



UNIVERSITI TEKNOLOGI MARA

MAT099: FOUNDATION MATHEMATICS II FOR ENGINEERS

Course Name (English)	FOUNDATION MATHEMATICS II FOR ENGINEERS APPROVED				
Course Code	MAT099				
MQF Credit	4				
Course Description	This course is a sequel to Foundation Mathematics I. It covers wide range of topics in calculus including differentiation, application of differentiation, series, integration, application of integration, numerical methods, differential equations and conic section. Applications in engineering related problem will also be discussed in certain topics.				
Transferable Skills	Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts. Demonstrate ability to apply creative, imaginative and innovative thinking and ideas to problem solving. Demonstrate ability to investigate problems and provide effective solutions. Demonstrate maturity of thoughts when responding to multiple inputs and contexts.				
Teaching Methodologies	Lectures, Case Study, Tutorial, Collaborative Learning				
CLO	CLO1 Use appropriate and relevant fundamental calculus principles in assessing conceptual understanding of changing quantity CLO2 Demonstrate self-confidence and self-awareness through the use of geometrical approaches in addressing concrete scientific issues CLO3 Integrate calculus theoretical and analytical skills in solving a variety of problems related to changing quantities. CLO4 Demonstrate the ability to express new ideas and interest relating to calculus concept in mathematical case study				
Pre-Requisite Courses	No course recommendations				
Reading List	<table border="1"> <tr> <td>Recommended Text</td> <td> <ul style="list-style-type: none"> • Ahmad Kamil Hussain et. al. 2017, <i>Notes Compilation Foundation Mathematics II For Engineers</i>, Center of Foundation Studies, UiTM Selangor, Kampus Dengkil • Nor Hafizah A. Hamid et.al 2017, <i>Notes Compilation Foundation Mathematics I</i>, Mathematics Unit, Centre of Foundation Studies, UiTM Dengkil • Sharifah Norasikin Syed Hod, Nurul Farhana Zolkipli, Nurashikin Abdullah 2015, <i>Foundation Mathematics</i>, McGraw-Hill Education (Malaysia) Sdn. Bhd. Malaysia [ISBN: 9789670761107] • Ong Beng Sim et. al. 2016, <i>Mathematics for Matriculation Semester 1</i>, 5th Ed., Oxford Fajar [ISBN: 9789834718022] • Ong Beng Sim et. al 2016, <i>Mathematics for Matriculation Semester 2</i>, 5th Ed., Oxford Fajar [ISBN: 9789834720056] </td> </tr> <tr> <td>Reference Book Resources</td> <td> <ul style="list-style-type: none"> • Howard Anton, et. al., <i>Calculus</i>, 11th Edition, Wiley, 2016 2016, <i>Calculus</i>, 11th Edition Ed., Wiley [ISBN: 978-1-118-884] • James Stewart 2016, <i>Calculus</i>, 8th Edition Ed., Cengage Learning [ISBN: 9781305272378] • James Stewart 2015, <i>Calculus: Early Transcendentals</i>, 8th Edition Ed., Cengage Learning Boston, USA [ISBN: 978-1-285-74] </td> </tr> </table>	Recommended Text	<ul style="list-style-type: none"> • Ahmad Kamil Hussain et. al. 2017, <i>Notes Compilation Foundation Mathematics II For Engineers</i>, Center of Foundation Studies, UiTM Selangor, Kampus Dengkil • Nor Hafizah A. Hamid et.al 2017, <i>Notes Compilation Foundation Mathematics I</i>, Mathematics Unit, Centre of Foundation Studies, UiTM Dengkil • Sharifah Norasikin Syed Hod, Nurul Farhana Zolkipli, Nurashikin Abdullah 2015, <i>Foundation Mathematics</i>, McGraw-Hill Education (Malaysia) Sdn. Bhd. Malaysia [ISBN: 9789670761107] • Ong Beng Sim et. al. 2016, <i>Mathematics for Matriculation Semester 1</i>, 5th Ed., Oxford Fajar [ISBN: 9789834718022] • Ong Beng Sim et. al 2016, <i>Mathematics for Matriculation Semester 2</i>, 5th Ed., Oxford Fajar [ISBN: 9789834720056] 	Reference Book Resources	<ul style="list-style-type: none"> • Howard Anton, et. al., <i>Calculus</i>, 11th Edition, Wiley, 2016 2016, <i>Calculus</i>, 11th Edition Ed., Wiley [ISBN: 978-1-118-884] • James Stewart 2016, <i>Calculus</i>, 8th Edition Ed., Cengage Learning [ISBN: 9781305272378] • James Stewart 2015, <i>Calculus: Early Transcendentals</i>, 8th Edition Ed., Cengage Learning Boston, USA [ISBN: 978-1-285-74]
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Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources