APPENDIX D

Program Planning Summary State Board for Technical and Comprehensive Education

(Not to exceed three pages in length)

1. College: Piedmont Technical College
2. Award: Associate in Industrial Technology
3. Major: Mechatronics Technology
4. Designation (Check one)

   a. __X__ New Program Proposal

   __70-75__ Number of credit hours

   b. _____ Program Modification

   _____ Number of credit hours

5. Proposed Date of Implementation: Fall 2009
6. Justification of Need:

Piedmont Technical College's (PTC) mission is to respond to the academic, training, and public service needs through excellence in teaching and educational services. PTC contributes to the economic growth and development of the largest geographical region of the technical college system: Abbeville, Edgefield, Greenwood, Laurens, McCormick, Newberry, and Saluda counties. In support of this mission, PTC proposes to develop and implement an Associate in Industrial Technology with a major in Mechatronics Technology to provide the opportunity to pursue training in a discipline of Industrial Technology that is in high demand.

Currently, there is a strong demand locally, statewide, and nationally for graduates who have technical training in electronics, fluid power, programmable logic control, and robotics. This advanced level of training is needed to operate highly technical machines and to implement processes in local industries to better compete in a global market. Also, this training is essential to

attract more technically advanced industries to PTC's seven county service area as well as the state.

7. Anticipated Program Demand and Productivity:

In the latter part of 2006, BMW of Greer, SC requested that a consortium of the upstate technical colleges study the possibility of a common curriculum to meet their growing demand for maintenance technicians. This consortium became the "Upstate Alliance for Technical Training" with funding through a grant from Advance SC. The members of the alliance were Greenville Technical College, Piedmont Technical College, Spartanburg Community College, Tri-County Technical College, and York Technical College. Each college conducted a needs survey for their respective service areas. Based on these surveys, the alliance determined that the need for higher skill levels in maintenance technicians was not limited to BMW, but such needs were noted by manufacturing companies throughout the upstate.

PTC's needs survey showed the demand for higher skilled technicians to be quite significant. The respondents to PTC's survey anticipate hiring 140 full-time maintenance technicians over the next three years with an average entry-level salary of $30,000 – $40,000.

PTC implemented two new Mechatronics certificates in the fall of 2008. The expected enrollment for the first year is 20-30 full-time students participating in day and evening classes. This number is expected to grow over the next three years. With this request, PTC hopes to combine the two certificates along with 15 credit hours of general education courses into this proposed associate degree.

8. Assessment of Extent to Which Proposed Program Duplicates Existing Programs in the State:

Currently, there are no other Associate Degrees in Industrial Technology with a major in Mechatronics Technology offered within the state system. There are three technical colleges (Aiken, Greenville, and York Technical Colleges) that offer an Associate Degree in Industrial Technology with a major in Industrial Maintenance Technology (IMT). The IMT degree has always been aligned more with mechanical maintenance and does not focus on the higher level technology required for more advanced machines and processes. The IMT program no longer meets the industry needs of PTC's service area.

9. Relationship of the Proposed Program to Existing Programs at the Proposing Institution:

The Industrial Technology division at PTC offers associate degrees in Automotive Technology, Building Construction Technology, Heating, Ventilation, Air Conditioning Technology, diplomas in Welding and Machine Tool, and approximately 35 certificates in the industrial cluster. In fall 2008, the college decided to replace the fading Industrial Maintenance Mechanics certificate with two new Mechatronics certificates. The students have expressed a tremendous amount of excitement over the new certificate programs in Mechatronics. The faculty feels strongly that the proposed program will compliment the other great programs in the Industrial Technology Division at PTC.

10. Relationship of the Proposed Program to Other Institutions via Inter-Institutional Cooperation:

PTC is proposing a two-year associate degree program designed primarily as a terminal degree. The goal of the proposed program is to prepare graduates to attain the required competencies needed to find employment with high-tech industries. A plan is underway for students to obtain national certification through Festo Corporation in fluid power systems. A Siemens Mechatronics Level I certification and an OSHA ten hour safety certification will also be obtainable. Also, through the alliance, the common curriculum will help to make transferring from one participating college to another easier for a student who has to relocate.

11. Total Costs Associated With the Proposed Program (General Estimates Only):

The Upstate Alliance for Technical Training and Advance S.C. grant provided $313,000 for new equipment purchased for this program. A lab was constructed from two classrooms at a cost $6,000 to house this new equipment.

Annual estimated costs associated with the program are as follows:

	Year 1	Year 2	Year 3
Faculty Salaries @ 50%. (Faculty also teach the Industrial Electronics Technology Program)	$109,000	$112,500	$116,000
Supplies & Materials	$10,000	$10,000	$10,000
Library Resources	$600	$600	$600
Other (Certifications)	$1,500	$1,500	$1,500
Total Projected Costs	$121,000	$124,600	$128,100

(Signature of College President) (Date)