United Nations Institute for Training and Research

Unitar Online Catalogue

Numerical Methods for Finance and Capital Markets (2017)

□□□□ : 2 6□ 2017

□□ :	Course
□□ :	Web-based
□□ :	29 5□ 2017 to 30 6□ 2017
□□ :	5 Weeks
□□□□ :	Public Finance and Trade
□□ :	http://www.unitar.org/pft/events
□□ :	US$800.00
□□□□□ email:	pft-elearning@unitar.org

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This course on Numerical Methods for Finance and Capital Markets presents the most recent tools for financial investments decision making. It aims at satisfying the needs for the application of finance and capital market concepts through a standard computer software - Excel - widely used by students and professionals all over the world for finance and capital markets.

Investment decision making is closely linked to risk analysis, which is a key aim of this course as well, i.e. to assess the risk that is inherent in the choice of a securities portfolio and to adapt it to the “risk appetite” of the investor.

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At the end of the course, the participants should be able to:

- Understand techniques and methodology of finance and capital markets.
- Develop cognitive skills on portfolio investment decision making in particular with examples on the composition of investment portfolios and measuring the risk involved.
- Develop cognitive skills for Understanding and applying the concept of enterprises' cost of capital, and being able to determine the Weighted Average Cost of Capital (WACC) of a corporation.
- Develop cognitive skills for Valuating securities applying the methodologies explained, i.e. short-term money market instruments, fix income securities—including indexed instruments—and stocks shares following methodologies applied for each security.

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This online course will cover the following modules:

- The Capital Market Line and the Security Market Line.
- The Capital Asset Pricing Model.
- Valuation of Stocks and Shares.
- Valuation of Fixed Income Securities.

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In order to ensure the best possible outreach, the course will be delivered through e-learning. Through a multiple-instructional setting, the goal is to achieve the learning objectives by means of learning technologies that match personal learning styles, and by the inclusion of non-linear learning that aims at the development of just-in-time skills of adult learners. At the same time, in order to allow participants maximum flexibility of scheduling, the learning will be conducted in an asynchronous manner. Using a state-of-the-art training architecture, UNITAR will combine self-learning with assessments and online discussions. The pedagogy - adapted specifically to professionals in full-time work - will help train participants through various experiences: absorb (read); do

(activity); interact (socialize); reflect (relate to one’s own reality).

The course provides all the basic elements on numeric methods for finance, capital markets and investment decision making. The course assumes that the trainee has already a basic knowledge in mathematics of finance and accounting.

The course requires the application of elementary statistics knowledge, like means, standard deviation, variance, covariance, correlation coefficient and simple regression. It is assumed that the student enrolling in the course is familiar with these concepts.

The course privileges the use of Excel spreadsheets for illustration and for solving the different practical problems presented to the students. Therefore, a basic knowledge in the use of this tool is required as well. It would be desirable if the students have installed in their computers Excel 2007, or preferably, Excel 2010. Many of the calculations would need functionalities associated with either of these two Excel versions.

Quizzes and case studies:

- At the end of each module there will be a quiz and a case study posted at the discussion forum: a grade will be assigned to the quiz and to the case study.
- The quizzes and the case studies are designated to test the participant’s procedural knowledge of each one of the modules.
- There will be four case studies proposed to the students, one for each module of the course: the submission of the case study properly solved is compulsory.
- Participants are required to pass each quiz and obtain at least an average grade of 80% or more.
- Participants are required to solve the case studies, which can be discussed interacting with the course director and with other participants.
- Participants are required to solve the four case studies and submit them to the course director for evaluation, which requires at least 80% or more for obtaining a passing grade.
- Participants obtaining a grade of 80% or more, calculated as the average of the quizzes’ grades average and the case studies’ grades average are eligible for the certificate.

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This course is oriented to all persons interested in finance, in particular, those that are involved in the financial and banking sectors.

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A certificate of completion will be issued by UNITAR to all participants who complete the course-related assignments and assessments successfully. ***Course schedule is subject to change. Course fee is non-refundable but transferrable to another course or participant and subject to change as per UNITAR's policy on pricing.***

Recommended hardware and software requirements for taking our e-learning courses:

- Platform: Windows XP sp3, Vista sp2, Windows 7 sp1, MacOS X.
- Hardware: 2 GB of RAM and higher for Vista and Windows 7.
- Software: Microsoft Word, Microsoft Excel, Microsoft Powerpoint and Adobe Acrobat Reader (downloadable for free at adobe.com).
- Browser: Internet Explorer 8 or higher; Mozilla Firefox 8 or higher.
- Internet connection: 128kbps and higher.
- Note: JavaScript, pop-ups & cookies must be enabled.