MAT183-20234

Week	Date	Topic
1	2/10/2023 - 6/10/2023	**1. FUNCTIONS, LIMITS AND CONTINUITY** 1.1 Functions 1.2 Operations on functions 1.3 Graph of functions Tutorial/Lab
2	9/10/2023 - 13/10/2023	1.4 Limits (An Intuitive Introduction and Computational Approach) Tutorial/Lab
3	16/10/2023 - 20/10/2023	1.5 Continuity 1.6 Limits and Continuity of Trigonometric Functions Tutorial/Lab
4	23/10/2023 - 27/10/2023	**2. DIFFERENTIATION** 2.1 An Introduction to the Derivative: Tangent 2.2 Definition of Derivative 2.3 Techniques of Differentiation Tutorial/Lab
5	30/10/2023 - 3/11/2023	2.4 Derivatives of Trigonometric, Exponential and Logarithmic Functions 2.5 The Chain Rule
6	6/11/2023 - 10/11/2023	2.6 Implicit Differentiation 2.7 Linear Approximations and Differentials **3. APPLICATIONS OF DIFFERENTIATION** 3.1 Related Rates Tutorial/Lab
		Assessment 1
	13/11/2023 - 19/11/2023	**Mid-semester Break**
7	20/11/2023 - 24/11/2023	3.2 Intervals of increasing and decreasing functions 3.3 Concavity and inflection points

Week	Date	Topic
		3.4 Relative maxima and minima
		3.5 Critical numbers
		3.6 First and Second Derivative Tests
		Tutorial/Lab
8	27/11/2023 - 1/12/2023	3.7 Graphs of Polynomial Functions
		3.8 Graphs of Rational Functions
		3.9 Asymptotes
		3.10 Maximum and Minimum Values of a Function
		3.11 Applied Maximum and Minimum Problems
		Tutorial/Lab
9	4/12/2023 - 8/12/2023	3.12 Rolle's Theorem; Mean-Value Theorem
		4. INTEGRATION
		4.1 Anti-derivatives
		4.2 The Indefinite Integral
		Tutorial/Lab
		Assessment 2
10	11/12/2023 - 15/12/3023	4.3 Integration by Substitution
		4.4 Sigma notation; Area as a Limit
		4.5 The Definite Integral
		Tutorial/Lab
	12/12/2023 (Sun)	**Deepavali**
11	18/12/2023 - 22/12/2023	4.6 Properties of Definite Integrals
		4.7 Fundamental Theorems of Calculus
		Tutorial/Lab
		Assessment 3
	25/12/2023 - 1/1/2024	**Special Break**
	25/12/2023 (Mon)	**Krismas**
12	2/1/2024 - 5/1/2024	4.8 Evaluating Definite Integrals by Substitution

Week	Date	Topic
		5. APPLICATIONS OF INTEGRATION
		5.1 Area Between Two Curves
		Tutorial/Lab
		Assessment 3
13	9/1/2024 - 12/1/2024	5.2 Volumes by Disks Method
		5.3 Volumes by Washer Method
		Tutorial/Lab
14	15/1/2024 - 19/1/2024	5.4 Volumes by Cylindrical Shell Method
		Tutorial/Lab
	22/1/2024 - 28/1/2024	**Revision Week**
	29/1/2024 - 18/2/2024	**Final Examination**
	8/2/2024 (Thu)	**Israk & Mikraj**
	10/2/2024 (Sat) - 11/2/2024	**Chinese New Year**
	19/2/2024 - 17/3/2024	**Semester Break**

Ref: https://hea.uitm.edu.my/v4/index.php/calendars/academic-calendar

https://www.perlis.gov.my/index.php/suk-perlis/info-umum/hari-kelepasan-am-negeri-perlis

Assessment:

Final Assessment   **: 50%**

Continuous assessment   **: 50%**
    1. Test   : 30%
    2. Lab Assignment (Group)   : 10%
    3. Video Presentation (Group)   : 10%

Recommended Text:

1. Stewart, J., Clegg, D. (2020). Calculus: Early Transcendentals. Singapore: Cengage Learning. [ISBN: 9780357113516]

References

1. Anton, H., Bivens, I. C., Davis, S. (2005). Calculus: Early Transcendentals Single Variable. United States: Wiley. [ISBN: 9781119244912]

2. Shamsatun Nahar Ahmad, Farah Suraya Md Nasrudin, Muhammad Yassar Yusri 2020, Fundamentals Of Calculus, 1 Ed., UiTM Cawangan Johor [ISBN: 9789673636044]

3. Hass, J. R., Heil, C. E., & Weir, M. D. (2019). Thomas' Calculus: Early Transcendentals in SI Units (14th edition). Pearson. [ISBN: 9781292253114]

Week	Date	Topic

4. Larson, R., & Edwards, B. H. (2019). Calculus: Early transcendental functions. Cengage. [ISBN: 9781337782432]

5. Adams, R., & Essex, C. (2009). Calculus: A Complete Course, Seventh Edition (7th edition). Pearson Education Canada. [ISBN: 9780321549280].

6. Varberg, D., deceased, E. P., & Rigdon, S. (2013). Calculus: Pearson New International Edition (9th edition). Pearson. [ISBN: 9781292039671]