

# SURVEYING ENGINEERING TECHNOLOGY (CERTIFICATE T0879)

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## Natural Sciences Division

### Certificate T0879

The Surveying Engineering Technology certificate provides students with introductory skills that lead to a career in Surveying Engineering Technology. The focus of the program is on the examination and documenting of an area's boundaries and features for the purposes of constructing contour maps, the application of geographic information systems (GIS), the creation of technical communication and documentation, and the applications of unmanned aircraft systems for land surveying. Students will complete substantial projects to aid in their career prospects. This advanced level certificate may aid in the student's search for an entry-level position as a surveying technician, computer aided design (CAD) technician, engineering technician, field technician or transfer into a discipline-related program.

## Required Courses

Course Prefix	Course Name	Units
ENGR 1	Introduction to Engineering	2
ENGR 1C	Engineering Critical Thinking	3
ENGR 18	Introduction to Engineering Graphics	3
ENGR 24	Engineering Graphics	4
GEOG 10	Introduction to Geographic Information Systems	3
Choose one of the following:		3-4
MATH 150	Trigonometry	
	or MATH 160 Precalculus Mathematics	
	or MATH 180 Calculus and Analytic Geometry I	
SURV 1A	Surveying	3
SURV 1B	Surveying	3
SURV 1C	Computer-Aided Drafting for Surveyors and Civil Engineers	3
AERO 160	Unmanned Aircraft Systems Basic	4
<b>Total Units</b>		<b>31-32</b>

## Program Learning Outcomes

Review Student Learning Outcomes (SLOs) (<http://www.mtsac.edu/instruction/outcomes/sloinfo.html>) for this program.