Modeling Consumer Decision Making and Discrete Choice Behavior

July 9-11, 2001

To register, complete the enclosed registration form and fax it to: 212.995.4502

or mail to:
New York University
Stern School of Business
Executive Programs
44 West Fourth Street, Suite 4-51
New York, NY 10012-1126.

You may also register online as well as see our full program calendar by visiting our web site at:
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For more information on programs including dates & costs

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(888) 698.3932

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NYU STERN SCHOOL OF BUSINESS
EXECUTIVE PROGRAMS
44 WEST 4TH STREET, SUITE 4-51
NEW YORK, NEW YORK 10012-1126

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EVOLVING WITH BUSINESS

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DATES
July 9-11, 2001

COST
$2,750
Program fee includes all course materials, breakfast and lunch.

LOCATION
New York University
Stern School of Business
44 West Fourth Street
New York, New York

CONTACT
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COURSE OVERVIEW

Discrete choice modeling is the standard method of analyzing individual choice behavior and market demand. Applications include transportation mode, brand choice, recreation demand, telecommunications services, health services, appliance choice, location decisions and a wide variety of other settings in many diverse fields. Recent advances in tools and methods have been used to model individual behavior and to analyze market shares and change in demand in response to pricing and income and changes in available choice sets and choice characteristics. This course will present the most recent developments in theory and methods, and a variety of applications to illustrate the techniques.

Intended for practitioners, this three-day course includes presentations of the background theory for discrete choice modeling, different methods for combining survey data, and the most recently developed modeling techniques. Recent applications and hands on problems with actual data sets will be used to augment the presentations. Applications will be developed using well known, widely available software.

WHO SHOULD ATTEND THIS COURSE?

This course is intended for researchers in marketing, economics, health services, engineering, planning, and fields in which consumer demand and choice is of interest. It is also for practitioners, academics, and managers in government and industry. Participants should have a background in statistics and some familiarity with econometrics, but advanced training is not necessary.

FACULTY

Professor William Greene, **Academic Director**, teaches econometrics at the Stern School of Business at New York University and works with Econometric Software, Inc. He is the author of the best selling text *Econometric Analysis* [Prentice Hall (2000)] and is the developer of NLOGIT, the premier software for discrete choice modeling. (See http://www.stern.nyu.edu/~wgreene)

Professor David Hensher is the author of numerous books and articles on discrete choice models, including, with Professor Louviere and Joffre Swait, *Stated Choice Methods* (Cambridge, 2000). Professor Hensher is also the director of the Institute for Transport Studies at the University of Sydney.
(See http://www.its.usyd.edu.au/Staff/david_hensher.htm)

Professor Jordan Louviere has taught marketing at University of Iowa and the University of Sydney, and is currently the director of Research and Development of Memetrics, specialists in choice modeling and experimental design. He has written extensively on stated choice methods and on experimental design and survey analysis in marketing. (See http://www.memetrics.com/company/poeple.asp)

Professor Kenneth Train has written many articles on discrete choice models and is one of the pioneering developers of the mixed logit model. Professor Train currently teaches at the University of California, Berkeley and works with National Economic Research Associates. (See http://elsa.berkeley.edu/users/train/index.html)

All four presenters have taught discrete choice modeling to academic, business and government audiences and have contributed to the development of the techniques and literatures to be presented in the course. You can learn more about the presenters from their websites.

COURSE SCHEDULE AND MATERIALS

The course will run each day from 9:00 AM to 5:00 PM. Approximately one third of the course will be spent in hands on applications. Course materials will include copies of *Stated Choice Methods: Analysis and Application* [Louviere, J, Hensher, D. and Swait, J., Cambridge (2000)], *Econometric Analysis* [Greene, W., Prentice Hall (2000)] and *NLOGIT 2.0* (software) [Econometric Software, Inc. (1998)] as well as exhibits and articles prepared by the presenters.

METHODOLOGY

- **Individual choice modeling** -- The underlying behavioral model for discrete choice modeling.
- **Random utility models**, consumer behavior and market demand, modeling probabilities for individual choice.
- **Modeling binary choice** -- The model for choice between two alternatives is the foundation for discrete choice modeling.
- **Specification, estimation and testing** with a model for binary choice. Probit and logit models, extensions and variations, heteroscedasticity, panel data, random differences across individuals. Comparison to other techniques such as discriminant analysis. Analyzing behavior and predicting outcomes with binary choice models. Predicting success and failure.
- **Standard models for multiple choices** -- The multinomial logit model is the most widely used type of multiple choice model. We consider several types. Specifying a model for choice among multiple alternatives. Ordered choices and rankings. Estimation and testing of model specification. Generic and choice specific attributes. Random utility formulations. Limitations of the multinomial logit specification.
- **Scaling and implicit variances** -- Making models consistent with utility maximization. This section considers some of the subtle aspects of model building and combining models built with more than one data source. Computing elasticities and predictions.
- **Prediction** using a multiple choice model. Simulation of the multiple choice model to predict market shares and changes in shares. Combining data sets in simulations.
- **Frontier developments** in multiple choice modeling. We examine many of the most recent developments in multiple choice models. Extreme value models and heteroscedasticity. Nested logit models. The multinomial probit model. GHK simulator for the multinomial probit model. Substitution patterns in probit models, random taste variation. Model simulation.
- **Simulation estimation of multiple choice models** -- Modeling switching and repeated measures. The most up to date developments in multiple choice modeling involve random taste variation and mixed logit modeling. Systematic and random taste variation in random utility models. Serial correlation and repeated observations. Unrestricted substitution patterns. Recent model extensions.
- **Experimental design and stated choice experiments** -- Integrating stated and revealed preference data. Stated choice experiments. Design and analysis of experiments. Scaling parameters for transfer across applications.

DATA AND APPLICATIONS

- Panel data sets and repeated observations
- Choice based sampling
- Individual data, frequencies, and market shares or proportions data
- Combining revealed preference data with stated choice survey data
- Complementary choice data sets
- Scaling and transferring estimates across applications
- Practical issues in prediction and model evaluation
- Model simulation
- Applications to: Workers commute, loan default, appliance choices, choice of fishing sites, vehicle type and attributes.

TOOLS

- Hands on laboratory sessions
- Course materials include popular books and software written by the presenters
- Use of NLOGIT software

Executive Programs Application

Program Name _____ Program Dates _____

☐ Mr. ☐ Mrs. ☐ Ms. ☐ Dr.

First name_____ Middle_____ Last name_____

Title_____ Years in Present Position_____

Company_____

Business address_____

City_____ State_____ Zip_____ Country_____

Business phone_____ Fax _____ Email_____

Home address_____

City_____ State_____ Zip_____ Country_____

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Emergency contact name_____ Telephone_____

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- ☐ Communications/Public Relations
- ☐ Consultant/Analyst
- ☐ Engineering
- ☐ Finance
- ☐ Human Resources/Training
- ☐ Executive Management
- ☐ Marketing/Advertising
- ☐ Money/Portfolio Manager
- ☐ Product Management/Development
- ☐ Programming
- ☐ Research
- ☐ Sales (including Brokerage)
- ☐ Strategy/Business Development
- ☐ Other _____

Please provide a description of your position and responsibilities_____

_____

Organization type ☐ public ☐ private ☐ government ☐ non-profit

Please indicate the industry in which your company participates:

- ☐ Computers/Software/Systems
- ☐ Entertainment/Media
- ☐ Financial Services/Securities
- ☐ Food/Beverage
- ☐ Health Care/Pharmaceutical
- ☐ Insurance
- ☐ Legal
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- ☐ Non Profit/Government
- ☐ Real Estate
- ☐ Telecommunications
- ☐ Transportation
- ☐ Utilities
- ☐ Other _____

Company sales last year _____ Your budget responsibility _____ Number of people you manage _____

Name of parent organization (*if applicable*) _____

Person responsible for executive education in your firm _____
name title

What industry developments, corporate objectives or personal development goals prompted you to enroll in this program?_____

_____

Why did you choose Executive Development at the Stern School of Business? _____

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Please list all Bachelor and post-Baccalaureate degrees held

Degree	*Institution*	*Year earned*

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	written notice at least 30 days before start date	written notice at 15-30 days before start date	written notice at 7-14 days before start date	written notice less than 7 days before start date
Substitutions[1]	*No fee*	*No fee*	*No fee*	*No fee*
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[1] All substitutes must complete an application form.

[2] Participants wishing to transfer may transfer the value of their paid registration fee less any transfer costs towards payment of the registration fee of any other program offered within one calendar year of their transfer request. After one year, the transfer is processed as a course withdrawal.

All requests for transfers and withdrawals must be confirmed in writing. If written notification is not received from a registered participant and the participant does not attend the seminar, the full course fee will be assessed. Please fax your request to the Executive Programs office at 212-995-4502. You may send a substitute at any time in lieu of transfer or withdrawal.

_____
Name of Participant

_____
Signature of Participant (required) Date

Participant I~~D. D S 1 T I F N~~

To register, please fax or mail both pages of the registration form to:

New York University
Stern School of Business
Executive Programs
44 West 4th Street
KMC Suite 4-51
New York, NY 10012-1126
Fax: 212-995-4502

To register via the Internet, please visit our web site at **www.stern.nyu.edu/executive.** Class sizes are limited and early registration is encouraged. While you may register at any time, a place cannot be guaranteed prior to receipt of full payment.

Within the United States:
888-698-3932

Outside the United States:
212-998-0270

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☐ I have attended programs at Stern in the past (program: _____)
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☐ It was recommended by ☐ Corporate Development ☐ Division Head ☐ NYU Faculty
☐ I saw a printed advertisement (publication if you recall: _____)
☐ I saw an ad on the Internet (site if you recall: _____)
☐ I found it on the internet via search engine
☐ I received an unsolicited mailing

For industry reporting purposes, please note your annual compensation including bonuses (in US dollars) and the level of your position (this information will be kept confidential):

☐ under $100,000 ☐ $200,000 - $250,000
☐ $100,000 - $149,999 ☐ over $250,000
☐ $150,000 - $199,999

☐ Senior Management ☐ Upper Middle Management ☐ Middle Management

PAYMENT INFORMATION

Program Name_____ Fee_____

We welcome corporate checks (payable to *New York University*), wire transfer, Visa, Mastercard or American Express. The course fee covers program materials, breakfast, catered lunch and refreshments. Faculty and content are subject to change.

☐ alumni discount
☐ Salomon Center Associate discount
Note: Please see course brochures for discount information

☐ Visa ☐ MasterCard ☐ American Express

Account# _____ Exp. Date _____

Name on card _____ Signature of cardholder _____

☐ Check enclosed for $ _____ made payable to *New York University*

☐ Please bill me and send invoice to: Name _____ Title _____

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City_____ State _____ Country _____ Zip _____