ACCOUNT OF TEACHING EXPERIENCE
O-Yeat Chan

Dalhousie University

- **Instructor**

  Duties: *Prepare lesson plans and give lectures. Set evaluation criteria, including the design of a grading scheme and the making and grading of homework assignments and examinations. For Math 2112, also supervise the Teaching Assistant for the course.*

  Math 3070, Theory of Numbers — Fall 2008
  Introduction to the theory of numbers. Divisibility, Euclidean algorithm, modular arithmetic, Chinese remainder theorem, Fermat's little theorem, quadratic reciprocity, primitive roots, continued fractions.

  Math 2002, Intermediate Calculus II — Summer 2007
  Multiple integrals, change of variables, vector fields, line and surface integrals, Green's, Stokes', and Divergence theorems, second order linear ODEs.

  Math 2113, Discrete Structures II — Spring 2007
  Enumerative combinatorics, solving recurrence relations, generating functions, the pigeonhole principle, graphs and trees, Euler and Hamiltonian circuits, Dijkstra's algorithm, bipartite graphs and perfect matchings.

  Math 2112, Discrete Structures I — Fall 2006
  Propositional and predicate logic, introduction to proofs and mathematical induction, number theory, sets and relations, linear recurrences, big-O notation and complexity analysis, sorting algorithms.

- **Undergraduate competition training coach** — Fall 2007, 2008

  Duties: *Train undergraduates for the Atlantic Provinces Council on the Sciences (APICS) mathematics competition, as well as for the Putnam competition. Prepare and deliver lectures on problem solving techniques. Prepare problem sets for students. Supervise students at competitions.*

- **Lecturer for the Canadian Math Society Math Camp and Dalhousie Math Circles** — Spring, Summer 2007

  Duties: *Prepare and deliver lectures and workshops to high-school students. These workshops encourage active participation by the students to learn mathematics beyond the usual high-school curriculum.*

University of Illinois at Urbana-Champaign

- **Lab Leader**

  Duties: *Prepare and run lab sessions, which consist of five to six small groups of about 4 students each. Facilitate hands-on exploration of topics covered in class using manipulatives and other teaching tools. Review homework problems and answer student questions. Grade homework assignments, student projects, and examinations. Provide feedback to the course instructor on the effectiveness of labs and offer suggestions for improvement.*

  Math 117 Elementary Mathematics for Pre-service Teachers — 2002–2006 (5 semesters)

  Exploration of topics and methodology for teaching mathematics in grades 6 to 8, with a focus on the use of manipulatives such as algebra blocks and other hands-on tools to illustrate concepts. Coursework emphasizes the Illinois Learning Standards for mathematics as set by the Illinois State Board of Education, and topics include: sequences and series, compass and straightedge constructions, non-Euclidean geometry, functions and math modelling with technology, probability and statistics.

- **Instructor**

  Duties: *Prepare lesson plans and give lectures. Set evaluation criteria, including the design of a grading scheme and the making and grading of homework assignments and examinations.*

  Math 234, Calculus for Business I — Summer 2004

  The derivative, rates of change, maxima and minima, chain rule and implicit differentiation, antiderivatives and substitution, Lagrange multipliers.

  Math 230, Calculus II — Spring 2002

  Integration by parts and trigonometric substitution, parametric curves, polar coordinates, arc-length, volumes of solids of revolution, Taylor series, convergence tests.

- **Teaching Assistant**

  Duties: *Conduct tutorial classes that supplement the instructor's lectures for the course. Prepare and present practice problems in class as well as address student questions. Grade homework assignments and examinations.*

  Math 234, Calculus for Business I — Fall 2001, 2003

  Math 220, Calculus I — Spring 2001

  The derivative, limits and continuity, rates of change, maxima and minima, chain rule and implicit differentiation, curve sketching, the antiderivative and the Fundamental Theorem of Calculus, exponential and trigonometric functions.