

## Registration Form - ITC22 Java for Experienced Programmers

October 22 - 24, 2003

Course registration and payment must be received by October 20, 2003. Course enrollment is limited to 14 students. Free parking is available in the car park beside the Information Technology Building. Please fill in the following form and return it with payment (see below) to:

Faculty of Computer Science, 440 Windsor Street, Room 315  
University of New Brunswick  
P.O. Box 4400, Fredericton, N.B. E3B 5A3  
Phone: (506) 447-3220 FAX: (506) 453-3566 E-mail: fcs@unb.ca

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone number: \_\_\_\_\_ FAX number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Registration fee: \$1,050.00 (\$913.04 + \$136.96 HST)

*Registration includes morning coffee, refreshment breaks, lunch at the course location, and a set of course notes. A computer projection system is used for delivering course material.*

Method of payment (check one):

Cheque  Money Order  Purchase Order or

Credit Card:  VISA  MasterCard

Card Number: \_\_\_\_\_

Name of Card Holder: \_\_\_\_\_

Expiration date: \_\_\_\_\_ (please print or type)

Your Signature: \_\_\_\_\_

Date signed: \_\_\_\_\_ (required for credit card payment only)

Please register my CEUs with EIC

Technical Society/Prof. Eng. Association: \_\_\_\_\_

Membership No. \_\_\_\_\_

*Cheque or money order remitted in Canadian dollars is to be made payable to the "UNB Information Technology Centre". Minimum course registration of seven students is required.*



# ITC22 Java for Experienced Programmers

October 22 - October 24, 2003

Computer  
Science UNB

Information Technology Centre  
440 Windsor Street  
P.O. Box 4400, Fredericton, NB E3B 5A3

**Information Technology Centre**  
**ITC22 Java for Experienced Programmers**  
**October 22 - 24, 2003**

This three day intensive course in Java provides the experienced programmer (those with at least two years of computer programming experience) with an understanding of Java programs and the fundamentals of object oriented programming in Java. The second and third days cover the basic concepts on which sophisticated Java programs may be constructed: Java Foundation Classes, multitasking threads and exception handling. Also covered are the use of TCP communication, and running applets and servlets. These are illustrated through various examples, culminating in a server and a client for a "chat" conference, using the TCP Internet communication protocol.

### **Course Content & Schedule**

(Note: Refreshment breaks are provided mid-morning & mid-afternoon)

#### **Day One: Basics of Java and Lab Tools**

9:00 - 10:30 Overview of Java and Lab

- *Java: A fresh start for computing*
- *Overview of Objects*

##### **Hands-on Lab**

- *Learning the Tools*

10:50 - 11:30 Objects: Data and Code

- *Java Data Basics*
- *Java Code Basics*

1:00 - 2:30 Intermediate Objects and Classes

- *Object Example: Bank Teller*

##### **Hands-on Lab**

- *Bank Example*

2:50 - 4:30 Advanced Objects and Classes

- *Inheritance and Polymorphism*
- *Limiting Scope and Packages*
- *Interfaces*

#### **Day Two: Abstract Window Toolkit and Threads**

9:00 - 10:30 Java foundation classes

- *JFC Basics*

##### **Hands-on Lab**

- *Laying out Applets and JFrames*

10:50 - 12:00 GUI Events

- *Listeners, adapters, action events*

##### **Hands-on Lab**

- *Responding to mouse and action events*

1:00 - 2:30 Threads

- *Overview of threads and processes*
- *Thread class and runnable interface*
- *Start() and run()*
- *JFC threads*

2:50 - 4:30 Intermediate Threads

- *Serialized threads*

##### **Hands-on Lab**

- *Conflicting incrementors*
- *Recap and preview*

#### **Day Three: Exceptions, Sockets and Servers**

9:00 - 10:30 Communicating Serialized Threads

- *Wait and notify*

##### **Hands-on Lab**

- *Bounded Buffer*

10:50 - 12:00 Exceptions

- *Exception Hierarchy*

##### **Hands-on Lab**

- *Throwing and catching*

1:00 - 2:30 TCP Communication

- *TCP Server and TCP Client*

##### **Hands-on Lab**

- *Communication among workstations*

2:50 - 4:30 Chat Server and Client

- *Server architecture*
- *Design of Client*

*Reference materials include a testbook & a set of course notes for each student.*

#### **Instructor**

Scott Buffett is a Research Officer at the National Research Council's Institute for Information Technology - e-Business, and is a candidate for PhD in computer science at UNB. His first experience in technical training involved offering basic computer operation courses for the YMCA employment assistance program. Now an award-winning instructor in the Faculty of Computer Science at UNB, Mr. Buffett has taught a number of courses covering a variety of subjects over the past 6 years, including discrete mathematics, digital design and several programming languages such as FORTRAN, JavaScript and Assembler. When he is not teaching, his current research efforts are focused mainly on applying artificial intelligence and economics techniques in e-commerce research.