## 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 $\mathbf{8 - 9}$ credits from the following: | $\mathbf{8 - 9}$ |  |
| 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 |  | $\mathbf{8 - 9}$ |

## Electives

| Code | Title | Hours |
| :--- | :--- | ---: |
| Complete $\mathbf{3 - 2}$ credit hours of the following: ${ }^{\mathbf{1}}$ | $\mathbf{3 - 2}$ |  |
| 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 <br> approved by the Technical Mathematics faculty of <br> the Department of Mathematics |

Total Hours
${ }^{1}$ 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.

