UNIVERSITI TEKNOLOGI MARA

MAE576: METHODS OF TEACHING MATHEMATICS

Course Name (English)	METHODS OF TEACHING MATHEMATICS APPROVED
Course Code	MAE576
MQF Credit	3
Course Description	As the era of reform education continues, it becomes essentially important that we develop a conceptually rich understanding of what effective mathematics teaching is and how to foster it. A major part of this course centers on the teaching process itself and takes into account many inextricably linked ideas, including the ways in which student learns mathematics, the nature of mathematics to be taught, underlying social condition, and the many constraints placed directly or indirectly on classroom teachers. The content of this course is designed, basically, to perturb teachers' thinking, provide a vision of teaching and ideas to implement these visions.
Transferable Skills	Demonstrate ability to manage personal performance to meet expectations
Teaching Methodologies	Lectures, Microteaching, Discussion, Presentation
CLO	CLO1 Interpret the Theories of Mathematics Teaching and Learning CLO2 Outline School Mathematics Content CLO3 Analyse Important Mathematical and Pedagogical Domains in school mathematics. CLO4 Apply pedagogical content knowledge in classroom teaching
Pre-Requisite Courses	No course recommendations

Topics
1. 1) Learning to Teach Mathematics [Content knowledge (CK), Pedagogical Knowledge (PK), Pedagogical Content Knowledge (PCK), Teacher Knowledge Model] 1.1) n/a
2. 2) Theories in Teaching and Learning Mathematics 2.1) n/a
3. 3) Analysis of Mathematics Curriculum 3.1) n/a
4. 4) Planning a Mathematical Instruction. 4.1) n/a
5. 5) Assessments in Teaching and Learning. 5.1) n/a

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Group Project	PROJECT	30%	CLO3
Practical	MICROTEACHING	30%	CLO4
Presentation	PRESENTATION	20%	CLO2
Test	TEST	20%	CLO1

Reading List

Recommended Text

- **Saad, N. S., & Ghani, S. A. 2010, *Teaching Mathematics in Secondary Schools: Theories and Practices.*, Universiti Pendidikan Sultan Idris. Tanjung Malim, Malaysia**
- **Sullivan, P., & Lilburn, P. 2018, *Open-Ended Maths Activities*, Oxford University Press. Oxford, United Kingdom**
- **Zakaria, E., Rosli, R., & Maad, S. M. 2015, *Isu dan Cabaran dalam Pendidikan Matematik*, Fakulti Pendidikan, Universiti Kebangsaan Malaysia. Selangor, Malaysia**

Reference Book Resources

- **Parmjit Singh, Lim Chap Sam 2005, *Improving Teaching and Learning of Mathematics: From Research to Practice*, 1 Ed., 11, Pusat Penerbitan Universiti (UPENA) Selangor**
- **Boaler, J., Munson, J., & Williams, C. 2019, *Mindset Mathematics: Visualizing and Investigating Big Ideas, Grade 7*, John Wiley & Sons Inc. New York, United States [ISBN: 1119357918]**
- **Boaler, J., Munson, J., & Williams, C. 2019, *Mindset Mathematics: Visualizing and Investigating Big Ideas, Grade 8 1st Edition*, John Wiley & Sons Inc. New York, United States [ISBN: 1119358744]**
- **Idris, N. 2005, *Pedagogi dalam Pendidikan Matematik.*, Utusan Publications & Distributors Sdn. Bhd. Kuala Lumpur, Malaysia**

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources