

**University of North Texas at Dallas**  
**Fall 2016**  
**SYLLABUS**

|  |   |                                  |                  |                                  |
|--|---|----------------------------------|------------------|----------------------------------|
| <b>Department of</b>                   |   | <b>Math &amp; Info. Sciences</b> | <b>School of</b> | <b>Liberal Arts and Sciences</b> |
| <b>Instructor Name:</b>                | Dr. Vinod Arya  |                                  |                  |                                  |
| <b>Office Location:</b>                | DAL2-226  |                                  |                  |                                  |
| <b>Office Phone:</b>                   | 972-338-1375  |                                  |                  |                                  |
| <b>Email Address:</b>                  | vinod.arya@untdallas.edu  |                                  |                  |                                  |
| <b>Office Hours:</b>                   | MW – 9 am-10 am; M - 11:30 am - 1 pm; W - 12:30 pm – 1 pm; MW – 2:30 pm – 3:00 pm   |                                  |                  |                                  |
| <b>Classroom Location:</b>             | DAL2-339  |                                  |                  |                                  |
| <b>Class Meeting Days &amp; Times:</b> | MW 10:00 am – 11:20 am, Recitation – W:11:30 am -12:20 pm   |                                  |                  |                                  |
| <b>Course Catalog Description:</b>     | Limits and continuity, derivatives and integrals; differentiation and integration of polynomial, rational, trigonometric, and algebraic functions; applications, including slope, velocity, extrema, area, volume and work; other selected topics.  |                                  |                  |                                  |
| <b>Prerequisites:</b>                  | Math 1650 (Pre-calculus); both Math 1600 (Trigonometry) and Math 1610 (Functions); or the consent of the instructor.  |                                  |                  |                                  |
| <b>Required :</b>                      | <b>MyMathLab software. Code: arya04765</b>  |                                  |                  |                                  |
| <b>Access to Learning Resources:</b>   | UNT Dallas Library:<br>phone: (972) 780-1616<br>web: <a href="http://www.untdallas.edu/library">http://www.untdallas.edu/library</a><br>email: <a href="mailto:library@untdallas.edu">library@untdallas.edu</a><br>UNT Dallas Bookstore:<br>phone: (972) 780-3652<br>web: <a href="http://www.untdallas.edu/bookstore">http://www.untdallas.edu/bookstore</a><br>e-mail: <a href="mailto:untdallas@bkstr.com">untdallas@bkstr.com</a> |                                  |                  |                                  |
| <b>Course Goals or Overview:</b>       | The goal of this course is to prepare and train students so that they are able to   |                                  |                  |                                  |
| 1                                      | Solve calculus problems.  |                                  |                  |                                  |
| 2                                      | Demonstrate knowledge of problem-formulation, problem-solving and modeling techniques central to applications of mathematics.   |                                  |                  |                                  |
| 3                                      | Manipulate and analyze numerical and graphical data to draw reasonable inferences and conclusions.  |                                  |                  |                                  |
| <b>Learning Objectives/Outcomes:</b>   | At the end of this course, the student will   |                                  |                  |                                  |
| 1                                      | Understand the concepts of limits, derivatives and integrals of single variable functions.  |                                  |                  |                                  |
| 2                                      | Be able to calculate limits, derivatives and integrals of elementary single variable functions.   |                                  |                  |                                  |
| 3                                      | Be able to interpret and express the concepts of limits, derivatives and integrals in geometrical viewpoint.  |                                  |                  |                                  |
| 4                                      | Be able to utilize the concepts of calculus to problems of other disciplines.   |                                  |                  |                                  |

**Course Outline**

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class or via class email or Blackboard announcement. Additional readings and activities may be added, these will be noted in the Readings and Activities/Assignments sections.

| Dates       | Topics/Sections   | Activities     | Assignments Deadlines |
|-------------|---|----------------|-----------------------|
| 8/22 – 8/28 | Review of Functions 1.1 – 1.4                                   |                | 1.1 – 1.4             |
| 8/29- 9/4   | Review of Functions 1.5 – 1.6; Limit of a Function 2.1 – 2.4    | Homework       | 1.5-1.6, 2.1-2.4.     |
| 9/6-9/11    | Continuity 2.5; Limits Involving Infinity                       | Homework       | 2.5                   |
| 9/12-9/18   | Differentiation 3.1 – 3.3                                       | Homework       | 3.1-3.3               |
| 9/19-9/25   | Differentiation 3.4 – 3.6                                       | Homework       | 3.4 – 3.6             |
| 9/26-10/2   | Review, Test I  | Review/Test I  | Test I                |
| 10/3-10/15  | Differentiation 3.7 – 3.8                                       | Homework       | 3.7-3.8               |
| 10/16-10/22 | Inverse Trigonometric Functions 3.9, Related Rates 3.10         | Homework       | 3.9 – 3.10            |
| 10/23-10/29 | Applications of Derivatives: 4.1-4.3                            | Homework       | 4.1-4.3               |
| 10/30-11/5  | Applications of Derivatives 4.4-4.5                             | Homework       | 4.4-4.5               |
| 11/6-11/12  | Review, Test 2  | Review/Test II | Test II               |
| 11/13-11/19 | Integration 5.1, 5.2  | Homework       | 5.1-5.2               |
| 11/20-11/26 | Integration 5.3, 5.4  | Homework       | 5.3-5.4               |
| 11/27-12/3  | Integration 5.5, 5.6  | Homework       | 5.5-5.6               |
| 12/4-12/7   | <b>Comprehensive Final Exam – 12/7/16 – 10:00 AM – 12:00 PM</b> |                |                       |

## Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

### Homework, Quizzes, Projects, Exams

#### Grading Matrix:

| Activities/Assignments    | Value (percentages) |
|---------------------------|---------------------|
| Homework (online)         | 20%                 |
| Quizzes (online)/Projects | 20%                 |
| Two Tests                 | 40%                 |
| Comprehensive Final Exam  | 20%                 |
| <b>Total:</b>             | <b>100%</b>         |

#### Grade Determination

A = 90% or better

B = 80 – 89 %

C = 70 – 79 %

D = 60 – 69 %

F = less than 60%

### University Policies and Procedures

## **University Policies and Procedures**

**Students with Disabilities (ADA Compliance):** The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at <http://www.untdallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at UNTDdisability@untdallas.edu or at Founders Hall, room 204. (UNTD Policy 7.004)

**CoursEval Policy:** Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

**Assignment Policy:** All assignments (homework/online quizzes/projects) are due on the announced last dates. The assignments submitted late will carry a penalty of 20%.

**Exam Policy:** Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).

**Academic Integrity:** Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity (Policy 7.002) at [http://www.untdallas.edu/sites/default/files/page\\_level2/pdf/policy/7.002%20Code%20of%20Academic\\_Integrity.pdf](http://www.untdallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic_Integrity.pdf) Refer to the Student Code of Student Rights, Responsibilities and Conduct at [http://www.untdallas.edu/sites/default/files/page\\_level2/hds0041/pdf/7\\_001\\_student\\_code\\_of\\_conduct\\_may\\_2014.pdf](http://www.untdallas.edu/sites/default/files/page_level2/hds0041/pdf/7_001_student_code_of_conduct_may_2014.pdf) Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. In addition, all academic work turned in for this class, including exams, papers and written assignments must include the following statement: "*On my honor, I have not given, nor received, nor witnessed any unauthorized assistance that violates the UNTD Academic Integrity Policy.*"

**Bad Weather Policy:** Campus facilities will close and operations will be suspended when adverse weather and/or safety hazards exist on the UNTD campus or if travel to the campus is deemed dangerous as the result of ice, sleet or snow. In the event of a campus closure, the Marketing and Communication Department will report closure information to all appropriate major media by 7 a.m. That department will also update the UNTD website, Facebook and Twitter with closing information as soon as it is possible. For more information please refer to <http://www.untdallas.edu/police/resources/notifications>

**Attendance and Participation Policy:** The University attendance policy is in effect for this course. Please refer to Policy 7.005 Student Attendance at <http://www.untdallas.edu/hr/upol>

**Diversity/Tolerance Policy:** Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive and inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Dean of Students as the instructor deems appropriate. (UNTD Policy 7.001)