ABOUT THE COURSE

This super course, now in its fifth year, is intended for people who are teaching mathematics or using mathematics in their work who would like to learn Maple from an expert. Maple is an industry leader in mathematical computation. It includes facilities for exact algebraic computation, numerical computation, graphics, and a modern graphical user interface as a working environment.

The course is designed to help you:

- Learn to use Maple interactively as a problem solving tool;
- Create graphic images;
- Learn to use the facilities available in Maple for mathematics applications;
- Write simple Maple programs;
- Learn how to incorporate Maple into a Mathematics course;
- Prepare course materials and documents for live presentations, assignments, exams, and publication; and
- See lots of applications where using the computer is appropriate for teaching.

COURSE OUTLINE

The course is divided into five days running from 8:30am to 5:00pm. The first day is especially for those who have not used Maple before. Mornings include direct instruction from Dr. Monagan on the topics listed below.

In the afternoons, participants work with Maple in a lab under Dr. Monagan’s guidance. Participants may work on a problem of their own choosing, or from a list provided to them.

COURSE SCHEDULE

Day 1: Monday, August 12th – Basics and Calculus
Numbers, polynomials, formulae, simplifying formulae. Graphing functions, fitting functions to data, derivatives and solving equations. The Maple GUI and preparing Maple worksheets.

Day 2: Tuesday, August 13th – Calculus and 2D & 3D Graphics

Day 3: Wednesday, August 14th – Linear Algebra and Preparing Documents

Day 4: Thursday, August 15th – Differential Equations and Graphics

Day 5: Friday, August 16th – Discrete Mathematics and Programming
Sums, generating functions and recurrence relations. Programming in Maple: the Euclidean algorithm, a cellular automaton, fractal images, and RSA public key encryption.

For Further Information, please contact:
Dr. Michael Monagan
(604) 291-4279 or (604) 264-1063
Electronic Mail: monagan@cecm.sfu.ca

ABOUT THE INSTRUCTOR

Michael Monagan is an associate professor in the Department of Mathematics at Simon Fraser University. Dr. Monagan has a PhD in computer science from the University of Waterloo. He is one of the Maple inventors and is using Maple in teaching and research. He is an author of the book *Programming in Maple Guide*.

Dr. Monagan has experience with industrial applications of Maple and experience with using Maple in the classroom. He is currently involved in the continuing development of Maple and his interests include scientific computing, automatic differentiation, simplification of formulae, polynomial GCDs and factorization, and visuals for teaching.

COURSE MATERIALS

Participants will be given a library of applications of Maple that Dr. Monagan has assembled over the last 5 years.

Participants will be able to browse a large collection of Maple books.

FULL MAPLE FOR $200.93

Course participants will have the opportunity to purchase a full version of Maple for their personal computer at a special rate of **$200.93** (tax included). Maple 7 is available for the Macintosh, Windows and Linux on a CD only.
Course fees include all handout materials, coffee & snacks, and parking. Fees of more than $100 are tax-deductible and are GST exempt in Canada. Please note the fees are in Canadian Dollars. US citizens may pay in US$ at a rate of 0.65.

**Option 1:**
- Three Days Only
  - *Early:* $400
  - *Regular:* $450
  - Mon Tues Wed Thurs Fri (Please Circle Appropriate 3 Days)

**Option 2:**
- Four Days Only
  - $500
  - $550
  - Mon Tues Wed Thurs Fri (Please Circle Appropriate 4 Days)

**Option 3:**
- Full Program
  - $600
  - $650

**Maple 7 Software (Optional)**
- $200.93

* Early registration is prior to July 22nd, 2002.

Enclosed fee in the amount of $__________

Name __________________________________________

Position/Title ________________________________

Organization _________________________________

Address ______________________________________

Postal Code ____________________________

Telephone ________________________________

Fax ________________________________

E-Mail ________________________________

Enrolment is limited to 20 participants. Please register early so as not to be disappointed.

Compete and return this form along with fee payment to:

Casey Bell  
Department of Mathematics  
Simon Fraser University  
Burnaby, BC V5A 1S6  
Phone: (604) 291-3331  
Fax: (604) 291-4947  
E-Mail: casey_bell@sfu.ca

Fees should be paid by cheque, payable to: Simon Fraser University. Faxed reservations are accepted. When registering by e-mail, please provide full registration information.

Cancellation Policy

Cancellation of registration prior to August 5th is subject to an administration fee of $75. Cancellations after this date do not qualify for a refund, but replacement registration are welcome. The cancellation request may be made in writing, by telephone or by e-mail and the original Simon Fraser University fee receipt must be returned.

Location:

- Room K9509  
- Shrum Science Centre  
- Simon Fraser University  
- Burnaby, BC

Fee: See registration area for fee structure.

Sponsored by Waterloo Maple Inc., Waterloo, Ontario (the Developers of Maple)

organized by  
the Department of Mathematics  
Faculty of Science  
Simon Fraser University

TEACHING & DOING MATHEMATICS WITH MAPLE

With Michael Monagan

Monday to Friday  
August 12 – 16, 2002  
8:30am – 5:00pm

Department of Mathematics  
FACULTY OF SCIENCE  
SIMON FRASER UNIVERSITY