# **COURSE DETAIL**

### **PROBABILITY**

# **Country**

Singapore

#### **Host Institution**

National University of Singapore

# Program(s)

National University of Singapore

#### **UCEAP Course Level**

**Upper Division** 

### **UCEAP Subject Area(s)**

Statistics Mathematics

#### **UCEAP Course Number**

116

### **UCEAP Course Suffix**

#### **UCEAP Official Title**

**PROBABILITY** 

# **UCEAP Transcript Title**

**PROBABILITY** 

# **UCEAP Quarter Units**

6.00

#### **UCEAP Semester Units**

4.00

### **Course Description**

This course offers an introduction to probability theory for students with knowledge of elementary calculus. The course covers not only the mathematics of probability theory but works through diverse examples to illustrate the wide scope of applicability of probability, such as in engineering and computing, social, and management sciences. Topics covered include counting methods, sample space and events, axioms of probability, conditional probability, independence, random variables, discrete and continuous distributions, joint and marginal distributions, conditional distribution, independence of random variables, expectation, conditional expectation, moment generating function, central limit theorem, and weak law of large numbers.

### Language(s) of Instruction

English

**Host Institution Course Number** 

MA2216,ST2131

**Host Institution Course Title** 

**PROBABILITY** 

**Host Institution Campus** 

**Host Institution Faculty** 

**Host Institution Degree** 

**Host Institution Department** 

Statistics and Data Science

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