disclose personal histories, participate in special training, sign special agreements concerning computer use, and/or be subject to non-disclosed surveillance of computer use.

(6) All students and faculty/staff employees will cooperate with official state and federal law enforcement authorities in aiding the investigation and prosecution of any suspected infraction of security and privacy involving either University personnel or University computing facilities.

04.11
Investments of Local Funds of Texas Tech University*

~~(2)~~ (1) The primary investment of local cash shall be in bank(s) selected for that purpose by the Board of Regents.

~~(3)~~ (2) On any given day, no depository bank shall have institutional funds on deposit in an amount which exceeds any one of the following limits:

(A) 25% of the total funds available for investment by the University, or

(B) Based upon the bank's latest regularly published statement of financial condition:

1. 15% of its total deposits;

2. An amount equal to the sum of its capital, permanent surplus, retained earnings, and reserves.

This policy shall not be construed to establish a commitment and/or guarantee on the part of Texas Tech University to deposit any particular amount in any one bank. The Investment Officer is authorized to develop institutional guidelines which may employ other criteria to establish limits on the total amount of deposits in any bank. Such guidelines, however, shall not allow the total deposits in any bank to exceed the limits otherwise established under this policy.

~~(1)~~ (3) All cash investments must be fully collateralized as required in Section 51.003 (c) of the Texas Education Code~~.~~, and in accordance with the provisions of Art. 2529b, V.T.C.S.

Additionally, securities other than U.S. Government or U.S. Government guaranteed obligations, in order to be acceptable as collateral must have a Moody's quality rating of "Baa", or Standard and Poor's quality rating of "A-", or better. Upgrading of collateral quality to these minimum standards, where necessary, is to be accomplished not later than June 1, 1984 as to newly accepted securities, and not later than June 1, 1985 as to securities which may be required to replace presently existing collateral for quality upgrading purposes.

(4) If not prohibited by contract or statute, the Investment Officer may invest cash in 100% guaranteed securities of the United States Government or State of Texas or deposits in other financial institutions provided such are fully collateralized in accordance with law.

* Board Minutes, TTU, August 3, 1979; revised November 18, 1983.

(5) This policy does not preclude acceptance and retention of non-guaranteed securities as gifts to the institution. The Investment Officer shall manage and safeguard such securities in their original form, but upon partial or total disposition must invest the proceeds in accordance with this policy.

(6) The Investment Officer shall have the authority to delegate other institution employees the authority to deposit, withdraw, invest, transfer or otherwise manage local funds provided such written authority is filed with the President and Secretary of this Board.

(7) The Investment Officer shall at the first meeting of this Board following the beginning of each fiscal year present a report of investments of the institution during the preceding fiscal year. The report will summarize all investment activity for the year along with total investment income and annual investment rate of return. The Board of Regents of Texas Tech University designates the Vice President for Finance and Administration as Investment Officer.

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* Board Minutes, TTU, August 3, 1979; revised November 18, 1983.

TEXAS TECH UNIVERSITY

Holiday Schedule for 1984-85

| 1984 | Day of Week | Holiday |
|---|---|---|
| *Sep. 3, 1984 | Monday | Labor Day |
| Nov. 21, 1984 (1/2 day) | Wednesday Afternoon | Thanksgiving Holiday |
| *Nov. 22, 1984 | Thursday | Thanksgiving Day |
| *Nov. 23, 1984 | Friday | Thanksgiving Holiday |
| *Dec. 24, 1984 | Monday | Christmas Holiday |
| *Dec. 25, 1984 | Tuesday | Christmas Holiday |
| *Dec. 26, 1984 | Wednesday | Christmas Holiday |
| Dec. 27, 1984 | Thursday | Christmas Holiday |
| Dec. 28, 1984 | Friday | Christmas Holiday |
| Dec. 31, 1984 | Monday | Christmas Holiday |
| **1985** | | |
| *Jan. 1, 1985 | Tuesday | New Year's Day |
| Mar. 13, 1985 (1/2 day) | Wednesday Afternoon | Spring Break |
| Mar. 14, 1985 | Thursday | Spring Break |
| Mar. 15, 1985 | Friday | Spring Break |
| *July 4, 1985 | Thursday | Independence Day |

* Regular Holiday designated by the Legislature; other holidays listed are in lieu of holidays transferred to avoid conflict with the academic class schedule.

# AGREEMENT BETWEEN TEXAS TECH UNIVERSITY AND THE DAD'S ASSOCIATION

This agreement is made this 23rd day of March, 1984, between Texas Tech University, Lubbock, Lubbock County, Texas, hereinafter named UNIVERSITY, and the Dad's Association hereinafter named ASSOCIATION.

Whereas the UNIVERSITY and the ASSOCIATION provide certain services and benefits to each other, and whereas the UNIVERSITY and the ASSOCIATION work together to promote the teaching, research, and professional/public service activities of the UNIVERSITY, both parties to enumerate below such services and benefits.

The ASSOCIATION will, as directed by its constitution/charter and by-laws, work to assist in providing and making available to the UNIVERSITY and its students and faculty assets to accomplish the goals and objectives of the UNIVERSITY. The ASSOCIATION will seek to perform those functions which the UNIVERSITY cannot provide itself. In turn, the UNIVERSITY will assist the ASSOCIATION by providing office space with office furniture and equipment, maintenance, and utilities. The UNIVERSITY will also provide salaries, fringe benefits, and expenses as negotiated each year between the UNIVERSITY and the ASSOCIATION.

The Board of Directors of the ASSOCIATION and the Board of Regents of the UNIVERSITY must assure that the activities of the ASSOCIATION are consistent with the UNIVERSITY'S objectives, goals, and priorities at all times. In order to enhance communicating between the ASSOCIATION and the UNIVERSITY, the ASSOCIATION shall appoint at least one non-voting member to its governing board from the UNIVERSITY staff, with such member to be designated by the President.

In order to abide by the requirements of S.B. 772 and H.B. 622 as passed by the 68th Legislature R.S., 1983, the ASSOCIATION will provide the UNIVERSITY'S Office of Development a copy of its constitution/charter, current by-laws, a list of names and addresses of the members of the governing Board, and officers of the organization. In addition, a list of employees of the UNIVERSITY participating in the activities of the ASSOCIATION shall be submitted to the Office of Development annually, with special notation should an officer or employee of the UNIVERSITY be appointed or elected to a position as an officer or director of the ASSOCIATION.

The ASSOCIATION shall report through the Chief Fiscal Officer of the UNIVERSITY any monetary enrichment of any officer or employee of the UNIVERSITY. This report shall include the name, position, and the total value of the monetary enrichment received by each individual so named. In the event gifts-in-kind are involved, a similar listing of names, position, and total value of the gift shall be submitted.

The ASSOCIATION shall submit to the Office of Development of the UNIVERSITY on or about the first of each month, a list of the names and addresses of donors who have made a gift or grant of $500.00 or more, since the last report, in order that the President of the UNIVERSITY may acknowledge such gifts and in order that the Board of Regents of the UNIVERSITY may be so informed.

The ASSOCIATION agrees to maintain proper books and records and to retain an independent certified public accountant to perform an audit annually. Three copies of the annual financial report and the audit report shall be submitted to the Chief Fiscal Officer of the UNIVERSITY for distribution to the Vice President for Development of the UNIVERSITY and to the Secretary of State in Austin.

Other specific provisions appropriate for this particular support organization:

The ASSOCIATION provides a much needed communication link with parents of the UNIVERSITY'S students, sending all parents the Texas Tech Dad's Newsletter twice each year. Through its ASSOCIATION dues and contributions it provides approximately 50 undergraduate scholarships annually. To fund these scholarships, the ASSOCIATION has established an endowment of approximately $374,000. The ASSOCIATION recognizes six (6) students annually for demonstrating excellence in both academics and citizenship. It also administers the Spencer A. Wells Faculty Award and two (2) other faculty awards each year. Annually, the ASSOCIATION invites all the parents (the entire family) of UNIVERSITY students to the UNIVERSITY facilities to receive information about the growth and goals of the UNIVERSITY. Also, parents are invited to participate in many social activities while on campus. The ASSOCIATION sponsors the Athletic Hall of Honor which recognizes former Red Raiders. The ASSOCIATION is also embarking on the endowment of a project by which outstanding academicians throughout the state will be brought as visiting professors to Texas Tech.

This agreement shall begin on the 23rd day of March 1984, and shall continue for an indefinite period; however, either party hereto may terminate this agreement by giving 180 days notice to the other party. At the termination of this agreement, the two parties will mutually agree upon the disposition of all gift funds and property, if any, which have been acquired since the execution of this agreement with such gifts being retained either by the ASSOCIATION or transferred to the UNIVERSITY.

Chairman, Board of Directors
Dad's Association

Chairman, Board of Regents
Texas Tech University

THE STATE OF TEXAS §

COUNTY OF LUBBOCK §

AGREEMENT

THIS AGREEMENT is made this 23rd day of March, 1984, between TEXAS TECH UNIVERSITY, Lubbock, Lubbock County, Texas, hereinafter called "THE UNIVERSITY", and WEST TEXAS MUSEUM ASSOCIATION, Lubbock, Lubbock County, Texas, hereinafter called "THE ASSOCIATION".

WHEREAS, THE UNIVERSITY and THE ASSOCIATION provide certain services and benefits to each other; and

WHEREAS, THE UNIVERSITY and THE ASSOCIATION work together to promote the teaching, research, and professional/public service activities of THE MUSEUM OF TEXAS TECH UNIVERSITY.

NOW, THEREFORE, for and in consideration of the mutual benefits to each of the parties hereto, the parties agree as follows:

1.

THE ASSOCIATION will, as directed by its constitution/charter and by-laws, work to assist in providing and making available to THE MUSEUM OF TEXAS TECH UNIVERSITY and its students and faculty, assets to accomplish the goals and objectives of THE UNIVERSITY. THE ASSOCIATION will seek to perform those functions which THE UNIVERSITY cannot provide itself. In turn, THE MUSEUM OF TEXAS TECH UNIVERSITY will provide office space, certain office furniture and fixtures, as well as space, within THE MUSEUM OF TEXAS TECH UNIVERSITY for THE ASSOCIATION'S retail shop. Utilities, custodial services and maintenance of space and facilities within THE MUSEUM OF TEXAS TECH UNIVERSITY shall be furnished by THE

UNIVERSITY. THE ASSOCIATION shall be responsible for payment of telephone equipment charges and the monthly and long-distance charges as well as charges for reproductive services available from THE MUSEUM OF TEXAS TECH UNIVERSITY.

THE MUSEUM OF TEXAS TECH UNIVERSITY is a facility of the State of Texas under the responsibility and authority of the Board of Regents of THE UNIVERSITY; therefore, all planning and operations must be under the direct supervision of an employee responsible to the Board through the University administration. The Board of Regents has assigned this responsibility to the Director of THE MUSEUM OF TEXAS TECH UNIVERSITY. Only the Director of THE MUSEUM OF TEXAS TECH UNIVERSITY is authorized to make agreements for the temporary or permanent exhibit of objects at the Museum. The management of any such exhibit of objects is to be under the control of the Director of THE MUSEUM OF TEXAS TECH UNIVERSITY.

2.

The Board of Trustees of THE ASSOCIATION and the Board of Regents of THE UNIVERSITY must assure that the activities of THE ASSOCIATION are consistent with THE UNIVERSITY'S objectives, goals, and priorities at all times. In order to enhance communication between THE ASSOCIATION and THE UNIVERSITY, THE ASSOCIATION shall appoint the Director of THE MUSEUM OF TEXAS TECH UNIVERSITY to its governing board, the Board of Trustees, and he shall serve as an ex-officio member of the Executive Committee.

3.

In order to abide by the requirements of S.B. 772 and H.B. 622 as passed by the 68th Legislature R.S., 1983, THE ASSOCIATION will provide THE UNIVERSITY'S Office of Development a copy of its charter, current by-laws, a list of names and addresses of the members of the

governing board, and officers of the organization. In addition, a list of employees of THE UNIVERSITY participating in the activities of THE ASSOCIATION shall be submitted to the Office of Development annually, with special notation should an officer or employee of THE UNIVERSITY be appointed or elected to a position as an officer or director of THE ASSOCIATION.

4.

THE ASSOCIATION shall report through the Chief Fiscal Officer of THE UNIVERSITY any monetary enrichment of any officer or employee of THE UNIVERSITY. This report shall include the name, position, and the total value of the monetary enrichment received by each individual so named. In the event gifts-in-kind are involved, a similar listing of names, position, and total value of the gifts shall be submitted.

5.

THE ASSOCIATION shall submit to the Office of Development of THE UNIVERSITY on or about the first of each month, a list of the names and addresses of donors who have made a gift or grant of $500.00 or more, since the last report, in order that the President of THE UNIVERSITY may acknowledge such gifts and in order that the Board of Regents of THE UNIVERSITY may be so informed.

6.

THE ASSOCIATION agrees to maintain proper books and records and to retain an independent certified public accountant to perform an audit annually. Three copies of the annual financial report and the audit report shall be submitted to the Chief Fiscal Officer of THE UNIVERSITY for distribution to the Vice President for Development of THE UNIVERSITY and to the Secretary of State in Austin.

THE ASSOCIATION will assist THE MUSEUM OF TEXAS TECH UNIVERSITY in the following and other areas:

(a) Acquisitions to the collections for which THE ASSOCIATION will retain title for insurance purposes.

(b) Equipment and supplies as needed and not provided for in the state budget. These will remain on THE ASSOCIATION'S inventory in order to facilitate disposal and replacement.

(c) Funds for staff travel and training not provided by the state budget.

(d) Funds for professional consultants not provided by the state budget.

(e) Funds for traveling and temporary exhibits not provided in the state budget.

(f) Funds for the Planetarium for maintenance contract, equipment, volunteer training and staff enrichment not provided in the state budget.

(g) Funds for the educational division for training materials, equipment and professional consultants.

(h) Funds for facility improvement when unavailable through state funds.

(i) Volunteer personnel for THE MUSEUM OF TEXAS TECH UNIVERSITY programs as needed.

Furthermore, in continuation of the agreement with the Board of Regents of October 3, 1981, THE ASSOCIATION shall have the opportunity for providing advice and consultation in the process of selecting the Director of THE MUSEUM OF TEXAS TECH UNIVERSITY and this agreement shall endorse all previous and subsequent agreements. The University President shall have the opportunity for providing advice and consultation in the process of selecting and evaluating the Executive Secretary of THE ASSOCIATION.

8.

This agreement shall begin on the 23rd day of March, 1984, and shall continue for an indefinite period; however, either party hereto may terminate this agreement by giving 180 days' notice to the other party.

President, Board of Trustees
West Texas Museum Association

Chairman, Board of Regents
Texas Tech University

# Pantex Buildings
## Recommended for Disposal
## March 23, 1984

| Building Number | Building Name | Gross Square Feet |
|---|---|---|
| 1-05 | Old Office Building | 1,120 |
| 2-05 | Lube House | 5,000 |
| 2-06 | Farm Shop | 10,608 |
| 2-07 | Carpenter Shop | 10,608 |
| 2-21 | Fuel House | 4,408 |
| 2-29 | Experimental Feeding Facility | 3,400 |
| 2-30 | Old Sale Pavillion | 3,292 |
| 2-31 | Scale House | 45 |
| 2-32 | Hog Shed | 42 |
| 9-07 | Storage Old Warehouse | 67,200 |
| 9-38 | Haystorage Old Bomb Storage | 5,400 |
| | 11 Buildings | 111,123 Square Feet |

Completion Dates

1. To record March 12, 1984, as the completion date for the modifications of the heating, ventilation and air conditioning systems in the Biology Building. (Energy Conservation Project)

2. To record February 16, 1984, as the completion date for the modifications of the heating, ventilation and air conditioning systems in the Chemistry Building. (Energy Conservation Project)

3. To record March 13, 1984, as the completion date for the modifications of the heating, ventilation and air conditioning systems in the Science Building. (Energy Conservation Project)

05.01
Acceptance of Gifts and Grants

(1) Private sector gifts and grants are an indispensable element in the growth and development of Texas Tech University and as such represent a vast resource for the future of the institution.

(2) It is recognized, however, that certain gifts and grants offered may be inconsistent with institutional needs or require additional support for which the University resources are too limited to permit proper administration of the gift. It shall, therefore, be the responsibility of the President or a member of his staff directly reporting to the President, to evaluate promptly any gift or grant tendered. If approved for acceptance, it shall be accepted and the donor appropriately notified of University appreciation. Formal acceptance of gifts and grants received shall be by Board action at its next meeting.

(3) It shall further be the responsibility of the President and the appropriate staff officer to establish and administer procedures for the proper acceptance and acknowledgment of all gifts and grants, preparation of accurate and timely reports of all gifts and grants received, and preparation of the gift docket to the Board of Regents.

(4) All gifts of real property and major gifts-in-kind must be approved by the Board of Regents prior to either acceptance or public announcement. Gifts-in-kind includes such items as equipment, supplies, furnishings, fixtures, implements, tools, apparel, and machinery. Securities, stocks, and cash or its equivalent shall not be considered as gifts-in-kind.

(5) University employees may not be involved in any financial transactions of gift funds which are for the benefit of the University unless:

(a) such funds are handled within the University's accounting structure; or

(b) such funds are handled within accounts for agencies and organizations which have a written contract with the University which:

(i) defines the method of handling such funds; and

(ii) the amount and the conditions of the gift are reported to the President or his designee; or

(c) written approval is given by the President.

(6) Any employee violating this policy shall be subject to disciplinary action, including termination of employment.

TEXAS TECH UNIVERSITY
Lubbock, Texas

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TEXAS TECH UNIVERSITY
Lubbock, Texas

For Information Only: Appointments - General Administration, Teaching, and Non-Classified Positions
December, 1983, through February, 1984

1.

| Name, Rank, and/or Title | Department or Office | Appointment Period |
|---|---|---|
| Brantingham, Christopher<br>Visiting Professor | Education | 01-16-84/05-31-84 |
| Ernst, David L.<br>Assistant Professor | Engineering Technology | 01-16-84/05-31-84 |
| George-Stewart, Janice Rae<br>Assistant Professor | Food & Nutrition | 01-16-84/05-31-84 |
| Parten, Michael E.<br>Visiting Associate Professor | Engineering Technology | 11-16-83/05-31-84 |
| Smith, Loren M.<br>Assistant Professor | Range & Wildlife Management | 02-01-84/08-31-84 |
| Thorvilson, Harlan G.<br>Assistant Professor | Entomology | 01-16-84/05-31-84 |

TEXAS TECH UNIVERSITY
Lubbock, Texas

2. For Information Only: Resignations and/or Terminations - General Administration, Teaching, and Non-Classified Positions - December, 1983, through February, 1984

| Name, Rank, and/or Title | Department or Office | Effective Date |
|---|---|---|
| *Ashdown, Donald<br>Professor | Entomology | 01-15-84 |
| **Calvert, Walter L.<br>Professor | Architecture | 01-27-84 |
| Ege, Aral<br>Assistant Professor | Business Administration | 12-31-83 |
| *Hastie, William R.<br>Professor | Art | 06-01-84 |
| *Post, Charles W.<br>Professor | Music | 08-31-84 |
| Sutherland, John B.<br>Assistant Professor | Biological Sciences | 01-16-84 |
| *Zintgraff, Paul E.<br>Professor | Education | 06-01-84 |

*Retirement
**Deceased

TEXAS TECH UNIVERSITY

REPORT ON EMPLOYMENT & TERMINATIONS

OF

PROFESSIONAL, ADMINISTRATIVE AND CLASSIFIED PERSONNEL

3. December 1983 through January 1984

| Description: | Appointments | Revisions | Terminations |
|---|---|---|---|
| 1. Administration | 1 | 0 | 0 |
| 2. Student Services | 2 | 3 | 1 |
| 3. Office, Clerical & Data Processing | 28 | 14 | 27 |
| 4. Journalism, Publications & Media | 2 | 0 | 2 |
| 5. Research, Training & Education | 42 | 3 | 29 |
| 6. Building & Grounds | 14 | 3 | 17 |
| 7. Support Services | 0 | 4 | 10 |
| 8. Engineering, Trades & Technical | 7 | 4 | 6 |
| 9. Patient Care & Health Services | 1 | 0 | 0 |
| TOTAL | 97 | 31 | 92 |

TEXAS TECH UNIVERSITY

Budget Adjustments of $100,000 or More for Supplemental Awards or Renewals of Research and Other Sponsored Projects

4. December 1, 1983 through January 31, 1984

| Project Activity | Amount | Source of Funds |
|---|---|---|
| Energetics, Transition States and Mechanisms of Aromatic Rearrangements and Radical Ion Reactions | $ 119,000 | National Science Foundation |
| Crosbyton Solar Power Project - Mirror Purchase | 240,000 | Department of Energy Contract - Crosbyton Solar Power Project |
| TOTAL | $ 359,000 | |

ENROLLMENT REPORT--SPRING 1984
(Unofficial)

5.

Listed below in the right hand column are the unofficial enrollment statistics for spring semester 1984. Comparison figures for 1981, 1982, and 1983 are also included for your information. You will note that the increase is generally spread across the colleges with no dramatic increase or decrease in any area.

| Total Enrollment | Spring 1981 | Spring 1982 | Spring 1983 | Spring 1984 |
|---|---|---|---|---|
| | 21,155 | 20,621 | 21,226 | 21,694 |
| **Classification** | | | | |
| Freshmen | 5,152 | 5,067 | 4,951 | 5,574 |
| Sophomore | 4,312 | 4,046 | 4,071 | 3,974 |
| Junior | 3,956 | 3,603 | 3,725 | 3,796 |
| Senior | 4,236 | 4,422 | 4,622 | 4,455 |
| Graduate | 2,905 | 2,854 | 3,274 | 3,163 |
| Law | 594 | 629 | 583 | 550 |
| Other | -- | -- | -- | 152 |
| **College** | | | | |
| Allied Health | | | 33 | 33 |
| Agriculture | 1,257 | 1,217 | 1,268 | 1,273 |
| Arts & Sciences | 6,216 | 5,992 | 5,519 | 5,641 |
| Business Admin | 4,116 | 3,983 | 4,160 | 4,294 |
| Education | 1,377 | 1,250 | 1,256 | 1,417 |
| Engineering | 3,389 | 3,524 | 3,895 | 3,891 |
| Graduate | 2,905 | 2,854 | 3,274 | 3,165 |
| Home Economics | 1,301 | 1,172 | 1,188 | 1,322 |
| Law | 594 | 629 | 583 | 550 |
| Nursing | | | 83 | 108 |
| **Sex** | | | | |
| Male | 11,873 | 11,574 | 12,123 | 12,332 |
| Female | 9,282 | 9,047 | 9,103 | 9,362 |
| **Ethnic** | | | | |
| White, non-Hispanic | 19,328 | 18,677 | 18,925 | 18,657* |
| Black | 380 | 388 | 417 | 431* |
| Hispanic | 767 | 808 | 894 | 987* |
| Asian or Pacific Is. | 219 | 250 | 365 | 188* |
| American Indian | 46 | 40 | 47 | 37* |
| Nonresident (foreign) | 415 | 458 | 558 | 1,051* |
| Other | | | | 343* |

*Distribution of figures in comparison with previous years represents a new method of classification

Paying Agent/Registrar General Tuition Revenue Bonds, Series 1984, - First City National Bank of Austin, Texas

6. a. The following Agreement with First City National Bank of Austin, Texas, as paying agent/registrar for the Board of Regents of Texas Tech University General Tuition Revenue Bonds, Series 1984, is entered for informational purposes. The Resolution authorizing the issuance, sale, and delivery of the bonds was recorded in the Minutes of January 20, 1984, Item M76.

AGREEMENT

PAYING AGENT/REGISTRAR

AGREEMENT entered into as of January 20, 1984 (this "Agreement"), by and between the Board of Regents of Texas Tech University (the "Issuer"), and First City National Bank of Austin, a national banking association duly organized and existing under the laws of the United States of America with its principal offices in Austin, Texas (the "Bank").

RECITALS OF THE ISSUER

The issuer has duly authorized and provided for the issuance of its Board of Regents of Texas Tech University General Tuition Revenue Bonds, Series 1984, (the "Securities") in an aggregate principal amount of $1,500,000 to be issued as registered securities without coupons;

All things necessary to make the Securities the valid obligations of the Issuer, in accordance with their terms, will be taken upon the issuance and delivery thereof;

The Issuer is desirous that the Bank act as the Paying Agent of the Issuer in paying the principal of and premium (if any) and interest on the Securities, in accordance with the terms thereof, and that the Bank act as Registrar for the Securities;

The Issuer has duly authorized the execution and delivery of this Agreement; and all things necessary to make this Agreement the valid agreement of the Issuer, in accordance with its terms, have been done.

NOW, THEREFORE, it is mutually agreed as follows:

ARTICLE ONE

APPOINTMENT OF BANK AS
PAYING AGENT AND REGISTRAR

Section 1.01. Appointment.

The Issuer hereby appoints the Bank to act as Paying Agent with respect to the Securities, in paying to the Holders of the Securities the principal of and premium (if any) and interest on all or any of the Securities.

The Issuer hereby appoints the Bank as Registrar with respect to the Securities.

The Bank hereby accepts its appointment, and agrees to act, as Paying Agent and Registrar in accordance with the terms of this Agreement.

Section 1.02. Compensation.

As compensation for the Bank's services as Paying Agent/Registrar, the Issuer hereby agrees to pay the Bank the fees and amounts set forth in Annex A hereto for the first year of this Agreement and thereafter the fees and amounts set forth in the Bank's current fee schedule then in effect for services as Paying Agent/Registrar for municipalities, which shall be supplied to the Issuer on or before 90 days prior to the close of the Fiscal Year of the Issuer, and shall be effective upon the first day of the following Fiscal Year.

Section 1.03. Bond Resolution Subject to Approval of Bank Counsel.

The acceptance by the Bank of its appointment as Paying Agent/Registrar hereunder shall be subject to the approval of the Bond Resolution by counsel for the Bank.

ARTICLE TWO

DEFINITIONS

Section 2.01. Definitions.

For all purposes of this Agreement, except as otherwise expressly provided or unless the context otherwise requires:

"Acceleration Date" on any Security means the date on and after which the principal is due and payable on any Security which has become accelerated pursuant to the terms of the Security.

"Authorized Representative of the Issuer" means the Chairman of the Board of Regents, the President, or the Vice President for Finance and Administration of Texas Tech University.

"Bank Office" means the principal corporate trust office of the Bank as indicated on page 12. The Bank will notify the Issuer in writing of any change in location of the Bank Office.

"Bond Resolution" means the resolution, order or ordinance of the governing body of the Issuer pursuant to which the Securities are issued, a copy of which certified by the Secretary or any officer of the Issuer is annexed hereto as Annex B or will be delivered to the Bank promptly upon the Issuer's adoption of the same.

"Fiscal Year" means September 1 - August 31.

"Holder" and "Security Holder" each means a Person in whose name a Security is registered in the Security Register.

"Issuer Request" and "Issuer Order" means a written request or order signed in the name of the Issuer by an Authorized Representative of the Issuer and delivered to the Bank.

"Legal Holiday" means a Saturday, a Sunday or a day on which the Bank is required or authorized by law to be closed.

"Person" means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization or government or any agency or political subdivision of a government.

"Predecessor Securities" of any particular Security means every previous Security evidencing all or a portion of the same obligation as that evidenced by such particular Security (and, for the purposes of this definition, any Security registered and delivered under Section 4.06 in lieu of a mutilated, lost, destroyed or stolen Security shall be deemed to evidence the same obligation as the mutilated, lost, destroyed or stolen Security).

"Prepayment Date" when used with respect to any Security to be prepaid means the date fixed for such prepayment pursuant to the terms of the Bond Resolution.

"Record Date" means as follows:

for Securities paying interest on the 1st day of a month, the 15th day of the preceding month;

for Securities paying interest on the 15th day of a month, the last day of the preceding month which is not a Legal Holiday; and

for Securities paying interest on a day other than the 1st day or the 15th day of a month (including Securities paying interest incident to a redemption or other prepayment), the 15th calendar day before the interest payment date.

"Responsible Officer" when used with respect to the Bank means the Chairman or Vice Chairman of the Board of Directors, the Chairman or Vice Chairman of the Executive Committee of the Board of Directors, the President, any Vice President, the Secretary, any Assistant Secretary, the Treasurer, any Assistant Treasurer, the Cashier, any Assistant Cashier, any Trust Officer or Assistant Trust Officer, or any other officer of the Bank customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

"Security Register" means a register in which the Issuer shall provide for the registration of Securities and of transfers of Securities.

"Stated Maturity" means the date specified in the Bond Resolution as the fixed date on which the principal of the Security is due and payable.

Section 2.02. Other Definitions.

The terms "Bank", "Issuer, and "Security" have the meanings assigned to them in the opening paragraph of this Agreement or in the Recitals of the Issuer.

The term "Paying Agent/Registrar" refers to the Bank when it is performing the functions associated with such terms in this Agreement.

ARTICLE THREE

PAYING AGENT

Section 3.01. Duties of Paying Agent.

As Paying Agent, the Bank shall, provided adequate collected funds have been provided to it for such purpose by or on behalf of the Issuer, pay on behalf of the Issuer the principal of and premium (if any) then due on the Securities at the Stated Maturity, Redemption Date or Acceleration Date, as appropriate, to the Holder upon surrender of the Security to the Bank at the Bank Office.

As Paying Agent, the Bank shall, provided adequate collected funds have been provided to it for such purpose by or on behalf of the Issuer, pay on behalf of the Issuer the interest on the Securities when due, by computing the amount of interest to be paid each Holder, preparing the checks and mailing the checks on the payment date, to the Holders of the Securities (or their Predecessor Securities) on the Record Date, addressed to their address appearing on the Security Register.

Section 3.02. Payment Dates.

The Issuer hereby instructs the Bank to pay the principal of and premium (if any) and interest on the Securities at the dates specified in the Bond Resolution. In the event that adequate collected funds have not been provided to the Bank in order to allow the Bank to pay the entire principal of and premium (if any) and interest on the Securities on the appropriate payment date, the Bank shall promptly notify the Issuer of the same and shall not be obligated to disburse any money to any Security Holder until such deficiency shall be restored.

ARTICLE FOUR

REGISTRAR

Section 4.01. Transfer and Exchange.

The Issuer shall keep at the Bank Office a register (herein sometimes referred to as the "Security Register") in which, subject to such reasonable written

regulations as the Issuer or the Bank may prescribe (which Issuer regulations if furnished to the Bank herewith are annexed hereto as Annex C or if furnished to the Bank subsequent hereto shall be furnished by Issuer Order), the Issuer shall provide for the registration of Securities and of transfers of Securities. The Bank is hereby appointed "Registrar" for the purpose of registering Securities and transfers of Securities as herein provided. The Bank agrees to maintain the Security Register in accordance with the terms of this Agreement while it is Registrar.

Every Security surrendered for transfer or exchange shall be surrendered to the Bank at its Bank Office duly endorsed for transfer or exchange, or accompanied by a written instrument of transfer, in form satisfactory to the Bank, duly executed by the Holder thereof or his attorney duly authorized in writing, the signature on which has been guaranteed by an officer of a federal or state bank or a member of the National Association of Securities Dealers. Upon surrender for transfer or exchange of any Security in accordance with the preceding sentence, the Bank shall register and deliver, in the name of the designated transferee or transferees, one or more new Securities of the same maturity, of any authorized denomination and of a like aggregate principal amount, bearing a number (according to the Security Register) not contemporaneously outstanding.

The Registrar may request any supporting documentation it feels necessary to effect a re-registration. The Bank will not be responsible for the validity of any transfer of Securities, the genuineness of the endorsement, the authority of the transferor, or the payment of any applicable tax.

The Registrar shall not be required to exchange, register or re-register the transfer of any Security during the period beginning on a Record Date and ending on the next succeeding interest payment date or for a period of fifteen days next preceding the selection of any Securities to be redeemed or thereafter until the first publication or mailing of notice of such redemption.

Section 4.02. Certificates.

The Issuer shall provide an adequate inventory of Securities certificates to facilitate transfers. The Bank convenants that it will maintain Securities certificates in safekeeping and will use reasonable care in maintaining such Securities certificates in safekeeping, which shall be not less than the care it maintains for debt securities certificates of other governments or corporations for which it serves as registrar.

Section 4.03. Form of Security Register.

The Bank as Registrar will maintain the records of the Security Register in accordance with the Bank's general practices and procedures in effect from time to time. The Bank shall not be obligated to maintain such Register in any form other than those which the Bank currently utilizes at the time.

The Securities Register may be maintained in written form or in any other form capable of being converted into written form within a reasonable time.

Section 4.04. List of Security Holders.

The Bank will provide the Issuer at any time reasonable requested by the Issuer, upon payment of the required fee, a copy of the information contained in the Security Register. The Issuer may also inspect the information in the Security Register at any time not on a Legal Holiday that the Bank is customarily open for business, provided that reasonable time is allowed the Bank to provide an up-to-date listing or to convert the information into written form.

The Bank will not release or disclose the content of the Security Register to any person other than to, or at the written request of, an authorized officer or employee of the Issuer, except upon receipt of a subpoena or court order. Upon receipt of a subpoena or court order the Bank will notify the Issuer so that the Issuer may contest the subpoena or court order.

Section 4.05. Return of Cancelled Certificates.

The Bank will, at such reasonable intervals as it determines, surrender to the Issuer, Securities certificates in lieu of which or in exchange for which other Securities have been issued, or which have been paid.

Section 4.06. Mutilated, Destroyed, Lost, or Stolen Securities.

The Issuer hereby instructs the Bank to deliver and issue Securities in exchange for or in lieu of mutilated, destroyed, lost or stolen Securities in accordance with this Agreement.

The Bank will issue and deliver a new Security in exchange for a mutilated Security surrendered to it. All mutilated Securities shall be cancelled by the Bank forthwith. The Bank will issue a new Security in lieu of a Security for which it received an affidavit from the Holder that the certificate representing such Security is destroyed, lost, or stolen, without the surrender or production of the original certificate. In accordance with Section 3.01 of this Agreement, the Bank will pay on behalf of the Issuer the principal of and premium (if any) on a Security for which it receives an affidavit from the Holder stating that such Security is destroyed, lost, or stolen following the Stated Maturity or Prepayment Date of the Security, without the surrender or production of the Security certificate.

Notwithstanding the foregoing, the Bank will not issue a replacement Security or pay such Holder of a destroyed, lost, or stolen Security unless there is delivered to the Bank such security or indemnity as it may require (which may be by the Bank's blanket bond) to save both the Bank and the Issuer harmless.

The certificate number on the mutilated, destroyed, lost, or stolen Security will be cancelled on the Security Register with a notation that it has been mutilated, destroyed, lost, or stolen and a new Security will be issued of the same maturity and principal amount bearing a number (according to the Security Register) not contemporaneously outstanding.

The Bank shall charge the Holder the Bank's fee and expense in connection with issuing a new Security in lieu of or exchange for a mutilated, lost, or stolen Security.

The Issuer hereby accepts the Bank's current blanket bond for mutilated, lost, stolen, or destroyed Securities and any future substitute blanket bond for mutilated, lost, stolen, or destroyed Securities that the Bank may arrange, and agrees that the coverage under any such blanket bond is acceptable to it and meets the Issuer's requirements as to security or indemnity. The Bank need not notify the Issuer of any changes in the security or other company giving such bond or the terms of any such bond. The blanket bond then utilized for the purpose of mutilated, lost, stolen, or destroyed certificates by the Bank is available for inspection by the Issuer on request.

Section 4.07. Transaction Information to Issuer.

The Bank, will, within a reasonable time after receipt of written request from the Issuer, furnish the Issuer information as to the Securities it has paid pursuant to 3.01, Securities it has delivered upon the transfer or exchange of any Securities pursuant to Section 4.01 and Securities it has delivered in exchange for or in lieu of mutilated, destroyed, lost, or stolen Securities pursuant to Section 4.06.

ARTICLE FIVE

THE BANK

Section 5.01. Duties of Bank.

The Bank undertakes to perform the duties imposed upon it herein and in the Bond Resolution and agrees to use reasonable care in the performance thereof. No implied covenants or obligations shall be read into this Agreement against the Bank.

Section 5.02. Reliance on Documents, etc.

(a) The Bank may conclusively rely, as to the truth of the statements and correctness of the opinions expressed therein, on affidavits, certificates or opinions furnished to the Bank.

(b) The Bank shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Bank was negligent in ascertaining the pertinent facts.

(c) No provisions of this Agreement shall require the Bank to expend or risk its own funds or otherwise incur any financial liability for performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds (or adequate indemnity satisfactory to it against such risks or liability) is not assured to it.

(d) The Bank may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, note, security, or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties. Without limiting the generality of the foregoing statement, the Bank need not examine the ownership of any Securities, but is protected in acting upon receipt of Securities containing an endorsement or instrument of transfer or power of transfer which appears on its face to be signed by the Holder or an attorney-in-fact of the Holder. The Bank shall not be bound to make any investigation into the facts or matters stated in a resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, note, security or other paper or document supplied by Issuer.

(e) The Bank may consult with counsel (including Bank employees), and the written advice of such counsel or any opinion of such counsel shall be full and complete authorization and protection with respect to any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon.

(f) The Bank may exercise any of the powers hereunder and perform any duties hereunder either directly or by or through agents or attorneys.

Section 5.03. Recitals of Issuer.

The recitals contained herein and in the Securities shall be taken as the statements of the Issuer, and the Bank assumes no responsibility for their correctness.

The Bank shall in no event be liable to the Issuer, any Holder or Holders of any Security or any other Person to expend its own funds for any amount due on any Security.

Section 5.04. May Hold Securities.

The Bank, in its individual or any other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Issuer with the same rights it would have if it were not the Paying Agent/Registrar, or any other agent.

Section 5.05. Moneys Held by Bank.

Money held by the Bank hereunder need not be segregated from any other funds provided appropriate accounts are maintained.

The Bank shall be under no liability for interest on any money received by it hereunder.

Any money deposited with the Bank for the payment of the principal, premium (if any) or interest on any Security and remaining unclaimed for four years after final maturity of the Security has become due and payable will be paid by the Bank to the Issuer, and the Holder of such Security shall thereafter look only to the Issuer for payment thereof, and all liability of the Bank with respect to such moneys shall thereupon cease.

This Agreement relates solely to money deposited for the purposes described herein, and the parties agree that the Bank may serve as depository for other funds of the Issuer, act as Trustee under Indentures authorizing other bond transactions or act in any other capacity.

Section 5.06. Indemnification.

In as far as the Constitution and the laws of the State of Texas provide, the Issuer agrees to indemnify the Bank for, and hold it harmless against, any loss, liability, or expense incurred without negligence or bad faith on its part, arising out of or in connection with its acceptance or administration of its duties hereunder, including the cost and expense (including its counsel fees) of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties under this Agreement.

Section 5.07. Interpleader.

The Issuer and the Bank agree that the Bank may seek adjudication of any adverse claim, demands or controversy over its persons as well as funds on deposit, in either the District Court of Travis County, Texas, or the United States Federal District Court for the Western District of Texas, waive personal service of any process, and agree that service of process by certified or registered mail, return receipt requested, to the address set forth in Section 6.03 of this Agreement shall constitute adequate service. The Issuer and the Bank further agree that the Bank has the right to file a Bill of Interpleader in any court of competent jurisdiction to determine the rights of any Person claiming any interest herein.

Section 5.08. Merger, Conversion, Consolidation, or Succession.

Any corporation into which the Bank may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion, or consolidation to which the Bank shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Bank shall be the successor of the Bank hereunder without the execution or filing of any paper or any further act on the part of either of the parties hereto. In case any Security shall have been registered, but not delivered, by the Bank then in Office, any successor by merger, conversion, or consolidation to such authenticating Bank may adopt such registration and deliver the Security so registered with the same effect as if such successor Bank had itself registered such Security.

Section 5.09. Bank Not a Trustee.

This Agreement shall not be construed to require the Bank to enforce any remedy any Holder may have against the Issuer during any default or event of default under any agreement between any Holder and the Issuer, including the Bond Resolution, or to act as trustee for such Holder.

ARTICLE SIX

MISCELLANEOUS PROVISIONS

Section 6.01. Amendment.

This Agreement may be amended only by an agreement in writing signed by both of the parties hereof.

Section 6.02. Assignment.

This Agreement may not be assigned by either party without the prior written consent of the other.

Section 6.03. Notices.

Any request, demand, authorization, direction, notice, consent, waiver, or other document provided or permitted hereby to be given or furnished to the Issuer or the Bank shall be mailed or delivered to the Issuer or the Bank, respectively, at the addresses shown on page 12.

Section 6.04. Effect of Headings.

The Article and Section headings herein are for convenience only and shall not affect the construction hereof.

Section 6.05. Successors and Assigns.

All covenants and agreements herein by the Issuer shall bind its successors and assigns, whether so expressed or not.

Section 6.06. Separability.

In case any provision herein shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 6.07. Benefits of Agreement.

Nothing herein, expressed or implied, shall give to any Person, other than the parties hereto and their successors hereunder, any benefit or any legal or equitable right, remedy or claim hereunder.

Section 6.08. Entire Agreement.

This Agreement and the Bond Resolution constitute the entire agreement between the parties hereto relative to the Bank acting as Paying Agent/Registrar and

if any conflict exists between this Agreement and the Bond Resolution, the Bond Resolution shall govern.

Section 6.09. Counterparts.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which shall constitute one and the same Agreement.

Section 6.10. Termination.

This Agreement will terminate on the date of final payment by the Bank issuing its checks for the final payment of principal and interest of the Securities.

This Agreement may be earlier terminated upon 60 days written notice by either party.

Section 6.11. Governing Law.

This Agreement shall be construed in accordance with and governed by the laws of the State of Texas.

This proposal is submitted in duplicate originals. When accepted by the Issuer it will constitute the entire agreement between Issuer and the undersigned for the purpose and considerations herein specified. Your acceptance will be indicated by proper signatures of your authorized officers or representatives on both copies and the returning of our executed copy to us.

Respectfully submitted by:

First City National Bank
of Austin, Texas

By: /s/ Jerry D. Shook
Senior Vice President & Trust Officer

Attest:

By: /s/ Hugh Clarke
Vice President & Trust Operations Officer

Accepted:

By: /s/ Joe Pevehouse
Chairman of the Board of Regents

By: /s/ Lauro F. Cavazos
President

By: /s/ E. E. Payne
Vice President for Finance and Administration

Address of Bank:

First City National Bank
of Austin
823 Congress Avenue
Austin, Texas 78768

Attention: Trust Division

Address of Issuer:

Texas Tech University
P. O. Box 4469
Lubbock, Texas 79409

Attention: Dr. Eugene E. Payne

First City National Bank of Austin
Trust Division
525 Congress Avenue, P.O. Box 2127
Austin, TX 78767
(512) 475-4800



FIRSTCITY

FULLY REGISTERED
BOND SERVICES
SCHEDULE OF CHARGES
EFFECTIVE JULY 1, 1983

Registrar and Paying Agencies

| | | |
|---|---|---|
| * | Annual Minimum Charge | $ 500.00 |
| * | Bond/Debenture Registrar | |
| | First 100 registrations (minimum per year) | 150.00 |
| | Each registration in excess of 100 | 1.00 |
| | Registrations requiring special attention | |
| | Reviewing legal transfers (each transaction) | 10.00 |
| | Replacement of lost, stolen or destroyed securities (each transaction) | 25.00 |
| | Bondholder/Debentureholder Account Maintenance | |
| | First 100 accounts (minimum per year) | 150.00 |
| | Each account in excess of 100 | .85 |
| | Conversion of Bonds/Debentures | |
| | 1/10 of 1% of principal amount converted | |
| | Retirement of Bonds/Debentures | |
| | For retirement at maturity, or by call as a whole: | |
| | First 100 Bonds/Debentures (each) | 1.50 |
| | Next 400 Bonds/Debentures (each) | 1.00 |
| | Excess over 500 Bonds/Debentures (each) | .50 |
| | For retirement by partial call, tender offer or by purchase: | |
| | First 100 Bonds/Debentures (each) | 2.00 |
| | Next 400 Bonds/Debentures (each) | 1.50 |
| | Excess over 500 Bonds/Debentures (each) | 1.00 |



Member First City Bancorporation of Texas, Inc.

| | |
|---|---|
| Registered Interest Disbursement | |
| Each check | .30 |
| Minimum charge (per interest payment) | 100.00 |
| Destruction of Bonds | |
| Sorting, listing and destroying (per registered bond) | .15 |
| Minimum charge (per destruction) | 50.00 |
| Miscellaneous Services | |
| Bondholder/Debentureholder list preparation (per account) | .04 |
| Bondholder/Debentureholder mailing (per account) | .05 |
| I.R.S. Form 1099 preparation and filing (per account) | .10 |
| Minimum fee | 50.00 |

Trustee

Authentication and Delivery of Bonds/Debentures

| | |
|---|---|
| First $5,000,000.00 principal amount, per million | 600.00 |
| Next $20,000,000.00 principal amount, per million | 500.00 |
| Excess over $25,000,000.00 principal amount, per million | 400.00 |
| Minimum Charge | 1,500.00 |

These rates include complete study and consideration of all the usual documents authorizing and support the issuance of bonds/debentures.

Annual Administration

| | |
|---|---|
| First $5,000,000.00 principal amount, per million | 400.00 |
| Next $5,000,000.00 principal amount, per million | 350.00 |
| Next $10,000,000.00 principal amount, per million | 250.00 |
| Excess over $20,000,000.00 principal amount, per million | 150.00 |
| Minimum annual administration charge | 1,500.00 |

Extraordinary Services

Charges for performing any Corporate Trust Services not specifically covered in this schedule will be determined by an appraisal of the services rendered.

Additional Charges

The fees shown in this schedule are intended to minimum fees, and accordingly, are subject to increase if the circumstances attending a particular issue or account so warrant. Furthermore, they do not include counsel fees or any other travel expenses or disbursements. All out-of-pocket expenses such as stationery, binders, check forms, printing, and envelopes will be added, at cost, to the regular fee for services. Postage, registered mail and insurance charges will be billed in addition to all other fees and charges.

* These two items will be considered when calculating the acceptance fee.

Armstrong Mechanical, Inc. - Modification of HVAC Mathematics Building

6. b. The following agreement with Armstrong Mechanical, Inc., in the amount of $255,401 for the modification of heating, ventilation and air conditioning in the Mathematics Building is entered for informational purposes. Execution of this contract was authorized in the Minutes of the November 18, 1983, meeting, Item M53.

CONSTRUCTION SERVICES

Contract No. 503
Account Number 12-6004-200013

AGREEMENT

THIS AGREEMENT, made this 22nd day of November, in the year Nineteen Hundred Eighty Three .

BY AND BETWEEN

Texas Tech University, Lubbock, Lubbock County, Texas, the Owner, acting herein by and through Lauro F. Cavazos, President, and Armstrong Mechanical, Inc., the Contractor.

The Owner and the Contractor agree as set forth below:

ARTICLE 1

THE WORK

The Contractor shall perform all the Work required by the Contract Documents for Mathematics - ECP including Alternates No. 3, No. 4, and Base Bid under Alternate No. 5 (FP & C Job No. 81-78).

ARTICLE 2

CONTRACT SUM

The Owner shall pay the Contractor for the performance of the Work, subject to additions and deductions by Change Order as provided in the Conditions of the Contract, in current funds, the Contract Sum of

Two Hundred Fifty-Five Thousand Four Hundred One Dollars
(Written Amount)

$255,401
(Figures)

Included in the total contract sum is $120,000 which represents cost of materials and other expenses requiring tax exemptions from City and State sales taxes.

## ARTICLE 3

### TIME OF COMMENCEMENT AND COMPLETION

The Work to be performed under this Contract shall be commenced on or before a date to be specified in a written "Notice to Proceed" from the Owner and completed in 200 consecutive calendar days.

The Contractor further agrees to pay, as liquidated damages, the sum of $100 for each consecutive calendar day after date shown in Notice to Proceed.

## ARTICLE 4

### PROGRESS PAYMENTS

Based upon Applications for Payment submitted by the Contractor, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided in the conditions of the Contract as follows:

Once each calendar month, the Owner shall make a progress payment to the Contractor on the basis of a duly certified and approved estimate of the Work performed during the preceding calendar month under this Contract; but to insure the proper performance of this Contract, the Owner shall retain five percent (5%) of the amount of each estimate until final completion and acceptance of all Work covered by this Contract: Provided that the Owner, at any time after fifty percent (50%) of the Work has been completed, finds that satisfactory progress is being made, may make any of the remaining progress payments in full; and, provided further, that upon completion and acceptance of each separate building, public work or other division of the Contract on which the price is stated separately in the Contract, payment may be made in full, including retained percentages thereon less authorized deductions. It shall be the Owner's option that upon "substantial completion" of the entire Work, he may increase the total payments to ninety-five percent (95%) of the Contract price provided satisfactory evidence is furnished that all payrolls, material bills and other indebtedness connected with the Work have been paid.

In addition, and in connection with any progress payment, if the Owner requests same, he shall be furnished manifest proof of any Subcontractors' actual fiscal account as related to the actual Subcontract value; and such account shall be in a form as requested by the Owner.

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the Owner to the Contractor thirty (30) days after Substantial Completion of the Work unless otherwise stipulated in the Certificate of Substantial Completion, provided the Work has then been completed, the Contract fully performed and a final Certificate for Payment has been issued by the Contractor and approved by the Engineer.

ARTICLE 5

THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other conditions), Drawings, Specifications, all Addenda issued prior to execution of this Agreement and all Modifications issued subsequent thereto. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

The Owner reserves the right to do work and to award other contracts in connection with other portions of the project.

ARTICLE 6

PAYMENT AND PERFORMANCE BONDS

It is hereby agreed that a Performance Bond and a Payment Bond, each of 100% of the contract sum, are included herein and made a part of this contract.

ARTICLE 7

OWNER'S REPRESENTATIVE

The Owner hereby designates the President of Texas Tech University or the person designated as acting President in his absence, as its duly authorized and designated representative as that term is used and appears in this Agreement to act for and on behalf of Owner. This designation shall remain in full force and effect until and unless Contractor is otherwise notified in writing by Owner and directed to Contractor at his address.

This Agreement executed the day and year first written above.

OWNER
TEXAS TECH UNIVERSITY

By: /s/ Lauro F. Cavazos
Lauro F. Cavazos, President

CONTRACTOR
ARMSTRONG MECHANICAL, INC.

By: /s/ John G. Braun
John G. Braun

Knox, Gailey and Meador, Inc. - HVAC - Office of Development

6. c. The following agreement with Knox, Gailey and Meador, Inc., in the amount of $265,419 for heating, ventilation and air conditioning in the Office of Development is entered for informational purposes. Execution of this contract was authorized in the Minutes of the November 18, 1983, meeting, Item M47.

CONSTRUCTION SERVICES

Contract No. 501
Account Number 62-A365-200000
12-6004-200012

AGREEMENT

THIS AGREEMENT, made this 22nd day of November, in the year Nineteen Hundred Eighty Three

BY AND BETWEEN

Texas Tech University, Lubbock, Lubbock County, Texas, the Owner, acting herein by and through Lauro F. Cavazos, President, and Knox, Gailey and Meador, Inc., the Contractor.

The Owner and the Contractor agree as set forth below:

ARTICLE 1

THE WORK

The Contractor shall perform all the Work required by the Contract Documents for Housing Alterations for Office of Development including Alternates 3 and 4 (FP and C Job No. 82-28).

ARTICLE 2

CONTRACT SUM

The Owner shall pay the Contractor for the performance of the Work, subject to additions and deductions by Change Order as provided in the Conditions of the Contract, in current funds, the Contract Sum of Two Hundred Sixty-Five Thousand Four Hundred Nineteen Dollars and no/100

(Written Amount)

$265,419

(Figures)

Included in the total contract sum is $145,000 which represents cost of materials and other expenses requiring tax exemptions from City and State sales taxes.

## ARTICLE 3

### TIME OF COMMENCEMENT AND COMPLETION

The Work to be performed under this Contract shall be commenced on or before a date to be specified in a written "Notice to Proceed" from the Owner and completed in 200 consecutive calendar days.

The Contractor further agrees to pay, as liquidated damages, the sum of $300 for each consecutive calendar day after date shown in Notice to Proceed.

## ARTICLE 4

### PROGRESS PAYMENTS

Based upon Applications for Payment submitted by the Contractor, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided in the conditions of the Contract as follows:

Once each calendar month, the Owner shall make a progress payment to the Contractor on the basis of a duly certified and approved estimate of the Work performed during the preceding calendar month under this Contract; but to insure the proper performance of this Contract, the Owner shall retain five percent (5%) of the amount of each estimate until final completion and acceptance of all Work covered by this Contract: Provided that the Owner, at any time after fifty percent (50%) of the Work has been completed, finds that satisfactory progress is being made, may make any of the remaining progress payments in full; and, provided further, that upon completion and acceptance of each separate building, public work or other division of the Contract on which the price is stated separately in the Contract, payment may be made in full, including retained percentages thereon less authorized deductions. It shall be the Owner's option that upon "substantial completion" of the entire Work, he may increase the total payments to ninety-five percent (95%) of the Contract price provided satisfactory evidence is furnished that all payrolls, material bills and other indebtedness connected with the Work have been paid.

In addition, and in connection with any progress payment, if the Owner requests same, he shall be furnished manifest proof of any Subcontractors' actual fiscal account as related to the actual Subcontract value; and such account shall be in a form as requested by the Owner.

Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the Owner to the Contractor thirty (30) days after Substantial Completion of the Work unless otherwise stipulated in the Certificate of Substantial Completion, provided the Work has then been completed, the Contract fully performed and a final Certificate for Payment has been issued by the Contractor and approved by the Architect and Engineer.

ARTICLE 5

THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other conditions), Drawings, Specifications, all Addenda issued prior to execution of this Agreement and all Modifications issued subsequent thereto. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

The Owner reserves the right to do work and to award other contracts in connection with other portions of the project.

ARTICLE 6

PAYMENT AND PERFORMANCE BONDS

It is hereby agreed that a Performance Bond and a Payment Bond, each of 100% of the contract sum, are included herein and made a part of this contract.

ARTICLE 7

OWNER'S REPRESENTATIVE

The Owner hereby designates the President of Texas Tech University or the person designated as acting President in his absence, as its duly authorized and designated representative as that term is used and appears in this Agreement to act for and on behalf of Owner. This designation shall remain in full force and effect until and unless Contractor is otherwise notified in writing by Owner and directed to Contractor at his address.

This Agreement executed the day and year first written above.

OWNER
TEXAS TECH UNIVERSITY

By: /s/ Lauro F. Cavazos
Lauro F. Cavazos, President

CONTRACTOR
KNOX, GAILEY AND MEADOR, INC.

By: /s/ Don Meador
Don Meador

TEXAS TECH UNIVERSITY
Office of Development
January 1984
Gifts and Grants

7. a.

SUMMARY

| | January 1983 | YTD FY '83 | January 1984 | YTD FY '84 |
|---|---|---|---|---|
| Texas Tech University | $126,129.68 | $1,285,766.79 | $145,472.11 | $3,084,050.87 |
| Texas Tech University Foundation | 186,539.07 | 1,089,262.67 | 307,481.41 | 1,646,324.11 |
| TOTAL: | $312,668.75 | $2,375,029.46 | $452,953.52 | $4,730,374.98 |

Subject to Audit Verification