

INTERNATIONAL UNIVERSITY OF JAPAN
 Graduate School of International Management
 Academic Year: 2017/2018

Pre-enrollment Course on EXCEL for Business Students

Course	Course code NA	Course title EXCEL Basic Skills Course	
Name of Instructor	Professor Jay Rajasekera		Credits: 0
Instructor's contact Information	Office# #531	Office Hours By appointment	E-mail: jrr@iuj.ac.jp
Class Schedule	9/18 – 9/19		
Day / Time	13:00-14:30, each day		

COURSE DESCRIPTION

Course Description and Learning Objectives:

EXCEL is the world's most used business software. The objective of this pre-enrollment course is to introduce EXCEL to a basic level.

Course Context or Rationalization:

Course covers: What's a spreadsheet; How to open spreadsheets in various windows according to their use; EXCEL tips on creating tables, functions, formulas, and charts.

Delivery methods:

Course is delivered entirely in PC room with students accessing the computers. Please make sure you have a valid computer account to access IUJ computer network (you can get a user ID and PW by visiting computer staff located on 3rd FL of MLIC).

Assessment: No grade shall be give as this is preparatory classes.

Prerequisite: None

Textbook(s) No text books

Class Outline	Session	Theme/Case	Readings/Study questions
	1 9/18 13:00-14:30 Class: PC Room	Introduction	To understand 1. What is Spreadsheet? 2. Creating Tables 3. Table Styles, Tips, and Tricks
2 9/19 13:00-14:30 Class: PC Room	Excel Essentials	To understand 1. Functions 2. Charts 3. Limitations	

More advanced Excel Tools are covered in Computer Based Decision Modeling (CBDM) class.

INTERNATIONAL UNIVERSITY OF JAPAN
Graduate School of International Management

Academic Year: 2017/2018

Pre-enrollment Course on Mathematics for Business Students

Course	Course code NA	Course title Math Skills Course	
Name of Instructor	Professor Jay Rajasekera		Credits: 0
Instructor's contact Information	Office# #531	Office Hours By appointment	E-mail: jrr@iuj.ac.jp
Class Schedule	9/18 – 9/21		
Day / Time	See course outline for more detail		

COURSE DESCRIPTION

Course Description and Learning Objectives:

The main purpose of this course is to understand the basics in mathematics and their usage in order to prepare for the regular MBA classes, especially math intensive courses such as finance, accounting, economics, statistics, operations management, computer modeling etc. As this is preparatory classes and introductory level course, students who are not confident in mathematics are strongly recommended to take. This course is optional for those who are good at mathematics.

Course Context or Rationalization:

The course covers the basics in mathematics in order to have the better understanding of the analytical skills. In order to have the deep understanding of these analytical tools, students have to know the basic calculus, matrix algebra, probabilities as well as how to use excel and other statistical software to conduct these analysis. Additionally, students have to interpret the results of these calculations. This math skills course plans to cover how to conduct and interpret this analysis as well. Students with this knowledge are expected to be more confident to understand foundation courses and take several math intensive courses.

Delivery methods:

Course materials consist of power point slides and practice problem sets. Most course work is quantitative. Students will be given the time to solve actual problems as well as be familiar with basic excel functions in the class hour. Full preparation and attendance are both required for all of the scheduled sessions in this course.

Assessment: No grade shall be give as this is preparatory classes.

Prerequisite: None

Textbook(s)

Required: NA

Power Point Slides will be provided at each class

Reference books:

No particular book is used. But, the following text feely downloadable, may be useful:

- Business Mathematics (Credit to Tamilnadu Textbook and Education Corporation)
free download: <http://www.textbooksonline.tn.nic.in/Books/11/Std11-BM-EM.pdf>

Class Outline	Session	Theme/Case	Readings/Study questions
	1 9/18 18:00-19:30 Class: 102	Introduction	To understand 1. Math and Business 2. types of functions 3. basics in static analysis 4. Functions and graphs
	2 9/18 19:40-21:10 Class: 102	Calculus I	To understand 1. basics in derivatives 2. rules of differentiations 3. product rule and quotient rule 4. chain rule
	3 9/19 18:00-19:30 Class: 102	Calculus II	To understand 1. basics in integral 2. sequence of real numbers 3. exponential and logarithmic functions 4. applications of derivatives in Economics
	4 9/19 19:40-21:10 Class: 102	Linear Algebra	To understand 1. how to solve system of equations 2. matrix algebra 3. how to solve system of equations using matrix
	5 9/20 18:00-19:30 Class: 102	Optimization I	To understand 1. Taylor expansion 2. Optimization without constraints 3. applications in Economics
	6 9/20 19:40-21:10 Class: 102	Optimization II	To understand 1. Optimization with constraints 2. applications in Business
	7 9/21 18:00-19:30 Class: 102	Econometrics	To understand 1. theory of regression analysis 2. multiple regression analysis 3. other type of regression analysis
	8 9/21 19:40-21:10 Class: 102	Quizzes and Review	To understand 1. In-class Quizzes 2. Final Review
Others (if any)	Some classes may need using notebook computers...professor will announce beforehand, if you need to bring a notebook to the class.		

The Pre-enrollment Program for Statistics

September 2017

Name of Instructor	Wenkai Li		
Instructor's contact Information	Office#	Office Hours	E-mail:
	213	After class or by appointment	lwk@iuj.ac.jp
Class Schedule Day / Time (Tentative)	Sessions 1-2: Sep., 22, Fri, 7:00pm-10:10pm, Classroom: PC120 Sessions 3-4: Sep., 23, Sat, 7:00pm-10:10pm, Classroom: PC120		

Program Description

The four-session pre-enrollment program for statistics will provide:

- (i). Basic statistics knowledge, such as how to describe data, how to draw bar chart, pie chart, histogram, Pareto diagram, and how to compute the mean/median/mode.
- (ii). The basic knowledge in probability theories, such as Venn diagram, Tree diagram, conditional probability, Statistical Independence, and De Morgan's law etc.

The above fundamental knowledge will help students to prepare the core required course, *Applied Statistics*, in the coming Fall term, and prepare students for other courses such as corporate finance, investment, risk management, and marketing etc.

Class Outline

Session 1: Describe data. Bar chart, Pie chart, Histogram, Pareto diagram.

Session 2: Describe data. Compute the mean/median/mode.

Session 3: Probability I. Concepts, Venn diagram, Tree diagram.

Session 4: Probability II. Conditional probability, Statistical Independence, and De Morgan's law.

Updated: 2017. 08. 21.

INTERNATIONAL UNIVERSITY OF JAPAN
Graduate School of International Management

Academic Year: 2017/2018

Term: Fall

Course	Course code NA	Course title Introductory Economics Course	
Name of Instructor	Haruyoshi Ito		Credits: 0
Instructor's contact Information	Office# 206	Office Hours By appointment	E-mail: haru0416@iuj.ac.jp
Class Schedule	9/25, 9/29, 9/29, and 9/30		
Day / Time	See course outline for more detail		

COURSE DESCRIPTION

Course Description and Learning Objectives:

The main purpose of this course is to understand the basic theories and their applications in Economics in order to prepare for the regular MBA classes, especially courses based on Economics theories, such as Managerial Economics, Marketing, Corporate Finance, Risk Management, General Management, Business Ethics, and Accounting etc. As this is preparatory classes and the introductory level course, students who are not confident in mathematics and economics are strongly recommended to participate. This pre-enrolment course is optional for those who have fundamental knowledge in mathematics and economics. This course is designed to provide students opportunities to utilize mathematical skills learned in the pre-enrollment math class. This course covers the math intensive topics from both Microeconomics and Macroeconomics.

Course Context or Rationalization:

The course covers the basic topics in Economics in order to have the better understanding of the basic Economic theories as well as analytical skills utilizing mathematics and statistics. For example, most of students are required to analyze the data to write master thesis / research report. Students usually employ regression analysis, parametric and/or non-parametric test etc. In order to set up the research questions and understand the results obtained by these statistical analysis, students have to know the fundamental knowledge in Economics such as demand theory, cost functions, and utility theories. In order to implement these analysis to test the hypothesis in your research paper/master thesis, students have to know how to use excel or other statistical software. Additionally, students have to interpret the results of these calculations. This introductory economics course plans to teach how to conduct and interpret the empirical analysis. Additionally, some students might conduct the theoretical research for his/her master thesis. This course covers the basics of how to utilize optimization problems in management studies. Upon the completion of the pre-enrolment Economics class, students are expected to acquire fundamental knowledge in Economics theories and have more confident to take several math intensive courses such as

Managerial Economics, Corporate Finance, Debt Security Markets, Risk Management, Marketing Research, Derivatives Markets, Applied Statistics, and Operations Management. Students are also expected to obtain fundamental empirical analytical skills which are useful for their master thesis/ research report and

Delivery methods:

Course materials consist of power point slides and practice problem sets. Most course work is quantitative. Students will be given the time to solve actual problems as well as be familiar with excel functions in the class hour. Full preparation and attendance are both required for all of the scheduled sessions in this course.

Assessment: No grade shall be given.

Prerequisite: None

Textbook(s)	<p>Required: NA</p> <p>Power Point Slides will be provided before or at each class</p> <p>Reference books/Journal Articles:</p> <p>Chiang, Alpha and Kevin Wainwright, <u>Fundamental Methods of Mathematical Economics</u>, Fourth Edition, McGraw Hill Higher Education, 2005. ISBN 978-0070109100</p> <p>Mankiw, N. Gregory, <u>Principles of Economics</u>, Eighth Edition, South-Western College Pub, 2017. ISBN 978-1305585126</p> <p>McConnell, Campbell, Stanley Brue, and Sean Flynn, <u>Macroeconomics Brief Edition</u>, First Edition, McGraw Hill Higher Education, 2009. ISBN 978-007723097-5</p> <p>Salvatore, Dominick, <u>Managerial Economics in a Global Economy</u>, Seventh Edition, Oxford University Press, 2011. ISBN 978-0199811786</p> <p>Simon, Carl P. and Lawrence E. Blume, <u>Mathematics for Economists</u>, Norton, 1994. ISBN 978-0393957334</p>
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Class Outline	Session	Theme/Case	Readings/Study questions
	1 9/25 (Mon) 10:30-12:00 Class: 102	Introduction	To understand 1. importance of mathematics in management studies 2. applications of mathematics in management studies such as finance and economics
	2 9/25 (Mon) 17:00-18:30 Class: 102	Financial Economics	To understand 1. interest rates 2. stock valuation 3. bond valuation
	3 9/28 (Thu) 8:50-10:20 Class: 102	Micro-economics I	To understand 1. market equilibrium 2. demand theory 3. supply theory 4. cost function

			5. profit maximization
4	Micro-economics II	9/28 (Thu) 10:30-12:00 Class: 102	To understand 1. basics in utility theory 2. type of utility function 3. utility maximization 4. application of utility theory in finance
5	Macro-economics	9/29 (Fri) 8:50-10:20 Class: 102	To understand 1. multiplier effect 2. money creation process
6	Econometrics I	9/29 (Fri) 10:30-12:00 Class: 102	To understand 1. theory of regression analysis 2. multiple regression analysis 3. other type of regression analysis
7	Econometrics II	9/30 (Sat) 8:50-10:20 Class: 102	To understand 1. How to run regression analysis by the method of Ordinary Least Square (OLS) using Excel 2. Dummy variables, interaction, square, cube terms etc. 3. Interpretations of regression results 4. Advanced regression analysis when OLS is not optimal. Such as logistic regression, robust regression etc.
8	Leeway	9/30 (Sat) 10:30-12:00 Class: 102	Topics we could not cover in the previous sections Topics students request
Others (if any)	Bring your laptop computer for Econometrics II (on Saturday) class A calculator might be helpful for the classes R programming might be covered in Econometrics II (or Session 8) Please download the R program if interested https://cran.cnr.berkeley.edu/ (R is very powerful programing which enable to conduct statistical as well as simulation analysis but FREE of charge.)		