

INTERNATIONAL TELEMATIC UNIVERSITY UNINETTUNO

L'Università senza confini.
University without boundaries.

www.uninettunouniversity.net



FACULTY OF ENGINEERING

Degree Course in Information and Communication Technologies Engineering (with Helwan University)

Degree Course

The Faculty of Engineering of the International Telematic University UNINETTUNO is the outcome of the meeting between the winning model of distance teaching of this university and the consolidated educational experience gained in the information and technology sector. More specifically, the degree course in Information and Communication Technologies Engineering, designed in cooperation with Helwan University, a university having a marked scientific background, offers to the Egyptian students the opportunity of attending distance teaching courses of the UTIU Engineering Faculty through the support of audio-visual systems available on the Internet-based didactic platform and on RAI NETTUNO SAT 1 satellite television channel.

The course aims at supplying the principles and fundamental methodologies of the functioning of the complex systems, an essential requirement for studying the principles and paradigms of the functioning and design of systems aimed at processing information as well as an appropriate assessment of the impact of the proposed solutions on the economic-social context. This degree course includes basic disciplines such as mathematics, both the continuous and the discrete one, physical-chemical knowledge, besides specific modules in the field of information, electronics, telecommunication and automation science.

The proposed model, based on widely-tested international standards outdoes the traditional academic approach based on the separation among different fields of knowledge and deals with actual technological innovation in the field of information in all its complexity. The Egyptian students have at their disposal digitised videolections in Italian as well as in English, Arabic and French, slides, exercises, bibliographical references, lists of websites, a guide to the exams, a conceptual map, the didactic planning and an area meant to make students socialise, such as chats and a forum for each course. In addition, as it regard the development of their learning processes, the students are supported by professors/tutors speaking Arabic/English of Helwan University and also by professors/tutors coming from the best Italian Universities connected to the International Telematic University UNINETTUNO.

Three-year Study Programme

I year

- Calculus I
- Calculus II
- Programming
- Physics (+ lab.)
- Chemistry
- Algorithms and data structures
- Discrete mathematics
- English

II year

- Economics for engineering
- Databases
- Computer architecture
- Software engineering
- Basics circuit theory
- Communication technologies (+ lab)
- Electronic systems (+ lab)

III year

- Operative systems
- Computer networks (+ lab)
- Control systems analysis and design (+ lab)
- Numerical methods
- Electronic measurements
- Italian language

How to study

The psycho-pedagogic and didactic model, born from the results achieved by several international research projects, was realised by Prof. M. A. Garito and by her research team.

This model is based on cognitive and connectionist theories and concretises the shift:

- From teacher's central role to the student's central role;
- From knowledge transfer to knowledge creation;
- From integration between practice and theory from a passive and competitive learning to active and collaborative learning.

The student is at the centre of the training path, guided by the new profile of the telematic professor-tutor who has the task of supplying the tools that can facilitate his web-based learning and communication path.

The whole teaching and learning process takes place on the Internet. On the www.uninettunouniversity.net portal there is a dedicated area: The Didactic Cyberspace, where teaching and learning are performed in four languages: Arabic, English, French and Italian. The Internet-based transfers directly to the student's desk lessons, multimedia products, databases, exercises, evaluation and self-evaluation systems, online tutoring, forums, chats and thematic wikis.

▪ Videoleasons:

The digitised videoleasons are the starting-point of the learning process. Each video lesson is structured on different issues and indexed in order to give the student the possibility to follow the entire videoleason or to select the issue he wished to study more in depth. Each issue is linked, in an hypertextual way, to essays, books, texts of exercises, virtual laboratories, selected bibliographies, lists of websites (links of interest for the subject, selected by professors and tutors).

▪ Virtual laboratory:

It is a environment in which the student integrates theory with practice by a "learning by doing" process.

▪ Online Exercises:

This section includes online interactive exercises linked to the issues treated in the videoleasons.

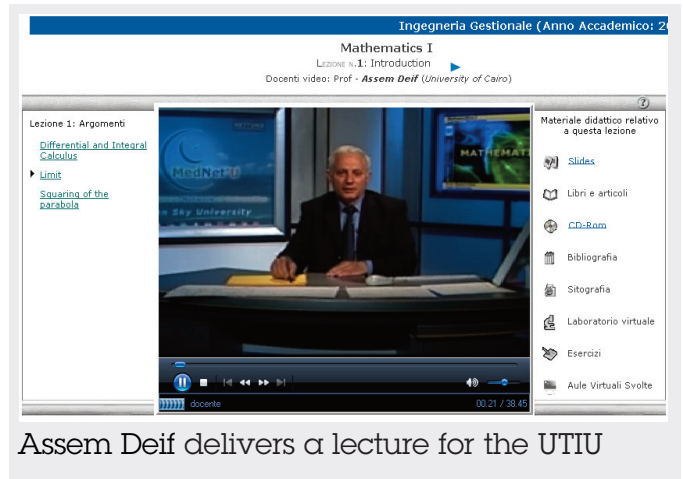
▪ Online tutoring/virtual classroom:

Online tutoring is organized in classes of 20 or 30 students, with an advanced system of Agenda that is able to acknowledge the single user and customise the training activity. An advanced system of qualitative and quantitative tracking makes it possible to continuously monitor the learning process of each single student.

The tutoring activities take place:

- In a synchronic mode by means of chats, video-chats, video and audio-conferencing systems, that are implemented in the Didactic Cyberspace, but also in the three-dimension classroom set up on UTIU Island of Knowledge on Second Life.
- In a diachronic way by means of forums, wikis and social networks.

The virtual classroom is an environment where direct interaction between teachers, tutors and students takes place, where knowledge is shared. The virtual classroom interactive practice exercises, mid-term assessment tests take place; dialogue and learning take place in a cooperative a collaborative way.



Assem Deif delivers a lecture for the UTIU

How to enrol

Enrolments can be made only on the Internet, in the area devoted to the Administrative Secretariat of the portal www.uninettunouniversity.net. Payments can be made online by credit card or bank transfer or postal service.

For information and training support

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