



浙江大學

**FINS582**

**Derivative Securities and Risk Management**

# FINS582

## Derivative Securities and Risk Management

### **Instructor Contact Details**

Lecturer-in-charge: TBA

Email: wlwyxy\_29@zju.edu.cn

Office location: Huajiachi Campus, Zhejiang University

Consultation Time: to be announced, and by appointment

### **Teaching Times, Modes and Locations**

The Time: TBA

Modes: Online/Face-to-face

Location: Anywhere via online/Huajiachi Campus, Zhejiang University via face-to-face

### **Academic Level**

Undergraduate

### **Units of Credit**

The course is worth 6 units of credit

### **Credit Hours**

The number of credit hours of this course equals to the credits of a standard semester-long Australian university course.

### **Contact Hours**

The course contains a total of 53 contact hours, which consists of orientation, lectures, seminars, quiz, discussion, research, case study, small tests, assignments, on-site field trip(s), in-class and after-class activities, revision and final exam. Students will receive an official transcript which is issued by Zhejiang University when completing this course.

### **Course Description:**

This course introduces students to financial derivatives through both theoretical and practically applicable knowledge. It will be focusing on how derivatives are used in managing financial risks. Derivative securities covered in this unit will be including options, futures, forwards and swaps. It will be looking into basic pricing principles that are largely relevant to derivatives in the financial markets for the theoretical component of the course. For practical knowledge, students will look into the different types of derivative contracts and valuation techniques used in the industry today. Students will be well equipped with both analytical and problem-solving skills through interactive classes which prepare them for contemporary workplace issues. They will be able to obtain the knowledge and skills necessary for effectively resolving genuine problems in the industry,

### **Prerequisite:**

N/A

### **Learning Resources**

Chance, D and Brooks, R. (2014). 10th Edition. Introduction to Derivatives and Risk Management, Cengage Learning.

### **Learning Objectives**

By the end of this course you should be able to:

- Identify the most common derivatives and apply the fundamental principles of derivatives pricing in different contexts;
- Develop an understanding of the economic intuition underlying option pricing;
- Outline the correct derivatives used for hedging the different types of risks;
- Understand and evaluate the shortcomings of hedging as well as the general health of the financial markets;
- Describe the adverse consequences of financial derivatives and how it can be exploited by unscrupulous individuals.

### Course Delivery:

- Online Lecture mode includes lectures, seminars, quiz, discussion, research, case study, small tests, assignments, online field trip(s), in-class activities, revision and final exam.
- Face-to-face Lecture mode includes lectures, seminars, quiz, discussion, research, case study, small tests, assignments, on-site field trip(s), in-class and after-class activities, revision and final exam.

The following course will be taught in English. There will also be guest speakers and optional field trips available for students who would like to enhance their learning experience. All courses and others sessions will be run during weekdays.

### Topics and Course Schedule:

<b>Topic</b>	<b>Activities</b>
<b>Orientation</b>	
<b>Introduction to Derivatives</b> <b>An overview of on derivatives</b> <b>Origins and development</b> <b>Types of derivatives</b>	Lecture; Tutorial
<b>Derivative Markets</b> <b>Introductions and revolution of derivative markets</b> <b>Structure of derivative markets</b>	Lecture; Tutorial
<b>Options Pricing</b>	Lecture; Tutorial
<b>The Binomial model</b> <b>Hedge portfolio</b> <b>Overpriced call</b> <b>Underpriced call</b>	Lecture; Tutorial
<b>Options Pricing Model</b>	Lecture; Tutorial

<b>Seminar</b>	
<b>Key terms</b> <b>Stock transactions</b> <b>Call option transactions</b> <b>Put option transactions</b> <b>Calls and stock</b>	Lecture; Tutorial
<b>Advanced Option Strategies</b> • <b>The modified butterfly</b> • <b>Key criterias to consider</b>	Lecture; Tutorial
<b>Seminar</b>	
<b>Principles of Pricing</b>	Lecture; Tutorial
<b>Key differences</b> <b>Settlement of contracts</b> <b>Speculation and hedging</b>	Lecture; Tutorial
<b>Options on Futures</b>	Lecture; Tutorial
<b>Exploiting pricing inefficiencies</b> <b>Riskless profits</b>	Lecture; Tutorial
<b>Importance of hedging</b> <b>Short hedge and long hedge</b> <b>Hedging strategies</b>	Lecture; Tutorial
<b>Swaps</b>	Lecture; Tutorial
<b>Revision</b>	
<b>Final exam</b>	

**Assessments:**

Class participation	10%
Quiz 1	15%
Quiz 2	15%

Individual Assignment	20%
Final exam	40%

**Grade Descriptors:**

HD	High Distinction	85-100
D	Distinction	75-84
Cr	Credit	65-74
P	Pass	50-64
F	Fail	0-49

**High Distinction 85-100**

Treatment of material evidences an advanced synthesis of ideas

Demonstration of initiative, complex understanding and analysis

Work is well-written and stylistically sophisticated, including appropriate referencing, clarity, and some creativity where appropriate

All criteria addressed to a high level

**Distinction 75-84**

Treatment of material evidences an advanced understanding of ideas

Demonstration of initiative, complex understanding and analysis

Work is well-written and stylistically strong

All criteria addressed strongly

**Credit 65-74**

Treatment of material displays a good understanding of ideas

Work is well-written and stylistically sound, with a minimum of syntactical errors

All criteria addressed clearly

**Pass 50-64**

Treatment of material indicates a satisfactory understanding of ideas

Work is adequately written, with some syntactical errors

Most criteria addressed adequately

## **Fail 0-49**

Treatment of ideas indicates an inadequate understanding of ideas

Written style inappropriate to task; major problems with expression

Most criteria not clearly or adequately addressed

## **Academic Integrity**

Students are expected to uphold the university's academic honesty principles which are an integral part of the university's core values and principles. If a student fails to observe the acceptable standards of academic honesty, they could attract penalties and even disqualification from the course in more serious circumstances. Students are responsible for knowing and observing accepted principles of research, writing and any other task which they are required to complete.

Academic dishonesty or cheating includes acts of plagiarism, misrepresentation, fabrication, failure to reference materials used properly and forgery. These may include, but are not limited to: claiming the work of others as your own, deliberately applying false and inaccurate information, copying the work of others in part or whole, allowing others in the course to copy your work in part or whole, failing to appropriately acknowledge the work of other scholars/authors through acceptable referencing standards, purchasing papers or writing papers for other students and submitting the same paper twice for the same subject.

This Academic Integrity policy applies to all students of the Zhejiang University in all programmes of study, including non-graduating students. It is to reinforce the University's commitment to maintain integrity and honesty in all academic activities of the University community.

## **Policy**

- The foundation of good academic work is honesty. Maintaining academic integrity upholds the standards of the University.
- The responsibility for maintaining integrity in all the activities of the academic community lies with the students as well as the faculty and the University. Everyone in this community must work together to ensure that the values of truth, trust and justice are upheld.

- Academic dishonesty affects the University's reputation and devalues the degrees offered.
- The University will impose serious penalties on students who are found to have violated this Policy. The following penalties may be imposed:
  - Expulsion;
  - Suspension;
  - Zero mark/fail grade;
  - Marking down;
  - Re-doing/re-submitting of assignments or reports; and
  - Verbal or written warning.

