

Math 202

CALCULUS II

King Abdulaziz University.

Department of Mathematics.

First Semester 1436-1437. (2015 - 2016)

Math 202 Syllabus.

Textbook : Calculus Early Transcendental, seventh Edition, Author: James Stewart.

ملاحظة مهمة: سوف يتم تدريس الباب السابع قبل الباب السادس

Chapter	Section	Definitions & Theorems	Examples	HW على الطالبات
Chapter 3	3.11 Hyperbolic Function	Definition of the Hyperbolic functions, hyperbolic identities, derivatives, inverse hyperbolic functions, their derivatives. Tables 1-6. Figures 1-3,8-10	1-5	1-21 (odd),31-45(odd),38,42
Chapter 4	4.4 Indeterminate forms and L'Hospital's Rule	All Forms	1-9	7-65 (odd),8,54
	4.9 Antiderivatives	Definition, theorem 1, table 2	1-4,6-7	1-47 (odd)

Chapter 5	5.1 Areas and Distances	The area problem: Figures 1-6,8-13. Definition 2	1	
	5.2 The Definite Integral	Definition 2. Note 1-3,5. Figures 1-4. Theorem 3,4. Equations 8-11. Properties 1-8.	1,4,6-8	17-20,35,39,41,42,47-50,53 59-63 (odd)
	5.3 The Fundamental Theorem of Calculus	Equation 1,5.FTC1,FTC2 (No proofs)	2,4-9	7-43 (odd),55-59 (odd)
	5.4 Indefinite Integrals and the Net Change Theorem	Indefinite integral, table 1.Applications, equations 2,3	1-6	5-17 (odd),21-45 (odd)
	5.5 The substitution Rule	Equations 1-7. The substitution rule. The substitution rule for definite integral. Symmetry	1-11	7-47 (odd),53-73(odd),24,40,44,48
Chapter 7 Techniques of integration	7.1 Integration by Parts	Equations 1,2,6	1-5	3-41 (odd),14
	7.2 Trigonometric Integrals	All strategy	1-9	1-49 (odd),44

	7.3 Trigonometric Substitution	All	1-7	5-29 (odd),24
	7.4 Integration of Rational function by Partial Fractions	All	1-6,8,9	7-33 (odd), 39-51
	7.5 Strategy for Integration	All with "Can we integrate all continuous functions?"	1-5	1-81 (odd)
	7.8 Improper Integrals	Type 1 and 2. Comparison Theorem.	1-10	5-39 (odd),41,49-55
Chapter 6 Applications of integrals	6.1 Areas Between Curves	Rules 2,3	1-2,5-6	1-17 (odd),21-29(odd)
	6.2 Volumes	Definition of volume. Disk and washer	2-6	1-17
Chapter 8 Further Applications of Integrations	8.1 Arc Length	Formulas 2-6	1,2,4	7-15,17,19-20,33,35
	8.2 Area of a Surface of Revolution	Formulas 4-8	1-3	5-16