

Profile of a Certified Engineering/Applied Science Technologist

A Certified Engineering Technologist or Applied Science Technologist (hereinafter referred to as the Technologist) is a professional who, through academic training and experience in the application of mathematics and engineering or scientific principles, is capable of assuming responsibility and of exercising independent judgment in the field of engineering or applied science technology in which training has been achieved. By virtue of this training and experience, a Technologist is prepared to take final responsibility for all aspects of work within this field of training.

Career Opportunities

The Technologist may carry out a wide range of complex work processes in the specialty and identified field of technology in which certification was granted. Employment or career opportunities exist in most phases of industry, consulting, business, governmental and public organizations. Typical areas would include design, marketing, sales, estimating, research and development, production control, purchasing, operations and production, testing, quality management, maintenance, customer and field service, management and supervision of projects and people, instruction and teaching. Such work may be independent or in association with other professionals as part of a team.

Education and Training

The academic training for a Technologist is based upon a core of applied mathematics and engineering/ science fundamentals. The mathematics core would include topics such as differential equations, integration, linear algebra, analytical geometry, trigonometry, statistics and computer related mathematics, permitting the Technologist to use mathematics as a tool in the synthesis of designs or in the analysis of the technical problems of the field of discipline. The engineering and science fundamentals provide a firm base along with mathematics for training in the engineering/applied science, applicable to a particular branch or specialty of technology. The academic and theoretical portion of a program of training is suitably reinforced by laboratory and project experience amounting to approximately one-third of the total program.

Certification

An individual who successfully completes the examinations of a provincial association, or who graduates from an accredited technologist level program, or who otherwise meets the academic standards established by the certifying body, may on completion of at least two years of acceptable practical experience in an area of work directly related to the area of academic achievement, be certified as an engineering technologist or applied science technologist.

Duties and Responsibilities

The Technologist uses an applied approach based upon a comprehensive understanding of the field of technology in which certification was granted. The Technologist evaluates assignments, establishes objectives, defines problems and determines procedures and actions to resolve the problems.

The Technologist may:

- design equipment, processes or systems; interpret and prepare specifications, technical drawings or instructions; prepare estimates and manage projects.
- specify tests; conduct non-routine tests; develop proto types; operate pilot plants; trouble-shoot complex equipment; resolve production or construction problems; compile experimental data, or prepare reports.
- supervise, train, coordinate and assume administrative responsibility for the work of others and participate in short and long range planning.

The Technologist carries out studies, makes calculations, prepares or develops programs, provides instructions, or implements projects.

The Certified Engineering Technologist or Applied Science Technologist will assume responsibility for his/her work and is at all times bound by a professional code of ethics. He/She will be identified by one of the following certification marks in Manitoba of C.E.T. or A.Sc.T.