OHIO BOARD OF REGENTS

Agenda Item 6.2 Kent State University – Trumbull Campus, Associate of Applied Science degree in High Technology Manufacturing

RESOLUTION

BE IT RESOLVED: upon the recommendation of the Chancellor and with the concurrence of the Initiatives Committee of the Ohio Board of Regents that the following new degree program is approved:

Kent State University – Trumbull Campus
Associate of Applied Science degree in High Technology Manufacturing

BACKGROUND

Kent State University – Trumbull Campus
Associate of Applied Science degree in High Technology Manufacturing

Kent State University – Trumbull Campus has developed an Associate degree program in High Technology Manufacturing in response to the growing need for skilled entry-level technicians to support semiconductor manufacturing and the photonic related industries. Students will be prepared for employment in a wide range of positions related to the design, manufacture and application of semiconductor and photonic devices including lasers. The program will create a strong base of technical knowledge in the region to support the photonic, semiconductor and microchip fabrication processes.

This program is part of the regional strategy to promote the growth of semiconductor manufacturing within the region. The proposed degree program is part of the overall regional strategy for economic development that is being supported by the Kent State University Trumbull Campus. The Photonics component prepares students for a career in the manufacture, design and application of photonic devices. Photonics technology involves the generation and harnessing of light and others forms of radiant energy. The technology is used in optical components and instruments, lasers and other light sources, fiber optics, and instrumentation.

Students will develop a technical knowledge related to electrical/electronic imaging, electronic controls, electronic sensors, electronic drawing using CAD software, semiconductor manufacturing processes and materials, fiber optics and lasers. Students will gain an understanding of the complete process of taking silicon from its raw state then fashioning it into wafers, manufacturing the integrated circuits on the wafers and finally testing the integrated circuits to see if they perform specifications set for the product.

Technical skills related to these areas include such job titles as Equipment Engineering Technician, Micro-contamination Technician, and Facilities Technician. This degree will also allow students to work in a variety of electronic occupations. The most compelling reason for adding the proposed degree program is the expansion of semiconductor applications and the corresponding growth in related manufacturing. This growth has created an acute shortage of technically trained persons for manufacturing jobs. The proposed program was developed with heavy involvement from local industry and economic development officials.