

**Fulbright Economics Teaching Program**  
**Academic Year 2005 – 2006**  
**Summer Term**  
01/08/2005 – 31/08/2005

**Course Syllabus**

**Computer Applications**

**Teaching team**

Tran Thanh Phong	Instructor
Tran Thanh Thai	Instructor
Truong Si Anh	Instructor

**Class meetings (at Computer Lab)**

Morning:	8:30 – 11:30	
	<i>Group 1: 8:30 – 10:00</i>	<i>Group 2: 10:00 – 11:30</i>
Afternoon:	14:00 – 17:00	
	<i>Group 1: 14:00 – 15:30</i>	<i>Group 2: 15:30 – 17:00</i>
Extra class:	Saturday, 8:30 – 10:30	
Office hours:	According to Computer Lab's schedule	

**Course Objectives**

1. Understanding and using computer applications.
2. Applied computer for economics

**Course Description**

The course is specifically designed for FETP's students so that to help them develop their basic skills in using some application software such as MS Word, MS Excel, MS PowerPoint, Crystal Ball, Eviews etc. that are required by other core courses of the program.

In this course, students will learn the basic concepts, techniques and tools to complete different tasks they may face in practice, from using functions, formulas, data analysis and solver tools to creating charts, graphics, and final reports. Also, students will have chance to get familiar with some other application such as True Basic, Microsoft Project and so on with the guidance of the teaching team. During the course, the students are required to accomplish all assignments in due time and take the final exam directly on computer.

**Readings**

1. *Applied Microsoft Excel for economics*, Dang Canh Thac, Tran Thanh Thai, Tran Thanh Phong, 2004.
2. *Applied Microsoft Excel for economics - continued*, Tran Thanh Phong, 2004.
3. *Presentation with PowerPoint*, Tran Thanh Phong, 2004.
4. *Crystal Ball: Forecasting & Risk analysis for spreadsheet users--Version 4.0*, Cao Hao Thi, Le Nguyen Hau, Ta Tri Nhan, Vo Van Huy, Nguyen Quynh Mai, 1998.
5. *Eviews 5 User's Guide*, Quantitative Micro Software, 2004
6. *Use of Graphics and Multimedia with PowerPoint 2000*, Ngo Quang Bach, Hoang Duc Hai, Vuong Bao Hoang, Nguyen Dinh Te, Tran Thi Bich Trang, 2000.
7. *The Practice and Application of Microsoft Office 2000*, Nguyen Huu Binh, Nguyen Van Tam, Nguyen Tien, 2000.

8. *Data Analysis with Microsoft Excel*, Kenneth N. Berk, Patrick Carey, 1997.
9. *Spreadsheet Modeling And Decision Analysis*, Cliff T. Ragsdale, 2001.

## Grading

The grade for the course will be based on assignments and final examination as the following:

Problem set	Weight	Handout date	Due date
Problem set 1	20%	2/8/2005	9/8/2005
Problem set 2	20%	9/8/2005	16/8/2005
Problem set 3	20%	16/8/2005	23/8/2005
Final Exam	40%	25/08/2005 Group 1: 8:30 – 10:00 Group 2: 10:10 – 11:40	

## Course schedule

*Week 1 – Tuesday, 2/8/2005 – (8:30 – 11:30)*

*Thanh Phong/ Si Anh*

## Course Introduction and introduction to the FETP Local Area Network.

### Lesson 1. Getting Started

- Window manipulation
- Features and toolbars, displaying and hiding toolbars.
- Concept of workbooks, worksheets, chartsheets, cells, sheet tabs?
- Working with workbooks: open, create, save, close a workbook and arrange workbooks.
- Working with worksheets and chartsheets: select, move, rename, create new, copy, and delete a worksheet.
- Basic of data entry and editing: select a range; enter text, number, date data, formulas and special symbols (delta, alpha, =, <, >, etc).
- Use 'Fill handle' to auto fill data, copy data and formulas. Select, copy, move a range. Insert rows, columns. Merge and split cells. Remove merged cells.
- Format table and text: border, shade, and color. Format text, number, date: autofunction, condition format function, style application. Hide and unhide rows and columns.
- Split and freeze pane of window. Using AutoFill.
- Using formulas
- Naming ranges or cells
- Printing: What to do before printing? Introduction to 'Page Setup', 'Print Preview' and 'Print Dialog Box'.

### Assignment: problem set 1

#### Reading:

- Lesson 1, 2, 3 and 6 in reading material No.1.
- Chapter 15, 16, 17, 18, 19 in reading material No.7.

*Week 1 – Wednesday, 3/8/2005 – (14:00 – 17:00)*

*Thanh Thai/ Thanh Phong*

### **Lesson 2. Functions**

- Text functions
- Date and Time functions
- Math & Trig functions\*
- Financial functions\*
- Logical function
- Statistical functions
- Lookup and Reference functions\*

#### **Reading:**

- Lesson 4 in reading material No.1.
- Chapter 20 in reading material No.7.

*Week 1 – Thursday, 4/8/2005 – (8:30 – 11:30)*

*Thanh Thai/ Thanh Phong*

### **Lesson 3. Chart**

- Creating charts: *general introduction to chart types; working with equations  $y=f(x)$ ,  $y=f(x^2)$  and  $y=f(x^3)$ ; break-point chart, pareto chart, stock chart, ...*
- Chart formatting.

#### **Reading:**

- Lesson 5 in reading material No.1.
- Chapter 21 in reading material No.7.

*Week 2 – Tuesday, 9/8/2005 – (8:30 – 11:30)*

*Thanh Phong*

### **Lesson 4. Presentation with PowerPoint**

- PowerPoint components. What's Slide Master? What's Title Master?
- Creating a presentation with full components: text, picture, drawing, WordArt, equation, organization chart, chart, table, sound, video clips,...
- Customizing and applying effects for a slide: template design, background color, animation effects, built-in animation effects, navigation buttons , etc.
- Printing and exporting a slide

#### **Assignment: problem set 2**

#### **Reading:**

- Reading material No.3.
- Chapter 26, 27, 28, 29, 33 in reading material No.7.

*Week 2 – Thursday, 11/8/2005 – (8:30 – 11:30)*

*Thanh Phong*

### **Lesson 5. Solve problems on spreadsheet**

- Solving the factoring equation using Goal-Seek
- Solving a set of equations using solver and matrix method
- Finding the break point with Goal-Seek tool.
- Using Solver tool in linear programming.

**Reading:** Lesson 4, 5 and 6 in reading material No.2.

*Week 3 – Tuesday, 16/8/2005 – (8:30 – 11:30)*

*Thanh Phong/ Si Anh*

**Lesson 6. Managing, summarize and analysis data**

- Querying data on World Bank Development Indicators CD and extracting data to a Microsoft Excel file.
- Managing list using AutoFilter, Advanced Filter and Data Sort.
- Summarize data by PivotTable.
- Creating PivotChart
- Create and work with Subtotal.
- Use Database functions.

**Assignment: problem set 3**

**Reading:**

- Lesson 2, 3 in reading material No.2.

*Week 3 – Thursday, 18/8/2005 – (8:30 – 11:30)*

*Thanh Phong/ Si Anh*

**Lesson 7. Risk analysis and Simulation with Crystal Ball**

- One-way, two-ways and many-ways sensitivity analysis.
- Scenario analysis.
- Simulation with Crystal Ball.

**Reading:**

- Lesson 7, 8 and 9 in reading materials No.1 and lesson 7 in reading material No.2.
- Reading material No.4.

*Week 4 – Tuesday, 23/8/2005 – (8:30 – 11:30)*

*Thanh Phong/ Si Anh*

**Review at class room A**

*Week 4 – Thursday, 25/8/2005 – (8:00 – 11:40)*

*Thanh Phong/ Si Anh*

**Final examination:**

- Group 1: 8:30' – 10:00'
- Group 2: 10:10' – 11:40'

**Note:**

All recommended readings and other course materials can be found on FETP's websites at:

Fulbright's LAN: <http://intranet.fetp.edu.vn>

Internet: <http://www.fetp.edu.vn>

## Special course schedule

*Week 1 – Saturday, 6/8/2005 – (8:30 – 10:30)*

*Thanh Phong*

### **Part 1. Excel basic**

Introduction about Microsoft Excel at the basic level: overview, tools, creates a spreadsheet, format spreadsheet, calculations, create charts and printing.

### *Special lecture*

### **Windows Explorer**

**E-mail:** Using mail clients such as Microsoft Outlook & Web mail

**Web:** Using Intranet, Internet and Search engines.

*Week 2 – Saturday, 13/8/2005 – (8:30 – 10:30)*

*Thanh Phong*

### **Part 2. Functions**

Introduction about some main set of functions: focus on financial functions, Math & Trig functions, Statistical functions and Lookup and Reference functions.

*Week 3 – Saturday, 20/8/2005 – (8:30 – 10:30)*

*Thanh Phong*

### **Part 3. Solve problems with Excel**

Solve some economics problem on spreadsheet: Introduction about the modeling process on spreadsheet and using Excel tools to solve the problems.

### **Eviews basis**

- Eviews basic components.
- Start and exit Eviews.
- Window manipulation
- Create and save a new work file; open an existing work file
- Select a subset (sample) of observations in the work file
- Create new series (genr command), delete a series
- Create groups of objects and edit data
- Rename, copy and delete objects
- Create a new object out of current view (freeze)
- Printing objects
- Import data from Excel file
- Create different types of graph of series
- Display summary statistics for series.