National Taiwan University of Science and Technology

2020 Summer Program

MATH 122 Calculus 2

Course Outline

Term: June 22-July 17, 2020

Class Hours: 15:30-18:00 (Monday through Friday)

Course Code: MATH 122

Instructor: Professor Mark Sepanski

Home Institution: Baylor University

Office Hours: TBA and by appointment

Email: Mark_Sepanski@baylor.edu

Credit: 4

Class Hours: This course will have 72 class hours, including 40 lecture hours, 10 lecturer office hours, 10-hour TA discussion sessions, 2-hour review sessions, 10-hour extra classes.

Course Description:
Calculus is the study of continuous change. This course concludes the development of single variable calculus. Topics to be covered include applications of the integral, techniques of integration, differential equations, and infinite series.

Required Textbooks:
Calculus: Early Transcendentals, 4th Ed., by J. Rogawski, C. Adams, & R. Franzosa, W. H. Freeman, 2018, ISBN-10: 1319050743, ISBN-13: 978-1319050740.

Grading & Evaluation:

Homework

Homework will be assigned daily in class and is due at the beginning of the next class. Only a subset of homework problems will be graded. For its contribution to your overall course average, each homework assignment will be weighted equally and the lowest homework score will be dropped.

Course Grade

Your overall course average will be calculated with the weights as displayed in the table below.

Overall Course Average Weights

Homework	20%
Midterm	40%
Final	40%

There is no curving and no extra credit. Your course grade will be calculated as shown in the table below.

Course Grade

Overall Course Average	Letter Grade
90-100	A
80-89	B
72-79	C
50-71	D
0-49	F

Course Schedule:

Week	Date	Chapter	Sections
	06/22/2020	5	Summary: Definition of Integral Fundamental Theorem of Calculus Substitution
1	06/23/2020	6	6.1 Area Between Two Curves 6.2 Setting Up Integrals: Volume, Density, Average
	06/24/2020	6	6.3 Volumes of Revolution: Disks and Washers 6.4 Volumes of Revolution: Cylindrical Shells
	06/25/2020	7	7.1 Integration by Parts 7.2 Trigonometric Integrals
	06/29/2020	7	7.3 Trigonometric Substitution 7.4 Integrals Involving Hyperbolic and Inverse Functions
2	06/30/2020	7	7.5 Method of Partial Fractions 7.7 Improper Integrals
	07/01/2020		Overview 6 & 7
	07/02/2020		Midterm
	07/06/2020	8 & 9	8.2 Arc Length and Surface Area 9.1 Solving Differential Equations and Separation of Variables
3	07/07/2020	10	10.1 Sequences 10.2 Summing an Infinite Series
	07/08/2020	10	10.3 Convergence of Series with Positive Terms 10.4 Absolute and Conditional Convergence
	07/09/2020	10	10.5 The Ratio and Root Tests 10.6 Power Series
	07/13/2020	10	10.7 Taylor Polynomials 10.8 Taylor Series
4	07/14/2020		Overview 8, 9, & 10
	07/15/2020		Final Exam
	07/16/2020		Discussion of Final Exam