

# COURSE DETAIL

## FORECASTING IN BUSINESS AND ECONOMICS

**Country**

Denmark

**Host Institution**

Copenhagen Business School

**Program(s)**

Copenhagen Business School Summer

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Economics Business Administration

**UCEAP Course Number**

118

**UCEAP Course Suffix****UCEAP Official Title**

FORECASTING IN BUSINESS AND ECONOMICS

**UCEAP Transcript Title**

FORECASTNG BUS&ECON

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## **Course Description**

This course provides an introduction to the application of various forecasting techniques. It introduces quantitative methods and techniques for time series modeling, analysis, and forecasting. Emphasis is also put on the applications in economic and business related areas. Computing is an integral part of this course, therefore all students are expected to do data analysis, modeling, and forecasting with computer programming software. The focus of the course is to use past data to predict the future. The key concept is that there is an underlying process that gives rise to the data. Using statistical properties of that process, we can develop forecasts. Forecasting methodology is presented in a lecture format in the first part of each class meeting. The application, however, is the centerpiece of the presentation. In the second part of the class meeting, students work on in-class applications. The course starts with simple models that are widely used in business and progresses to modern methods that are used by professional forecasters and economists. It studies basic components of time-series data, such as trend, seasonal, and cyclical components, as well as basic model specification techniques, such as moving average and auto regressions, used in the forecasting of time-series. All forecasting methods are illustrated with detailed real world applications designed to mimic typical forecasting situations. The course uses applications not simply to illustrate the methods but also drive home an important lesson, the limitations of forecasting, by presenting truly realistic examples in which not everything works perfectly. Examples of the applications include, but are not limited to, forecasting retail sales, hotel occupancy, fishery output, consumer loan requests, predicting expansion of fast food chain stores, modeling and forecasting macroeconomic activity indices such as Gross Domestic Product, unemployment and inflation, modeling development of a small open economy, forecasting New York Stock Exchange index and currency exchange rates and many other applications.

## **Language(s) of Instruction**

English

## **Host Institution Course Number**

BHAAI1098U

**Host Institution Course Title**

FORECASTING IN BUSINESS AND ECONOMICS

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**

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