# Course Outline 201501 Math 422 A01 CRN 22048

**Instructor:** Dr. Gary MacGillivray

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**Office Hours:** Please see the course web page.

**Course Title:** Combinatorial Mathematics

**Textbook:** Notes for Math 422 by G. MacGillivray

Available for free download from the course web page

**Prerequisites:** 212, 222, and one MATH course numbered 300 or higher.

**Lectures:** TWF 9:30 – 10:20 in Clearibue C-115

Course Web Page: Look at www.uvic.ca/science/math-statistics then Undergraduate then

Courses, and then 422 to find:

this outlinecourse notesstudy tipsoffice hours

due dates for assigned work

sample tests

**Syllabus:** Identities and bijections; Advanced counting numbers; Recurrences;

Generating functions, Inclusion-exclusion theorems; Hypergraphs; Ramsey's Theorem; Polya's Enumeration Theorem. Topics may be adjusted as term

progresses.

### **Grading Scheme for 422:**

• Take-home assignments (six; not of equal value) 60%

• Final Exam (scheduled by Records) 40%

### **Grading Notes:**

- Because so much value is being put on the assignments, students who achieve less than 40% on the final exam will not pass the course.
- Grades are submitted as percentages. For the purposes of GPA calculations, the standard UVic conversion from course percentage to letter grade is used. Details are in the Calendar, and also on the Course Policy sheet referenced below.

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#### **Course Policies:**

- Assignments are due in class *before the lecture begins*. Late assignments may be submitted before the start of the next class, with a 20% deduction from the grade. Assignments will be returned in class, or can be claimed during office hours.
- Talking math with classmates, including discussing homework to be submitted for marks, is a useful and mathematically healthy practice. It is encouraged. The work you submit must be written independently, be in your own words, and reflect your understanding.
- If you have a question or concern about an assigned mark, please bring it to my attention
  within seven calendar days of the date when work is returned to the class. After this time has
  elapsed, your mark will not change except in case of an arithmetic error.
- Students are expected to submit their homework and write tests on the date scheduled. Concessions are considered only in accordance with the section on Academic Concessions in the UVic calendar in cases of illness, accident or family affliction. A note from a doctor or counsellor or varsity coach is required for any concession. 'Deferred' status applies only to final exams. It will not be granted if you have not made a reasonable attempt at the class. Deferred exams are an academic concession available to students who, through no fault of their own, are prevented by circumstances from writing the final exam.
- Please also see the Course Policies common to all Math classes posted for 422 at <a href="https://www.uvic.ca/science/math-statistics/undergraduate/course-policies/index.php">www.uvic.ca/science/math-statistics/undergraduate/course-policies/index.php</a> and for 522 at <a href="https://www.uvic.ca/science/math-statistics/graduate/course-policies/index.php">www.uvic.ca/science/math-statistics/graduate/course-policies/index.php</a>
- The Course Experience Survey (CES) has moved online. Towards the end of term you will have the opportunity to complete an anonymous survey regarding your learning experience. When it is time for you to complete the survey you will receive an email inviting you to do so. I will provide you with more detailed information nearer the time. I take the comments seriously and thank you in advance for them.

Special arrangements will not be made for students who have plans for travel or employment during the final examination period.