

# ATTACHMENT II

**Program Proposal  
Associate in Engineering Technology  
Major in Engineering Design Technology  
Midlands Technical College**

**Summary**

Midlands Technical College requests approval to offer the Associate in Engineering Technology degree program with a major in Engineering Design Technology for implementation in Fall 1999.

The proposal was approved by the board of Midlands Technical College on September 16, 1998. It was approved by the State Board for Technical and Comprehensive Education on January 27, 1999. It was received by the Commission on Higher Education on February 11, 1999, and approved by the Advisory Committee on Academic Programs without substantive comment at its meeting on April 13, 1999.

The purpose of the program is to prepare students for entry-level positions and to upgrade skills for the person presently employed in industries requiring mechanical, manufacturing, design/drafting or maintenance technicians. The proposed program will replace both the Mechanical Engineering Technology (MET) and Engineering Graphics Technology (EGT) programs. The College plans to phase these two existing programs out by Fall 1999 with appropriate efforts to be made to accommodate currently enrolled students in those programs. Replacement of these two programs with the proposed one will make better use of the resources of the institution and provide students with an enriched curriculum which will make them more flexibly based for the marketplace.

Approximately 68 openings will occur in the Midlands service area for each of the next three years, based upon the institution's survey of employers.

The current two programs have had low enrollments, so that the enrollment and quantity of graduates is not large enough to support separate programs. The proposed program will stabilize enrollment in part because it will combine the two current programs' enrollments and because it is expected to be perceived as more attractive than the current two. Enrollment will not grow from the combined base of the two existing programs since nationally and locally a decrease in engineering technology enrollments has been noted. This is despite the fact that the employment opportunities for graduates of the proposed program are expected to continue to expand. Anticipated student enrollment is 48 FTE in 1999-2000; 66 FTE in 2000-2001; and 66 FTE in 2001-2002.

Graduates of the new program will have several options to transfer to existing four-year institutional programs in the State. These include the B.S. program in Mechanical or Electrical Engineering at USC, if the students also complete a Certificate

in Engineering Transition. Other transfer-applicable programs for which graduates of the new program will be assured are the Bachelors in Engineering Technology program at South Carolina State University, the Industrial Education and Construction Management program at Clemson; and the Industrial Mathematics program at USC-Aiken.

The new program will be a hybrid of the current two programs with an increased emphasis on electronic controls. Seventeen currently offered courses will no longer be offered under the new program. No new courses will be added to the curriculum of the college or to the State Board for Technical and Comprehensive Education's Catalogue of Approved Courses (CAC). However, four courses which are not currently a part of either the MET or the EGT, but are found in the CAC, will form part of the proposed program's curriculum. Computer Assisted Design (CAD) will be increased from four (as in the current MET) to 12 semester hours and reduced from 14 (as in the current EGT) to 12 hours. Total credit hours in the new program will be 78, including a cooperative work experience or engineering technology senior systems project.

The new program is also a new one for the State Board for Technical and Comprehensive Education (SBTCE). Thus, a new statewide model was approved by the SBTCE on January 27, 1999.

No new faculty members will be required, since faculty members in the existing EGT and MET programs will be reassigned to teach in this proposed program. No new physical plant space, new equipment, or funds for library holdings are requested for the first three years of the program's operations.

No new costs are anticipated for the library holdings for the proposed program.

Shown below are the estimated projections of existing and new costs associated with implementation of the proposed program for its first five years as compared with the estimated revenues projected under the Mission Resource Requirement and the Resource Allocation Plan.

Year	Estimated Existing Costs (Instructional)	Estimated New Costs	Total Costs	State Appropriation	Tuition	Total Revenue
1999-2000	359,978	0	359,978	0	77,567	77,567
2000-01	503,969	0	503,969	166,870	108,638	275,509
2000-02	503,969	0	503,969	233,590	108,638	342,229
2000-03	503,969	0	503,969	233,590	108,638	342,229
2002-04	503,969	0	503,969	233,590	108,638	342,229

These data demonstrate that the revenues anticipated for the proposed program will not cover costs during any of the first five years of the program. Nevertheless, the institution

is committed to offering this program because of the need for it in the State of South Carolina.

The program will seek accreditation by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET). Accreditation is required for maximizing state support under Performance Funding as well as assuring credibility of graduates for purposes of transfer to baccalaureate-level programs.

No unique costs or other special state appropriations are required or requested.

### **Recommendation**

The Committee recommends that the Commission approve the proposed program leading to an Associate of Engineering Technology degree with a major in Engineering Design Technology at Midlands Technical College for implementation in Fall 1999, provided that no "unique cost" or other special State funds be required or requested and provided further that the Mechanical Engineering Technology and Engineering Graphics Technology programs are discontinued by Fall 1999.

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