# Course Contract

# Math 142

**Discrete Math**

**Spring Semester, 2016**

**INSTRUCTOR*:*** Erik Sorensen

**OFFICE**: 210 Walker Hall

**PHONE:** 831- 5667

**OFFICE HOURS**: Monday, Wednesday, Friday (10am-noon) or by appointment

**CLASSROOM LOCATION:** Noon-1pm Class (Section 01, Cook HALL, Room 311).

**E-MAIL**: esorensen2@radford.edu

**HOMEPAGE: http://www.radford.edu/~esorensen2**

**TEXT***: Discrete Mathematics: Mathematical Reasoning and Proof with Puzzles, Patterns, and Games (Ensley and Crawley)*

**Topics:**  Topics will include symbolic logic, set theory, introduction to proofs, graph theory, and combinatorics.

**Grading:** Your course grade will be based on the following:

Tests: (60%); Homework/Group Work (10%), Attendance (5%); Final Exam: (25%). Letter grades will be assigned based on the following scale:

                                                                         90 - 100 A

 87 - 89 B+

                                                                         80 - 86 B

 77 - 79 C+

 70 - 76 C

 60 - 69 D

                                                                          0 - 59 F

**Student Goals and Objectives of the Course:** In accordance with the NCATE standards for discrete mathematics, students will be able to demonstrate knowledge of the concepts of discrete mathematics such as (but not limited to): Perform operations on sets, prove logical statements using truth tables, prove problems by mathematical induction, use counting properties to solve combinatorics problems, understand basic principles of Graph Theory such as: path, cycle, connected graphs, subgraphs, etc., determine the shortest path in weighted graphs as it occurs in practical problems, and understand and apply trees and (minimal) spanning trees. To problem solve discrete mathematics problems; students will understand the application of an algorithm by applying them to problem situations such as those involving search and optimization. Students will develop the ability to communicate mathematically.

**Tests:** There will be three tests. Each test counts for 20% of your course grade. Tests will be multiple choice and the writing of proofs (test #2).

**Final:** The final is comprehensive and counts for 25% of your course grade.

**Make-up tests:  *There are no make-up tests with the only exception being for Radford University sanctioned events.*** If you miss a test, the final exam will count for more of your course grade.  For example, if you miss one test, the final exam will count for 25% plus the percentage of the test(s) you missed.

**Attendance Policy:** Attendance at all class meetings is expected and strongly recommended. One of the biggest traps you can fall into in this course is to not attend class regularly. It's your responsibility to sign the class roll each day: if your name isn't on the roll, you're absent that day. If you miss class for any reason, it is your responsibility to get up to speed on anything you missed before the next class. Please do not fall behind. If you need help, let me know immediately!!

**Snow Policy:** Please be alert to Radford University’s homepage for inclement weather updates and check your email before coming to class should there be inclement weather pending.

**Homework:** Homework problems will generally be assigned for each class meeting. Another big trap you can fall into is to not do the homework regularly and to try to simply rely on the solutions that are presented in class. The previous sentence is the most important statement on this page. The old adage Mathematics is not a good spectator sport was never truer than in this course. **LATE HOMEWORK WILL NOT BE ACCEPTED. TWO HOMEWORK GRADES WILL BE DROPPED AT THE END OF THE SEMESTER.**

**Materials/Calculators:** Students are encouraged to use calculators. No restrictions are placed on the use of calculators in homework, in class, or on tests.

**Additional Help:** There is a Tutoring Center (Learing Assistance and Resource Center: LARC) located in Walker Hall, room 126. There will be math tutors available at various times throughout each week of the semester. The phone number is 831-7704. The web address for the center is [www.radford.edu/~larc](http://www.radford.edu/~larc). You are always welcome to come to my office during office hours or by setting up an appointment.

**Students with Disabilities:** If you are seeking classroom accommodations under the Americans with Disabilities Act, you are required to register with the Disability Resource Office which is located in Room 32 of Tyler Hall. The telephone number is 831-6350. To receive academic accommodations for this class, please obtain the proper forms from the DRO and meet with me at the beginning of the semester.

**Radford University Honor Code Policy:** By accepting admission to Radford University, each student makes a commitment to understand, support, and abide by the University Honor Code without compromise or exception. Violations of this academic integrity will not be tolerated. This class will be conducted in strict observance of the Honor Code. Refer to your Student Handbook for details.