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MAT 121  
Fall 2019 Syllabus

**Instructor:** Mr. McCarthy

**Text:** Calculus: Early Transcendentals, 4<sup>th</sup> Edition

**Schedule:** MWF 2:15 – 3:05

**Grading:** Final grade for the course will be determined according to the following scale:

*Tests – 40%:* There will be three tests over the course of the semester as indicated in the course outline below.

*Exam – 30%:* The exam will be given on the week of 12/16 and cover all of the material listed in the course outline.

*Homework – 30%:* Homework will be given on a weekly basis, and will be due at the beginning of class each Monday. Late homework will not be accepted without a legitimate excuse.

**Course Description:**

MAT 121 is the first part of a two-semester course in Calculus that begins with a review of functions, with a focus on limits. Much of the class will focus on the derivative, differentiation techniques, and applications of those techniques. Students will also be introduced to the integral and the fundamental theorem of calculus.

**Course Outline:**

	Dates	Topics	Text
1	9/2 – 9/6	Functions, Transforming Functions	1:1 – 1:3
	9/2	Labor Day	No Class
2	9/9 – 9/13	Exponential / Log Fns., Tangent / Velo. Probs.	1:5 – 2:1
3	9/16 – 9/20	Limits, Limit Laws, Continuity	2:2 – 2:5

4	9/23 – 9/27	Asymptotes, Rates of Change, Derivatives	2:6 – 2:8
5	9/30 – 10/4	Derivative as Function, Polynomials, <b>Test 1</b>	2:9 – 3:1
6	10/7 – 10/11	Product / Quotient Rule, Trig Fns., Chain Rule	3:2 – 3:5
7	10/14 – 10/18	Implicit Diff., Higher Order Derivs., Logs	3:6 – 3:8
8	10/21 – 10/25	Related Rates, Max / Min, MVT	3:10 – 4:2
9	10/28 – 11/1 10/28, 11/1	<b>Test 2</b> Christ the King, All-Saints Day	No Class
10	11/4 – 11/8	Derivatives and Graphs, L'Hopital, Curves	4:3 – 4:5
11	11/11 – 11/15	Optimization, Anti-Derivatives,	4:7 – 4:10
12	11/18 – 11/22	Areas and Distances, Definite Integral, FTC	5:1 – 5:3
13	11/25 – 11/29 11/27 – 11/29	<b>Test 3</b> Thanksgiving Break	No Class
14	12/2 – 12/6 12/2	Indefinite Integrals, Substitution, Thanksgiving Break	5:4 – 5:5 No Class
15	12/9 – 12/13 12/13	Logarithm as Integral Semester Study Day	5:6 No Class
16	12/16 – 12/20	Exam Week	No Class