

THE UNIVERSITY OF WESTERN ONTARIO  
DEPARTMENT OF MATHEMATICS

**Mathematics 1228B**  
**Methods of Finite Mathematics**

January - April 2019

**INSTRUCTORS:** (*Course Coordinator: V. Olds*)

001 - A. Tomberg; 002 - A. O'Hara; 003 - V. Olds; 530 (Brescia) - C. Florence;  
551 (Huron) - M. Palaisti; 570 (King's) - R. Valluri; 571 (King's) - A. O'Hara  
(*See Class Schedule and Instructor Contact Information on next page.*)

**TEXTBOOK:**

*Finite Mathematics with Applications*, Third Edition by R.G. Biggs and J.T. Moore, published by New Image Publishing Co., ISBN: 88000055455.

**PREREQUISITES:**

One or more of Ontario Secondary School MCV4U, MHF4U, MDM4U, Mathematics 0110A/B, 1225A/B, 1229A/B.

**ANTIREQUISITES:**

Mathematics 2124A/B, 2155F/G, the former 2155A/B, Statistical Sciences 2035, 2141A/B, 2857A/B, the former 2657A.

**COURSE OUTLINE:**

Topics covered include techniques of counting, probability, discrete and continuous random variables. Students are expected to demonstrate an understanding of these concepts and an ability to apply them in solving a variety of problems.

**COURSE WEB SITE:**

Various useful supplemental materials, such as required extra homework problems, practice tests, and solutions to the homework exercises, are posted on the OWL web site. In addition, there are forums on which students may post questions. Important information will be posted on the NEWS forum and/or on the class page on the web site. All students are expected to be aware of information, and make use of materials, posted on the course web site. As well, some class sections use the online quizzes on the web site as the class work component of the grade.

**WHAT IS EXPECTED OF THE STUDENT?**

Students should attend all classes, make a serious effort to understand all course material, and do all the assigned homework. The student must assume responsibility for any missed classes. It is up to the student to seek out help when needed. The student is responsible for being aware of **all** relevant information posted on the OWL web site, **especially information posted on the NEWS forum.**

**Please contact your course instructor if you require material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x82147 for any specific question regarding an accommodation.**

## EVALUATION OF STUDENT PERFORMANCE:

Students will be assessed on the basis of "Class Work", 2 Term Tests, and a Final Exam. The means of assessing the Class Work component will be determined by the instructor of each section, and may be for participation, quizzes, assignments, etc. For each class, information about how the Class Work component will be assessed, and details of the timing, will be announced in class and also posted on the appropriate "class page" on the OWL web site. (Some sections will use Online Quizzes in OWL.)

The 2 Term Tests, each 90 minutes in length, will be held on:

**Saturday February 2 2019, 7:00 - 8:30 p.m.** and **Saturday March 9 2019, 12:30 – 2:00 p.m.**

Locations of these tests will be announced in class and/or on the course web site. *Please note the different times of the 2 tests!*

The Final Exam will be 3 hours in length, covering all of the course material. This exam will be scheduled by the Registrar's Office during the April Exam Period.

### Calculation of Final Grade:

Each Term Test will count for 20%, the Class Work component will count for 10% and the Final Exam will count for 40%. The remaining 10% weight will be assigned to whichever of the 3 tests/exams is the student's best mark.

### Notes:

1. The Term Tests and Exam will all have some multiple choice questions and some written answer questions.
2. **NO calculators or other electronic devices or any other aids are allowed on tests and exams.**
3. See Absence / Missed Work policy on next page.

## CLASS SCHEDULE:

| Section | Campus  | Instructor  | Days & Times    | Location     |
|---------|---------|-------------|-----------------|--------------|
| 001     | Main    | A. Tomberg  | MWF 11:30       | NSC 1        |
| 002     | Main    | A. O'Hara   | MWF 12:30       | MC 110       |
| 003     | Main    | V. Olds     | MWF 3:30        | MC 110       |
| 530     | Brescia | C. Florence | MWTh 12:30      | BR - 203     |
| 551     | Huron   | M. Palaisti | MWF 8:30        | HUC - W 12   |
| 570     | King's  | R. Valluri  | MW 11:30 - 1:00 | KUC - LH 101 |
| 571     | King's  | A. O'Hara   | MW 2:30 - 4:00  | KUC - LH 100 |

## INSTRUCTOR CONTACT INFORMATION: (any changes/updates will be posted in the course OWL web site)

V. Olds (003 & Course Coordinator): volds@uwo.ca, MC 103G, X86520

A. Tomberg (001): atomberg@uwo.ca, MC 128, X86536

A. O'Hara (002): aohara@uwo.ca, MC 113, X86009 (and DL 223 at King's)

C. Florence (530): cflorenc@uwo.ca, BUC MSJ 121, 519 432-8353

M. Palaisti (551): mpalaist@uwo.ca, HUC - A 18

R. Valluri (570): valluri@uwo.ca, KUC - DL 120 (and PAB 271 on main campus)

A. O'Hara (571): aohara@uwo.ca, KUC - DL 223 (and MC 113 on main campus)

**Note:** Any email sent to an instructor (and especially to the course coordinator) **MUST say Math 1228B in the subject line.** Any email without this, and/or any email sent from other than a UWO email address, may be deleted unread.

## SENATE POLICY ON PREREQUISITES:

Prerequisite checking is the **student's responsibility**. Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

## STATEMENT ON ACADEMIC OFFENCES:

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

[http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

## ABSENCE / MISSED WORK:

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation *to your Dean's Office as soon as possible* and contact *your instructor immediately*. It is the student's responsibility to make alternative arrangements with his or her instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information concerning UWO's Policy on Accommodation for Medical Illness please refer to this policy at: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_medical.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf)

A student requiring academic accommodation due to illness should use the Student Medical Certificate when visiting an off-campus medical facility or request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services. The form can be found here:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

A makeup will be held for each term test as well as for the final exam. Only students with prior permission from their instructor will be allowed to write the makeup for a test. Only students with a Recommendation for Special Exam from their Dean's Office will be allowed to write a makeup for the Final Exam. Any student who misses a portion of the Class Work component of the grade for any legitimate reason should contact your instructor as soon as possible. Supporting documentation may be required. In the case of missed Class Work, or if a student is unable to write the scheduled makeup for a Term Test due to a documented prolonged or recurring absence or other legitimate conflict, your instructor will decide whether to accommodate by rescheduling or by reweighting that component of the grade.

## SUPPORT SERVICES

Office of the Registrar

|         |   |
|---------|---|
| UWO     | <a href="http://www.registrar.uwo.ca">http://www.registrar.uwo.ca</a>   |
| Brescia | <a href="http://brescia.uwo.ca/academics/registrar-services/">http://brescia.uwo.ca/academics/registrar-services/</a>   |
| Huron   | <a href="http://www.huronuc.on.ca/CurrentStudents/StudentLifeandSupportServices/AcademicResources">http://www.huronuc.on.ca/CurrentStudents/StudentLifeandSupportServices/AcademicResources</a> |
| King's  | <a href="http://www.kings.uwo.ca/academics/academic-deans-office/">http://www.kings.uwo.ca/academics/academic-deans-office/</a>   |

Student Development Services <http://www.sdc.uwo.ca/>

Learning Skills Services <http://sdc.uwo.ca/learning/>

USC <http://westernusc.ca/services/>

Academic Calendar <http://www.westerncalendar.uwo.ca/>

WTS <http://www.uwo.ca/wts/helpdesk>

Students who are in emotional/mental distress should refer to Mental Health @ Western via the link given below for a complete list of the options about how to obtain help: <http://www.uwo.ca/uwoom/mentalhealth/>

## Mathematics 1228B - Suggested Exercises - Winter 2019

| Section | Problems  |
|---------|---|
| 1.1     | 1,3,5,7,8,9,10,11,12,13,17. See also exercises on course website.           |
| 1.2     | 1,2,3,5,6,11,13,15,16,18,20.  |
| 1.3     | 1,2,4,5,6,7,8,10,12,13,14,16,18,19.   |
| 1.4     | 2,3,4,6,7,8,10,12,14,15,16,18,22.   |
| 1.5     | 1,4,5,10,11,12,14,15,17.  |
| 1.6     | 1,3,4,5,6,7,13,14,16,19,21,22.  |
| 1.7     | 1,2,3,4,5,6,7,8,9,10,12,13,17,19,21, 26.                                    |
| 2.1     | 2,3,5,10,12.  |
| 2.2     | 1,2,4,5,6,7,8,10,11,12,13,14,17,19.   |
| 2.3     | 1,2,4,5,6,8,9,10,11,12,13,16,17,18,19.                                      |
| 2.4     | 1,2,3,5,7,8,9,11,12,14(a),(b),16,19.  |
| 2.5     | 1,2,3,6,8,11,12,13.   |
| 2.6     | 1,3,6,8,9,13,14,19,20.  |
| 2.7     | 1,2,3,5,7,8,11,12,13,14,16,20,21.   |
| 3.1     | 2,5,6,8,9,11. Additional exercises about $B(n,p)$ posted on course website. |
| 3.3     | 1,3,4,5,6,9,11,12,13,14,15,16,17,20,21,22.                                  |
| 3.4     | 1,2,3,4,5,6,10,13,14,15,16.   |
| 4.1     | 1,3,4,5,6,8.  |
| 4.2     | 1,2,4,5,6,7,10(a),(c).  |
| 4.3     | 1,2,3,5,9,10,12,14(a),16,18.  |
| 4.4     | 1,3,5,6,9,12,13,14,15,21.   |

### Notes:

- Page numbers and text references refer to the Biggs & Moore text (*Finite Math with Applications*).
- Any changes to this list will be announced on the NEWS and/or Homework discussion boards.
- Complete solutions for all assigned questions are posted on the course web site.