# Course Contract

# Math 142

**Discrete Math**

**Spring Semester, 2024**

**INSTRUCTOR*:*** Erik Sorensen

**OFFICE**: 223 Whitt Hall

**PHONE:** 831- 5667

**VIRTUAL OFFICE HOURS:** I will be available Monday-Friday upon request via Zoom and Facetime. Send me an email to set up an appointment.

**CLASSROOM LOCATION:** 8:00-8:50am (Whitt Hall, Room 214).

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

**COURSE HOMEPAGE: https://www.radford.edu/~esorensen2/Math142\_spring2024.html**

**OPTIONAL 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%); Quizzes: (15%), Final Exam: (25%). Letter grades will be assigned based on the following scale:

                                                                          89.5 - 100 A

                                                                         87.5 - 89.4 B+

 79.5 - 87.4 B

  77.5 – 79.4 C+

                                                                69.5 - 77.4 C

 60 – 69.4 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).

**Quizzes:**  Quiz problems will be assigned for each week via WebWork, an online delivery plattform or via emailed quiz assignments. <https://webwork.radford.edu/webwork2/Math142-Spring2024-ESorensen/>. **You have unlimited number of attempts to take each WebWork quiz.** **Your three lowest quiz grades will be dropped!!** *You will have until Friday at 12pm of each week to submit all homework assignments for that week.*

WEBWORK USER NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WEBWORK PASSWORD: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Attendance Policy:** Attendance at all class meetings is expected and strongly recommended. Please do not fall behind. If you need help, let me know immediately!!

**Final:** The final is comprehensive and counts for 25% of your course grade. The date and time of the exam to be announced for the end of the semester.

**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.

**Materials/Calculators:**  Students are encouraged to use calculators. You will need at least a scientific calculator or graphing calculator for the course. No restrictions are placed on the use of calculators in homework, in class, or on tests.

**Additional Help:** The Harvey Knowledge Center (HKC), supports students in achieving academic success. Using a learner-centered approach, the center offers free academic consulting and seminars to support students’ skills and confidence in navigating the opportunities and challenges of their coursework. Our focus is to help students develop and leverage their own strategies for learning that can extend beyond the questions that bring them to our center. They have tools and resources to support any student’s academic goals. The center offers one-on-one assistance and small group academic coaching for writing, math, science courses, and more. For more information, visit the Harvey Knowledge Center https://www.radford.edu/content/harvey-knowledge-center/home.html

**Students with Disabilities:**  Students seeking academic accommodations under the Americans with Disabilities Act must register with the Center for Accessibility Services (CAS) to determine eligibility. Students qualified for academic accommodations will receive accommodation letters and should meet with each course professor during office hours, to review and discuss accommodations.  To begin the registration process, complete a Student Registration Form and submit documentation to PO Box 6902, Radford, Virginia 24142, or deliver to the Russell Hall, Room 325, by fax to 540-831-6525, or by email [cas@radford.edu](https://owa.radford.edu/owa/redir.aspx?C=M_YROOsqc_ijZUZ7Swd6Gl0-Qd1aaBjsg4jiA5AhAKxYxNfzAOTUCA..&URL=mailto%3acas%40radford.edu) to see documentation guidelines.  For more information, visit the Center for Accessibility Services (CAS) website or call 540-831-6350.

**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.