DE LA SALLE UNIVERSITY
College of Science
Department of Mathematics

KEMATH2   *Calculus 2 for Chemistry and Biochemistry Majors*
Prerequisite: KEMATH1   *Prerequisite to: KEMATH3*

Instructor:_____   **Contact details:**_____
Consultation Hours:_____   **Class Schedule and Room:**_____

Course Description

This second course in analysis covers differentiation and integration of exponential, logarithm and trigonometric functions; the concepts of the definite and indefinite integral and some applications of the definite integral.

Learning Outcomes

On completion of this course, the student is expected to present the following learning outcomes in line with the Expected Lasallian Graduate Attributes (ELGA)

ELGA	Learning Outcome
Critical and Creative Thinker	At the end of the course, the student will be able to
Effective Communicator	apply differentiation of transcendental functions,
Lifelong Learner	indefinite and definite integration in solving various
Service-Driven Citizen	conceptual and real-world problems.

Final Course Output

As evidence of attaining the above learning outcomes, the student is required to submit the following during the indicated dates of the term.

Learning Outcome	Required Output	Due Date

Integration (10%)	Demonstrates integration of the concepts presented	Demonstrates some integration of the concepts presented	Demonstrates limited integration of the concepts presented	Demonstrates no integration of the concepts presented
Accuracy of Computations/ Solutions (15%)	Computations / solutions are correct and explained correctly	Computations/ solutions are correct but not explained well.	Computations/ solutions have some errors.	Incorrect computations/ solutions

Additional Requirements

At least 3 written quizzes, 1 final exam, seatwork, assignment, recitation, group work

Grading System

	FOR EXEMPTED STUDENTS (w/out Final Exam)	FOR STUDENTS with FINAL EXAM	
		with no missed quiz	*With one missed quiz*
Average of quizzes	95%	65%	55%
Seatwork, Assignment, Learning Output	5%	5%	5%
Final exam	-	30%	40%

Scale:

95-100%	4.0
89-94%	3.5
83-88%	3.0
78-82%	2.5
72-77%	2.0
66-71%	1.5
60-65%	1.0
<60%	0.0

Learning Plan

Learning Outcome	Culminating Topics	Week No.	Learning Activities
At the end of the course, the students will apply appropriate mathematical concepts, processes, tools, and technologies in the solution to various conceptual and real-world problems.	**I. THE DEFINITE INTEGRAL AND INTEGRATION** 1.1 The Differential 1.2 Anti-differentiation 1.3 Some Techniques of Anti-differentiation 1.4 The Definite Integral 1.5 The Fundamental Theorem of the Calculus **II. APPLIA20EE0.3ef1(ON)]TETQ**	Week 1-2	Discuss approximations using differentials. Define Anti-derivative. Establish basic anti-derivative formulas. Apply the notion of anti-derivative to rectilinear motion problems and separable differential equations. Set up the geometric interpretation of the definite integral. Relate the concept between derivative and definite integral.

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