

**Math 1271/3071 Course Outline**  
Fall 2016

**Instructor:** A. Dean , RB 2009, ext 8689. email: andrew.j.dean@lakeheadu.ca

**Office Hours:** Fridays 1:30-4:00 or by appointment or happenstance.

**Text:** *A Beginner's Guide to Discrete Mathematics*, W.D. Wallis, 2nd edition, Birkhäuser, Boston. (Note: This book is available for free download from the Lakehead Library.)

**Schedule**

Week 1. (Sept 5) Properties of Numbers.

Week 2. (Sept 12) Sets and Data Structures.

Week 3. (Sept 19) Boolean Algebras and Circuits.

Week 4. (Sept 26) Relations and Functions.

**Test # 1 on Friday September 30**

Week 5. (October 3) Theory of Counting.

**Study Week October 10-14**

Week 6. (October 17) More Theory of Counting.

Week 7. (October 24) Probability.

**Test # 2 on Friday October 28**

Week 8. (October 31) More Probability.

Week 9. (November 7) Graph Theory.

Week 10. (November 14) More Graph Theory.

**Test # 3 on Friday November 18**

Week 11. (November 21) Number Theory and Cryptography.

Week 12. (November 28) Theory of Voting.

**Grading Scheme:** There will be three term tests worth 15% each. The homework will count for 15%, and the final exam will be worth 40%.

**Homework:** Each week, a homework assignment will be circulated by email. They will be due at 4pm on Friday afternoons, unless otherwise announced in class. There will be a box for these on the second floor of the Ryan Building. Shortly after 4pm on Fridays, the mailbox will be emptied, and it will not be examined again until the next week. Late assignments will not be accepted. Solutions to the problems will be distributed by email.

**Term Tests and Final Exam:** The three term tests will be held during the lab hour in the lab room (the dates are on the schedule). They will be **closed book** with **no calculators, cell phones, or other aids allowed**. The material the tests will cover

will be announced in class as the dates draw near. **The final exam will also be closed book with no calculators, cell phones, or other aids allowed.** The final exam will cover the whole course.

**Marking Disputes:** If you feel you have been treated unfairly in the marking of a test or assignment, **put your complaint in writing on the front of the paper and return it to the instructor.** Do not put it back in the assignment box.

**Drop Date:** The final date to withdraw from this course without academic penalty is Monday November 7.

**Special Exams:** Students who fail this course but attain a mark of 40% may be entitled to write a special exam. See the calendar for details.

**Academic Dishonesty:** All cases of academic dishonesty will be dealt with according to the university's Code of Student Behaviour and Disciplinary Procedures, copies of which are available from the registrar.