DESIGN MANAGEMENT
(DGGB)

DGGB 0001. Math Meth for Bus (Peking U). (4.5 Credits)
DGGB 0002. Statistics (Peking Univ). (4.5 Credits)

DGGB 781A. Statistical Theory I. (3 Credits)
This course provides an introduction to mathematical Statistics and a
foundation for acquiring the skills to apply advanced statistical models
to many important areas of decision-making in business. The course
focuses on developing an understanding of random variables, their
distribution functions, and sampling theory.
Prerequisites: DGGB 6820 or GBA Waiver Statistics with a score of 070.

DGGB 781C. Sampling Theory. (3 Credits)
This course is about the use of samples in research and statistical
studies. Many courses teach how to analyze data. But, before you
analyze it, you have to get it. Where do you get the data? Sampling is
widely used for gathering information about various populations, be
they people, animals, products, services or natural phenomenon, for
industry, government, education, or service. The need to understand
what is going on in the world today and predict what might happen in
the future requires information and data on what exists today. Social
and economic policies, health care planning, and corporate strategies
all depend on statistical information. Scientific experiments, such as
in medicine, must be constructed so as to provide valid information on
which to base decisions about future availability of drugs, products,
and services. This course provides a foundation in sample design and
data collection for decision making. We study theoretical principles and
applications, starting with definition of the population characteristic of
concern, the frame, sampling methods, sample size, and sampling plan.
We study also sampling and non-sampling errors and biases, problems
of non-response, the half-open interval, and other methods to assure
validity and usefulness of our data. Assignments will involve constructive
criticism of studies in the press and company reports today. An end-term
assignment will require writing a sample design for a study of your own.
Prerequisite: DGGB 6820.

DGGB 6800. Pre-MBA Basic Statistics. (0 Credits)
DGGB 6810. Math Methods for Bus. (3 Credits)
(MBA program prerequisite) Studies the fundamental methods of
mathematics applied in business statistics and operations research.
The course concentrates on linear algebra and differential and integral
calculus.

DGGB 6820. Statistics. (3 Credits)
MBA CORE COURSE Introduces the basic statistical concepts essential
for business research and decision-making. These include descriptive
statistics, probability distributions, statistical inference and simple and
multiple regression.
Attribute: BUAN.
Mutually Exclusive: MMGB 6820.

DGGB 6830. Statistics and Decisions. (3 Credits)
Introduces the statistical concepts essential for business decision
making. Topics include: Random Variables, normal distribution, sampling
distributions; confidence intervals; one and two sample hypothesis tests;
simple linear regression; multiple regression; categorical data analysis;
ethics in statistics. These concepts will be implemented using state of
the art statistical software.

DGGB 7811. System Design Internship. (1 to 3 Credits)
DGGB 7844. Stat Methods and Comp I. (3 Credits)
This course is designed to introduce statisticians to statistical
programming and data analysis. Topics will include: hypothesis testing,
regression models, experimental design and simulation. The statistical
topics are integrated into the programming content.
Attribute: BUAN.

DGGB 7850. Forecasting Models. (3 Credits)
Introduces and discusses forecasting systems capable of
interconnecting separate areas of business. Efficient forecasting
systems, based on modern analytical and simulation techniques, can
provide necessary insights into the behavior of strategic variables over
time.
Attribute: ASDM.
Prerequisites: DGGB 6820 or GBA Waiver Statistics with a score of 070.

DGGB 8999. Independent Study. (3 Credits)

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