# TECHNICAL MATHEMATICS, CERTIFICATE

## Certificate in Technical Mathematics (203001C)

This certificate is aimed at developing technical mathematics knowledge and the ability to apply this knowledge in an industrial setting.

#### **Program Contact**

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The following information has official approval of The Department of Mathematics and The College of Engineering and Polymer Science, but is intended only as a guide. Completion of this certificate is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.

The following courses constitute a "Certificate in Technical Mathematics" and must be completed with a minimum grade point average of 2.5 overall for the certificate to be noted on the student's record. The granting of this certificate does not require the completion of a degree. However, coursework can be applied to an A.A, A.S., or A.A.S. degree or to B.S. degrees in Engineering Technology or CIS-Cybersecurity.

### Summary

Code	Title	Hours
Core Courses		8-9
Electives		3-2
Total Hours		11

#### **Core Courses**

Code	Title	Hours
Complete 8-9 credits from the following:		8-9
MATH:154	Technical Algebra and Trigonometry 2	
MATH:261	Applied Finite Mathematics	
MATH:255	Technical Calculus I	
MATH:356	Technical Calculus II	
MATH:361	Applied Cryptography	
MATH:461	Applied Cryptanalysis	
MATH:360	Advanced Mathematics for Surveyors	
Total Hours		8-9

#### **Electives**

Code	Title	Hours	
Complete 3-2	3-2		
MATH:261	Applied Finite Mathematics		
MATH:260	Advanced Trigonometry		
MATH:345	Technical Data Analysis		
MATH:361	Applied Cryptography		

MATH:461 Applied Cryptanalysis  MATH:360 Advanced Mathematics for Surveyors  MATH:290 Special Topics: Associate Studies Mathematics  MATH xxx 200/300/400 Level mathematics courses approved by the Technical Mathematics faculty of the Department of Mathematics	Total Hours		3-2
MATH:360 Advanced Mathematics for Surveyors  MATH:290 Special Topics: Associate Studies Mathematics	MATH xxx	approved by the Technical Mathematics faculty of	
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MATH:461 Applied Cryptanalysis	MATH:360	Advanced Mathematics for Surveyors	
	MATH:461	Applied Cryptanalysis	

If only 8 credits are taken from the core course list, then 3 credits must be taken from the electives in order to meet the minimum 11 credit requirement for the certificate.