Statistics Abbreviated Course Syllabus

CourseNumber	CB005A
Course Name:	Statistics
Instructors:	Mu Guangjie，Ma Yuanlin，Liu Shuhui，Zhang Jinhua，Xue Hexiang
Students:	Economic Statistics；Financial Managemen
Required Text:	
Course Description:	Statistics takes the quantitative aspects of socio-economic phenomena as the object of study, and obtains the right by collecting data and analyzing the data. The method science of objective understanding of the quantitative law of economic phenomena is a professional basic course that attaches importance to both the principle of method and the application of method. The main goal of the course is to cultivate students' ability to carry out statistical work and conduct investigation and analysis of certain socio-economic phenomena or problems. This course is the main basic course of the major in economic statistics. The course mainly teaches the basis of descriptive statistics and inferential statistics. This principle and several important statistical analysis methods in economic management and research. Provide quantitative analysis methods for students' subsequent professional course study and socio-economic research. Guide students to master the statistical thinking process of "from disorder to order, from random to regular", and master the theories and methods of data collection, collation and analysis; Cultivate students to master statistical theory and data analysis technology, have the ability to obtain, manage, present, explore and analyze data applications, improve students' data literacy, guide students to learn independently, have the courage to explore, cultivate the spirit of unity and cooperation, and establish a correct outlook on life and values.

Topic Outline:		Hours/Minutes
Chapter 1	General Theory of Statistics 1. Generation and development of statistics Unfold; 2. The connotation and statistics of statistics work process; 3. Types of statistical data; 4. Several basic concepts of statistics	2
Chapter 2	Data Collection 1. Measurement and type of data; 2. Concepts and methods of data collection; 3. The organizational form of statistical surveys; 4. Survey plan design.	2
Chapter 3	Data Wrangling 1. The meaning and content of data collation; 2. The concept, types and functions of statistical grouping; 3. Concept, types and preparation of distribution series; 4. Production of statistical tables and charts.	4
Chapter 4	Quantity Distribution Characteristics 1. Total volume indicators; 2. Relative indicators; 3. Average indicators; 4. Indicators of variation.	5
Chapter5	Sampling Inference 1. The concept of sampling inference and several related basic concepts; 2. Sampling distribution and sampling error; 3. Concepts and methods of parameter estimation; 4. Hypothesis testing of the principle of hypothesis testing and population means.	5
Chaptre6	Correlation and Regression Analysis 1.The concept, types and display of variable correlation relationships; 2.Measurement and testing of simple linear correlation analysis; 3.Univariate linear regression analysisConcept, model fitting, estimation counting, testing and forecasting. 4.Concepts, model fitting, estimation, testing and prediction of multivariate analysis	4
Chapter7	Categorical Data Analysis 1. Categorical data and statistics 2. Goodness-of-fit test 3. Consortia analysis: independence test 4. Related measurements in contingency tables 5. Issues that should be paid attention to in contingency analysis	4
Chapter8	Analysis of Variance 1. Overview of ANOVA 2. One-way ANOVA	4

	3. Two-way ANOVA	
Chapter9	Time Series Analysis 1. General issues with time series analysis; 2. Horizontal analysis of time series; 3. Speed analysis of time series; 4. Long-term trend analysis; 5. Analysis of seasonal and cyclical changes.	6
Chapter10	Statistical Index 1. Concept and classification of indices; 2. Compilation of composite indices; 3. Compilation of average indices; 4. Index system and factor analysis	4
	Total Sessions (Coverage Hours)	40

Summary of Business Economic Foundation		Hours/Minutes
a.	General Theory of Statistics	2
b.	Data Collection	2
c.	Data wrangling	4
d.	Quantity distribution characteristics	5
e.	Sampling inference	5
f.	Correlation and regression analysis	4
g.	Categorical data analysis	4
h.	Analysis of variance	4
i.	Time series analysis	6
j.	Statistical index	4
	Total Sessions (Coverage Hours)	40