Course Description: Presents limits, continuity, differentiation of algebraic, and transcendental functions with applications, and an introduction to integration.

General Course Purpose: The purpose of this course is to provide the student with majors in business, social science, or biology with a one-year sequence in calculus developed with a minimum of mathematical rigor; applications suitable for these majors are emphasized. This course is not appropriate for the student with majors in mathematics, engineering, or the physical sciences. Current technology is incorporated in this course.

Prerequisite: Satisfactory score on an appropriate proficiency examination or MTH 163 (or MTH 166).


Class Requirements: Meet: Wednesdays
Time: 4:30 – 7:10 p.m.
Location: CT-207
Lecture: 1 three-hour lecture per week for 16 weeks

Course Objectives. Upon completion of the course, the student will be able to:

1. Evaluate limits.
2. Find derivatives of algebraic, exponential, and logarithmic functions.
3. Use derivatives to find equations of tangent lines, to sketch curves, and to solve maximum and minimum problems.
4. Find antiderivatives (indefinite integrals) of algebraic and exponential functions.
5. Evaluate definite integrals.
6. Use a graphing device as an aid in problem solving.
Class Attendance:

(1) Students are expected to attend all classes, arrive on time, and stay until the end of class. Failure to comply may adversely impact a student’s grade and/or result in withdrawal from the course. [Note: Two late arrivals will be counted as one absence. If late, the student must ensure the instructor is aware of his/her presence prior to the instructor’s departure at the end of class. Failure to do so will result in an “absence” rather a late arrival. It is the student’s responsibility to “keep count” of his/her respective absences/tardiness. Please note that an absence due to an emergency is still an absence. Any student whose absences exceeds 4 (to include late arrival absence equivalences) may subject themselves to receiving a failure (i.e., an “F”) for the course.]

(2) Students are responsible for all material covered in class whether they are present during the lectures or not. The instructor will be available during scheduled office time to answer questions. Individual lecture or tutor sessions will not be held to cover all missed material. Students that miss class should contact the instructor or another student in the class to find out what homework was assigned.

(3) In the event of unexplained absences, especially if you miss the first three weeks of class, your instructor will withdraw you administratively from the course.

Taking Notes/Using the Text/Homework: All students need a notebook and are expected to take notes in class. Taking detailed, comprehensive notes is necessary. Some material may be covered that is not in the text. Similarly, there may be material in the text that is not covered in the lectures. As a minimum, you should take down everything written on the board. What you may think is obvious during a lecture may not be so obvious when doing homework later on. The course curriculum is extensive. Class time is not available to repeat lecture material. In doing homework, students will be expected to apply the principles that they have learned to complex problem solving. The textbook should be used as a resource. You are expected to do all assigned homework on time. Homework should be completed on paper in a 3-ring binder in such a manner that:

a. Each new exercise set (e.g., “3.1”) begins on a new page. The top of each page will reflect the section # followed by the student’s name. All problems must be in order.

b. Each exercise set can be removed and turned in if requested by the instructor.

c. All exercise sets (cumulative) can be turned in if requested by the instructor.

d. Your 3-ring binders must be available for the instructor every class, including exams. Grade penalties will be appropriate in the event a complete notebook (or collected individual exercises) is not available when requested. Again, you are required to have the binders available for every class period in the event they are requested (in whole or in part). Please do not ask for exceptions to policy.

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e. **Special consideration/Homework:** Home assignments will be made available through the publisher's software called WebAssign. This is purchased in conjunction with the text...or can be purchased separately in the event you have purchased a used book. The following access code will allow you to temporarily register on WebAssign:

   nvcc 4917 7529

   ***NOTE:*** You have until Wednesday, September 7, 2011 at 12:00 AM EDT to enter your personal access code which you must purchase with the text, purchase separately at the Bookstore if you have a used text, or purchase online on the WebAssign site.

   The homework assignments must be completed on-line via WebAssign, but documented in your binders. Please note that the problem numbers will correlate to those in the text but the numbers may be different (i.e., same type of problem but altered by number and/or variable changes). Your work on WebAssign will be graded on-line and due by 4:30 p.m. the day of the next scheduled class. I do not accept late work, so you must complete all exercises on time. If you experience a computer-related issue which blocks you from further work on WebAssign, please let me know right away. Please do not procrastinate contacting me since my intervention may be required prior to your continued work on anything related to WebAssign (i.e., homework and/or quizzes, the latter of which are discussed later in the syllabus). In light of the potential for such computer-related problems, it is definitely to your advantage to complete homework early rather than wait to the last minute and run into an access problem. Extensions for assignment/quizzes will not be granted due to last-minute completion attempts which are interrupted by access problems.

**Dropping or Withdrawing from the Course:**

   (1) It is the student's responsibility to drop or withdraw from a course on his/her own. Students will not be withdrawn by the instructor for non-attendance [exception: see "Class Attendance" above]. If you do not attend the course and/or perform course work, you will fail the course (i.e., receive an "F") unless you withdraw from the course in accordance with the requirements of NVCC. Students must properly withdraw in order to receive a "W" for Withdrawn. The instructor will note your last day of attending classes (this affects Department of Veterans Affairs benefits). The last day you may drop courses with tuition refund or change to audit during the Fall semester 2011 is Thursday, September 8, 2011. The last day to withdraw without grade penalty is Monday, October 31, 2011.

   **Recommendation:** If you desire to withdraw from the course, I recommend you do so in writing—i.e., obtain a "Course Withdrawal Form" from either Admissions and Records or our Math Dept office (CT336), complete the form, have the instructor sign it (optional) so he/she knows of your intent, and keep a record copy of the transaction after turning in the form on time. Keep in mind that an "intent/attemp" to withdraw does not constitute a withdrawal. For example, if you attempt using the telephone to withdraw and don't properly execute the action, you won't be able to claim a withdrawal after the last date to withdraw without grade penalty. You should always verify the transaction has been successfully completed in sufficient time to
avoid a penalty (i.e., a failing grade).

(2) A grade of withdrawal (W) cannot be given after the grace period without extenuating circumstances and documentation. The award of W after the last day to withdraw without grade penalty REQUIRES official documentation and the Dean’s signature. Students typically must have greater than a 60% cumulative average to be eligible for withdrawals after October 31, 2011.

(3) Please do not ask the instructor to make exceptions to the foregoing.

Disruptive Behavior: Misbehavior and disruption will not be tolerated and will be handled in accordance with the requirements of NVCC, Annandale Campus.

Students with Disabilities: Students with disabilities are encouraged to contact a counselor for disability services in CA112 [(703) 323-3744] to discuss possible accommodations. Please inform the instructor within the first two weeks of classes if you have special needs or a disability that may affect your performance in this course. All information is kept confidential and may increase your chances of success in the academic setting.

Tests: There will be four tests (each worth 200 points). Students are expected to take tests on the day scheduled. Failure to attend class on a scheduled test date will result in a zero test score. Make-up tests will not be administered unless justifiable and coordinated in advance. The lowest test score will be dropped at the end of the semester. The following comments apply:

(1) If a student receives a zero for a test due to non-attendance on a scheduled test day, that zero would constitute the lowest test score and thus be dropped.

(2) The concept of "coordinated in advance" only applies to situations known well in advance that preclude you from being available for a test. For example: (a) you're in the military, will be deployed during the week of a major exam, and you coordinate other arrangements with me prior to the test date; or (b) you must be hospitalized for surgery, have no control over the date, and coordinate with me in advance to make other arrangements. The reason I drop the lowest test is to accommodate such instances. "Coordinated in advance" is not intended to accommodate students who can't make it to class for a last minute condition such as not feeling up to par, the car isn't running well, etc. Hopefully, you'll be able to take all scheduled tests and have the lowest test score dropped simply because it's the lowest. If a make-up is scheduled, it will typically be taken prior to the normal scheduled exam.

Quizzes: Quizzes and/or collecting homework may be initiated at the discretion of the instructor. Quizzes would be completed on-line (WebAssign). They are timed and are to be completed no later than Monday evening at 11:59 p.m. following the class date at which the quiz is assigned. Quizzes would normally cover course work on the previous week's homework and are typically available on WebAssign after class on Wednesdays (or the following day). Please do not wait for the last minute to attempt completing these quizzes. I don't allow make-ups. Scores would increase the total number of points delineated in the
following paragraph on "Grading." The weight of quizzes and/or homework will not exceed the weight of one test (i.e., 200 points). I retain the right to not include quiz and/or homework scores at the end of the semester if I so desire.

Final Exam:

(1) The final will be worth 200 points and cover the entire semester's work.

(2) You are required to take the final exam; it is not dependent upon whether you might have demonstrated high test scores during the course of the semester. I view the final exam as your opportunity to demonstrate you can bring everything together at the end of the semester. I expect students to do sufficiently well on the final to justify their overall course grade. For example,

(a) a student whose average going into the final is an A must validate that A by doing well on the final as well. Specifically, a grade of C or below on the final exam—irrespective of the course average calculation as delineated below under "Grading"—will not necessarily constitute an A for the course. I reserve the right to examine your total performance during the course including: class participation, consistency of grades during quizzes and tests, availability of homework when requested, class attendance (absences/tardiness), as well as whether all tests have been taken (e.g., did you take Test4?), how did the student perform on all tests, etc. Although this example characterizes a situation where a given student has an A average going into the final exam, it equally applies to any average.

(b) An unusually strong performance on the final, at my discretion, may be considered when determining the final grade irrespective of the calculation indicated in "Grading" below and possibly result in a higher grade than the objective calculation of your average.

(3) The date is already set [see Appendix 1] by the college, so please don’t make other plans on the date of the final such as appointments, early vacation departures, family reunions, etc. Such changes are not negotiable.

Writing requirements: As deemed appropriate by the instructor, written papers may be assigned in addition to homework, quiz, test, and final exam requirements. Points will be assigned and be added to/affect the grade computations delineated in the "Grading" paragraph below.
Grading: Other than exceptions to grading already delineated, your grade will be determined using your top four test grades (possible 600 points), your final exam grade score (200 points possible), writing requirement point (if applicable), and quiz/homework points (if applicable). [Total course points = 800 [more, if papers assigned or quiz/homework applies]] Depending on your respective total points, you will receive a grade of

A -- 90% - 100% [Note: A, B, C, and D are passing grades. F means fail. Generally, C -- 70% - 79% grades of A, B, or C will transfer. D -- 60% - 69% Grades less than C will normally not transfer.] F -- Less than 60% I -- Available only in special cases after consultation with the instructor W -- Students are ultimately responsible for withdrawing from class. The last day to withdraw without penalty is Monday October 31, 2011. X—Audit. The last day to change to audit is Thursday, September 8, 2011.

[Note: Exceptions to the grading calculation have already been noted in previous paragraphs and still apply.]

Academic Dishonesty:

When college officials award credit, degrees, and certificates, they must assume the absolute integrity of the work you have done; therefore, it is important that you maintain the highest standard of honor in your scholastic work.

The College does not tolerate academic dishonesty. Students who are not honest in their academic work will face disciplinary action along with any grade penalty the instructor imposes. Procedures for disciplinary measures and appeals are outlined in the Student Handbook. In extreme cases, academic dishonesty may result in dismissal from the College. Academic dishonesty, as a general rule, involves one or more of the following acts:

1 Cheating on an examination or quiz, including the giving, receiving, or soliciting of information and the unauthorized use of notes or other materials during the examination or quiz.
2 Buying, selling, stealing, or soliciting any material purported to be the unreleased contents of a forthcoming examination, or the use of such material.
3 Substituting for another person during an examination of allowing another person to take you place.
4 Plagiarizing means taking credit for another person's work or ideas. This includes copying another person's work either word for word or in substance without acknowledging the source.
5 Accepting help from or giving help to another person to complete an assignment, unless the instructor has approved such collaboration in advance.
6 Knowingly furnishing false information to the College; forgery and alteration or use of College documents or instruments of identification with the intent to defraud.

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Academic dishonesty will not be condoned. When such misconduct is established as having occurred, it subjects you to possible disciplinary actions ranging from admonition to dismissal, along with any grade penalty the instructor might, in appropriate cases, impose. Do not assume leniency. Cheating will typically result in failing the course. Students are expected to follow the Information Technology Student/Patrol Ethics Agreement as posted in computer areas and academic standards as set down in the Student Handbook.

Calculators: A graphing calculator is required. A TI-83Plus (or equivalent) is recommended [allowable on select tests]. You are responsible for having a calculator for all class periods. You may not borrow or share a fellow classmate’s calculator during a graded quiz/test/final exam. If you have an inoperable calculator or have lost/misplaced your calculator, you need to resolve the problem prior to coming to class.

Food and Drinks: Food and/or drinks are not permitted in classrooms, laboratories, or the library.

Cellular Phones: May NOT be operational in the classroom. Failure to comply may result in confiscation, point penalties, or removal of the student from class until the next class period.

Inclement Weather: Use the following link to the College website to determine information concerning inclement weather: http://www.nvcc.edu/depts/homepage/closing.htm#faq. In the event of bad weather (e.g., snow), please check the college website, call 323-3000, and/or listen to the news stations. If the school closes on the day of an exam, be prepared to take the exam at the next class meeting. Access BlackBoard for additional specific communication and instruction in the case of weather/emergency.

Emergency Evacuation: In case of emergency, please follow the emergency procedures as discussed in class and posted in the classroom. Please familiarize yourself with the college Emergency Preparedness Plan which can be accessed on the college website: www.nvcc.edu/annandale/emergency

Veterans: In the event you need assistance in any veteran-related issues, every NOVA campus has a veterans advisor. You can obtain the office locations at the following link: http://www.nvcc.edu/current-students/military/veterans/advisors/index.html For Annandale campus, the veterans advisor is located in CA114, phone 323-3145.

Office Hours: WALK-IN
Mon—1030-1230
Wed—1030-1230
1530-1630

BY APPOINTMENT (made at least the day prior)
Mon—1530-1730
Fri—1200-1500
Additional resources.

Tutoring Center:
- Located in CG 405 [Phone = (703) 323-3139]
- Math videos, software, on-line resources, etc.

The Learning Environment: The Annandale campus community is committed to providing a learning environment that encourages the free exchange of ideas and information. To accomplish this goal, the members of the Annandale Campus Council have established the following expectations for the campus community:

* That all backgrounds and cultures be respected.
* That a free and civil exchange of ideas take place, so everyone in class feels welcome to participate.
* That all members of the class arrive on time, leave the class only on breaks or in case of emergency, and leave classrooms and all college property in good condition.
* That distractions be kept to a minimum. Cell phones and other electronic devices are turned off in class, labs, and the library. Students remain seated throughout the class and refrain from talking with classmates while another class member or the instructor has the floor.
* That each student submits his or her own work.
* That consideration be given to classes in adjoining areas.
* That NOVA is a place for learning and growing. You should feel safe and comfortable anywhere on this campus. In order to meet this objective, you should let your instructor, his/her supervisor, the Dean of Students or Provost know if any unsafe, unwelcome or uncomfortable situation arises that interferes with the learning process

Use of Blackboard. I will use Blackboard as a resource when conveying information and/or requirements to class members. Please become comfortable with its use and check it on a daily basis to determine if messages/announcements are available to supplement course material in the text and that presented during lecture.

Homework Assignments: See Appendix 1

This syllabus reflects the current policies and procedures for MTH 271 but may be altered as deemed appropriate by the instructor. Any student who remains enrolled in this course accepts the policies and procedures in this syllabus and the responsibilities delineated therein.

August 24, 2011
### HOMEWORK ASSIGNMENTS

<table>
<thead>
<tr>
<th>DATE</th>
<th>LSN #</th>
<th>SECTION</th>
<th>ASSIGNMENT</th>
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</table>
| W: 8/24 | 1 | ADMIN | 1.1 [OPT] Pg 40: 3, 6, 11, 18, 20, 21, 23, 25  
1.2 Pg 53: 1, 6, 10, 11, 13, 17, 19, 22, 24, 76 |
| W: 8/31 | 2 | 1.3 | Pg 65: 2, 8, 14, 20, 27, 35, 37, 39, 43, 56, 68, 72, 78, 82  
1.4 Pg 78: 2, 7, 9, 14, 20, 22, 26, 32, 38, 39, 46, 50, 54, 60, 62 |
| W: 9/7 | 3 | 1.5 | Pg 91: 2, 6, 10, 14, 18, 19, 22, 24, 26, 30, 34, 38, 42 – 54 even, 58, 60, 62, 66, 70, Handout (limits)  
1.6 Pg 102: 2, 4, 6, 10, 14, 18, 20, 22, 26, 28, 34, 36, 40, 44, 48 Handout (continuity) |
| W: 9/14 | 4 | 2.1 | Pg 123: 6, 8, 10, 16, 20, 24, 26, 30, 32, 34, 38, 40, 42, 46, 52, 56, 60, 68, 72, 2.2 Pg 135: 2, 4, 6, 8, 12, 15, 16, 20, 24, 28, 30, 32, 34, 36, 38, 40, 44, 48, 52, 56, 62 |
| W: 9/21 | 5 | TEST 1 | 2.3 Pg 149: 3, 4, 6, 8, 10, 12, 17, 20, 22, 24, 26, 28, 30, 32, 34, 36, 44 Handout (Free-falling objects)  
2.4 Pg 161: 1, 4, 6, 8, 12, 16, 18, 20, 22, 26, 30, 34, 38, 41, 42, 46, 47, 58, 60, 66, 70, 72 |
| W: 9/28 | 6 | 2.5 | Pg 172: 4, 6, 10, 14, 16, 20, 24, 28, 32, 36, 40, 42, 44, 52, 56, 60, 66, 70, 72, 74, 76, 2.6 Pg 179: 2, 6, 8, 10, 12, 16, 18, 20, 22, 24, 28, 30, 34, 36, 38, 40, 44, 52  
2.7 Pg 186: 2-44 even |
Appendix 1 (Math 271/Applied Calculus I, Fall 2011, T. Krize)

**HOMEWORK ASSIGNMENTS**

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<td>TEST 2</td>
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August 24, 2011
Appendix 1 (Math 271/Applied Calculus I, Fall 2011, T. Krize)

**HOMEWORK ASSIGNMENTS**

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<td>W: 11/30</td>
<td>14</td>
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<td>TEST 4</td>
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<td>W: 12/7</td>
<td>15</td>
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<td>Review for final exam</td>
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<tr>
<td>W: 12/14</td>
<td>16</td>
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<td>FINAL EXAM [1630-1820]</td>
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