

Board of Trustees Meeting Audit & Business Committee

June 15, 2017 Bell Hall 260

MINUTES

AGENDA ITEM 1-CALL TO ORDER

The Tennessee Tech Board of Trustees Audit & Business Committee met on June 15, 2017, in Bell Hall 260. Chair Teresa Vanhooser called the meeting to order at 08:17 a.m.

Chair Vanhooser asked Ms. Kae Carpenter, Secretary, to call the roll. The following members were present:

- Milliard Oakley
- Purna Saggurti
- Teresa Vanhooser

Other board members and members of the public were also in attendance.

AGENDA ITEM 2-Approval of Minutes of May 23, 2017

Chair Vanhooser asked for approval of the minutes of the May 23, 2017 Audit & Business Committee meeting. Mr. Saggurti moved to recommend approval of the May 23, 2017 Audit & Business Committee minutes. Mr. Oakley seconded the motion. After an opportunity for discussion and there being none, the motion carried unanimously.

AGENDA ITEM 3-Employment Contracts for Emeritus Presidents and Athletics Director

Chair Vanhooser asked Dr. Claire Stinson to present the next agenda item regarding employment contracts.

Dr. Stinson presented for review and approval the President Emeritus Contracts for Dr. Robert Bell and Dr. Angelo Volpe for 2017-18 stating that the contracts were in accordance with the laws of the State of Tennessee. Dr. Stinson added that reports on each emeriti president's activities were provided in the Board material.

Dr. Stinson also presented for review and approval the five-year contract extension for the Athletics Director stating that the information had also been included in the Board material.

Chair Vanhooser asked for a motion to approve this agenda item as a group to the consent agenda. Mr. Saggurti moved to recommend approval of the Employment Contracts as a group. Mr. Oakley seconded the motion. After an opportunity to discuss and there being none, the motion carried unanimously.

Mr. Saggurti moved to recommend approval of the Employment Contracts to the Board on the consent agenda. Mr. Oakley seconded the motion. After an opportunity to discuss and there being none, the motion carried unanimously.

AGENDA ITEM 4-Tenure and Promotion Recommendations

Chair Vanhooser asked Dr. Bahman Ghorashi to present the recommendations and supporting documentation for granting tenure and promotion.

Dr. Ghorashi stated that for the 2017-18 academic year, 23 faculty members received affirmative recommendations for the award of tenure pending the Board's approval. Dr. Ghorashi noted that dossiers were reviewed according to Tennessee Tech's established process for granting of tenure, which had been provided in the Board's materials.

Dr. Ghorashi added that two faculty administrators joined Tennessee Tech in the past year and had been recommended for tenure pending Board approval: Dr. Mike Gotcher, Dean of the College of Interdisciplinary Studies; and, Dr. Dennis Duncan, Director of the School of Agriculture. Resumes for each had been included in the Board materials.

President Philip Oldham introduced Drs. Gotcher and Duncan and provided a short biography for each.

Dr. Ghorashi indicated that during the 2017-18 academic year, 27 faculty members received affirmative recommendations for promotion; their dossiers had been reviewed according to Tennessee Tech's established process for promotion. Dr. Ghorashi noted that additional information on these recommendations were provided in Board materials.

Chair Vanhooser asked for a motion to approve this agenda item as a group to the consent agenda. Mr. Saggurti moved to recommend approval of the Tenure and Promotion recommendations as a group unless there was an objection. Mr. Oakley seconded the motion. After an opportunity to discuss and there being none, the motion carried unanimously.

Mr. Saggurti moved to send the Tenure and Promotion recommendations to the Board for approval on the consent agenda. Mr. Oakley seconded the motion. After an opportunity to discuss and there being none, the motion carried unanimously.

AGENDA ITEM 5-Planning and Finance Policies

Dr. Stinson presented five Planning and Finance policies and provided summaries for each, stating:

1. Policy 506-General and Group Travel Policies

This policy sets forth appropriate reimbursement rates and guidelines for all expenses incurred on official business travel for Tennessee Tech. Provisions apply to individuals other than employees who were authorized to travel at Tennessee Tech's expense. Specific provisions also address the travel of Board members. Authorization for travel would not be granted and expenses would not be reimbursed unless the travel was made and reimbursement claimed in accordance with this policy and any approved exceptions.

2. Policy 535-Foundations

This policy assures that, with regard to any foundation established to support Tennessee Tech, the relationship of the foundation to Tennessee Tech is clearly defined and is set forth in a formal, written manner that (1) defines the legal authority and operating control of Tennessee Tech with respect to the foundation; (2) describes the relationship of the foundation to Tennessee Tech and the extent of any liability arising out of that relationship; and (3) demonstrates that the fundraising activities of the foundation further the mission of Tennessee Tech.

3. Policy 536-Solicitation and Acceptance of Gifts

This policy establishes responsibilities and procedures regarding the solicitation and acceptance of Gifts to Tennessee Tech (not the Foundation).

4. Policy 562-Motor Vehicles

This policy provides structure to the assignment of a university-owned motor vehicle to Tennessee Tech's President.

5. Policy 648-Financial Exigency

This policy establishes criteria and processes regarding financial exigency at Tennessee Tech.

Chair Vanhooser recommended that the policies be presented to the Board en bloc and presented on the consent agenda. Mr. Saggurti moved to recommend approval of the five Planning and Finance policies as a group unless there was an objection. Mr. Oakley seconded the motion. After an opportunity to discuss and there being none, the motion carried unanimously.

Mr. Saggurti moved to send the five Planning and Finance policies to the Board for approval on the consent agenda. Mr. Oakley seconded the motion. After an opportunity to discuss and there being none, the motion carried unanimously.

AGENDA ITEM 6-Ratification of Director of Internal Audit

Chair Vanhooser asked President Oldham to provide qualifications for Deanna Metts to serve as Director of Internal Audit, which is a position that reports directly to the Tennessee Tech Board of Trustees. President Oldham recommended that the vote go to the Board on the consent agenda if unanimously approved by the Committee. After President Oldham provided a brief summary of Ms. Metts' qualifications, Mr. Saggurti moved to ratify Ms. Metts as the Director of Internal Audit, and Mr. Oakley seconded the motion. All voted Aye and the motion carried.

AGENDA ITEM 7-Adoption of Audit Committee Charter

Chair Vanhooser asked Ms. Metts to present an overview of the state requirements for an audit committee charter. Ms. Metts explained that the Charter only covers the audit responsibilities of the Board, and not the non-audit responsibilities that are addressed in board policies. She further explained that once the Charter is adopted by the Board, it is forwarded to the Tennessee State Comptroller for final approval. Chair Vanhooser recommended that the vote go to the Board on the consent agenda if unanimously approved. Mr. Saggurti moved to recommend the adoption the Audit Committee Charter to the Board and to place it in the Board's consent agenda, and Mr. Oakley seconded the motion. All voted Aye and the motion carried.

AGENDA ITEM 8-Approval of Internal Audit Charter

Chair Vanhooser asked Ms. Metts to present an overview of the Internal Audit Charter. She explained that the Charter must follow the Institute of Internal Auditors' Standards for the Professional Practice of Internal Auditing that require the Charter to address Internal Audit's purpose, authority, and responsibility. She further stated that the Chair of the Audit & Business Committee and the Director of Internal Audit are required to sign the charter.

Chair Vanhooser recommended that the vote go to the Board on the consent agenda if unanimously approved by the Committee. Mr. Saggurti moved to recommend approval of the Internal Audit Charter to the Board and to place it on the Board's consent agenda, and Mr. Oakley seconded the motion. All voted Aye and the motion carried.

AGENDA ITEM 9-Approval of Internal Audit Policies

Ms. Metts presented three Internal Audit policies and provided summaries for each, stating:

1. Policy 130-Internal Audit Policy

This policy addresses Internal Audit's personnel, general responsibilities, planning, and reporting.

2. Policy 131-Preventing Fraud, Waste, or Abuse Policy

This policy provides examples of fraud, waste, and abuse and states various stakeholders' responsibilities for preventing, reporting, and investigating fraud, waste, or abuse. It describes the methods available to report fraud, waste, and abuse. It addresses confidentiality of information in fraud, waste, and abuse reports. It fulfills the statutory requirements that Internal Audit establish a process to confidentially report fraud, waste, and abuse for students, employees, taxpayers, and citizens of the state.

3. Policy 133-President's Expenditures Policy

This policy describes the statutory requirements for annually reporting the President's expenses. State statute requires that each governing board establish a policy requiring an annual report of expenses made by, at the direction of, or for the benefit of the President. This policy will replace the TBR policy of the same name.

Chair Vanhooser recommended that the policies be presented to the Board as a group on the consent agenda if unanimously approved by the Committee. Mr. Saggurti moved to recommend the approval of the Internal Audit policies as a group to the Board and to place it on the Board's consent agenda, and Mr. Oakley seconded the motion. All voted Aye and the motion carried.

AGENDA ITEM 10-Review of Conflict of Interest and Code of Conduct Policies

Ms. Metts presented the policies explaining that they do not require the Board's approval, but that the Tennessee State Comptroller's *Guidelines for Audit Committee Charters*

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require that the Committee review the Conflict of Interest and the Code of Conduct policies for specific items. Ms. Metts provided summaries of each stating:

1. Policy 132-Conflict of Interest Policy

This policy defines general conflict of interest principles, offers examples of potential conflicts of interest, and describes the disclosure requirements. It also describes the process to evaluate and make decisions about potential conflicts of interest and the appeals process regarding those decisions.

Per the Tennessee State Comptroller's *Guidelines for Audit Committee Charters*, the committee must review the Conflict of Interest Policy to ensure that it clearly defines the term "conflict of interest", that it is comprehensive, that it requires annual sign-off, and that it provides for adequate resolution and documentation of potential conflicts of interest.

2. Policy 600-Code of Conduct Policy

This policy provides guidance to Tennessee Tech employees on how to conduct themselves in an ethical and responsible manner. Per the Tennessee State Comptroller's *Guidelines for Audit Committee Charters*, the Committee must review the Code of Conduct Policy to ensure the policy is easy to access, is widely distributed, is easy to understand and implement, includes a confidential method to report code violations, is enforced, and includes a conflict of interest policy.

The Committee did not have any questions.

AGENDA ITEM 11-Tuition and Mandatory Fees

Chair Vanhooser asked Dr. Stinson to present the Tuition and Mandatory Fees recommendation.

Dr. Oldham indicated that throughout the presentations, references were made periodically to work completed on Tennessee Tech's behalf by Huron Consulting Group, who had worked with Tennessee Tech for a number of years on a variety of projects. Dr. Oldham introduced Shandy Husmann, with Huron Consulting Group, to the committee to provide a sense of the level of expertise on what they brought to the table in assisting with strategic planning type issues. Dr. Oldham added that they were heavily involved in the Flight Plan. Shandy Husmann introduced himself and his colleague, Lauren Halloran, to the committee and provided a brief description of Huron Consulting Group as well as a short biography on himself.

Dr. Stinson reviewed the Tuition and Mandatory Fees presentation recommending Tennessee Tech's 2017-18 undergraduate, graduate, and out-of-state tuition and mandatory fees. The presentation had been provided in the Board materials, and Dr. Stinson noted that the committee had an opportunity to review the THEC materials

previously, as well. Dr. Stinson reminded the committee that THEC had the authority to establish binding rates for both maintenance fees and mandatory fees.

Chair Vanhooser encouraged the committee and board members to ask questions during the slide presentation. Dr. Fleming commented to the audience that Dr. Stinson had reviewed, in detail, the presentation separately with each board member so many questions had already been asked and answered.

Mr. Stites asked how Tennessee Tech selected peer institutions and requested a report in the future. Dr. Oldham stated that the selection of peer institutions were part of the Flight Plan process adding that the selection was not as simple and straightforward as one would expect due to Tennessee Tech's rather unique structure and somewhat complex mission. Dr. Oldham indicated that the selection had been a data driven process and three separate sets of peers were selected. Mr. Stites thanked Dr. Oldham for the information.

Dr. Fleming asked that the data on the selection be sent to the Board. Dr. Oldham indicated that all of the original Flight Plan data were on the website, and he anticipated going through this information fresh with the Board over the next few months.

Dr. Stinson asked if there were questions and there were none. Chair Vanhooser asked if additional discussion was desired and there being none, recommended this item for the Board's regular agenda. Mr. Saggurti moved to send the Tuition and Mandatory Fees recommendation for approval on the Board regular agenda. Mr. Oakley seconded the motion. All were in favor and the motion carried.

AGENDA ITEM 12-2016-17 Estimated and 2017-18 Proposed Budgets

Chair Vanhooser asked Dr. Stinson to review the recommendation of Tennessee Tech's 2016-17 Estimated and 2017-18 Proposed Budgets.

Dr. Stinson reviewed the presentation recommending Tennessee Tech's 2016-17 Estimated and 2017-18 Proposed Budget which had been provided in the Board materials. Dr. Stinson pointed out there were minor changes to Tennessee Tech's organizational chart which was also part of the budget approval. Dr. Stinson noted that two budgets were being presented: Estimated and Proposed; adding that Tennessee Tech was required by THEC and the State to provide three budgets per year: October Revised, which the committee saw previously; Estimated, which finished out the current fiscal year; and, the Proposed Budget, which is the budget which begins a new fiscal year.

Chair Jones asked if there was a long-term plan to increase reserves. Dr. Stinson indicated that Tennessee Tech was currently working on a long-term plan; and confirmed that the reserves were currently near the 2 percent minimum. Dr. Stinson pointed out that a number of items impact reserves including the fluctuation of state appropriations.

Dr. Melissa Geist asked where the funds came from to cover the approximate \$3 million in over awarded scholarships. Dr. Stinson indicated that there had been a budget reduction of \$2.3 million from non-academic areas and approximately \$1.2 million from instructional

units. Dr. Stinson indicated that the budget reductions were effective with the 2017-18 academic year; the \$1.5 million one-time reduction in 2016-17 was covered by reserves.

Dr. Fleming indicated that she did not want to go into the scholarship over awarding issue but wanted everyone to know that she had reviewed and understood the situation, and was assured that a process was in place to avoid a reoccurrence.

Mr. Stites asked if the outcomes funding would level out after losing funds due to the state changes in teaching. Dr. Oldham indicated there were a lot of nuances with the state funding formula for higher education and that it would take a lot of time to delve into it because it was a complex formula. Dr. Oldham indicated that we would spend more time on formula funding at a future meeting. Dr. Fleming indicated she had spent approximately 100 hours reviewing the formula and she would be glad to share what she had learned.

Dr. Stinson asked if there were questions and there were none. Chair Vanhooser asked for a motion for a roll call vote to send this item to the Board regular agenda. Mr. Saggurti moved to send the recommended 2016-17 Estimated and 2017-18 Proposed Budgets to the Board for approval on the regular agenda. Mr. Oakley seconded. All voted Aye and the motion carried.

AGENDA ITEM 13-Compensation Plans

Chair Vanhooser asked Dr. Leslie Crickenberger to present the Compensation Plans. Dr. Crickenberger reviewed the material on the Tennessee Tech Compensation Plans and pointed out it had been included with the Board materials. Dr. Crickenberger noted that the only change requested to the current Compensation Plans was to provide an incentive bonus compensation option in critical areas that focus on grant development and/or fundraising.

Mr. Saggurti asked what group would qualify for the incentive bonus compensation option. Dr. Crickenberger indicated it would be used for areas that had external funding and Human Resources had received a current request regarding the iCube area adding that there was potential for Foundation employees as well. Dr. Crickenberger indicated that faculty currently have a separate compensation plan and received funds for external grants.

Mr. Stites asked if the Compensation Plans accounted for performance and Dr. Crickenberger indicated that component was added in the previous year for both academic and Tennessee Tech staff. Dr. Crickenberger explained that other areas could submit requests including a plan based on metrics for review.

Mr. Saggurti indicated he felt that for merit based plans, the bonus should be beyond a certain threshold and should be for performing over and above the threshold. Dr. Oldham indicated that in some cases this was true. Dr. Oldham explained that in cases like iCube, external funding was part of their mission, but the recommended change was for above and beyond.

Mr. Stites added that since instruction and benefits on instruction were the largest portion of Tennessee Tech's budget, Tennessee Tech should be about improving through performance evaluations. Dr. Crickenberger indicated that Tennessee Tech had been working on merit and performance for the last two years and that this was the second cycle. Dr. Crickenberger pointed out that Human Resources had seen results increasing performance. Mr. Stites asked for a future report on performance and how it had improved based on the compensation system. Dr. Oldham agreed this could be developed.

Dr. Geist said that she read that the plan indicated that the majority of the bonuses would be funded through grants/restricted funds, and asked if more external funding was received, would it be part of this compensation. Dr. Crickenberger said that was potentially true, it would depend on the type of grant or the funding source. Dr. Crickenberger added, for instance, for iCube, that they were completely funded by grants, so it was all external. If iCube goes above and beyond, and they have a very complex performance metric already, then iCube could be funded through external funds.

Dr. Fleming asked for a report in the future on the impact on performance realized due to the incentive bonus compensation option. Dr. Crickenberger indicated that the only area currently under consideration for this incentive compensation bonus was iCube.

Mr. Stites asked that metrics be applied particularly to academics and instruction due to those areas receiving the bulk of the budget. Dr. Oldham added that there was a merit component in the faculty compensation model which was a model used for 20+ years. Dr. Oldham pointed out that the faculty model had a number of components that made it different than the staff issue.

Dr. Oldham added that Dr. Crickenberger was currently presenting information on merit based, performance based, pay incentives for staff. Dr. Oldham agreed on the broader issue brought up by Mr. Stites and had previously shared his philosophy on campus – the only things that are really important are the things that we measure and the things that we reward – so this is another step in our attempt to make sure we are measuring the right things and that we are rewarding the right things. Dr. Oldham indicated that the Board would be apprised on the progress made in these areas.

Chair Vanhooser added she felt the Board would like to see the metrics that were being tracked and Mr. Stites agreed. Dr. Oldham indicated that a more thorough report would be provided on performance based evaluations, for both faculty and staff.

Chair Vanhooser asked for a motion to add this agenda item to the Board's regular agenda. Mr. Saggurti made a motion that the Compensation Plans recommended be submitted to the Board for approval on the regular agenda. Mr. Oakley seconded. All voted Aye and the motion carried.

AGENDA ITEM 14-Compensation: 2017-18 President Salary Proposal and 2017-18 Institutional Compensation Proposal

Chair Vanhooser asked Dr. Stinson to present the Compensation Proposals.

Dr. Stinson presented the first proposal pertaining to the President's salary indicating that in the past, the President had been provided an expense account of \$5,000 and a car allowance of \$8,400 annually, with the amounts added to the President's taxable income, and provided on a monthly basis. Dr. Stinson added that this proposal recommends the two amounts be collapsed into the President's regular salary. Dr. Stinson stated the President's Salary proposal also included a 3 percent mandatory salary increase in the amount of \$9,486 for a total compensation of \$339,082.

Chair Vanhooser asked for discussion. Ms. Trudy Harper asked if this was the item that would move to the Executive Committee in the future, and Chair Jones affirmed it would. Ms. Harper asked if it was a mandatory salary adjustment, how would it work if the Board in the future, when the President was evaluated by the Board, decided to give more or less than the mandatory 3 percent. Mr. Saggurti indicated that he was fine with that; it could be defined as merit above the mandatory 3 percent.

Dr. Stinson added that the mandatory portion referred to the use of dollars for an increase that was equivalent to 3 percent of total payroll; clarifying that it was not mandatory that each individual receive a 3 percent increase.

Dr. Stinson indicated she would next review the Institutional Compensation Proposal for all employees. Dr. Oldham indicated for clarification, that this was a 3 percent mandatory pool which could be distributed subject to Tennessee Tech guidelines and Board approval.

Dr. Geist asked if the proposal was for \$9,486 to be designated from the 3 percent pool for the President's salary. Chair Vanhooser indicated that was correct. Dr. Stinson pointed out that the expense account and car allowance were set amounts and were not requested to be increased in the proposal.

Chair Jones indicated that the proposal included three items: a 3 percent raise; that the \$5,000 expense account be rolled into the President's salary which was originally pulled out in a separate, monthly check (this is taxable anyway and would cut down on administrative paperwork with no tax advantage or benefit either way); and, a \$8,400 car allowance which would be collapsed into the President's salary (this was handled the same way as the expense account). Chair Jones indicated he felt approving this proposal would be housekeeping and cut down on monthly paperwork as well as apply a 3 percent adjustment.

Ms. Harper indicated that she was concerned that in several years someone applying for the President's position would ask for a car allowance. Ms. Harper asked that the car allowance being collapsed into the salary be noted in the records. Dr. Stinson indicated that records would be kept.

Capt. Barry Wilmore asked who received the 3 percent adjustment. Dr. Stinson suggested that she address that in the next proposal regarding Institutional Compensation. Chair Vanhooser indicated that would be the next agenda item and asked for a motion on the President's Salary proposal to accept the recommended adjustments for the President. Mr. Saggurti moved to send the President's Salary recommendations to the Board for approval on the regular agenda. Mr. Oakley seconded. Chair Vanhooser opened for

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discussion and there was no additional discussion. Mrs. Oakley, Saggurti and Vanhooser voted in favor and the motion carried.

Dr. Stinson presented the Institutional Compensation Proposal for FY 2017-18 and reviewed how the 3 percent mandatory pool could be distributed on campus. Dr. Stinson pointed out that this material had been provided in the Board materials. Dr. Stinson explained that payroll for May 30, 2017 had been used to calculate the salary adjustment pool of approximately \$2 million which was prorated into the categories of faculty (46%), administration (8%), professional (30%) and clerical and support (15%); so this was a prorated share of the salaries within each classification.

Ms. Harper verified her understanding on how the figures were obtained by asking if it were true that if 50% of the total salary bucket were faculty, then 50% of the 3 percent pool would be allocated to the faculty. Dr. Stinson affirmed that was correct. Ms. Harper asked if this was a requirement of Tennessee Tech policy and Dr. Stinson indicated that it was a procedure that had been used to distribute the salary pool for many years.

Mr. Nick Russell asked if the May 30, 2017 payroll took into account the budget reductions and realignments, and Dr. Stinson affirmed that those positions were removed from the calculations.

Mr. Stites asked what the difference was between Administrator and Professional. Dr. Stinson explained that Administrators were in the EEOC 1 classification which meant it was those who reported directly to the President and the persons who reported to them, i.e., the Vice President level and the next level down. Dr. Stinson indicated that the Professionals are Counselors, Architects, Directors, etc. - mid-management level.

Mr. Saggurti asked if the total compensation split by classification would be a similar percentage, and Dr. Stinson agreed that they would be similar.

Capt. Wilmore asked what the salary adjustment would mean to each individual. Dr. Stinson indicated that for each individual the proposal provided for a 1 percent salary adjustment across the board for all full-time, part-time, permanent employees as of December 31, 2016.

Dr. Stinson further explained that the other 2 percent would be used to address the compensation plan adding for faculty, it would be used in the faculty equity model which had previously been described by Dr. Oldham. Dr. Stinson added, for staff (administrator, professional and clerical and support), the proposal was to use the other 2 percent as merit.

Dr. Stinson pointed out that a merit system had been developed last year that was based on five measures that all employees are measured on, and five measures that were job specific. Dr. Stinson explained that the employee and supervisor worked together to develop goals and to agree on what the job measures would be.

Chair Vanhooser asked for a motion to approve for submission on the Board's regular agenda for a roll call vote. Mr. Saggurti moved to send the 2017-18 Institutional

Compensation proposal to the Board for approval on the regular agenda. Mr. Oakley seconded. All voted Aye and the motion carried

Mr. Oakley asked if all items discussed at the Committee meeting needed to be discussed again at the full Board meeting. Chair Vanhooser indicated that since the full Board happened to be in attendance for this Committee meeting, although non-voting, that it might cut down on further discussion at the Board meeting but the full Board would be required to vote on the regular agenda items. Mr. Oakley asked if it were a possibility for the Committee to vote on items with a resolution making the Committee and the Board one in the same. Mr. Oakley deferred to Ms. Kae Carpenter, the Board Secretary. Ms. Carpenter indicated that the Board bylaws were not set up in this manner but indicated she would review as an option for future discussion.

Capt. Wilmore commented that this discussion started when reviewing the President's salary proposal which indicated a 3 percent mandatory adjustment which was not factual – that it was not a 3 percent mandatory adjustment. Capt. Wilmore added that after hearing all discussion, he now understood that it was a 3 percent bucket of money and indicated that he would have additional discussion during the Board meeting.

Chair Jones added that the President was the Board's only employee and the Board directly sets his individual compensation but as far as the entire University and faculty, the Board was only approving the compensation plan to let the University distribute the 3 percent salary pool; the plan was for 1 percent across the board and 2 percent merit for staff.

Chair Vanhooser asked for roll call vote. All voted Aye and the motion carried.

AGENDA ITEM 15-Adjournment of Open Session and Call to Order of Executive Closed Session to Discuss Audits or Investigations

There being no further business, the meeting adjourned at 10:32 a.m. After a short break, the Executive Closed Session began at approximately 11:00 a.m. All Tennessee Tech Board Trustees were present. The following were also present for the meeting:

- President Philip Oldham
- Ms. Kae Carpenter, Board Secretary
- Ms. Deanna Metts, Director of Internal Audit
- Ms. Gail Ligon, Assistant Director of Internal Audit
- Ms. Janice Scarlett, Internal Audit Administrative Associate

AGENDA ITEM 16-Adjournment

There being no further business, the Executive Closed Session adjourned at approximately 11:25 a.m.

Respectfully Submitted,

Teresa Vanhooser, Chair

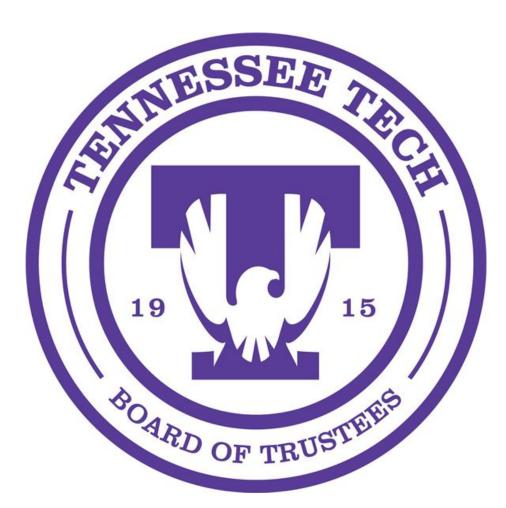


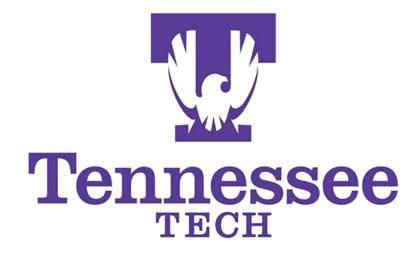


Agenda Item Summary

Date: August 17, 2017			
Division: Planning and Fin	ance		
Agenda Item: Capital Out	lay/Appropriations Requ	est	
Review	Action	No action required	
PRESENTERS: Dr. Claire S	Stinson, Vice President fo	or Planning and Finance	
PURPOSE & KEY POINTS	:		

Review and recommendation of two capital outlay projects, one capital maintenance request, and one disclosed project for FY 2018-19.





Capital Budget FY 2018-2019

A Presentation to the Tennessee Tech Board of Trustees

Aug. 17, 2017



Capital Budgeting Process

- Coordinated by THEC
- Project proposals to THEC by Sept. 15 (will be submitted by July 1 for future cycles)
- Three categories
 - Capital Outlay
 - Capital Maintenance
 - Disclosed Projects



Capital Outlay

- New construction and major renovations
- Evaluated by team from THEC (may include site visits)
 - Commission will be proactive to identify types of projects that are consistent with statewide goals
 - Both qualitative and quantitative factors will be considered
 - All projects, whether major renovations or new construction, regardless of sector or formula/non-formula status, should have a fair chance to receive funding



Capital Outlay Evaluation Criteria and Objectives – 5 Factors

- 1. Linked to state goals and Drive to 55
 - a. Increase degree production (particularly undergraduate level)
 - b. Enhance research and/or workforce development
 - c. Emphasize focus populations
 - d. Address education and workforce needs of local and regional economies
- 2. Enhance campus mission and distinction; link to master plan
- 3. Facility condition and needs should help determine priorities



Capital Outlay Evaluation Criteria and Objectives – 5 Factors

- 4. Include programmatic plan
 - a. Academic planning
 - b. Early ideas regarding uses and layout of buildings impacted by each project
- 5. External funding
 - a. Minimum match, ideally from private fundraising
 - b. Additional points for match above minimum

Project Type	Minimum	Maximum
Major Renovation	0%	10%
New Construction	5%	15%



Capital Outlay Evaluation Rubric

Prioritization Criteria	University		
	<u>NC</u>	<u>MR</u>	
State Goals & the Drive to 55	30	30	
Campus Master Plan & Strategic Plan	30	40	
THEC Space Guidelines & Facility Assessment	15	10	
Program & Business Plan	10	10	
External Funding	15	10	
Total Points	100	100	
*NC = New Construction			
*MR = Major Renovation			



Capital Maintenance

- Rehabilitation project that keeps a facility or asset in efficient operating condition
- Needed to restore a facility to an acceptable condition
 - Does not include programmatic renovations, demolition or new construction
- Non-recurring in nature; beyond the scope of ordinary repairs
- Does not appreciably prolong the service life or estimated value of the building
- Project cost \$50,000 or greater



Maintenance Request

- Each governing board is allocated a proportion of THEC's total capital maintenance request based on the Sherman-Dergis Formula
 - Industry-standard formula that calculates estimated annual renewal cost based on aggregated age, size and type (e.g., fine arts vs. engineering)
- FY 2018-19 maintenance pool request will be set at \$120,000,000
- Tennessee Tech's share of this is \$6,290,000 (5.2 percent)



Maintenance Request

- Capital maintenance out-years
 - List of capital maintenance projects to be submitted through
 FY 2022-2023
 - Preliminary estimates (not confined to calculated pool amount)



Capital Maintenance State Appropriations Funding – 5 year history

Project	2013-14	2014-15	2015-16	2016-17	2017-18
Several Buildings Upgrades, Phase IV	\$3,160,000				
Several Buildings Upgrades, Phase V		\$1,710,000			
Several Buildings Roof Replacement - Phase I			\$2,040,000		
Several Buildings Upgrades, Phase 6				\$2,670,000	
Several Buildings Upgrades, Phase 7				\$2,670,000	
Several Buildings Waterproof & Exterior Repairs - Phase 3				\$1,800,000	
Several Buildings Waterproof & Exterior Repairs					\$3,120,000
Roof Replacements - Phase 2					\$3,120,000
Tot	al \$3,160,000	\$1,710,000	\$2,040,000	\$7,140,000	\$6,240,000



Evaluation of Buildings and Systems on campus

- Study completed by Sightlines in FY 2016-2017
 - 83 percent of TTU's GSF is beyond 25 years old and is considered "high risk"
 - TTU averages \$6.5 million/year of capital investment into existing space; approximately \$1/GSF less than peer average
 - Capital investment relies heavily on one-time capital (e.g. state appropriations, bonding, fund raising)
 - Current backlog is below peer average, but increasing



Asset Reinvestment Backlog (Deferred Maintenance)

 TTU's total documented need is \$190 million, with \$172 million coming due within the next 10 years

Renovations \$57.7 million

– HVAC \$41.6 million

Exterior Shell \$23.5 million

Interior Shell \$15.9 million

Electrical \$12.7 million

Plumbing \$10.2 million

Grounds \$ 5.2 million

Mechanical \$ 4.6 million



Renovations - \$57.7 million

- Bartoo Hall Education (\$2.7 million; currently funded)
- Brown Hall Engineering (\$8.3 million)
- Bruner Hall Physics and Math (\$8.7 million)
- Clement Hall Engineering and IT (\$9.4 million)
- Kittrell Hall Earth Science (\$2.9 million; currently funded)
- Pennebaker Hall Biology (\$9 million)
- Prescott Hall Engineering (\$16.8 million)



Needs by systems

- HVAC \$41.6 million
 - Football Stadium East
 - Foundation Hall (convert from 2 pipe to 4 pipe)
 - Foster Hall (we will demo rather than repair)
- Exterior Shell \$23.5 million
 - Volpe Library and Media Center (funded for FY 2017-2018)
 - Memorial Gym
 - Roaden University Center (project funded and ready to start)
- Interior Shell \$15.9 million
 - Includes Foundation Hall, Football Stadium East, Volpe Library



5-year investment history – FY 2011-2012 through FY 2015-2016

- Special Projects Funded by Campus: \$9.5 million
 - Interior updates, grounds, parking/paving, research labs, utility infrastructure
- Major Renovations Funded by Campus: \$23.2 million
 - IT infrastructure, Library Commons, central cooling, parking, athletic facilities, academic building upgrades, Craft Center infrastructure
- Major Renovations Funded by State Appropriations: \$13.7 million
 - ADA modifications, fire alarm system, waterproofing, several building upgrades, roofs
- Major Renovations Funded by TSSBA (bond financing): \$26.5 million
 - housing



Disclosed Projects

- Capital projects funded from sources other than state appropriations
 - Auxiliary funds, e.g. housing
 - Institutional funds, e.g. facilities development fee
 - Tennessee State School Bond Authority funds (debt financed projects)
 - Gift funds
- Includes any anticipated projects
 - New buildings > \$100,000
 - Major maintenance > \$500,000
 - Unforeseen opportunities or needs may be disclosed each quarter (June, September, December and March)

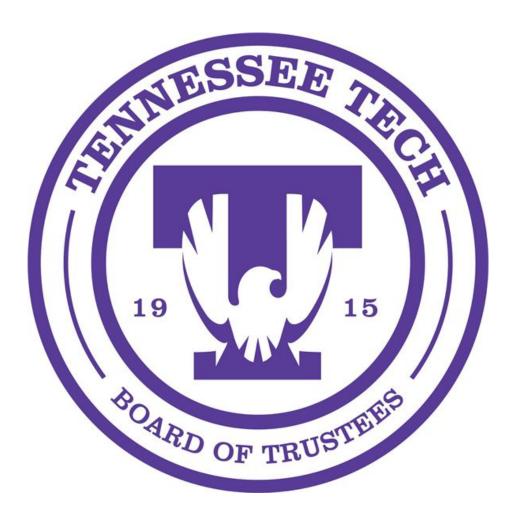


Recommended for Approval

- Capital Outlay Budget Request
- Capital Maintenance Budget Request
- Disclosed Project Budget Request



DISCUSSION



Instructions for Preparation of

FY 2018-19

Capital Outlay, Maintenance, and Disclosure Funding Requests

TENNESSEE HIGHER EDUCATION COMMISSION Suite 1900, Parkway Towers 404 James Robertson Parkway Nashville, Tennessee 37243-0830 615-741-3605

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Attachments Referenced

Submission Requirements:

FY18-19 Capital Outlay Request.xlsx - p. 5, 6, 9

DB70 Form Example.xlsx - p. 6

THEC Space Guide - Universities.xlsx - p. 8

THEC Space Guide - Community Colleges.xlsx -p. 8

THEC Space Guide - TCATs.xlsx - p. 8

FY18-19 Capital Maintenance Request.xlsx - p. 10

FY18-19 Capital Disclosure.xlsx - p. 10

Reference Material:

THEC Capital Outlay Rubric Overview.docx – p. 5

INTRODUCTION

Process Overview

The goal of the higher education capital program is to develop and maintain physical facilities so that each institution can fulfill its mission and, in accordance with the Public Agenda for Higher Education, increase the number of Tennesseans with a postsecondary credential. To assure fair and equitable funding consistent with the Tennessee Higher Education Commission's (THEC) capital program objectives and the Department of Finance and Administration's Capital Budget requirements, the Commission's recommendations are based upon a prioritization process that incorporates the five criteria described below.

All outlay projects will be evaluated by a team from THEC and may include a campus site visit to review the project plans and discuss details with institution and board officials. THEC will compile the site visit information and evaluator feedback on the top priorities from the eight governing boards (six LGIs, TBR, UT), which will be used to establish a statewide priority list. The Commission will establish the priority ranking of governing board recommended projects that are consistent with the THEC capital outlay policy.

Timeline

For the 2018-19 budget cycle, governing boards will submit project proposals to THEC by **September 15, 2017**. After evaluation, THEC staff will include the prioritized statewide capital outlay and maintenance lists as part of the overall 2018-19 budget request that will be presented to the Commission for action at the **November 16, 2017** meeting. For all future cycles, governing boards will submit project proposals to THEC by July 1 of each year.

THEC staff will host a webinar on **Wednesday**, **June 7**, **9:00am CST** to review the capital submission requirements. THEC staff will also host a Capital Outlay First Look Meeting on **Monday**, **August 14**, **10:00am CST** to provide an opportunity for THEC staff and other stakeholders to review anticipated capital outlay requests. THEC staff will send invites for both events in subsequent emails.

Capital Outlay Evaluation Criteria and Objectives

- 1. Capital projects will be linked to state goals and the Drive to 55.
 - a. Increase degree production, particularly at the undergraduate level.
 - b. Enhance research and/or workforce development.
 - c. Emphasize focus populations, as identified in the outcomes-based funding formula.
 - d. Identify and address education and workforce needs of local and regional economies.
- 2. Capital projects should enhance campus mission and distinction, and should be envisioned in the institution's current Master Plan.

- 3. Institutional facility condition and needs, as analyzed by the THEC Space Planning Guidelines, should be a factor in determining institutional priorities.
- 4. Boards should develop project proposals that include a programmatic plan, which may include academic planning and early ideas regarding the uses and layout of buildings impacted by each project.
- 5. External funding should be a factor in project priority, but should not inappropriately determine institutional or system priorities. The capital match program identifies a minimum percentage of project costs to be borne by the campus, ideally from private fundraising. Non-state funds raised above the minimum percentage garner additional points in the scoring process.
- 6. Both qualitative and quantitative factors should be considered in the Commission's capital priorities.
- 7. The Commission will be proactive when appropriate to identify types of capital projects that are consistent with statewide goals.
- 8. All projects, whether major renovations or new construction, regardless of sector or formula/non-formula status, should have a fair chance to receive funding.

Project Type Designation

Governing boards must identify whether a project is New Construction or Major Renovation. New Construction projects will entail either the construction of new facilities or substantial additions to current facilities that require significant programmatic or operation expansion. Major Renovations are projects that change the function, use, or capacity of existing facilities. As detailed below, each project type has different rubric and match threshold implications. Governing boards should consult with THEC staff prior to submission if a project type is not easily identifiable. After submission THEC will confirm project type and reserves the right to change it based on scope and description.

Capital Outlay Rubric

THEC staff will utilize a rubric that differentiates across sectors (Community Colleges/TCATs, Universities, and Non-formula Units) and project type (New Construction and Major Renovation) to prioritize capital outlay projects. The rubric is detailed below.

	CC/1	ГСАТ	Unive	ersity	Nonform	nula Unit
Prioritization Criteria	NC ¹	MR ²	NC	MR	NC	MR
State Goals & the Drive to 55	40	35	30	30	25	30
Campus Master Plan & Strategic Plan	20	35	30	40	25	30
THEC Space Guideline & Facility Assessment	15	10	15	10	25	20
Program & Business Plan	10	10	10	10	10	10
External Funding	15	10	15	10	15	10
Total	100	100	100	100	100	100

- 1- New Construction
- 2 Major Renovation

The components required to assess each criterion are described in full in the **Project Assessment Materials** section found on page six of this document. Information regarding the rationale for the different rubric weights and how the rubric works can be found in the attached MS Word document **THEC Capital Outlay Rubric Overview**.

External Funding (Match) Thresholds

All projects must meet a minimum match requirement to be evaluated. The minimum match requirement differs by sector and project type, as detailed below. The match may consist of private gifts, grants, institutional reserves, and other sources.

Further, the External Funding component of the rubric will be based upon a ratio of the project's minimum match requirement to the project's maximum scorable match, meaning that a project with only the minimum match will receive no points, but, as a project's match approaches the maximum scorable match level, points will accumulate proportionately up to the Maximum Rubric Score. The minimum match requirement and the maximum scorable match by sector and project are reported below. A more detailed explanation of how the Maximum Rubric Score is calculated is in the **Project Assessment Materials** section.

Minimum Match Requirements and Maximum Scorable Matches by Sector and Project

	CC/TCAT/Non	formula Unit	Univ.: Moderate R	tesearch/Masters ¹	Univ.: High	Research ²
Project Type	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Major Renovation	0%	5%	0%	10%	0%	15%
New Construction	2%	10%	5%	15%	10%	25%

^{1 -} Includes universities classified as "Doctoral: Moderate Research" (East Tennessee State, Middle Tennessee State, Tennessee State, and Tennessee Technological Universities) or "Master's: Larger or Medium" (Austin Peay State University, UT Chattanooga, and UT Martin) by the Carnegie basic classification system.

Outlay Request Requirements

Priority lists for all requested outlay projects must be submitted on the attached MS-Excel **FY18-19 Capital Outlay Request spreadsheet, tab "Outlay Requests"** spreadsheet in order to be considered for inclusion in the THEC appropriation recommendations. Governing boards must identify the project type, square footage, project cost, and level and source of external funding.

Governing Board Priorities

Governing boards must report projects in descending priority order. Priority orders will not be altered. Governing boards that serve multiple institutions (Tennessee Board of Regents and the University of Tennessee System), however, may identify a band of their top projects (up to three) so that, in the event that, for example, the third-ranked project within the band scores

^{2 -} Includes universities classified as "Doctoral: Higher Research" or "Doctoral: Highest Research" by the Carnegie basic classification system. The two public Tennessee universities identified as such are University of Memphis and UT Knoxville.

higher than the second-ranked project within that same band, the third-ranked project may be prioritized by THEC above the second-ranked project. TBR and UT may create subsequent bands—banding up to three projects in each—for projects prioritized after the initial band.

THEC reserves the right to limit the number of projects reviewed and scored in a given funding cycle.

Capital Outlay Out-Years

In accordance with the preliminary Department of Finance and Administration Capital Budget Instructions, each governing board will submit a capital budget request that contains the capital outlay projects to be requested for each of the four planning years through FY2022-23. **These capital projects should be listed in the appropriate fields on the tab labeled "Outlay Requests" in the FY18-19 Capital Outlay Request spreadsheet.** Governing boards do not need to identify banded priority projects for out-years. Please ensure that the fiscal year totals for the capital outlay listings submitted to the Department of Finance and Administration are the same as the totals on the listings submitted to THEC.

Project Assessment Materials

Summarizing Elements

1. Abstract

Proposals should include a project abstract no longer than 250 words. In addition to a brief description of the project, the abstract should state whether the project classifies as a New Construction or a Major Renovation project. (Note: THEC reserves the right to reclassify the project dependent on project description and scope).

2. DB70 Form

Proposals should include their respective governing board's DB70 form (see example from TBR attached) which must be completed in accordance with respective governing board's guidelines. For the purpose of THEC's evaluation, only the DB70 tab will be used for reference.

Evaluation Criteria

1. State Goals & the Drive to 55

Over the last several years, two landmark initiatives—the Complete College Tennessee Act of 2010 and the Drive to 55—have provided the policy foundation for Tennessee higher education. The core elements of THEC's 2015-2025 Master Plan reflect the priorities of the CCTA and the Drive to 55, namely:

"The overriding function of the Plan is to direct higher education to be accountable for increasing the educational attainment levels of Tennesseans, while also: addressing the state's economic development, workforce development, and research needs...."

"Although this Plan places certificate training and undergraduate education at the center of the state's college completion policy agenda for the decade 2015-2025, the state continues to acknowledge the critical need for academic programs of distinction at the graduate and professional level to fully address Tennessee's economic development, workforce, and research needs."

Capital project proposals should develop a narrative of no more than 1,500 words that explores the connections between the project and statewide goals. Of note is that certain types of projects, particularly renovations, may not have obvious and tangible impacts on numerical state goals. This fact is reflected in a lower relative weight applied to this factor's score. Institutions should still provide information that links the requested Major Renovation project to state goals.

The THEC Master Plan can be found here: https://www.tn.gov/assets/entities/thec/attachments/MasterPlan2025.pdf.

Project narratives should address the following as applicable:

- Number of students or constituents directly and indirectly served by the project;
- Projected impact on credential production or enhancement in quality of existing credential production;
- Expansion of research and/or public service mission; and
- Labor and workforce dynamics, including any appropriate analysis of local or regional supply/demand data.

Data sources that may help address the above descriptions included, but are not limited to:

- THEC Master Plan for Tennessee Postsecondary Education 2015-2020 (https://www.tn.gov/assets/entities/thec/attachments/MasterPlan2025.pdf);
- THEC/Boyd Center for Business and Economic Research labor supply/demand reports (e.g., http://cber.haslam.utk.edu/pubs/mnm130c.pdf or https://www.tn.gov/assets/entities/thec/attachments/Academic_Supply__Occupat ional Demand - Final Version.pdf);
- Tennessee Department of Labor and Workforce Development Occupations in Demand reports (https://www.tn.gov/workforce/topic/occupations-in-demand); and
- Data provided by the Tennessee Department of Economic and Community Development's Center for Economic Research in Tennessee (CERT) (https://www.tn.gov/ecd/).

- 2. Campus Master Plan & Strategic Plan
 - Capital project proposals should develop a narrative of no more than 1,500 words that links the project with the institution's strategic plan and campus facilities master plan. The proposal should provide relevant objectives from the strategic plan—with web links to the strategic plan where appropriate—and clarify how the project aligns with state objectives. The proposal should also cite specific references of the proposed project in the current master plan.
- 3. THEC Space Guideline & Facility Assessment (see attached MS Excel THEC Space Guides spreadsheets: Universities, Community Colleges, and TCATs)
 Capital project proposals should include a space-needs analysis narrative of no more than 750 words that provides context to the spreadsheet and assessments included. For universities and community colleges, the project proposal should include the "Summary NASF" portion of the THEC Space Guidelines spreadsheet; for TCATs, the project request should include the entire THEC Space Guide Allocation spreadsheet. The proposal should also include any other space utilization studies if appropriate. If the Space Guidelines do not apply to the project (e.g., for non-formula units) or only partially applies, proposals should provide the details of the identified need outside the guidelines that drives this project (e.g., research).

The proposal should also include a current facilities assessment (e.g., a Facility Survey Score) and the general condition of any existing building that will be impacted by this project—including any buildings that will be renovated or demolished.

Major renovation and replacement projects should also include a condition assessment of the major systems of a building (i.e., HVAC, roof, envelope, and others) and identify which ones will be addressed by the project.

4. Program & Business Plan

Capital project proposals should include a narrative of no more than 1,000 words that provides an overview of particular project aspects and ensures that institutions and governing boards have a sufficiently developed project plan. This element is not intended to be prescriptive on how certain aspects of the project ought to be structured, but will instead illuminate and explore important aspects of the project. Governing boards should ensure that each capital outlay project submitted to THEC addresses all of the elements below. Project proposals should provide an overview or summary of these elements, including:

- 1. Cost analysis of the total project;
- 2. Total number of students (FTE) directly and indirectly served by the project. If applicable, total amount of people impacted by the projected research;
- 3. Ongoing costs to maintain the building and its academic programs/research;
- 4. Program for how the project meets the defined need;

- 5. An assessment of alternatives to the project that were considered to meet the academic and space needs of the institution;
- 6. Migration plan for buildings and programs impacted by the project; and
- 7. An anticipated project schedule for design and construction.
- 8. Any preliminary concept sketches that provide an overview of the project.
- External Funding (See <u>FY18-19 Capital Outlay Request</u> spreadsheet, tab "External Funding")

This portion of the proposal will consist of the Excel file attached only. Committed External Funds must match what is reported on tab "Outlay Requests" of the same spreadsheet. For each capital outlay project, the evaluation of external funding will include two elements. First, all New Construction projects have a required ten percent (10%) external funding level for institutions classified as "Higher Research" or "Highest Research" by the Carnegie basic classification system; five percent (5%) for all other universities; and two percent (2%) for community colleges, TCATs, and non-formula units. Projects that are requested and deemed by THEC to be renovations have no required minimum external funding level. Second, for both types of projects, the level of external funding beyond the minimum requirement will be assessed and scored. This second factor will account for the overall level of external funds that an institution will contribute to a project. Meeting the minimum external funding level is required, and will result in a score of zero (0). Projects will begin to proportionally accrue points only as external funding exceeds the minimum level, up to a specified maximum level.

MAINTENANCE REQUEST REQUIREMENTS

A capital maintenance project is a rehabilitation project that keeps a facility or asset in efficient operating condition, or is needed to restore a facility to an acceptable condition but does not include programmatic renovation, demolition, or new construction. These projects are of a non-recurring nature, beyond the scope of ordinary repairs, and do not appreciably prolong the previously estimated service life or increase the estimated value of the building.

In general, ordinary repair and maintenance projects and other projects below the following expenditure levels will be funded through operating appropriations rather than capital maintenance:

- \$100,000 at the University of Tennessee, Knoxville and the University of Memphis
- \$50,000 at all other universities
- \$25,000 at Community Colleges and TN Colleges of Applied Technology

Each governing board is allocated a proportion of the total higher education capital maintenance request based on the Sherman-Dergis Formula. This industry-standard formula calculates an estimated annual renewal cost for each campus, based on the aggregated age, size, and type (e.g., fine arts vs. engineering) of E&G space as reported on the FY2017-18 Schedule D. Each governing board's proportion is equal to the sum of the respective individual

campus' renewal costs divided by the total higher education renewal cost. For planning purposes, the FY2018-19 maintenance pool request will be set at **\$120,000,000**. Should THEC alter the total request, the calculated proportions for each governing board will remain the same, but the governing board maintenance requests will change *pro rata*.

Maintenance Request Submission

All maintenance requests must be submitted on the tab labeled "Maintenance Request" in the attached FY18-19 Capital Maintenance Request spreadsheet. Select the appropriate governing board from the drop-down menu—the 2018-19 Maintenance Allocation for the selected governing board will automatically populate. In the space provided, insert the name of the institution, project, project cost, and project description. Insert more rows if requesting more than 20 maintenance projects. Total Project Cost must not exceed the 2018-19 Maintenance Allocation for your governing board.

Capital Maintenance Out-Years

In accordance with the Department of Finance and Administration Capital Budget Instructions, each governing board will submit a capital budget request that contains the capital maintenance projects to be requested for each of the four planning years through FY2022-23. **These capital projects should be listed in the appropriate fields on the tab labeled "Maintenance Request."** The projects listed are not confined to any calculated pools as these are preliminary estimates.

DISCLOSED PROJECTS REQUIREMENTS

Each governing board must submit a list of <u>all</u> anticipated capital projects to be funded from sources <u>other</u> than state appropriations, such as institutional funds, auxiliary funds, reallocation of existing capital funds, Tennessee State School Bond Authority funds, or gift funds, for FY2018-19. <u>All construction or erections</u> of new buildings or structures <u>in excess of \$100,000</u> must be disclosed to THEC. <u>All major maintenance projects</u>, in which "major maintenance" is defined by State Building Commission policy 2.01.A.2. as "the repair or renovation of any building or structure or any portion thereof," <u>in excess of \$500,000</u> must be disclosed to THEC.

All disclosure projects must be submitted on the tab labeled "2018-19 Disclosure" in the attached <u>FY18-19 Capital Disclosure</u> spreadsheet.

Ouarterly Submission

Should unforeseen opportunities or needs arise that require disclosure *during* a fiscal year, governing boards may disclose such projects each quarter, in coordination with requests from THEC. THEC will request quarterly submissions for disclosed projects in June, September, December, and March for projects intended to be initiated in the three months that follow.

THEC reserves the right to request a governing board hold a disclosed project of significance—one that requires master plan guidance—to the following fiscal year submission.

Projects funded by TSSBA funds can only be disclosed during the annual process.

Emergency Projects

If an event occurs which requires a campus or unit to immediately engage in a capital project exceeding the aforementioned thresholds to avoid immediate danger to persons or property or when absolutely essential and indispensable to campus operations, governing boards may initiate the project immediately but must disclose it in the subsequent quarterly submission.

FY 2018-19 Governing Board Maintenance Pools and Allocation

Governing Boards	Maintenance Pool	Maintenance Allocation
Locally Governed Institutions		
Austin Peay	3.1%	\$3,670,000
East Tennessee	8.0%	\$9,540,000
Middle Tennessee	6.8%	\$8,170,000
Tennessee State	5.2%	\$6,200,000
Tennessee Tech	5.2%	\$6,290,000
University of Memphis	12.5%	\$15,010,000
Tennessee Board of Regents	19.7%	\$23,640,000
UT System	39.6%	\$47,480,000
Total	100.0%	\$120,000,000

Total Recommendation:	\$120,000,000

CAPITAL OUTLAY PROJECTS

FY 2017-18 thru 2022-23

							A	В	C = B / A	D = A - B
Fiscal Year	Priority	Institution	Project Name	Project Type	New Square Footage	Reno. Or Replaced Square Footage	Project Cost	Committed External Funds	Percent Match*	State Funds Request
2018-19	1	TTU	Engineering & Research Building	lew Constructio	100,000	30,196	\$54,400,000	\$2,720,000	5%	\$51,680,000
2018-19	2	TTU	Biology Building	lew Constructio	100,000	59,679	\$60,000,000	\$3,000,000	5%	\$57,000,000
2018-19	3									
2018-19	4								0%	\$0
2018-19	5								0%	\$0

Out-Years

Fiscal Year	Priority	Institution	Project Name	Project Type	New Square Footage	Reno. Or Replaced Square Footage	Project Cost	Committed External Funds	Percent Match	State Funds Request
2019-20	1	TTU	Academic Classroom/Office Building	lew Construction	n	43,555	\$19,500,000	\$925,000	5%	\$18,575,000
2019-20	2								0%	\$0
2019-20	3								0%	\$0
2019-20	4								0%	\$0
2019-20	5								0%	\$0
2020-21	1	TTU	Pennebaker Hall Renovation	/lajor Renovation	า	59,679	\$9,250,000		0%	\$9,250,000
2020-21	2								0%	\$0
2020-21	3								0%	\$0
2020-21	4								0%	\$0
2020-21	5								0%	\$0
2021-22	1	TTU	Facilities Services Complex	lew Construction	า	43,886	\$10,100,000	\$505,000	5%	\$9,595,000
2021-22	2								0%	\$0
2021-22	3								0%	\$0
2021-22	4								0%	\$0
2021-22	5								0%	\$0
2022-23	1	TTU	Memorial Gym Update	/lajor Renovation	า	87,181	\$15,400,000		0%	\$15,400,000
2022-23	2								0%	\$0
2022-23	3								0%	\$0
2022-23	4								0%	\$0
2022-23	5								0%	\$0



FY18/19 CAPITAL OUTLAY REQUEST TTU – ENGINEERING BUILDING

Project Assessment Materials

August 2, 2017

Abstract

New construction of a 60,000 net assignable square feet (100,000 gross square feet) Engineering building is needed to meet current and future educational, research, and service needs at Tennessee Tech University. The College of Engineering is currently housed in ten buildings across campus, comprising a total of 199,387 NASF. Most of the buildings were constructed in the 1960s and despite spot renovations and upgrades, are reaching the end of their life cycle at 50 years old. The College supports Bachelor of Science programs in Chemical, Civil and Environmental, Electrical and Computer, and Mechanical Engineering, as well as Computer Science, and Manufacturing and Engineering Technology. Master's programs are available in Chemical, Civil and Environmental, Electrical and Computer, and Mechanical Engineering as well as Computer Science. A Ph.D. program for Engineering is also available. Centers of Excellence have been established for Energy Systems Research and Manufacturing Research to support the College. In addition to ~2,583 of its own undergraduate majors, the College serves approximately 50 non-majors annually who complete their general education requirements. The current Engineering buildings combined offer 199,387 NASF, which is insufficient for the Engineering program. Preliminary programming estimates the required NASF for the current program to be 257,408. That is a deficit of 58,021 NASF for current space needs. In the last 10 years, enrollment for the Engineering program has grown 62%. As the university approaches an enrollment of 15,000 students per its Strategic Plan, the Engineering program is projected to grow to ~3,990 students. A detailed investigation of the current and future program needs is required. However, current space evaluations signify that a new facility of approximately 60,000 NASF is needed to align current program needs with modern space requirements.

DB70 form - Project Request 1 Department: Tennessee Tech University Board of Trustees Institution: Tennessee Technological University Project: **Engineering Building** City/County: Cookeville/Putnam 2018 / 2019 2 Fiscal Year: X Capital Outlay Reno/Maint New Capital Maintenance 100,000 Gross Sq.Ft. Net Sq.Ft. 0 Disclosure X Designer Required 400.00 Cost/Sq.Ft. 0.00 **4 Project Description:** Construct an Engineering facility for the College of Engineering. Estimated Construction Cost: 40,000,000.00 5 Total Project Allocation 40,000,000.00 40,000,000.00 Building Construction 750,000.00 750,000.00 Site & Utilities 0.00 0.00 Built-in Equipment 40,750,000.00 40,750,000.00 Bid Target 5.00 percent 2,038,000.00 2,038,000.00 Contingency: 5.00 42,788,000.00 42,788,000.00 M.A.C.C. 2,310,608.00 Fee: 35/LogP-1.15 =5.40013288 2,310,608.00 New 6,000,000.00 Movable Equipment 6,000,000.00 2,000,000.00 Lab/Engr/Comm. Consultants 2,000,000.00 200,000.00 200,000.00 AV, Vibration, Consultants 1,101,392.00 1.101,392.00 Administration & Miscellaneous 54,400,000.00 Total Cost 54,400,000.00 6 Funding Request: THIS REQUEST 51,680,000.00 51,680,000.00 STATE funds 0.00 0.00 FEDERAL funds 2,720,000.00 2,720,000.00 Local and Institutional Funds Match - Gifts 7 Sources of Available Funding: fund year description already approved for 0.00 existing SBC project 0.00 0.00 0.00

8 SBC Action: If an existing project, SBC Project No.:

9 Designer:

plus This Request

54,400,000.00

t b a

2

0.00

0.00

Project Narrative

Number of students or constituents directly and indirectly served: The College of Engineering currently serves about 2,583 undergraduate majors, 25 to 50 undergraduate non-majors, 112 Master's and 99 Ph.D. students. The College currently has 83 tenured or tenure-track faculty positions, 5 lecturers, and 15 adjunct faculty. The existing Engineering buildings and program spaces lack sufficient space to meet current and future program needs. With a combined 199,387 NASF, preliminary programming shows the College is lacking 58,021 NASF to meet current needs alone. Projecting for future growth presented in the Strategic Plan, the space deficit is 117,391 NASF for the College of Engineering.

The College of Engineering teaches about 40,400 student credit hours (SCH) per year, and according to the most recent Delaware Study (based on FY 2015 data), this corresponds to 231 SCH per FTE faculty. Planning for future University growth indicates about 15,000 – 16,000 total students with about 13,600 undergraduates. Compared to the recent peak undergraduate enrollment in Fall 2014 of 10,314 undergraduates, this would represent an additional 32% growth to reach 13,600; this is not unrealistic in view of the 28% growth from Fall 2007 to Fall 2014 (8,060 to 10,314 undergraduates). Preliminary estimates suggest that corresponding growth in Engineering will require at least 41 additional faculty. The number of Engineering undergraduate majors has grown by about 1,005 over the last ten years and is expected to grow to about 3,670 majors within these overall growth projections. Similarly, Engineering graduate student enrollment has grown by 64, a 44% increase over the past 10 years. Similarly, the number of Engineering non-major students directly affected by the project is expected to increase proportionately to the growth of the university, suggesting that the current 50 served annually will increase to about 80. The proposed new Engineering building would be an interdisciplinary resource which would include classrooms, modern teaching and research labs, and shared core facilities. The number of Engineering Ph.D. students is likely to increase to about 130 with additional research space for faculty and graduate students.

Indirectly, state and federal agencies, non-governmental organizations, and residents of Tennessee will benefit from teaching and research that will be possible in a new building. Likewise, students will have more opportunities for conducting research given increased research productivity and opportunities that accompany a new building and increased capacity.

<u>Projected impact on credential production</u>: The B.S. programs in Engineering graduated record numbers of students in 2016-17, with 569 degrees awarded. These awards represent a 59% increase over the last ten years. The number of B.S. degrees in Engineering is expected to grow by 42% in the next 10 years with appropriate growth in space and faculty resources. In addition, increasing the capacity to serve non-majors in Engineering will support the overall growth in University undergraduate degrees awarded, thereby reducing the gap between the credential growth needed for Drive to 55 and projected natural growth.

Expansion of research and/or public service mission: Research in Engineering is currently limited by the space available to do research and the number of faculty members that can be housed to do research. The proposed new Engineering building project will support increased number of faculty members in that facility from 83 to 124, will increase the current space available for research labs from 110,941 sq. ft. to 143,941 sq. ft., and will increase the amount of office and support space for faculty members from 53,875 sq. ft. to 70,075sq. ft. The increase in the number of faculty members in the new

Engineering building is expected to increase the knowledge, technical problem solving, and leadership in Tennessee, the region, and the nation.

<u>Campus Master Plan and Strategic Plan</u> Strategic Plan

TTU's vision statement from Flight Plan, the university's strategic plan, states "Tennessee Tech will be nationally recognized as a leading technological university in the South, providing academic, economic and cultural leadership in the region and producing practical, ready-to-work graduates from a broad range of academic disciplines prepared to excel in a technologically driven world."

Flight Plan, with its four focus areas, addresses how we are going to meet and exceed the CCTA requirements: An improved undergraduate experience, enhanced technologies to support student needs, new and innovative programs coupled with a committed faculty, and increased non-state funding all fall in line with the act.

Flight Plan and Complete College Tennessee Act

- 1. Improve Undergraduate Student Experience
 - o 5% increase over 5 years in 1st to 2nd year retention
 - o 2% increase in 2nd to 3rd year retention
 - o 5% increase in 6-year graduation rate
 - o Funding formula rewards increase in graduates
 - Performance Funding program incentive for increase educational quality
 - o Performance Funding program provides check/balance to funding formula
 - o Outcomes based
 - o Rewards productivity to further goals of public agenda
 - Takes university mission into account by weighting factors
 - Student learning
 - Student retention and graduation
 - Access/graduation for underserved subpopulations

2. Transform Technology

- o Enhanced technology supports all other efforts
- 3. Create Distinctive Programs and Invigorate Faculty
 - o Funding formula recognizes research activity that has regional application/relevance
 - o Performance Funding program incentive for increased educational quality

- Public higher education to become increasingly competitive on national/international scene
- University mission distinctiveness guides approval of new degree programs
- University mission distinctiveness guides research efforts
- 4. Expand Financial Resources and Modernize Infrastructure
 - Non-state funding increasingly necessary to fund new degree programs

A new, modern Engineering facility will allow the university to increase capacity in order to meet student enrollment projections and the corresponding increase in faculty that will be required. More details are provided in the project narrative.

A new facility also contributes to the goals of three Flight Plan focus areas, as follows:

<u>Focus Area One</u>. New, modern facilities contribute to the distinctive and relevant education experience the university strives to provide for students.

<u>Focus Area Three</u>. Expand research and faculty scholarly activity, support faculty collaboration and development, provide undergraduate research opportunities.

<u>Focus Area Four.</u> Improve experience for all students, faculty and staff with modernized facilities, identify and plan funding for infrastructure priorities, identify new revenue streams, grow endowment and private funding levels, develop campus and modernize physical infrastructure.

Related key priorities identified in Flight Plan are:

Multidisciplinary research innovation -- connecting faculty to conduct cooperative, cross disciplinary research.

Physical infrastructure priorities – Enhancing TTU's campus and capabilities based on prioritized needs.

Detailed Flight Plan information can be found at https://www.tntech.edu/flightplan/

Campus Master Plan

Academic expansion is supported by the Campus Master Plan, page 28. Space is identified for two academic buildings, approximately 100,000 square feet each on the Lab Sciences quad. Two additional academic buildings are identified west of Stadium drive for potential academic expansion. Five of the existing engineering buildings are identified as in need of significant renovation or consideration for removal on page 27; Lewis Hall, Foundry, Old Maintenance, and East and West Stadium. Engineering programs located within these buildings require relocation or replacement to bring the facilities up to an acceptable state.

The Campus Master Plan can be found at

https://www.tntech.edu/files/strategicplanning/Planning/masterplanbooklet.pdf

THEC Space Guideline and Facility Assessment

The summary NASF portion of the THEC guidelines spreadsheet is included. The Engineering program is currently housed across ten buildings throughout campus as listed in the table below. These buildings offer a combined net assignable square footage of 199,387. Old Maintenance is schedule for demolition as part of the Lab Sciences building construction and Foundry and Lewis Hall are identified for eventual demolition per the masterplan.

The current Physical Facility Survey Review Team Scores are below 60% for six of nine buildings. A rating of 60% is defined as system salvageable, major upgrade or significant replacement of components required.

College of Engineering Physical Facility Survey Score by Building

Net Assignable Square Feet	Campus Score	Review Score
38,197	66.0	65.3
8,012	65.7	62.4
32,993	56.7	54.5
23,172	45.9	51.7
3,166	59.9	59.5
20,285	50.9	52.9
180	N/A	N/A
2,433	47.1	46.4
69,899	70.2	63.8
1,050	44.9	48.5
199,387		
	38,197 8,012 32,993 23,172 3,166 20,285 180 2,433 69,899 1,050	38,197 66.0 8,012 65.7 32,993 56.7 23,172 45.9 3,166 59.9 20,285 50.9 180 N/A 2,433 47.1 69,899 70.2 1,050 44.9

Program & Business Plan

Cost Analysis of the Project.

Current construction estimates range from \$400 to \$450 per square foot for an engineering building. In addition to construction costs there are other costs related to construction of the building. These costs include site and utility improvements, built-in equipment, construction contingencies, architect and engineering fees, moveable equipment and furnishings, consultants, and project administration. These costs are listed on the DB70 Project Request Form.

Dober Lidsky Mathey's preliminary programming recommends a 100,000 gross square foot (GSF) facility that would yield a net assignable rate of 60%, or 60,000 net assignable square feet (NASF). This mirrors the recommendation in our Campus Master Plan.

Estimated construction cost is \$40,000,000. A 5% contingency is included with a maximum allowable construction cost (MACC) of \$42,788,000. Additional related costs previously mentioned estimate the total project costs at \$54,400,000. The required minimum 5% match of \$2,720,000 will be paid from Institutional Reserves.

2. Number of Students Served.

The College of Engineering currently serves about 2,583 undergraduate majors, 50 undergraduate non-majors, 112 Master's and 99 Ph.D. students. The College of Engineering teaches about 40,000 student credit hours (SCH) per year, and according to the most recent Delaware Study (based on FY 2015 data), this corresponds to 231 SCH per FTE faculty. Planning anticipates future University growth to about 15,000 - 16,000 total students with about 13,600 undergraduates.

The number of Engineering undergraduate majors has grown by about 1,006 over the last ten years, and is expected to grow to about 3,670 majors within these overall growth projections. Similarly, the number of Engineering non-major students directly affected by the project is expected to increase proportionately to the growth of the university, suggesting that the current 25 to 50 served annually will increase to about 40 to 80. Graduate student growth is projected to be 268 students, increased from 210 students currently. Additional details on the number of students served are provided in the program narrative.

- 3. Costs to Maintain the Building. First year operating costs are estimated to be \$1,180,000, using the following base rates multiplied by 100,000 gross square feet.
 - a. Maintenance and operating funding \$6.15 per square foot
 - b. Utility funding \$4.45 per square foot
 - c. Custodial services \$1.20 per square foot.
- 4. <u>Program for How the Project Meets the Defined Need.</u> The programming effort for the Engineering building has just begun, therefore efforts to program the required space are preliminary. The chart below shows the existing amount of engineering space, correctly sized space as well as projected required space.

SUMMARY OF FUTURE COLLEGE OF ENGINEERING SPACE

Department	Current FTE Faculty	2017 Current NASF	2017 Right- Sized NASF	Future FTE Faculty	Future Modeled NASF
Center for Energy Systems Research		6,089	6,089		6,089
Center for Manufacturing Research		11,781	11,781		11,781
Chemical Engineering	9	21,667	23,070	14	33,583
Civil and Environmental Engineering	16	31,169	38,463	24	38,463
College of Engineering	0	21,433	17,000	0	21,035
Computer Science	14	8,184	17,045	21	22,663
Electrical and Computer Engineering	16	23,988	37,480	24	51,540
General & Basic Engineering	0	6,160	8,070	0	8,573
Manufacturing & Engineering Technology	5	23,631	28,270	7	31,328
Mechanical Engineering	23	43,760	68,625	35	90,210
Unspecified or Unassigned	0	1,515	1,515	0	1,515
	83	199,377	257,408	124	316,778

- 5. An Assessment of Alternatives to the Project. The preliminary space assessment clearly illustrates the need for additional space in the College of Engineering. It's anticipated the final study results will reveal there are no alternatives the University should consider other than the construction of additional space.
- 6. Migration Plan for Impacted Buildings and Programs. As additional space is required for current College of Engineering programs, existing Engineering buildings will remain occupied. Lewis Hall, MIT Welding and the Foundry will be demolished as described in the master plan. The current space assessment will help to determine if the Foundry and MIT instructional shops should be located in a building separate from the New Engineering Building due to the nature of their operations.
- 7. <u>Project Schedule.</u> The anticipated project schedule is 12 15 months for design and 18 months for construction.
- 8. Preliminary Concept Sketches. None available.



Preliminary Estimate of an Interdisciplinary Engineering Building

		Target					
		Construction		Construction			
		Cost		Cost per GSF	Target GSF	N:G Ratio	Target NASF
New Construction	s	40,000,000	\$	400	100,000	%09	000'09
	<>	40,000,000	\$	450	88,889	%09	53,333

Current College Distribution	Current Percent	Target NASF @	Target NASF @
of Space	NASF	000'09	53,333
Classrooms	16%	009'6	8,533
aboratories	25%	33,000	29,333
Offices	22%	13,200	11,733
Study	1%	009	533
General and Special	1%	009	533
Support	2%	3,000	2,667
	10007	00000	E2 233

TTU Capital Outlay Request - Biology Building - FY 18/19

Summary NAST				
Part	Modeled	Exist E&G	Difference	Equiv FICM
I - Classrooms	91,926	149,104	57,238	lax
II - Lab / Studio	127,257	200.921	79,004	210, 215
III - Open Lab	45,300	42,092	-3,208	120, 225
IV - Research	118,688	80,843	-17,845	250, 255
V - Office	218,351	221,676	3,525	JAX
VI - Lilicary	110,935	95,510	-21,425	433
VII - Phys Ed	167,680	124,648	-43,012	520, 523, 525
Totals:	886,117	901,054	14,937	





FY18/19 CAPITAL OUTLAY REQUEST TTU – BIOLOGY BUILDING

Project Assessment Materials

July 24, 2017

Abstract

New construction of a 58,615 net assignable square feet (97,700 gross square feet) Biology building is needed to meet current and future educational, research, and service needs at Tennessee Tech University. The Department of Biology is currently housed in Pennebaker Hall, which opened in 1968 and is badly outdated. The Department supports Bachelor of Science programs in Biology and in Wildlife and Fisheries Science, a Master's of Science program in Biology, and is a primary contributor to the University's Environmental Sciences Ph.D. program. In addition to ~500 of its own undergraduate majors, the Department serves approximately 2,000 to 3,000 non-majors annually who complete their Natural Science general education requirements in Biology plus many Nursing, Pre-professional, Chemistry and Chemical Engineering students who require specific Biology courses. Pennebaker Hall, with 40,200 net assignable square feet, is insufficient for the current or future needs of the Biology program. The new interdisciplinary science building will provide some relief, since about one third of the Biology faculty will move to the new science building, with new classrooms, office space, and teaching and research labs. Even so, detailed investigation of the current and future program needs revealed that renovating Pennebaker Hall to accommodate modern teaching and research space is not a viable longterm solution but that a new facility of 58,615 NASF is needed to align program needs with modern space requirements.

DB70 form - Project Request

Tennessee Tech University Board of Trustees Department:

Institution: Tennessee Tech University

Biology Building Project: City/County: Cookeville/Putnam

2 Fiscal Year: 2018/2019

	Capital Outlav	New	G G D:	Reno/Maint
	Capital Maintenance	100,000	Gross Sq.Ft.	U
	Disclosure	0	Net Sq.Ft.	0
X	Designer Required	450.00	Cost/Sq.Ft.	0.00

4 Project Description:
New replacement facility for Biology and related programs.

5	Total Project	Allocation	Estimated Co	onstruction Cost:	45,000,000.00
	45,000,000.00	45,000,000.00 Building Cons	truction		
	750,000.00	750,000.00 Site & Utilities	S		
	0.00	0.00 Built-in Equip	ment		
	45,750,000.00	45,750,000.00 Bid Target			
	2,288,000.00	2,288,000.00 Contingency:	5.00	5.00	percent
	48,038,000.00	48,038,000.00 M.A.C.C.			
	2,574,153.00	2,574,153.00 Fee:	35/LogP-1.15 =	5.35857689	New
	6,000,000.00	6,000,000.00 Movable Equi	pment		
	2,000,000.00	2,000,000.00 Lab/Engr/Com	m. Consultants		
	200,000.00	200,000.00 AV, Vibration	,Consultants		
	1,187,847.00	1,187,847.00 Administration	1 & Miscellaneous		
	60,000,000.00	60,000,000.00 Total Cost			
6 Fu	inding Request:	THIS REQUEST			
	57,000,000,00	57.000.000.00 STATE funds			

6 Funding Request:	THIS REQUEST	
57,000,000.00	57,000,000.00 STATE funds	
0.00	0.00 FEDERAL funds	
3,000,000.00	3,000,000.00 Local and Institutional Funds	Match - Institutional Reserves

7 Sources of Availab	e Funding:	fund year	description	
already approved for	0.00			
existing SBC project	0.00			
0.00	0.00			
plus This Request	0.00			
60,000,000.00	0.00			

8 SBC Action: If an existing project, SBC Project No.:

9 Designer: tba

Project Narrative

Number of students or constituents directly and indirectly served: The Biology Department currently serves about 500 Biology and Wildlife and Fisheries Science undergraduate majors, 2,000 to 3,000 undergraduate non-majors, 17 Master's and 7 Ph.D. students. The Department currently has 18 tenured or tenure-track faculty positions, 3 lecturers, 2 federally supported research faculty with the Cooperative Fisheries Research Unit, 3 adjunct faculty, and five support staff with plans to add one more support staff in the near future. When the new interdisciplinary science building is completed (currently expected fall semester 2020), the entire Chemistry Department will move to that building along with about one third of Biology faculty, specifically, those with primary areas of expertise in genetics, cellular and molecular biology, and microbiology. However, the other two thirds of the faculty remaining in the current building, Pennebaker Hall, will not have sufficient space to meet current and future program needs if Pennebaker is renovated to modern teaching and research space standards.

The Biology Department teaches about 20,000 student credit hours (SCH) per year, and according to the most recent Delaware Study (based on FY 2015 data), this corresponds to 542 SCH per FTE faculty, the highest in the University, and more than double the national norm. Planning for the new interdisciplinary science building anticipates future University growth to about 15,000 - 16,000 total students with about 13,600 undergraduates. Compared to the recent peak undergraduate enrollment in Fall 2014 of 10,314 undergraduates, this would represent an additional 32% growth to reach 13,600; this is not unrealistic in view of the 28% growth from Fall 2007 to Fall 2014 (8,060 to 10,314 undergraduates). Estimating corresponding growth in Biology SCH suggests that at least 8 additional faculty will be needed, even at 500 SCH/FTE faculty, some to be housed in the new interdisciplinary science building, and some in the proposed new Biology building. The number of Biology and Wildlife and Fisheries Science undergraduate majors has grown by about 200 over the last ten years, and is expected to grow to about 720 majors within these overall growth projections. Similarly, the number of Biology non-major students directly affected by the project is expected to increase proportionately to the growth of the university, suggesting that the current 2,000 to 3,000 served annually will increase to about 2,600 to 4,000. The proposed new Biology building will include classrooms and modern teaching labs for the general education Biology courses, where most of the non-major student demand will occur. The number of Biology Master's students is likely to double to about 35 to 40 with additional research space for faculty and graduate students.

Indirectly, state and federal agencies, non-governmental organizations, and residents of Tennessee will benefit from the increased research that will be possible in a new building. Likewise, students will have more opportunities for conducting research given increased research productivity and opportunities that accompany a new building and increased capacity.

Projected impact on credential production: The B.S. programs in Biology and in Wildlife and Fisheries Science graduated record numbers of students in 2016-17, with 105 degrees awarded in Biology and 54 in Wildlife and Fisheries Science. These awards represent 48% and 42% increases, respectively, over the last three years and the total of 159 has more than doubled over the last ten years. The number of B.S. degrees in Biology and Wildlife and Fisheries Science is expected to grow by 50% in the next 10 years with appropriate growth in space and faculty resources. In addition, increasing the capacity to serve non-majors in Biology will support the overall growth in University undergraduate degrees awarded,

thereby reducing the gap between the credential growth needed for Drive to 55 and projected natural growth.

Expansion of research and/or public service mission: Research in Biology and in Wildlife and Fisheries Science is currently limited by the space available to do research and the number of faculty members that can be housed to do research. The proposed new Biology building project will support increased number of faculty members in that facility from 17 to 22, will increase the current space available for research labs from 6,640 sq. ft. to 13,950 sq. ft., and will increase the amount of office and support space for faculty members from 6,350 sq. ft. to 12,140 sq. ft. The increase in the number of faculty members in the new Biology building is expected to increase the knowledge and management of the natural resources in Tennessee, the region, and the nation.

Labor and workforce dynamics: The Bureau of Labor Statistics Occupational Outlook Handbook for the period of 2014-2024 indicates almost all Biology or Wildlife and Fisheries Science-related occupations will experience growth. Biology, in general, is a broad discipline. As such, projected changes in the number of average annual openings ranges from 0.3% for Wildlife and Fisheries Law Enforcement Officers in Tennessee to 33.8% for Medical Assistants. The median percent growth in Tennessee for most occupations Tennessee Tech University Biology or WFS students will pursue is 13%. At the national level, the projected increase in the average annual openings ranges from 1.9% for Wildlife and Fisheries Law Enforcement Officers in Tennessee to 23.5% for Medical Assistants. The average annual increase in the number of jobs in Tennessee and nationally for students receiving either a B.S. in Biology or Wildlife and Fisheries Science is 13.8% and 8.8%, respectively.

<u>Campus Master Plan and Strategic Plan</u> <u>Strategic Plan</u>

TTU's vision statement from Flight Plan, the university's strategic plan, states "Tennessee Tech will be nationally recognized as a leading technological university in the South, providing academic, economic and cultural leadership in the region and producing practical, ready-to-work graduates from a broad range of academic disciplines prepared to excel in a technologically driven world."

Flight Plan, with its four focus areas, addresses how we are going to meet and exceed the CCTA requirements: An improved undergraduate experience, enhanced technologies to support student needs, new and innovative programs coupled with a committed faculty, and increased non-state funding all fall in line with the act.

Flight Plan and Complete College Tennessee Act

- 1. Improve Undergraduate Student Experience
 - 5% increase over 5 years in 1st to 2nd year retention
 - 2% increase in 2nd to 3rd year retention
 - o 5% increase in 6-year graduation rate
 - o Funding formula rewards increase in graduates
 - Performance Funding program incentive for increase educational quality

- Performance Funding program provides check/balance to funding formula
- o Outcomes based
- o Rewards productivity to further goals of public agenda
- o Takes university mission into account by weighting factors
- Student learning
- o Student retention and graduation
- o Access/graduation for underserved subpopulations

2. Transform Technology

- o Enhanced technology supports all other efforts
- 3. Create Distinctive Programs and Invigorate Faculty
 - Funding formula recognizes research activity that has regional application/relevance
 - Performance Funding program incentive for increased educational quality
 - Public higher education to become increasingly competitive on national/international scene
 - o University mission distinctiveness guides approval of new degree programs
 - University mission distinctiveness guides research efforts
- 4. Expand Financial Resources and Modernize Infrastructure
 - o Non-state funding increasingly necessary to fund new degree programs

A new, modern Biology facility will allow the university to increase capacity in order to meet student enrollment projections and the corresponding increase in faculty that will be required. More details are provided in the project narrative.

A new facility also contributes to the goals of three Flight Plan focus areas, as follows:

<u>Focus Area One</u>. New, modern facilities contribute to the distinctive and relevant education experience the university strives to provide for students.

<u>Focus Area Three</u>. Expand research and faculty scholarly activity, support faculty collaboration and development, provide undergraduate research opportunities.

<u>Focus Area Four.</u> Improve experience for all students, faculty and staff with modernized facilities, identify and plan funding for infrastructure priorities, identify new revenue streams, grow endowment and private funding levels, develop campus and modernize physical infrastructure.

Related key priorities identified in Flight Plan are:

Multidisciplinary research innovation -- connecting faculty to conduct cooperative, cross disciplinary research.

Physical infrastructure priorities – Enhancing TTU's campus and capabilities based on prioritized needs.

Detailed Flight Plan information can be found at https://www.tntech.edu/flightplan/

Campus Master Plan

Academic expansion is supported by the Campus Master Plan, page 28. Space is identified for two academic buildings, approximately 100,000 square feet each. The renovation of Pennebaker Hall for Biology is referenced on page 3. Since that time, the Dober Lidsky Mathey assessment of Pennebaker Hall concluded the NASF gained from renovating Pennebaker will be inadequate for the projected growth of those programs.

The Campus Master Plan can be found at

https://www.tntech.edu/files/strategicplanning/Planning/masterplanbooklet.pdf

THEC Space Guideline and Facility Assessment

The summary NASF portion of the THEC guidelines spreadsheet is included. Pennebaker Hall currently houses Biology, Wildlife and Fisheries Science, and other related programs. Pennebaker Hall will be renovated for another use, most likely an academic classroom building if this new facility is approved for construction. Those renovation costs are currently estimated at \$7,000,000. The renovation would include all building systems, furnishings, fixtures, equipment and the building envelope. A facility assessment of Pennebaker Hall by Dober Lidsky Mathey is included and contains more detailed information.

The current Physical Facility Survey Score for Pennebaker Hall is 62.8% (campus rating) and 67.5% (review team rating). A rating of 60% is defined as system salvageable, major upgrade or significant replacement of components required. A rating of 70% is defined as upgrade required, replacement of components.

Program & Business Plan

Cost Analysis of the Project.

Current construction estimates range from \$450 to \$500 per square foot for a science building. In addition to construction costs there are other costs related to construction of the building. These costs include site and utility improvements, built-in equipment, construction contingencies, architect and engineering fees, moveable equipment and furnishings, consultants, and project administration. These costs are listed on the DB70 Project Request Form.

Dober Lidsky Mathey's space assessment recommends a 97,700 gross square foot (GSF) facility that would yield a net assignable rate of 60%, or 58,615 net assignable square feet (NASF). Because we are in the beginning stages of planning, without the benefit of schematic or concept drawings, our

request is for 100,000 gross square feet, which mirrors the recommendation in our Campus Master Plan. This will allow some flexibility for design when the project is funded.

Estimated construction cost is \$45,000,000. A 5% contingency is included with a maximum allowable construction cost (MACC) of \$48,038,000. Additional related costs previously mentioned estimate the total project costs at \$60,000,000. The required minimum 5% match of \$3,000,000 will be paid from Institutional Reserves.

2. Number of Students Served.

The Biology Department currently serves about 500 Biology and Wildlife and Fisheries Science undergraduate majors, 2,000 to 3,000 undergraduate non-majors, 17 Master's and 7 Ph.D. students. The Biology Department teaches about 20,000 student credit hours (SCH) per year, and according to the most recent Delaware Study (based on FY 2015 data), this corresponds to 542 SCH per FTE faculty, the highest in the University, and more than double the national norm. Planning for the new interdisciplinary science building anticipates future University growth to about 15,000 – 16,000 total students with about 13,600 undergraduates.

The number of Biology and Wildlife and Fisheries Science undergraduate majors has grown by about 200 over the last ten years, and is expected to grow to about 720 majors within these overall growth projections. Similarly, the number of Biology non-major students directly affected by the project is expected to increase proportionately to the growth of the university, suggesting that the current 2,000 to 3,000 served annually will increase to about 2,600 to 4,000. Additional details on the number of students served are provided in the program narrative.

- 3. <u>Costs to Maintain the Building.</u> First year operating costs are estimated to be \$1,180,000, using the following base rates multiplied by 100,000 gross square feet.
 - a. Maintenance and operating funding \$6.15 per square foot
 - b. Utility funding \$4.45 per square foot
 - c. Custodial services \$1.20 per square foot.
- 4. Program for How the Project Meets the Defined Need. The chart below shows the existing amount of space in Pennebaker distributed in five categories: classrooms, instructional labs and support, research labs and support, office space, and the space that will become available once the new science building is constructed. It also shows the amount of space defined in the version 4 request.

		V 4	
Making it Fit Within Pennebaker Without New	Pennebaker	Pennebaker	Fitting the
Space	Existing	Proposed	Target
Classrooms	6,560	9,375	6,560
Instructional Class Labs and Support	11,400	23,150	12,000
Research Labs and Support	6,640	13,950	9,500
Offices & Support	6,350	12,140	8,000
Available Space*	9,300		
	40,250	58,615	36,060

^{*}Women's Center & Fourth Floor

One of the issues with this plan to renovate Pennebaker for Biology is the assumption that they will fit in a newly renovated building. They will fit – but it was an inadequate amount of space before the renovation and will continue to be an inadequate amount of space afterwards as well. Look at the peer comparison. The average amount of space per biology faculty is 2,100 NASF, while in Pennebaker, it is 1,300 NASF/faculty. To be at the average, either the department will need more space, or the number of faculty that may remain will be 14 instead of the actual 17 or the planned 22 faculty. Please refer to the previously referenced Dober Lidsky Mathey report and preliminary program.

- 5. An Assessment of Alternatives to the Project. The university originally planned to renovate Pennebaker Hall, where these academic programs are presently located, but it was determined the renovated NASF would be inadequate, given current codes and occupancy levels for labs. Consideration was also given to renovation plus an addition, but the building is landlocked, making adequately sized additions infeasible. Further details are included in the Dober Lidsky Mathey report.
- 6. Migration Plan for Impacted Buildings and Programs. When the programs in Pennebaker Hall move into this facility, Pennebaker Hall will be renovated for another use, most likely an academic classroom building. The floor plan and existing structure are more suited for a classroom building and renovation costs are less for this type occupancy.
- 7. <u>Project Schedule.</u> The anticipated project schedule is 12 15 months for design and 18 months for construction.
- 8. Preliminary Concept Sketches. None available.

^{** 36,000} is the NASF available after renovation assuming a N:G ratio of 60%



Arthur J. Lidsky, AICP, FAAAS President

> George G. Mathey, AICP Principal

February 3, 2017

Dr. Philip Oldham
President
Tennessee Technological University
Derryberry Hall
1 William L. Jones Drive
Cookeville, TN 38505

Dear Dr. Oldham,

When the new science building construction is complete and fully occupied, Foster Hall, the current home for Chemistry will be vacant. The 4th floor of Pennebaker will be vacated as well, as the molecular biologists relocate to the new building.

The current plan is to relocate the biology faculty offices, instructional and research labs and support to allow Pennebaker Hall to be vacated and then renovated. Moving active research into temporary quarters will be disruptive, and sensitivity should be used with tenure track faculty who will likely be most affected.

Pennebaker has 40,200 net assignable square feet (NASF). Usually, net square feet are reduced as a result of renovation as mechanical systems change, walls are moved, and code compliance requires adjustments. Some space is always lost during a renovation to reflect the need for new mechanical, plumbing, and electrical services and the spaces that they occupy. Some space is usually absorbed in response to various codes and contemporary building requirements. We are assuming a gut renovation; the actual amount of space available for assignment after renovation will be approximately 36,000 NASF.

Over the past several months, the Biology Department has met to define their space needs independent of the existing space and independent of a possible solution. The Department currently houses 17 T/TT faculty, 1 instructor, 3 lecturers plus 2 research faculty with the Cooperative Fisheries Research Unit.

The Biology department teaches about 20,000 Student Credit hours per year, and according to the most recent Delaware Study (based on FY 2015 data), this corresponds to 542 SCH per FTE faculty, highest in the University, and more than double the national norm. Planning for the new science building anticipates future University growth to about 15,000 – 16,000 total students with about 13,600 undergraduates. Estimating corresponding growth in Biology SCH suggests that about 8 additional faculty will be needed, even at 500 SCH/FTE faculty. The new science building will house 6 of the current faculty and space for 3 more is included there, implying that a renovated Pennebaker will need to house 17 faculty immediately (11 T/TT + 1 instructor + 3 lecturers + 2 CFRU) and probably add 5 faculty more in time.

The total amount of space that has been defined, version 4, is 58,615 NASF. The list of spaces has gone up and down as questions were raised, issues discussed, and revisions made.

It is interesting to make a comparison of the amount of space being requested to what other biology departments have. The comparison excludes classrooms and is on a net assignable square foot per faculty basis. We have a database of 45 colleges and universities and the amount of biology department space per faculty averages 2,100 NASF/faculty. We have another database of 25 universities, mostly large state institutions and their biology departments average 2,200 NASF/faculty.

At TTU, the requested space, 58,615 minus the classrooms, 9,375, equals 49,240 NASF. That total, divided by the projected number of faculty, 22, yields 2,200 NASF/faculty. Essentially, what has been defined as the space needed by the Biology Department is not an entrepreneurial overstatement of need, but rather, it is in the average. The more problematic comparison is the amount of available space in Pennebaker. Excluding the classrooms space, Pennebaker has 29,500 NASF available for offices, instructional and research labs, and support. On a per faculty basis, it is 1,300 NASF/faculty which is approximately 60% of the average NASF/faculty.

We were charged with defining the needs of the Biology Department within the constraints of the existing Pennebaker Hall. The chart below shows the existing amount of space in Pennebaker distributed in five categories: classrooms, instructional labs and support, research labs and support, office space, and the space that will become available once the new science building is constructed. It also shows the amount of space defined in the version 4 request. The last column, Fitting the Target, shows how the spaces will need to be distributed in Pennebaker. In order to fit the department back into the renovated Pennebaker, the version 4 program will need to be reduced by 22,000 NASF.

		V 4		
Making it Fit Within Pennebaker Without New Space	Pennebaker Existing	Pennebaker Proposed	Fitting the Target	
Classrooms	6,560	9,375	6,560	
Instructional Class Labs and Support	11,400	23,150	12,000	
Research Labs and Support	6,640	13,950	9,500	
Offices & Support	6,350	12,140	8,000	
Available Space*	9,300			
, trailed op and	40,250	58,615	36,060	**

^{*}Women's Center & Fourth Floor

One of the issues with this plan to renovate Pennebaker for Biology is the assumption that they will fit in a newly renovated building. They will fit — but it was an inadequate amount of space before the renovation and will continue to be an inadequate amount of space afterwards as well. Look at the peer comparison. The average amount of space per biology faculty is 2,100 NASF, while in Pennebaker, it is 1,300 NASF/faculty. To be at the average, either the department will need more space, or the number of faculty that may remain will be 14 instead of the actual 17 or the planned 22 faculty.

Another issue is the size of the instructional labs and the related number of stations, or students served within the labs. In Pennebaker, 5 of the existing 8 instructional labs are below standard in terms of NASF/station — basically around 30 to 32 NASF/station. Either the labs are too small or there are more stations in the lab than standards suggest. The minimum amount is 40 NASF/station. Because of

^{** 36,000} is the NASF available after renovation assuming a N:G ratio of 60%

changes to building codes, ADA accessibility requirements, and general concern for lab safety contemporary labs are being designed with 50 NASF/station.

If the number of stations were reduced to meet standards, then course section sizes will also have to be reduced. The ripple effect is interesting. If the number of students in the Blology program remains the same, then more sections will be needed if they are a smaller size. More sections means that faculty loading will increase, or the number of faculty will increase. Alternatively, if the number of sections remain constant, than the number of biology students served will decline.

Alternatives

There are basically three alternatives to consider. The first is the one that is described above: Biology is relocated to a renovated Pennebaker Hall. The second alternative is to add space to Pennebaker Hall. Not an easy alternative given the building's location with roads on three sides, but it is possible with some creative design.

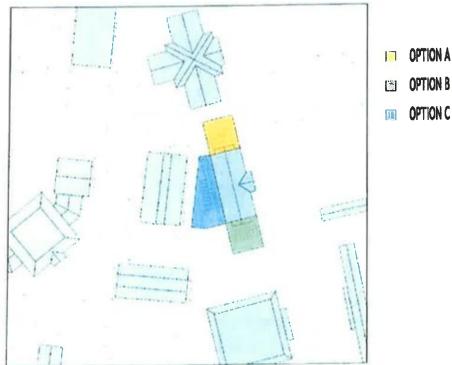
An addition could be added to the north, probably requiring the closing of B Street. An addition could be added to the west, in the space between Pennebaker and Johnson halls. Perhaps a combination of adding to the north as well as to the west.



The diagram below shows three options for how Pennebaker might be expanded to meet the programmatic requirements of the department. Option A would add 11,900 NASF and Option B would

add slightly less with 11,100 NASF. Option C comes the closest to the target of 22,600 NASF with 18,600 NASF.

An important consideration is whether the larger laboratories can be accommodated in the any of the options. They certainly can in Option C.



OPTION B 18,486 GROSS 8Q. FT.

31,068 GROSS SQ. FT

Diagram by Upland Design Group

The third alternative is to construct a new facility, clear of the constraints of the existing building. The possible site for new construction should be consistent with the master campus plan.

Pennebaker could be renovated as a simple academic building of classrooms and offices.

Construction and Project Cost Estimates

The charts below summarize the construction and project costs for three alternatives: the renovation of Pennebaker; the renovation of Pennebaker plus the Option C expansion to the west; and all new construction.

Renovation costs for Pennebaker are in the range of \$300 to \$350 per gross square feet. New construction costs for the addition and all new alternative are in the range of \$450 to \$500 per gross square foot. In addition to the renovation and construction cost there are other costs related to the building including A/E fees, contingencies, the cost of furniture and equipment, and site related costs. Typically, a multiplier of 1.25 to 1.45 is used depending on the project. A 1.3 multiplier is fine for this stage of the planning process and yields the project cost as shown.

Alternative 1 Renovation of Pennebaker	\$/GSF	GSF	Construction Cost	Project Cost Multiplier	Project Cost
Wilder lighting 2 stationed as a series	\$300	60,000	\$18,000,000	1.3	\$23,400,000
	\$350	60,000	\$21,000,000	1.3	\$27,300,000

Alternative 2 Renovation and Addition	\$/GSF	GSF	Construction Cost	Project Cost Multiplier	Project Cost
Renovation	\$300	60,000	\$18,000,000	1.3	\$23,400,000
TO THE TOTAL CONTROL OF THE TOTAL CONTROL OT THE TOTAL CONTROL OF THE TO	\$350	60,000	\$21,000,000	1.3	\$27,300,000
Addition New Construction (Option C)	\$450	31,100	\$14,000,000	1.3	\$18,200,000
Audition 1151 constitution (option s)	\$500	31,100	\$15,600,000	1.3	\$20,300,000
Renovated and Addition					\$41,600,000
Renovated and Addition					\$47,600,000

Alternative 3 New Construction	\$/GSF	GSF	Construction Cost	Project Cost Multiplier	Project Cost
	\$450	97,700	\$43,965,000	1.3	\$57,154,500
	\$500	97,700	\$48,850,000	1.3	\$63,505,000

I hope that this summary has been helpful and I will gladly answer any questions that you might have or expand on any issue that might need clarification.

Sincerely,

Arthur J. Lidsky AICP FAAAS

Cc. Dr. Claire Stinson, Vice President for Planning and Finance

Dr. Bahman Ghorashi, Provost, and Vice President for Academic Affairs

Dr. Bharat Soni, Vice President for Research and Economic Development

Updated DRAFT compiled by Robert Kissell, Nov 23, 2016

	relimina	Pennebaker Preliminary Progam v4					ssential	esireable
Structional - Unique Course 24 3 1,200 3,600 X	Space	Name of Space		NO. OF		TOTAL	3	a
Lab, Instructional - Unique Course 24 3,500 X Lab, Instructional - Unique Course 32 4 1,600 6,400 X Lab, Instructional - Shared Courses 32 2 1,600 3,200 X Lab, Instructional - Shared Courses 48 1 2,400 X Lab, Instructional - Shared Courses 8 300 2,400 X Lab Support, Storage, Prep 1 600 600 X Lab Support, Storage, Prep 1 300 300 X Lab Support, Storage, Prep 1 450 450 X Lab Support, Storage, Prep 1 150 150 X Lab Support, Storage, Prep 1 150 1	ab and	upport		MOOINS	MASI	MAN		
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Lab Necropsy 1 300 300 Lab Support, Vivarium, Holding Room 1 300 300 Lab Support, Vivarium, Cage Washing 1 150 150 Lab Support, Vivarium, Food and Bedding 1 50 50 Lab Support, Vivarium, Food and Bedding 1 50 53,150	215	Lab Support, Herpetology Quarters & Display		н	1,500	1,500	_	55
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23,150	575			₽	23	22	_	
						23,150		П

7/24/2017

DOBER MATHEY LIDSKY

Updated DRAFT compiled by Robert Kissell, Nov 23, 2016

Pennebaker Preliminary Progam v4	ry Progam v4					[Bitness	nhanceme
Space ID Type	Name of Space	Chattone	NO. OF	MACE	TOTAL	3	
Research Lab and Support	port			-	TOTAL STREET		
250	Lab, Research		7	946		+	
250	Lab, Research		7 7	450 550	× 006	×	+
250	Lab, Research - Herbarium		н	1,350	1,350 X	+	+
255	Lab Support, Storage, Prep - Herbarium		1	150		t	-
255	Lab Support, Storage		15	120	_	t	-
250			2	300	1,500 X		-
250	Lab Research, Wet		7	750	1,500 X		
Office and Cumost					13,950	H	Н
310	Office Faculty		ţ	7		+	+
			71	170	1,440	+	+
310	Office, Faculty		2	120	240 X		_
310	Office, Faculty		2	120	240	ř	-
310	Office, Lecturers		4	100	400 ×		-
311	Office, Staff		m	100	300 ×		-
311	Office, Lab Staff		e	120	360 X		_
311	Office, Department Chair		4	200	200 X		
320	Conference Room - Chair		1	240	240 X		
311	Office, Department		T	240	240 X		
311	Office, Herbarium		1	120	120 X		H
311	Office, Fish and Herps, Avian, and Mammal Collections		1	120	120 X		_
312		4		100	100 X		
312	Office Area, MS Students (48 students)	*	9	450	2,700 X		_
312	Office Area, PhD Students	4	4	240	X 096		
315	Copy / Work Room		7	120	240 X		_
315	Storage/Filing Room		П	120	120 X	_	
350	30 Seat Conference Room		1	750	X 05Z		_

Mo. Or	Stations ROOMS NASF NASF	oration Areas 6 8 150 1,200 x	2 130	tor 1 1000 Pto	007 007 1	2 120 240	2 100 200	021 071 1	1 120 120	Cooperative 1 300	1 300	18 1 450 450 X	12,140	25	50 2 1,000 2,000 X	100 2 1,800	3 50	250 1 3,000 X	9,375	n the Net Assignable Square Ftt							Total NASF 58,
Type Name of Space		410 Small Group Collaboration Areas	310 Office, Cooperative Researcher	311 Office, Cooperative Administrator			315 Conv / Work Boom Conserting		10 Seat Confi			650 Lounge, Students	+ County		110 Classroom	110 Classroom	115 Classroom Support	610 Auditorium		Included in the Building but Not Included in the Net Assignable Square Ftt	Iohhv	Lange	Public Restrooms	Public Restrooms Passenger Elevator	Public Restrooms Passenger Elevator Loading Dock	Public Restrooms Passenger Elevator Loading Dock Freight Elevator	Public Restrooms Passenger Elevator Loading Dock Freight Elevator
Space ID Type		41	31	31	31	7		3.	, K		.	Ö	Classrooms and Currout	H	Ħ	11	H	9		Included in the Bu							

DOBER MATHEY LIDSKY

DOBER MATHEY LIDSKY

TTU Capital Outlay Request - Biology Bullding - FY 18/19

Part	Madeled	Ealst EAG	Difference	Equiv FECT
1 - Classrooms	91,926	149,164	57,238	bo
II - Lab / Studio	127,257	206,921	79,664	210, 215
III - Open Lab	45,300	42,092	-3,208	22%, 225
IV - Research	118,688	60,843	-57,845	250, 255
V - Office	216,351	221,876	3,525	349
VI - Library	116,495	95,510	-21,425	411
VII - Phys Ed	167,600	126,648	-43,012	520, 523, 523
Tetals:	886,117	901,054	14,937	



Capital Maintenance Request: FY2018-19

Governing Board: Tennessee Tech
2018-19 Maintenance Allocation: \$6,290,000

2018-19		Project	Project Cost	Project Description
	1 TTU	Several Buildings Upgrades	\$	6,290,000 Building Systems and FFE Upgrades
2018-19	2			
2018-19	3			
2018-19	4			
2018-19	5			
2018-19	6			
2018-19	7			
2018-19	8			
2018-19	9			
2018-19	10			
2018-19	11			
2018-19	12			
2018-19	13			
2018-19	14			
2018-19	15			
2018-19	16			
2018-19	17			
2018-19	18			
2018-19	19			
2018-19	20			

^{*} Requests are not limited to 20. Insert more rows if there are more projects to recommend. Total costs must fall within allocation.

Capital Maintenance Out-Years: FY 2019-20 through 2022-23

		•		•	
Fiscal Year	Priority	Institution	Project	Project Cost	Project Description
2019-20		1 TTU	Several Bldgs. Roof Replacements	\$	4,500,000 Roof replacements
2019-20		2 TTU	Several Buildings Upgrades	\$	2,250,000 Building Systems and FFE Upgrades
2019-20		3 TTU	Building Controls Upgrade Phase 1	1 \$	3,000,000 Upgrade HVAC Controls Campus Wide
2019-20		4			
2019-20		5			
2019-20		6			
2019-20		7			
2019-20		8			
2019-20		9			
2019-20		10			
2019-20		11			
2019-20		12			
2019-20		13			

2019-20	14				
2019-20	15				
2019-20	16				
2019-20	17				
2019-20	18				
2019-20	19				
2019-20	20				
2020-21	1 TTU	Several Buildings Upgrades	\$	8,200,000	Building Systems and FFE Upgrades
2020-21	2 TTU	Several Bldgs. Roof Replacements	\$	2,000,000	Roof replacements
2020-21	3				
2020-21	4				
2020-21	5				
2020-21	6				
2020-21	7				
2020-21	8				
2020-21	9				
2020-21	10				
2020-21	11				
2020-21	12				
2020-21	13				
2020-21	14				
2020-21	15				
2020-21	16				
2020-21	17				
2020-21	18				
2020-21	19				
2020-21	20				
2021-22	1 TTU	Volpe Library HVAC Upgrades	\$	7 670 000	HVAC System Upgrades
2021-22	2 TTU	Building Controls Upgrade Phase 2			Upgrade HVAC Controls Campus Wide
2021-22	3	building controls opgrade i hase 2	4	3,000,000	opgrade TWAC Controls Campus Wide
2021-22	4				
2021-22	5				
2021-22	6				
2021-22	7				
2021-22	8				
2021-22	9				
2021-22	10				
2021-22	11				
2021-22	12				
2021-22	13				
	13 14				
2021-22					
2021-22	15				
2021-22	16				
2021-22	17				
2021-22	18				

2021-22	19		
2021-22	20		_
2022-23	1 TTU	Derryberry Hall Upgrades	\$ 10,000,000 Building Systems and FFE Upgrades
2022-23	2		
2022-23	3		
2022-23	4		
2022-23	5		
2022-23	6		
2022-23	7		
2022-23	8		
2022-23	9		
2022-23	10		
2022-23	11		
2022-23	12		
2022-23	13		
2022-23	14		
2022-23	15		
2022-23	16		
2022-23	17		
2022-23	18		
2022-23	19		
2022-23	20		

Capital Disclosure: FY2018-19											
					Funding Source						
	Institution	Project	Project Cost	New Sq. Ft.	Plant-Funds - Non-Auxiliary	Plant Funds - Auxiliary	TSSBA	Gifts	Contractor Funds	Other	Project Description
1	TTU	International House	\$730,000	6550	\$ 730,000.00						Construct International Hou
2											
3											
4											
5											
6											
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Date: August 17, 2017				
Division: Planning and Fi	nance			
Agenda Item: Reorganiza	ation Recommendations	;		
Review	Action		No action required	
	0			

PRESENTERS: Dr. Claire Stinson, Vice President for Planning and Finance

PURPOSE & KEY POINTS:

Tennessee Tech contracted with Huron Consulting Group to conduct an organizational assessment and determine appropriate strategies for improving efficiencies. Several opportunities were identified and addressing these opportunities better position Tennessee Tech for execution of its strategic goals. Although the final assessment is not complete, the draft report has been reviewed and organizational changes are being recommended for immediate action.



TENNESSEE TECH

MEMORANDUM

To:

Board of Trustees

From:

Dr. Philip Oldham, President

Date:

August 17, 2017

Subject:

Recommendation for Reorganization with Direct Presidential Reports

Tennessee Tech contracted with Huron Consulting Group to conduct an organizational assessment and determine appropriate strategies for improving efficiencies. Several opportunities were identified and addressing these opportunities better position Tennessee Tech for execution of its strategic goals. Although the final assessment is not complete, I have reviewed the draft report and have identified organizational changes that I recommend for immediate action.

As part of the draft report, Huron Consulting Group recommended that:

- 1. The Associate Vice President for Enrollment Management position be reclassified to a Vice President. In accordance with Tennessee Tech Policy 601, I recommend that Tennessee Tech competitively recruit a Vice President for Enrollment Management.
- 2. The Associate Vice President for Communications and Marketing position be reclassified to Chief Communication Officer reporting directly to the President. This does not involve a salary increase for the incumbent.
- 3. The Assistant to the President position be reclassified to Chief Government Affairs Officer reporting directly to the President. This does not involve a salary increase for the incumbent.
- 4. The creation of a Chief of Staff position as a direct report to the President. I have identified an individual who has the expertise, credentials, and community relations needed to be successful in this position. In accordance with Tennessee Tech Policy 643, I recommend hiring a Chief of Staff at an annual salary of \$98,000 without going through the competitive recruitment process. The vacancy created by the promotion will be filled through a competitive recruitment process.
- 5. Reclassify the Chief Information Technology Officer position (vacant) to Executive Director of Information Technology reporting to the Vice President for Planning and Finance.

As we work through Huron's organizational study, an official updated organizational chart will be provided with the October Revised Budget.



Date: August 1/, 201/			
Division: Planning and I	- inance		
Agenda Item: Agreeme Foundati		chnological University and Tennessee Tech University	
Review	Action	No action required	

PRESENTERS: Dr. Claire Stinson, Vice President for Planning and Finance

PURPOSE & KEY POINTS:

The Agreement between Tennessee Tech University and the Tennessee Tech University Foundation details each entities' powers, duties, and responsibilities. The Foundation's relationship with Tennessee Tech is based upon a shared interest in Tennessee Tech's development and the success of Tennessee Tech's mission.

AGREEMENT BETWEEN

TENNESSEE TECHNOLOGICAL UNIVERSITY

AND

TENNESSEE TECHNOLOGICAL UNIVERSITY FOUNDATION

THIS AGREEMENT made by and between Tennessee Technological University (hereinafter referred to as the "Institution"), and Tennessee Technological University Foundation (hereinafter referred to as the "Foundation").

The Institution is a public institution of higher education created by Tenn. Code Ann. 49-8-101 and governed by the authority of a local governing board of trustees.

The Foundation is a private, non-profit corporation existing by virtue of Tenn. Code Ann. 49-7-107 and Tenn. Code Ann. 48-51-101 et seq. (Tennessee Nonprofit Corporation Act), is tax-exempt under Section 501(c)(3) of Internal Revenue Code, and is organized to work in concert with the Institution . The Foundation is established by Charter and Bylaws dated April 4, 2001, attached hereto as Exhibit A, and its purpose is as stated therein.

The Foundation's relationship to the Institution is based upon a shared interest in the Institution's development and the success of the Institution's mission. Therefore, Institutional participation in and support of Foundation operations are appropriate and desirable.

THE PARTIES HEREBY AGREE AS FOLLOWS:

I. <u>FOUNDATION POWERS, DUTIES, AND RESPONSIBILITIES</u>

- 1. **Foundation Charter and Bylaws.** The Foundation shall file its initial and amended foundation charters and bylaws with the Secretary of State of the State of Tennessee and Institution president will submit copies the institution's legal counsel.
- 2. **Ethics Policy.** The Foundation shall adopt an ethics policy complying with Tenn. Code Ann. § 49-7-107 that applies to and governs the conduct of all members of the Foundation's governing body. Members must review and acknowledge the code of ethics annually.
- 3. **Foundation Business Affairs.** The Foundation's Board shall develop policies and procedures concerning the conduct of its business affairs and to assure appropriate reporting of financial and other activities. Such policies and

procedures shall implement sound business practices, provide for appropriate checks and balances and ensure prudent use of Foundation funds.

- a. *Budget Preparation*. With the assistance of Institution administrative personnel, the Foundation will create the Foundation's budget.
- b. Procurement and Contracting. The Foundation's Board shall develop policies and procedures that address procurement and contracting activities. When practicable, the Foundation shall use competitive procurement methods. Such policies must include a process for determining authority for authorizing contracts on behalf of the Foundation and for authorizing expenditure of Foundation funds. Authority for these functions cannot be delegated solely to an employee of the institution.
- c. Contracts. The Foundation does not have any authority to obligate the Institution in any manner. A contract may not be entered into in the names of both the Foundation and the Institution or in the name of either entity "on behalf of" the other. If a transaction involves both the Foundation and the Institution, both must be parties to the contract and it must be executed by authorized representatives of both.
- d. Administration of Donations to the Foundation. The Foundation shall develop policies and procedures that address the management and investment of contributions to the Foundation, subject to the requirements of the Uniform Prudent Management of Institutional Funds Act, T.C.A. Title 35, Chapter 10, Part 2.
- e. Document Retention Policy. The Foundation shall have a written mandatory document retention and periodic destruction policy that complies with Sarbanes-Oxley requirements. This should include guidelines for handling electronic files and voice mail, as well as paper documents. The Foundation's policy will prohibit document purging if an official investigation is anticipated or underway.
- f. Reports. The Foundation shall issue reports to the president of the Institution, at least annually, on the activities of the Foundation. An annual financial report shall be issued, prepared in accordance with generally accepted accounting principles, including all required note disclosures. Financial reports shall include, as applicable and according to appropriate accounting principles, the value of in-kind services provided by the Institution. The report must be issued in a timely manner to be included as a component unit of the institution's financial statement.
- 4. **Solicitation and Acceptance of Contributions.** The Foundation is hereby designated as an entity responsible for promoting and generating private sector support for the Institution. The Foundation may collect contributions for the Institution's charitable, scientific, and educational purposes. The Foundation shall assist the Institution and its departments in their fund-raising activities, capital campaigns, and development programs with individuals, corporations, foundations, and other organizations. The Foundation shall develop policies and procedures addressing the solicitation and acceptance of contributions to the

Foundation, incorporating sound business principles and safeguarding compliance with donor intent and conditions. Prior to accepting any donation that will require substantial institutional support such as staff, financial assistance, storage, ongoing maintenance, etc., approval must be obtained from the president of the Institution and, if applicable, from the Board of Trustees.

5. **Confidentiality of Donor Information**. The Institution and the Foundation may share employees and services, including information on donors. As used herein, the Foundation's "donor information" includes but is not limited to a compilation of contributors, prospects, alumni, friends, and supporters of the institution. These records, as well as all other data, materials, and information belonging to the Foundation pertaining to past, current, prospective donors are proprietary to the Foundation and constitute its confidential information and trade secrets. The Institution and the Foundation shall comply with the provisions of T. C. A. § 49-7-140 regarding the confidentiality of gift records. Subject to those provisions, the Foundation may disclose confidential information from time to time to authorized Institution personnel for purposes of cooperative planning and implementation of activities, as authorized by the Foundation. Institution employees shall preserve the confidentiality of such shared information.

6. Use of Institution Name/Marks.

- a. The Foundation may, in connection with its lawful business and activities, use the name of the Institution as well as the Institution's logo, seal, and other symbols and marks.
- b. The Foundation shall not delegate the authority to use the Institution's name or marks without written approval of the Institution's president and shall not permit the Institution's name or marks to be used in connection with advertising of non-institution or non-foundation products or services unless such use is consistent with policies of the institution.
- c. The Foundation agrees to cease using the Institution's name and marks in the event:
 - i. Foundation dissolves;
 - ii. The Foundation ceases to be a non-profit corporation or ceases to be recognized by the IRS as described in Section 501(c)(3) of the Internal Revenue Code; or
 - iii. The Foundation or the Institution terminates this agreement.
- 7. **Operational Support from the Institution.** The Institution may not transfer state or institutional funds to the Foundation; however, the Institution may provide in-kind services to Foundation as consideration for services rendered by the Foundation to the Institution. "In-kind services" include, but are not limited to, the provision of office space, administrative support and other staff.
- 8. **Respect for Institution's Personnel Administration.** Foundations must respect the Board of Trustees and Institutional authority over personnel

administration. Foundation expenditures for compensation and other payments to or for the benefit of institutional personnel and reportable as income to the recipient, such as salary, expense accounts, automobiles, club or other organization memberships and dues, etc., must be approved in advance, annually, by the Institution president, unless the salaries funded by the Foundation are in accordance with Institution's compensation plan and included in the Institution's personnel budget. Advance approval of the Board of Trustees shall be required if payments outside the Institution's compensation plan are made to or for the benefit of any Institutional employee, including the president, and if the aggregate value of such payments to any individual Institutional employee exceeds fifteen hundred dollars (\$1,500) per fiscal year. This provision does not apply to reimbursement of business expenses incurred by Institutional employees or to non-taxable recognition awards given to Institutional employees.

- 9. **Taxes.** The Foundation shall be responsible for compliance with all applicable state and federal tax laws. If the Institution provides in-kind services to assist with the preparation and filing of required tax forms and returns, the Foundation shall supply all necessary information in a timely manner.
- 10. **Compliance with Applicable Laws.** The Foundation agrees to comply with all executive orders, federal, state, and local rules, regulations, and laws applicable to similar non-profit corporations.
- 11. **Compliance with Tennessee Tech Policy.** The Foundation agrees to comply with Tennessee Tech Policy 535.
- 12. **Hold Harmless**. The Foundation shall indemnify and hold harmless the Institution, its governing board, officers, employees, agents and students, in their official and individual capacities, from and against any and all claims of liability, injury, damages, expenses, demands and judgments, including court costs and attorneys' fees, arising out of the Foundation's performance of this agreement, except for injury or damage caused by the sole negligence of the Institution, and furthermore, this provision shall survive the termination or expiration of this agreement.
- 13. **Foundation Legal Counsel.** The Foundation shall be responsible for providing its own legal counsel.

II. INSTITUTION POWERS, DUTIES, AND RESPONSIBILITIES.

- 1. **Independence of Foundation**. The Institution agrees to encourage and maintain the independence of the Foundation and, at the same time, foster the cooperative relationship between the institution and Foundation
- General Powers of the Institution. The Institution may:

- a. Provide the professional services of its employees, within the scope of their employment with the Institution;
- b. Review the financial records of the Foundation to determine that the Foundation is adequately capitalized for any activities undertaken in the name of, for the benefit of, or in conjunction with the Institution;
- c. Request or require evidence satisfactory to the president or the president's designee of insurance or self-insurance adequate in form and amounts to cover foreseeable liability arising from activities undertaken in the name of, for the benefit of, or in conjunction with Institution;
- d. Request periodic review of any written general agreement or memorandum of understanding between the Institution and the Foundation to ensure that it describes each party's responsibilities in a manner that makes it clear to third parties dealing with the cooperative organization that the organization is acting as a legal entity separate from the Institution; and
- e. Take any action necessary to ensure that actions of the Institution's officials, faculty, staff, or employees relative to the Foundation are consistent with policies established by the Institution regarding conflicts of interest, outside activities, and other matters.
- 3. **Institutional Services to Foundation**. In consideration of the services provided to the Institution by the Foundation and as set forth herein, the Institution may assist the Foundation in the following:
 - a. Provision of office space, telephones, computers, supplies, *etc.* for personnel. These will be considered in-kind services from the Institution.
 - b. Provision of clerical and administrative support services through the Institution's Development Office.
 - c. Provision of designated financial services including financial record keeping.
- 4. **Audit of Foundation Records.** In accordance with T.C.A. § 49-7-107(b), all annual reports, books of account and financial records of the foundation shall be subject to audit by the Comptroller of the Treasury of the State of Tennessee. Records and accounts maintained by the foundation shall be audited on the same cycle as the institutional audit performed by the Comptroller, or, with the prior approval of the Comptroller, an independent public accountant may perform such an audit. The contract between the independent public accountant and the foundation shall be approved in advance by the Board of Trustees and the Comptroller and shall be on forms prescribed by the Comptroller. All annual

reports, books of account and financial records of the foundation shall be available for audit by the internal auditors of the Institution.

III. MUTUAL ACKNOWLEDGEMENTS AND OBLIGATIONS.

- 1 **Termination**. Either party may terminate this agreement upon sixty days' notice.
- 2. **Term.** This agreement is based upon the Institution's fiscal year, which is July 1 through June 30. The term of this Agreement shall commence on the date first written below and expire on June 30, 2018. If neither party gives notice of termination, as provided in paragraph 2, above, prior to the expiration of the agreement, it will continue on a year-to-year basis. If this agreement is terminated by either party, all funds, assets, data and information in the possession of the Foundation will be transferred to the Institution as soon as is practicable.
- 3. **Entire Agreement/Modification.** This agreement contains all the terms between the parties. It may be amended only in writing signed by legally authorized representatives of all parties.

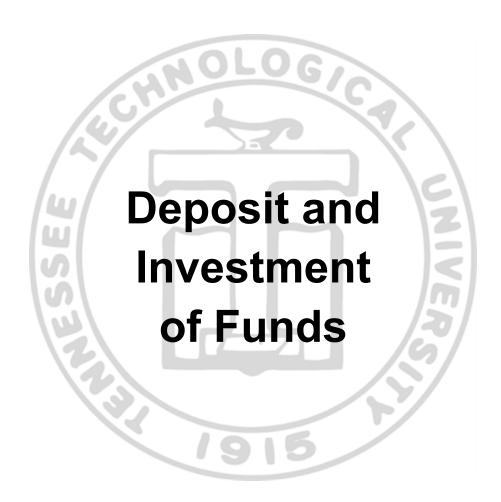
APPI	ROVED:	
Tenn	essee Technological University Foundation	
By:		
•	Thomas M. Hudson, Jr. Chair	Date
Tenn	essee Technological University	
By:		
-	Dr. Philip B. Oldham President	Date

ACKN	OWLEDGED AND APPROVED:	
Tenne	ssee Technological University Board of Truste	es
By:		
	Thomas H. Jones Chair	Date



Date: A	August 17, 2017									
Division	ivision: Planning and Finance									
Agenda	ltem: Policy 521 – I	Deposit and Investment	t of Funds							
	Review	Action	No action required							
PRESE	NTERS: Dr. Claire S	tinson, Vice President fo	or Planning and Finance							
PURPO	SE & KEY POINTS:									
This pol Tech.	icy sets forth approp	oriate policies and proce	edures for depositing and investing funds for Tennessee							

Tennessee Technological University Policy No. 521



Effective Date:

Policy No.: 521

Policy Name: Deposit and Investment of Funds

Policy Subject: Policy on depositing and investing funds

I. Purpose

This policy sets forth appropriate policies and procedures for depositing and investing funds for Tennessee Tech.

II. Review

This policy will be reviewed every four years or whenever circumstances require review, whichever is earlier, by the Associate Vice President for Business and Fiscal Affairs in consultation with the Vice President for Planning and Finance, with recommendations for revision presented to the Administrative Council, University Assembly, and the Board of Trustees.

III. Definitions

- A. Collateral Security: securities that may be accepted as collateral for deposits
- B. Depository: any bank, savings and loan association, or savings bank (collectively referred to as savings institutions) located in the state of Tennessee which is under the supervision of the Department of Financial Institutions, the United States Comptroller of the Currency, or the Office of Thrift Supervision, and which has been appropriately designated to hold public deposits by a public depositor
- C. Eligible Collateral: shall have the meaning set forth in T.C.A. § 9-4-103; for savings institutions securing local government deposits; also includes securities described in T.C.A. § 9-1-107(a)(2) under such additional conditions as the treasurer deems appropriate
- D. Loss: includes but is not limited to:
 - 1. The principal amount of the public deposit;
 - 2. All accrued interest through the date of default;
 - 3. Additional interest at the rate the public deposit was earning on the total of the principal amount of the public deposit and all accrued interest through the date of default, through the day of payment by a liquidator or other third party or through the date of sale of Eligible Collateral by the treasurer or his/her agent; and

- 4. Attorney's fees incurred in recovering public deposits.
- E. Market Value: current market price
- F. Required Collateral: Eligible Collateral, excluding accrued interest, having a Market Value equal to or in excess of the greater of the average daily balance or average monthly balance of public deposits multiplied by the qualified public Depository's collateral-pledging level as required by the collateral pool board (T.C.A. § 9-4-502)
- G. Trust Receipts: receipts issued by the Trustee Custodians in lieu of the actual deposit of Eligible Collateral, which are subject in all respects to the claims and rights of the institution to the same extent as though such collateral had been physically deposited with the institution
- H. Trustee Custodian: a financial institution designated to hold Eligible Collateral on behalf of Tennessee Tech and a qualified public Depository pursuant to T.C.A. § 9-4-108

IV. Policy

A. Depository Accounts

- Tennessee Tech University shall maintain one general operating account and one payroll account at an authorized Depository for the regular operating and payroll functions. No additional checking accounts may be opened or maintained by Tennessee Tech unless approved by the President or his/her designee.
- 2. All checks, drafts, or other methods of withdrawing funds from an account must be co-signed by the President and the Vice President for Planning and Finance; provided that facsimile signatures may be used on checks, drafts, or other methods of withdrawals; and provided that any authorization or request for withdrawal form shall bear the original or electronic signature of the President and the Vice President for Planning and Finance (or designee approved by the President) in all cases where expenditures exceed one percent (1%) of the state appropriation to Tennessee Tech.
- 3. Tennessee Tech will retain written documentation of employees' authority to perform routine activities related to the Depository accounts.
- 4. No accounts shall be authorized or established that are complimentary non-interest bearing accounts. When using compensatory balances, the amount of funds allowed to remain in any checking account should be reasonably related to the number of transactions to be processed through the account during any month, and other servicing costs, if any.

B. Collateral

- 1. All depositories must provide Collateral Security for deposits and accrued interest in all accounts, including checking, savings, and certificates of deposit. Securities which may be accepted as collateral for deposits shall be limited to those specified in T.C.A. § 9-4-103. All items listed in Section E.10 of this policy and items noted in Section E.11 are eligible as collateral.
- 2. The Required Collateral accepted as security for deposits at financial institutions that do not participate in the collateral pool shall be collateral whose Market Value is equal to one hundred five percent (105%) of the value of the deposit and secured thereby; less such amount as is protected by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation. The Required Collateral accepted as security for deposits at financial institutions participating in the collateral pool will be set by the Department of Treasury.
- 3. At the time of designation as Tennessee Tech's Depository or at any time thereafter, additional collateral with a Market Value of one hundred thousand dollars (\$100,000) shall be required when the capital to asset ratio of a savings and loan association, savings bank, or bank is less than five percent (5%). This additional collateral shall be in addition to the collateral required by other provisions of this policy.
- 4. The Market Value of Required Collateral shall be evaluated by Tennessee Tech monthly and more frequently if required by unusual market conditions. Any Depository not providing collateral with a Market Value as specified in B.2 above must provide additional, adequate collateral within two working days of a request by Tennessee Tech. Failure to provide the additional collateral may be considered an act of default.
- 5. In the case of a checking account, the Market Value of the collateral accepted as security for deposits shall be the amount specified in Section B.2 based on the highest daily Depository book balance in the account for the preceding month, excluding large deposits covered below. The amount of the Depository balance must be determined on or before the fifth day of the month in question. Large deposits, such as registration receipts, which may result in insufficient collateral, either should be invested immediately or additional collateral should be in place. If the investment is in a certificate of deposit, the certificate must be collateralized. Alternatively, depositories may be allowed to post collateral daily to cover the current Depository book balance.
- 6. Any Loss to Tennessee Tech due to a Depository's default shall be satisfied out of collateral pledged by the Depository to whatever extent possible. The Collateral Security shall be liable for any loss including, and not limited to,

the principal amount of the deposit, accrued interest through the date of default, additional interest through the date of recovery on the principal and accrued interest at the rate the deposit was earning, and attorney's fees incurred in recovering deposits and other Losses.

- 7. Tennessee Tech must either be provided the actual securities pledged as collateral for deposits, or Trust Receipts from Trustee Custodians for the collateral in lieu of the actual delivery of the securities. A Trustee Custodian is one which meets the requirements of T.C.A. § 9-4-108. When any Trustee Custodian holds collateral for the university's Depository which is related to the custodian through shared ownership or control, such collateral shall be held in a restricted account at a Reserve Federal Bank or branch thereof or at a Federal Home Loan or branch thereof.
- 8. In lieu of the actual deposit of Eligible Collateral, Tennessee Tech is authorized at its option to accept Trust Receipts therefore.
 - a. Trust Receipts shall be issued by Trustee Custodians in a form acceptable to Tennessee Tech following the deposit of Eligible Collateral with the Trustee Custodian by the university's Depository.
 - b. Eligible Collateral deposited with a Trustee Custodian shall be subject in all respects to the claims and rights of Tennessee Tech to the same extent as though such collateral had been physically deposited with Tennessee Tech.
 - c. Each Trust Receipt shall be nonnegotiable and irrevocable and shall continue in full force and effect until surrendered by the issuing Trustee Custodian with the release of the university endorsed thereon.
 - d. Tennessee Tech may present the Trust Receipt at any time to the issuing Trustee Custodian and upon delivery thereof shall be entitled to receive any and all collateral represented thereby from the Trustee Custodian, and such collateral shall thereafter be held by Tennessee Tech as if deposited with Tennessee Tech by the Depository as collateral, without further liability on the party of the Trustee Custodian.
 - e. Following delivery of the collateral to Tennessee Tech, the university is permitted to register such collateral in the name of Tennessee Tech and to hold it on behalf of the Depository.
- 9. Tennessee Tech will not be responsible for monitoring the collateral securities pledged when using a Depository institution that participates in the collateral pool. As provided in T.C.A. § 9-4-501 through 9-4-523, the Department of Treasury will monitor the collateral securities pledged.

C. Depository Institutions

- 1. Subject to the other requirements of this policy, accounts may be authorized and established at depositories which are either under the supervision of the Department of Financial Institutions, the United States Comptroller of the Currency, or the Federal Home Loan Bank Board.
- 2. Before a Depository may be used by Tennessee Tech for the deposit of funds in a checking account, it must provide documentation verifying the following:
 - a. That the Depository is supervised by the Department of Financial Institutions of the State of Tennessee, the United States Comptroller of the Currency, or the Federal Home Loan Bank Board;
 - b. The capital to asset ratio of the Depository as of the current date and the date of the last audited financial statements of the Depository;
 - c. That the Depository can comply with the Collateral Security requirements for all accounts;
 - d. The names of the members of the board of directors and officers of the Depository;
 - e. The name of the holding company of the Depository, if applicable; and
 - f. The names of the owners of ten percent (10%) or more of the stock of the Depository.
- 3. Tennessee Tech shall identify the nature and level of services that must be provided by a Depository before a checking account is established. Such services should include but are not limited to the minimum services in the standard request for proposals for Depository services as set forth in guidelines established pursuant to this policy. Some or all of these services may be required without charge to Tennessee Tech.
- 4. Tennessee Tech shall solicit proposals from all qualified depositories with offices within a reasonable distance from the campus, and shall determine those depositories that can provide the nature and level of services for accounts as required by Tennessee Tech on a competitive basis. The agreement with the Depository cannot exceed 5 years.
- D. Tennessee Tech departments will deposit funds each day when \$500 in funds has been accumulated. All funds must be adequately secured. In all cases, a deposit must be made within two business days of receipt of funds in accordance with Tennessee Tech Policy 504.1.

E. Investments

- 1. All investment decisions shall be in accordance with this policy and must be approved by the Vice President for Planning and Finance or his/her designee.
- 2. All investments in which funds are deposited outside the State of Tennessee must be authorized by the President.
- 3. A Trustee Custodian account should be used for handling and holding all investments, other than the Local Government Investment Pool and collateralized certificates of deposit.
- 4. All investments must be made subject to "delivery versus payment."
- 5. All funds received by Tennessee Tech and that are available for a sufficient period of time for investment in any interest generating medium should be invested within three (3) days after receipt of such funds.
- 6. At a minimum, Tennessee Tech shall determine rates of return on all feasible authorized mediums of investment prior to making an investment; and funds shall be invested in those mediums expected to pay the highest rate for the period of time for which the funds are available for investment.
- 7. All investments of funds in certificates of deposits where the period of investment will exceed thirty (30) days shall be determined on the basis of competitive bids, with appropriate records maintained for audit purposes, including the person obtaining the bids, the amount and rate of return of each bid, and the person who approved the investment.
- 8. An investment plan should be developed that specifies liquidity requirements for providing cash needed by Tennessee Tech.
- 9. Investments of endowments in equity securities shall be limited to funds from private gifts or other sources external to the university. Endowment investments shall be prudently diversified.
- 10. Funds of Tennessee Tech may be invested in a savings account or certificate of deposit of any Depository provided the requirements of this policy including Sections C.1 and C.2, and the Collateral Security requirements of Section B are met. Other authorized investments, subject to the limitations of Section E.12, are set forth in T.C.A. § 9-4-602.
- 11. All investments via repurchase agreements must include the following:

- a. There must be a written agreement in accordance with the standard agreement set forth in guidelines established pursuant to this policy.
- b. The agreement must state explicitly that the exchange of assets represents a simultaneous purchase and resale transaction "and is not intended to be a collateralized loan."
- c. The purchased securities must be transferred to the Trustee Custodian Account.
- d. The purchased securities must, at the time of purchase, have a current Market Value of at least 100% of the amount of the repurchase agreement.

12. The following terms and conditions shall apply to investments:

- a. Prime banker's acceptances must be issued by domestic banks with a minimum AA rating or foreign banks with a AAA long term debt rating by a majority of the rating services that have rated the issuer. There must be a minimum of two rating services for short term debt. Banker's acceptances shall not exceed five percent of total investments on the date of acquisition. The amount invested in any one bank shall not exceed five percent of total investments on the date of acquisition.
- b. Prime banker's acceptances are required to be eligible for purchase by the Federal Reserve System. To be eligible the original maturity must not be more than 270 days, and it must
 - 1) arise out of the current shipment of goods between countries or within the United States, or
 - 2) arise out of storage within the United States of goods under contract of sale or expected to move into the channel of trade within a reasonable time and that are secured throughout their life by a warehouse receipt or similar document conveying title to the underlying goods.
- c. The combined amount of banker's acceptances and commercial paper shall not exceed thirty-five percent of total investments at the date of acquisition.
- d. Prime commercial paper shall not have a maturity that exceeds 270 days. Acquisitions shall be monitored to assure that no more than five percent of total investments at the date of acquisition are invested in commercial paper of a single issuing corporation. The total holdings of an issuer's paper should not represent more than two percent of the issuing corporation's total outstanding commercial paper. Purchases of commercial paper shall not exceed thirty-five percent of total investments

at the date of acquisition. Prime commercial paper shall be limited to that of corporations that meet the following criteria:

- 1) Senior long term debt, if any, should have a minimum rating of A1 or equivalent, and short term debt should have a minimum rating of A1 or equivalent, as provided by a majority of the rating services that rate the issuer. If there is no long term debt rating, the short term debt rating must be A1 by all rating services (minimum of two).
- 2) The rating should be based on the merits of the issuer or guarantee by a non-bank.
- 3) A financial review should be made to ascertain the issuer's financial strength to cover the debt.
- 4) Commercial paper of a banking institution should not be purchased.
- e. The amount invested in money market mutual funds shall not exceed ten percent of total investments on the date of investment.

V. Interpretation

The Vice President for Planning and Finance or his/her designee has the final authority to interpret the terms of this policy.

VI. Citation of Authority for Policy

T.C.A. § 49-8-201(a)(1)(C)

Approved by:

Administrative Council: April 5, 2017

University Assembly: April 19, 2017



Date: August 17, 2017			
Division: Internal Audit			
Agenda Item: Approval	of Revision to Audit Com	nmittee Charter	
Review	Action	No action required	

PRESENTERS: Deanna Metts, Director of Internal Audit

PURPOSE & KEY POINTS:

The Audit Committee Charter approved at the June 15th board meeting was subsequently submitted to the Tennessee State Comptroller's office for approval in accordance with Tennessee Code Annotated § 4-35-103. The Comptroller had issues with two items and requested that the charter be revised to deal with those items:

- 1. The wording in the Independence section of the charter referred to Tennessee Tech Board Policy 001, and State Audit did not want references to documents that could change without their approval.
- 2. The wording in the Membership section of the charter about selecting an Audit Committee chair and members referred to Tennessee Tech Board Policy 005, and that process in Policy 005 varied from the selection process outlined in the *Guidelines for Audit Committee Charters*.

Both the Independence and Membership sections have been updated to remove any reference to Tennessee Tech policies, and the wording in each has been revised to specifically state what is outlined in the *Guidelines for Audit Committee Charters*. Once approved by the Board, it will again be submitted to the Tennessee State Comptroller for approval.

Tennessee Tech University

Audit Committee Charter

Purpose

The Audit & Business Committee ("Committee"), a standing committee of the Tennessee Tech Board, will operate in compliance with the "State of Tennessee Audit Committee Act of 2005" (Tennessee Code Annotated Title 4, Chapter 35) and will assist the Board in fulfilling its responsibilities by reporting regularly to the Board about Committee activities and issues that arise.

The Committee will provide oversight in the following areas:

- A. Audit engagements with the Tennessee Comptroller's Office, including the integrity of financial statements and compliance with legal and regulatory requirements,
- B. Audit engagements with external auditors,
- C. Internal Audit activities,
- D. Internal Audit administration,
- E. Internal controls and compliance with laws, regulations, and other requirements,
- F. Risk and control assessments,
- G. Fraud, waste, and abuse prevention, detection, and reporting, and
- H. Other areas as directed by the Board.

II. Authority

The Committee has the authority to conduct or authorize audits or investigations into any matter within its scope of responsibility. The Committee is authorized to:

- A. Seek any information it requires from employees or external parties. Employees are directed to cooperate with the Committee's requests,
- B. Have access to all books, records, and physical properties of Tennessee Tech,
- C. Meet with Board and institutional officials, external and internal auditors, legal counsel, or others as necessary, and
- D. Delegate authority to subcommittees, providing that such decisions by any subcommittee are presented to the full Committee at its next scheduled meeting.

III. Responsibilities

The Committee has responsibilities for the following:

- A. Tennessee Comptroller's Office Audits ("State Auditors")
 - 1. Understand the scope and approach used by the State Auditors in conducting their examinations,

- 2. Review results of the Comptroller's examinations of financial statements and any other matters related to the conduct of the audits,
- Review with management and legal counsel any legal matters (including pending litigation) that may have a material impact on the financial statements, and any material reports or inquiries from regulatory or governmental agencies,
- 4. Ensure that the Comptroller is notified of any indications of fraud in the manner prescribed by the Comptroller,
- 5. Resolve any differences between management and the Comptroller's auditors regarding financial reporting, and
- 6. Meet, as needed, with the Comptroller's auditors to discuss any matters that the Committee or State Auditors deem appropriate.

B. External Audits

- 1. Understand the scope and approach used by the external auditors in conducting their examinations,
- 2. Review results of the external auditors' examinations and any other matters related to the conduct of the external audits, and
- 3. Meet, as needed, with the external auditors to discuss any matters that the Committee or external auditors deem appropriate.

C. Internal Audit Activities

- Ensure that the Director of Internal Audit reports directly to the Committee and has direct and unrestricted access to the chair and other committee members.
- 2. Review and approve the charter for the Tennessee Tech's Internal Audit department,
- 3. Review and approve the annual audit plans for Tennessee Tech's Internal Audit department, including management's request for unplanned audits,
- 4. Receive and review significant results of internal audits performed,
- 5. Work with Tennessee Tech management and Internal Audit to assist with the resolution of cooperation issues and to ensure the implementation of audit recommendations,
- 6. Review the results of the year's work with the Director of Internal Audit, and
- 7. Ensure the Tennessee Tech Internal Audit function maintains a quality assurance and improvement program, including internal procedures and assessments and a periodic external quality assessment of conformance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing*.

D. Internal Audit Administration

- 1. Ensure the Director of Internal Audit's administrative reporting relationship to the President is independent.
- 2. Ensure that Tennessee Tech Internal Audit has adequate resources in terms of staff and budget to effectively perform its responsibilities.

3. Review and approve the appointment, compensation, reassignment, or dismissal of the Director of Internal Audit.

E. Risk, Internal Control and Compliance

- Consider the effectiveness of the internal control system and compliance with laws and regulations, including computerized information system controls and security,
- 2. Review and evaluate risk assessments performed by institutional management and the Board, and
- 3. Inform the Comptroller of the Treasury of the results of risk assessments and controls completed by Tennessee Tech management.

F. Fraud

- 1. Ensure that the Board and the institution have an effective process in place to prevent, detect, and report fraud, waste and abuse.
- 2. Facilitate audit and investigative matters, including advising auditors and investigators of any pertinent information received by the Committee.

G. Other

- Review and assess the adequacy of the Committee's charter every four years or as needed, whichever is earlier, requesting Board approval for any proposed changes.
- 2. Ensure there are procedures for the receipt, retention, and treatment of complaints about accounting, internal controls, or auditing matters.
- Review Tennessee Tech's code of conduct and /or policies regarding employee conduct to ensure that they are easy to access, are widely distributed, are easy to understand and implement, include a confidential mechanism for reporting code violations, are enforced, and include a conflict of interest policy.
- 4. Review Tennessee Tech's conflict of interest policy to ensure that the term "conflict of interest" is clearly defined, the policy is comprehensive, annual signoff is required, and potential conflicts are adequately resolved and documented.

IV. Independence

Each Committee member shall be independent in fact and appearance of any interests that are in conflict with their duties as a Committee member.

V. Membership

- A. Pursuant to Tennessee Code Annotated Section 4-35-104, the Committee shall have at least three but not more than five members,
- B. The Committee and its chair shall be nominated and approved by the Board.
- C. Each Committee member shall serve for a term not to exceed two years and may be reappointed,

- D. The Committee chair shall serve for a term not to exceed two years and may be reappointed,
- E. The Committee chair preferably shall have accounting and financial management expertise, and
- F. The other members of the Committee shall be generally knowledgeable in financial, management, and auditing matters.

VI. Meetings

- A. The Committee shall meet as necessary, but at least annually, and also whenever requested by the chair of the Committee or Board or the Comptroller of the Treasury.
- B. The Committee may invite Board management, auditors, or others to attend and provide relevant information.
- C. The Board Secretary or designee shall take minutes at each meeting of the Committee and maintain approved minutes as the official record of such meeting.
- D. A majority of the members of the Committee shall constitute a quorum for the transaction of business.
- E. All meetings of the Committee shall adhere to the Open Meetings Act, Tennessee Code Annotated Title 8, Chapter 44, except that pursuant to Tennessee Code Annotated Section 4-35-108(b), the Committee may hold confidential, nonpublic executive sessions for the sole purpose of discussing the following:
 - 1. Items deemed not subject to public inspection under Tennessee Code Annotated, Sections 10-7-503 and 10-7-504, and all other matters designated as confidential or privileged under state or federal law,
 - 2. Litigation,

Chairman of the Board

- 3. Audits or investigations, and
- 4. Matters involving information under Tennessee Code Annotated Section 4-35-107(a) where the informant has requested anonymity.

Approvals Approved by: ______ Date: _____ Teresa Vanhooser Chair of the Audit & Business Committee Approved by: ______ Date: _____



Date: A	ugust 17, 2017				
Division	: Internal Audit				
Agenda	Item: Review of 20)16-17 I	nternal Audit Annı	ual Repo	ort of Activity
\boxtimes	Review		Action		No action required

PRESENTERS: Deanna Metts, Director of Internal Audit

PURPOSE & KEY POINTS:

As required in Tennessee Code Annotated § 49-14-103, a report of Internal Audit's activities for 2016-17 is being provided to the Audit Committee members for review. It is broken down into six categories: audits, follow-ups to audits, reviews, investigations, risk assessment activities, and other projects.

Internal Audit Annual Report of Activity for 2016-17 As of June 30, 2017

Audits

Student Assistance Fund 2015-16
Inventory Observations 6-30-16
Clery Act Compliance
APSU President's Audit
Title IX Compliance
Report issued 07/13/2016
Report issued 03/14/2017
Report Issued 10/13/2016
Report Issued 06/21/2017

Follow-Ups

Five follow-ups completed: Off-Campus International Education Programs Audit, Laboratory Safety Audit, and (3) Clery Act Audit.

Reviews

Procard Reviews – 283 cardholders reviewed Sponsored Program Reviews

- THEC ITQ Talking Sense K2
- NSF Expanding Use of the CAT

Campus-wide Membership Review
Unauthorized Bank Account Review
Monthly Review of Amazon Business Purchases (Feb to June)

Investigations

Fraud, Waste, or Abuse (FWA) Investigations – 12 logged Non-FWA Matters – 9 logged and forwarded as necessary 10 Completed / 2 In Progress

Risk Assessment

Reviews of Risk Assessments prepared by Athletics and Financial Management

In Progress

Other Projects

Developed two policies – 130 Internal Audit and 131 Preventing Fraud, Waste, or Abuse Developed TTU Audit Committee Charter Developed Post-FOCUS TTU Internal Audit Charter Verified all petty cash



Date: August 1/, 201/			
Division: Internal Audit			
Agenda Item: Approval	of 2017-18 Audit Plan		
Review	Action	No action required	

PRESENTERS: Deanna Metts, Director of Internal Audit

PURPOSE & KEY POINTS:

An audit plan for July 2017 through December 2018 is being provided to the Audit Committee for review and approval.

The plan reflects Internal Audit's change from a fiscal-year plan to a calendar-year plan. It lists each significant activity to be carried out in the Internal Audit department and tells the type of activity and functional area involved.

Each departmentally chosen audit on the schedule was selected using a model that considered six points:

- 1. Prior audit results
- 2. Internal controls in the area
- 3. Changes in the unit
- 4. Size of the unit with regard to revenue collected, expenses, or number of transactions processed
- 5. Sensitivity of the unit
- 6. Management's assessment of the unit

Tennessee Tech University Internal Audit Plan Calendar Year 2018 and Remainder of 2017 August 2017

Туре	Area	Audit	Estimated Audit Start Date	Estimated Completion Date
T/A	FM	Maintenace, Tuition, Related Fees	In Progress	November 2018
R/A	FM	Inventory Observations 6-30-18	April 2018	July 2018
R/I	IS	Unscheduled Investigations	Sept 2017	December 2018
R/I	IA	INV 17-07	Sept 2017	October 2017
R/I	IA	INV 17-11	July 2017	July 2017
R/I	IA	INV 17-12	July 2017	July 2017
R/A	FM	Audit of TTU President's Expenses 2016-17	In Progress	December 2017
R/A	FM	Audit of TTU President's Expenses 2017-18	Sept 2018	December 2018
R/A	ΑT	Student Assistance Funds 2016-17	July 2017	August 2017
R/A	ΑT	Student Assistance Funds 2017-18	July 2018	August 2018
R/M	IS	Enterprise Wide Risk Assessment -2017	In Progress	December 2017
R/M	IS	Enterprise Wide Risk Assessment -2018	January 2018	December 2018
R/F	FM	Follow Up to 2016-17 State Audit	January 2018	February 2018
R/O	IS	Quality Assessment Review	Nov 2017	August 2018
D/V	FM	Procard Reviews	Sept 2017	December 2018
D/V	RE	Sponsored Program Review	May 2018	November 2018
D/C	IS	General Consultation	Sept 2017	December 2018
D/F	IS	Follow Ups to Internal Audits	Sept 2017	December 2018
D/A	SS	Scholarships	Sept 2017	February 2018
D/A	AD	University Advancement	February 2018	May 2018
D/A	IT	Cybersecurity Issues	December 2017	March 2018
D/A	IT	Technology Access Fee	December 2017	March 2018
D/A	FM	Receipts	Sept 2018	December 2018

Overall Types of Activity

R - Required

D - Department Planned

T - In Progress

Specific Types of Activities

A - Audit

S - Special Request

I - Investigation

P - Project (Ongoing or Recurring)

M - Management's Risk Assessment

C - Consultation

F - Follow-up Review

O - Other

V - Review

Functional Areas:

AD - Advancement

AT - Athletics

AX - Auxiliary

FM - Financial Mgmt

IA - Instruction & Acad Support

IS - Institutional Support

IT - Information Technology

PP - Physical Plant

RS - Research

SS - Student Services



Date: August 17, 2017			
Division: Internal Audit			
Agenda Item: Notice of Res	ponsibilities for Preve	enting, Detecting, and R	eporting Fraud, Waste, or Abuse
Review	Action	No action r	equired
PRESENTERS: Teresa Vanho PURPOSE & KEY POINTS:	ooser, Chair of Audit &	& Business Committee	

One of the duties of the Audit Committee is to regularly, formally reiterate to the Board, Management, and Staff their responsibilities for preventing, detecting, and reporting fraud, waste, and abuse.

Notice of Responsibilities

One of the duties of the Audit Committee is to regularly, formally reiterate to the Board, Management, and Staff their responsibilities for preventing, detecting, and reporting fraud, waste, and abuse.

Detailed definitions and examples of fraud, waste, and abuse, various individual's responsibility for preventing and detecting fraud, waste, and abuse, and methods for reporting fraud, waste, and abuse can be found in TTU Policy 131—Preventing and Reporting Fraud, Waste, or Abuse.

Individuals have varying responsibilities for preventing and reporting fraud, waste, or abuse.

Board Members

Generally, the Board and Audit Committee should consider the risk of fraudulent financial reporting and fraud due to misappropriation and abuse of university assets as they govern and guide the University.

Individually, board members should abide by TTU Policy 001—Board Code of Ethics and Conduct and Conflict of Interest.

Management

Management shall not engage in fraud, waste, or abuse and is responsible for developing and implementing internal controls to help prevent and detect fraud, waste, and abuse.

Executives and administrators with reasonable basis for believing fraud, waste, or abuse has occurred are required to report those incidents.

Employees

Employees shall not engage in fraud, waste, or abuse.

Employees with reasonable basis for believing fraud, waste, or abuse has occurred are strongly encouraged to report those incidents.

Students and Citizens

All students and citizens of the state of Tennessee are encouraged to report known or suspected acts of fraud, waste, or abuse.

Fraud, waste, or abuse can be reported confidentially and should be reported to a supervisor, institutional executive, TTU Internal Audit, or the Tennessee Comptroller of the Treasury.

Specific methods for reporting fraud, waste, or abuse can be found on TTU Internal Audit's website and in TTU Policy 131—Preventing and Reporting Fraud, Waste, or Abuse.

Also, for you convenience, we're providing each board member a brochure on Preventing and Reporting Fraud, Waste, or Abuse.



Date: August 17, 201	.7		
Division: Internal Au	dit		
Agenda Item: Adjour Audits, Investigations	•	d Call to Order of Executive Closed Session to Disc	uss
Review	Action	No action required	

PRESENTERS: Teresa Vanhooser, Chair

PURPOSE & KEY POINTS:

The remainder of the meeting will concern matters that are confidential under Tennessee Code Annotated § 4-35-108(b)(3). The nonpublic executive session will begin once everyone except the Trustees, President, Internal Audit staff and Board Secretary has left the room.

TCA 4-35-108: Notice of meetings—Open meetings—Exceptions.

- (a) Except as provided in subsection (b), all meetings of an audit committee created pursuant to this chapter shall abide by the notice requirements adhered to by the state governing board, council, commission, or equivalent body to which the audit committee is attached.
- (b) All meetings of an audit committee created pursuant to this chapter shall be subject to the open meetings provisions of title 8, chapter 44, except that the audit committee may hold confidential, nonpublic executive sessions to discuss:
- (1) Items deemed not subject to public inspection under §§ 10-7-503 and 10-7-504, and all other matters designated as confidential or privileged under this code;
 - (2) Litigation;
 - (3) Audits or investigations;
 - (4) Information protected by federal law; and
- (5) Matters involving information under § 4-35-107(a), where the informant has requested anonymity.
- (c) No business, other than that described under subdivisions (b)(1)-(b)(5), shall be considered during a confidential, nonpublic executive session by the audit committee.
- (d) For purposes of providing notice of a confidential, nonpublic executive session, the agenda must disclose the general nature of discussion as described under subdivisions (b)(1)-(b)(5).
- (e) A meeting at which both subject matter open to the public and confidential subject matter will be discussed shall be conducted as follows:
 - (1) All business relating to subject matter that is public in nature shall be conducted first; and
- (2) At the conclusion of the meeting relating to subject matter that is public in nature, the chair shall announce that the public portion of the meeting is adjourned and that the remainder of the meeting will concern matters that are confidential under subdivisions (b)(1)-(b)(5). When everyone at the meeting who is not authorized to attend the confidential portion of the meeting has departed, the confidential portion of the meeting shall commence.
- (f) This chapter is not intended to prevent the full state governing board, commission, council, or equivalent body from going into confidential, nonpublic executive session for the purpose of further discussing those matters as described under subdivisions (b)(1)-(b)(5). All portions of meetings of the full state governing board, commission, council, or equivalent body, where matters described under subdivisions (b)(1)-(b)(5) will be discussed, shall be exempt from the provisions of title 8, chapter 44; provided, that the full state governing board, commission, council or equivalent body shall abide by the notice requirements of subsections (c)-(e).