

***PRACTICAL GE MODELLING COURSE
BEIJING 13-17 January 2020***

***Conducted by
Centre of Policy Studies (CoPS), Victoria University
And hosted by
School of International Trade and Economics,
University of International Business and Economics (UIBE)***

For inquiries please contact: XiujianPeng(xiujian.peng@vu.edu.au)
JunYang(yjydy.ccap@igsnr.ac.cn)

Summary

The Centre of Policy Studies and Impact Project at Victoria University, Melbourne, Australia will offer an intensive five-day course introducing participants to computable general equilibrium modelling and to the GEMPACK software used to solve equilibrium models. The course will be hosted by the School of International Trade and Economics, University of International Business and Economics (UIBE) during 13-17 January 2020. The course will be lectured in English with tutoring available in Chinese during computer sessions.

The course focuses on a typical single-region applied general equilibrium model of China: the ORANIG China model with 2002 input-output database. The model is a variant of the ORANI-G model of the Australian economy (<http://www.copsmodels.com/oranig.htm>). Variants of the ORANI model of the Australian economy have been used extensively for policy analysis in Australia for more than two decades. ORANI-G (a generic version of ORANI) has been used as the basis of many single-country models including models of Thailand, China, Brazil, South Africa, Pakistan, the Philippines, Denmark and etc. GEMPACK software is used by research workers in over 700 different locations in about 90 countries around the world.

Rationale for the Practical GE Modelling Course

The course should appeal to

- Those needing background in order to work with, or understand results from, a typical CGE model like ORANIG-China;
- Those wishing to use the theory of ORANI-G with GEMPACK as the basis for a model of a country other than China;
- Those wishing to get sufficient background in order to learn about multi-regional, multi-country, dynamic and/or forecasting models. Examples of such models are the Monash-Multi-Country model, CHINAGEM and Sino-TERM models of China, MONASH or MMRF models of Australia or the USAGE model of USA. This course also provides the background assumed for more advanced multi-regional or dynamic model courses run by CoPS each year.

Course Outline

The course aims to introduce participants to the ideas and techniques of CGE modelling, and to equip them to start using, adapting or constructing CGE models for their own simulations. By the end of the course, participants will have acquired thorough knowledge of:

- The theory underlying CGE models;
- The basic structure of a typical CGE model;
- The representation of applied GE models in the notation used in GEMPACK;
- The data requirements of a typical single-country CGE model;
- Checking that the equations and data of a model are implemented correctly on the computer;
- Formulating exogenous scenarios;
- Computing simulations for policy analysis;
- Interpreting and reporting results.

January 2020 Course Program at School of International Trade and Economics, University of International Business and Economics (UIBE)

The course program will consist of lectures integrated with extensive hands-on experience with modelling in GEMPACK. Participants in this course will need to bring their own notebook computer (for notebook requirements, see <http://www.copsmodels.com/laptops.htm>). The course is designed as an intensive live-in program, with fairly long work hours. The course material and program are as follows.

Monday 13 January 2020: commence

9am The basic structure of a CGE model

Introduction to the ORANIG-China model

Overview of GEMPACK software

Computing: First simulation – an overall picture; looking at the data for ORANIG-China

Finish 5.30pm

Tuesday 14 January 2020: commence 9am

The theoretical structure of ORANIG-China: producer, export/local mix; capital creation

Computing: interrogating the data; closure and homogeneity; tariff cut with ORANI-China

Finish 5.30pm

Wednesday 15 January 2020: commence 9am

Theoretical structure of ORANIG-China: household demand, other final demands, market clearing

Computing: Analysing how equations and data affect simulation results; wage simulation with ORANIG-China

Finish 5.30pm

Thursday 16 January 2020:

commence 9am Analysing the wage simulation

Theoretical structure of ORANIG-China: purchasers prices and macros; investment and labour market; explaining results, closure

Computing: adding new data, variables, and equations; using subtotals

Finish 5.30pm

Friday 17 January 2020: commence 9am

Group simulations with ORANIG-China: simulation, analysis of results, report preparation

Group presentation of reports on ORANIG-China

Finish 5.30pm

Documentation and Software

Course participants receive a folder, containing

- Course notes and printed lecture slide shows;
- Exercises to be completed in classes and labs;
- Documentation of the ORANIG-China model and data;
- Instructions for installing and using GEMPACK.
- A book of "ORANI: a multisectoral model of the Australian Economy" written by Peter Dixon, B. R. Parmenter, John Sutton and D. P. Vincent.

At the end of the course participants receive one or more CDs, containing

- An Executable-Image version of the latest GEMPACK software which will allow them to run ORANI-G simulations on any modern Windows PC, and to construct and run their own models of comparable size;
- PDF files containing the complete GEMPACK documentation;
- An individual GEMPACK licence for the above software;
- All computer files needed to run a standard 35-sector version of the ORANIG-China model;
- A CD image of the entire CoPS website, containing many example models, working papers, and utility programs.

Assumed Background

Previous hands-on experience in solving GE models is not required. We expect that course participants have:

- A bachelor or master degree in Economics, or equivalent work experience;
- Experience of using a PC or notebook running Windows;
- A desire to learn about CGE modelling.

Preparing for the course

Participants should study some material prior to the course. Download and work through the MINIMAL course material (<http://www.monash.edu.au/policy/minimal.htm>). The MINIMAL model and course are simplified versions of the ORANI-G model and course -- and use similar notation and software. To go further, you could:

- Download and read the ORANI-G document, which you can find at the top of ORANI-G page (<http://www.copsmodels.com/oranig.htm>);
- Download and experiment with the free Demonstration Version of GEMPACK (<http://www.copsmodels.com/gpdemo.htm>).

Course Fees Beijing 2016

AU\$2500

The fee covers course materials (including software), morning and afternoon teas, lunch, one course dinner. It does not cover accommodation, or other meals.

Venue and Accommodation

Course Venue:

School of International Trade and Economics,
Building No.10,
University of International Business and Economics (UIBE),
Huixin Eastern Street, Chaoyang District, Beijing, 100029

Accommodation

For information regarding accommodation near the course venue contact:

Jun Yang

Professor,
School of International Trade and Economics,
University of International Business and Economics (UIBE)
Eastern Street, Chaoyang District, Beijing, 100029
Tel: +86 18513399037
Email: yangguohua0809@163.com