

DATE: July 14, 2005

SUBJECT: Middle Tennessee State University, Bachelors of Science in Construction Management Technology with concentrations in Electrical Construction Management and Land Development/Residential Building Construction Management

ACTION RECOMMENDED: Approval

BACKGROUND INFORMATION: The proposed new degree program is designed to provide the construction industry with employees who are capable of filling management positions. This will partly be accomplished by MTSU's partnering with the construction industry and the National Joint Apprenticeship and Training Committee. The proposed program is centered on partnering with other universities, businesses, and other public agencies. College credit earned through an approved apprenticeship program and work experience may be applied toward the degree requirements.

The training arm for the National Joint Apprenticeship and Training Committee (NJATC) requested that MTSU extend on-line delivery leading to a four degree in Construction Management Technology. Products and construction methods have changed within the last 25 years. The industry has expressed a need for a program which will update older employees' knowledge and educate new employees, especially in middle management. Meeting the demand for this type of program in which the majority of the participants will be employed full-time will require a non-traditional delivery system that makes use of web-based courses.

PROPOSED START-UP DATE: Fall 2005

Commission staff has reviewed program proposals according to the academic standards adopted by the Commission on November 14, 2002. Each standard is referenced below.

1.1.20A MISSION: The proposed program is consistent with the role and scope of the mission of offering an extensive range of programs primarily serving students of Middle Tennessee.

1.1.20B CURRICULUM: The concentration in Land Development/Residential Building Construction Management currently exists as Construction Management in the Industrial Technology major. Approvals of concentrations or name changes are not required; however, as a concentration option, it is being considered as part of this proposal. Two new courses are required to complete the curriculum. The proposed program requires completion of 120 semester credit hours distributed as follows:

<u>Curriculum Components</u>	<u>Hours Required</u>	
	<u>ECM</u>	<u>LD/RB</u>
General Education	41	41
Major Core	13	13
Concentration	33	38
Guided Electives	15	9
Supporting Courses	12	19
Internship/Cooperative Education	<u>6</u>	<u>*</u>
TOTAL:	120	120

ECM – Electrical Construction Management Concentration

LD/RB – Land Development/Residential Building Concentration

*Internship/Cooperative Education will be suggested as electives.

1.1.20C ACADEMIC STANDARDS: Admission and graduation requirements are the standard institutional requirements as stated in the *Undergraduate Catalog*. Residency requirements state that 25% of the coursework must be from MTSU and that all requirements of the University are met as described in the catalog.

Student Projections	Projected Program Productivity		
	Full-time Enrollment	Part-time	Graduates
Year 1	50	10	12*
Year 2	60	16	12*
Year 3	70	30	15
Year 4	80	30	18
Year 5	90	36	20

*Students graduating in the first two years will be from the already established program in Construction Management (Land Development/Residential Building Construction Management). Most Electrical Construction Management will consist of many part-time students.

1.1.20D FACULTY: Funds from industry will pay for the additional faculty initially. Thereafter, fees paid by students will cover the cost.

1.1.20E LIBRARY RESOURCES: Library resources are provided free of charge by various industry support groups. These materials are housed in the departmental construction management library.

1.1.20F ADMINISTRATION/ORGANIZATION: The proposed B.S. in Construction Management Technology will require no revision to the current administrative structure and will be located in the Department of Engineering Technology and Industrial Studies within the College of Basic and Applied Science. The current curriculum for the concentration in “Construction Management” within the B.S. in Industrial Technology will be moved to the B.S. in Construction Management Technology with the new name.

1.1.20G SUPPORT RESOURCES: Support will continue to be provided through the local home building construction industry, whose representatives serve on advisory committees.

1.1.20H FACILITIES/INSTRUCTIONAL EQUIPMENT: Current facilities and instructional equipment are adequate to support the proposed program.

1.1.20I STUDENT/EMPLOYER DEMANDS: The National Joint Apprenticeship and Training Committee (NJATC) asked MTSU to extend NJATC's training. MTSU proposed to provide courses through online delivery leading to a four-year degree in Construction Management Technology. Regardless of the economy, new structures will always be needed. Products and construction methods have changed at a rapid pace within the last 25 years. The industry has expressed a need for a program which will update older employees' knowledge and educate new employees and middle management. Meeting the demand for this type of program in which the majority of the participants will be employed full-time will require a non-traditional delivery system that will make use of web-based courses. Potential students from 28 states have called about the Electrical Construction Management concentration.

There is a demand for Electrical Construction Management students, who are currently working in the electrical industry, to earn their four-year degree. In Construction Management and the proposed Land Development/Residential Construction Management Program, students are employed in the industry by the time they are sophomores or juniors.

The name change from Industrial Technology with a concentration in Construction Management to Construction Management Technology is a more accurate name to reflect the curriculum. Approximately 75 percent of MTSU students coming into the current program are transfer students who are at least sophomores and in most cases juniors. The demand for Construction Management graduates is demonstrated by an exceptional placement rate. Students are placed by the time they are sophomores or juniors.

There is great demand for Construction Management graduates, as evidenced by an exceptional placement rate. Current graduate placement rates are near 100 percent with starting salaries of \$40,000 to \$50,000 annually. Evidence of industry demand is also apparent in the amount of time and money spent by industry partners in the current Construction Management program. The proposed Electrical Construction Management program is nation-wide and will not depend on the approval of a two-plus-two program to be successful.

1.1.20J NO UNNECESSARY DUPLICATION: There are no similar programs in the region that would duplicate the proposed program and there is no baccalaureate degree nationally that directly meets the needs of the electrical industrial construction workers in middle management. The concentrations are unique nationally.

1.1.20K COOPERATIVE INSTITUTIONS: None indicated.

1.1.20L DESEGREGATION: The program will not impede the state's effort to achieve racial diversity.

1.1.20M ASSESSMENT/EVALUATION AND ACCREDITATION: Program assessment is accomplished through feedback from the curriculum committees for both concentrations under the proposed Construction Management Technology degree. The committees for both concentrations meet at least twice a year with additional meetings being called when any member of the committee deems it is necessary to discuss curriculum. Members who make up the curriculum committee are from the three regions of Tennessee and from other states. Graduates of the construction program also will be on the curriculum committees. Meetings are held each term with industry representatives who serve as coaches providing feedback to the construction program on a continual basis. In addition, Construction Management uses a Major Field Exam for formal assessment of student learning prior to graduation.

There are no immediate plans for accreditation since the only possible accrediting agency is the American Council of Construction Education (ACCE). ACCE is geared toward Commercial Industry and not Electrical or Land Development/Residential Building Construction Management. Furthermore, the ACCE requires courses that are not needed for the proposed Construction Management Technology Degree, according to MTSU's curriculum advisory committees for both concentrations. There are no implications for SACS accreditation.

1.1.20N ARTICULATION: Articulation efforts are currently being developed for a two plus two program with Pellissippi State Community College (PSCC). Students can earn their Associate's Degree with all credits being accepted by MTSU toward the proposed degree. It is envisioned that articulation efforts will be developed with Nashville State Community College (NSCC) which is currently conducting a 4-year apprenticeship program. NSCC currently has 325 students in their program. Representatives of PSCC and NSCC institutions have expressed a desire to articulate with this program.

1.1.20O EXTERNAL JUDGMENT (Graduate Programs): N/A

1.1.20P COST/BENEFIT/SOURCE: One full-time faculty will be needed to teach courses in the Electrical Construction Management and the Land Development/Residential Building Construction Management concentrations. Funds from industry will pay for the additional faculty initially. Thereafter, fees paid by students will cover the cost. Additional secretarial support is required.

The existing concentration in Construction Management has received support from the home building construction industry. Support has come in the form of scholarship contributions, cash donations, internship sponsorships, funding student trips around the country to attend industry events, providing guest lectures to classes, student mentoring, sponsored job shadowing opportunities, student recruitment, and promotion of the program within the construction industry and hours of in-kind support. Concentrations of Electrical Construction Management and Land Development/Residential Building in the proposed degree have cash contributions of \$149,000 to date.

FINANCIAL PROJECTIONS:

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenditures					
A. One – time:					
New/renovated space	\$7,000	0	0	0	0
Equipment	\$ 2,500	0	0	0	0
Library	0	0	0	0	0
Consultants	0	0	0	0	0
Other	0	0	0	0	0
Total for One-time	\$9,500	0	0	0	0
B. Recurring:					
Administration	0	0	0	0	0
Faculty (summer and full	\$7,500	\$7,500	\$57,000	\$57,000	\$57,000
time)	\$20,000	\$20,000	\$20,000	\$21,000	\$21,000
Staff (secretary)	\$7,425	\$7,425	\$20,790	\$20,790	\$20,790
Benefits #	\$8,000	\$4,000	\$2,000	\$2,000	\$2,000
Equipment	0	0	0	0	0
Library	\$4,000	\$4,000	\$4,000	\$5,000	\$5,000
Travel	\$4,000	\$4,000	\$3,000	\$3,000	\$3,000
Other					
Total for Recurring Expenditures	\$50,925	\$46,925	\$106,780	108,790	\$108,790
TOTAL EXPENDITURES	\$60,425	\$46,925	\$106,790	\$108,790	\$108,790
2. Revenues					
State appropriations (new FTE)					
*State appropriations (old)					
Tuition/Fees **	\$192,717	\$241,432	\$298,607	\$336,733	\$381,204
Institutional Resources					
Grants/Contracts	\$149,000*	0	0	0	0
Gifts	0	0	0	0	0
Other (in-kind donations, etc.)	0	0	0	0	0
TOTAL REVENUES	\$341,717	\$241,432	\$298,607	\$336,733	\$381,204
NET REVENUES	\$281,292	\$194,507	\$191,817	\$227,943	\$272,414

* Money already received and is in MTSU Foundation Account.

Benefits included for faculty and staff positions.

**Tuition projections are based on two-thirds in-state tuition and one-third out-of-state, using 04-05 rates.

1.1.30 POST APPROVAL MONITORING: An annual performance review of the proposed program will be conducted for the first five years following approval. The review will be based on goals established in the approved program proposal. At the end of this period, campus, governing board, and Commission staff will perform a summative evaluation. These goals include, but are not limited to enrollment and graduation numbers, program costs, progress toward accreditation, library acquisitions, student performance and other goals set by the institution and agreed

upon by governing board and Commission staff. As a result of this evaluation, if the program is found to be deficient, the Commission may recommend that the governing board terminate the program. Copies of such recommendation will be forwarded to the Education Committees of the General Assembly. The Commission may also choose to extend this period if additional time is needed and requested by the governing board.