- Faculté des sciences économiques
- www.unine.ch/seco

Introduction to Financial Derivatives (5EN1002)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Bachelor en mathématiques	**Cours: 4 ph**	**Voir ci-dessous**	6
Bachelor en sciences économiques, orientation durabilité	**Cours: 4 ph**	**Voir ci-dessous**	6
Bachelor en sciences économiques, orientation économie	**Cours: 4 ph**	**Voir ci-dessous**	6
Bachelor en sciences économiques, orientation management	**Cours: 4 ph**	**Voir ci-dessous**	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Printemps

Equipe enseignante

Contenu

This course provides an introduction to derivatives on the bachelor level. We will cover in detail:

- Introduction to derivatives
- Trading strategies
- Pricing of forwards and futures
- Distribution-independent properties of options
- Pricing of options using the binomial model
- Structured products
- Recent topics related on derivatives

The course is structured into lectures, exercises, excel tutorials, case studies, a feedback session and a guest lecture.

Forme de l'évaluation

Evaluation organised during the semester and final exam during the exam session at the end of the semester.

No documents nor connected devices are permitted during the final exam. In case of violation of these rules, the students are in a situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

Modalités de rattrapage

Retake exam: 2-hour written exam (100%) during the exam session

No documents nor connected devices are permitted during the retake exam. In case of violation of these rules, the students are in a situation of fraud and the unauthorized items will be removed. The exam could be deemed as failed.

Documentation

The main textbooks are:

Hull, John C. (2014): Options, Futures, and Other Derivatives, 9th Edition, Pearson.
McDonald, Robert L. (2013): Derivatives Markets, 3rd Edition, Pearson.
Hull, John C. (2017): Fundamentals of Futures and Options Markets, 9th Edition, Pearson.

Pré-requis

Good knowledge and interest in mathematics, probability theory, and quantitative methods.

Forme de l'enseignement

Lectures, exercises, excel tutorials, case studies, a feedback session, and a guest lecture: 4 hours per week.

Objectifs d'apprentissage

- Faculté des sciences économiques
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Au terme de la formation l'étudiant-e doit être capable de :

- Explain the price behaviour of futures, forwards, and options
- Compute the fair value of a derivative
- Illustrate trading strategies associated with derivatives
- Calculate the price of a derivative with the help of a statistical software programme

Compétences transférables

- Present the solution of a case study in a small team in front of your classmates
- Discuss the implications of your findings with your professor
- Prepare the solution of a case study related to derivatives markets