

Evaluation of the Professional Science Masters (PSM) Degree for Mechanical Engineering Technology Programs

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Abstract

The Professional Science Master's (PSM) is an innovative, graduate degree designed to allow students to pursue advanced training in science or mathematics, while simultaneously developing workplace skills highly valued by employers. Internships and cross-training in business and communications are important components in PSM degrees. Industrial advisory boards play an active role in the development of the degree. This well designed degree prepares students for current as well as future professional career opportunities. Requirements of the thirty hour program includes nine hours of business/ communications courses, six hours of core mechanical engineering technology (MET) courses, six hours of a mechanical engineering concentration, six hours of approved electives and three hours of professional experience.

Typical advanced degrees for engineering and engineering technology programs are MS degrees or the MBA degree. The PSM is new and a “non-standard” degree. Therefore, many factors were considered before finally making a decision regarding whether to proceed with the development of this degree. An important part of the degree development was a survey of local industry was performed to determine if this degree would be accepted in industry. Evaluation of other advanced degrees in Mechanical Engineering Technology Programs was also performed.

Industry’s reaction to the PSM degree is an important result that will be presented. As was expected, not all industry supported the program. Reaction of MET students that have received advanced degrees is summarized and includes financial/ responsibility advantages of advanced degrees. Finally, a partial summary of advanced degrees that MET students typically receive and their benefits will be presented.