Registration Form - ITC15 Conceptual Data Modeling
Wednesday, September 3, 2003

Course registration and payment must be received by Augsut 30, 2003. Course enrollment is limited to 40 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 317
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: $375.00 ($326.09 + $48.91 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 (Please provide PONo._____) 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.

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Computer Science UNB

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

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Entity-relationship modeling is widely used for capturing data requirements and for designing databases. Object-oriented analysis approaches use similar techniques to help in application design. This one-day training course introduces the basics of data modeling, including how to gather data requirements and analyze business rules that constrain data. The relationship between data models and relational databases is explored in some detail, as well as the role of UML. Students learn how to convert from one to the other. Practical issues related to the use of data modeling in real project settings are discussed. Several hands-on modeling exercises based on realistic examples provide an opportunity to apply the concepts.

Course Content and Schedule

8:30 **Course Overview & Welcome**

8:45 **Data modeling defined**
- Why data models?
- When to data model?
- Who needs to create and/or understand data models?

- A brief history of data modeling.

9:00 **Entity-relationship basics**
- Entities, relationships and attributes.
- Cardinality constraints.
- Derived data.
- Commonly-used ER and object-relationship notations.
- Similarities and differences between data modeling and object modeling.
- Converting ER models to database tables.

9. 45 **Refreshment Break**

10:00 **Modeling Exercise I**

11:00 **Further Modeling Concepts**
- Weak entities
- When an attribute is really an entity
- N-ary relationships
- Converting new ER concepts to database tables

11:30 **Modeling Exercise II**

12:00 **Lunch served at the course location**

1:00 **Modeling Exercise II**

2:00 **Practical Matters**
- Alternative notation.s
- Sources of data requirements.
- Documenting (large) data models.
- ER models vs. table diagrams.
- Typical CASE tool data modeling functions.

2:30 **Refreshment Break**

2:45 **Data Analysis Exercise**

3:45 **Using UML for Data Modeling**

4:15 **Course Wrap-up**

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

Instructor