

CALCULUS TWO

SPRING 2020

COURSE SYLLABUS

INSTRUCTOR: MR. S. FRIEDBERG

EMAIL: SFriedberg@adelphi.edu

Office Hours: Mondays and Wednesdays 4:15 to 5:15pm

Fridays: 1:30 to 2:30pm

The course will have two exams and a cumulative final.

All exams will be weighted equally.

Your homework grade on Cengage will be computed as follows: 50% will be subtracted from your overall percentage. The remaining percentage will be divided by 7. Whatever is left over will be added to your final raw score. Doing well on the homework will raise your grade.

MISSED EXAMS:

If you miss an exam, there is no makeup exam.

If you miss an exam and can provide proof that you there was a legitimate reason for your absence, the exam will be dropped and will not count toward your final grade. Your course grade will be determined from the other exams. Otherwise the exam will count as a zero.

If you miss two exams, regardless of all factors and possible reasons, your grade for the course will be an F or an I, dependent upon my review and judgement.

COURSE MATERIAL:

Chapter 5

Sections 1 through 5

Riemann sums and basic methods to approximate area

Left Handed Sums, Right Handed Sums, Midpoint Sums, Trapezoidal Sums, Inscribed and Circumscribed Sums. Introducing limits to evaluate exact areas

Chapter 6

Sections 1 through 5 (skip section 4)

Areas between curves, Volumes of revolution, Average value of a function, Mean Value Theorem of Integral Calculus

Chapter 7

Sections 1 through 4, section 8 (to be done at the end of semester)

Techniques of Integration

The Method of Parts

The Extended Method of Parts

Integrating Powers of Trig Functions

Trig Substitutions

Method of Partial Fractions

Improper Integrals (to be done later)

Chapter 8

Sections 1 and 2

Arc length and Areas of Surfaces (by revolution)

Chapter 9

Section 3

Separable equations

Chapter 11

Sections 1 through 6, sections 8 through 11

The basic tests to see whether infinite series converge or diverge.

Sequences

Series

Geometric Series

Harmonic Series

The Integral Test

The p test

The Comparison Test

The Limit Comparison Test

The Ratio Test

Alternating Series Test

Absolute Convergence and Conditional Convergence

Taylor Series And Maclaurin Series – via integration by parts, by mean value theorem. Sine, cosine, natural log, exponential, arc tangent

