# International Master Programme on Free Software



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- 1. Introducing the UOC
- 2. Precedents, motivation and objectives
- 3. Academical programme
- 4. Final remarks



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## Introducing the UOC



- University degrees, distance learning (e-learning) based on the Internet (virtual campus)
- First semester: Fall 1995
- 18 officially approved degrees, an unofficial (own) degree, several postgraduate courses, master degrees and a PhD programme
- More than 25000 students
- Computing and Multimedia Department: 3 officially approved degrees (2 Technical Computer Engineering degrees and Computer Engineering) with approximately 5000 students
- Postgraduate students (master degrees, postgraduate degrees and specialization degrees) and an unofficial degree (Multimedia graduate)
- Students profile: adult, employed, with a family and with little time available to study



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## • UOC www.uoc.edu

#### Precedents of the Master programme

- Platform GNU/Linux used in the practical activities of Operating Systems and Networking subjects, from 1997.
- Virtual tutored lab to support the students (installation problems, modem set up, etc.)
- Usage of free software products in several subjects of the official degrees:
  - Dev-C++ (programming)
  - MySQL, TOAD (databases)
  - GnuPG (security)
  - Eclipse (software engineering)
  - Apache, Tomcat (computer networks, e-commerce)
  - OpenOffice (document exchange)
- A FS CD and a GNU/Linux CD (Knoppix) are distributed to the students.
- Postgraduate programme on GNU/Linux from November 2001.

#### Other initiatives



- Adaptation of the virtual campus, web portal of the UOC, virtual library, and other services to free browsers (e.g. Mozilla).
- Usage of multi-platform formats (PDF, HTML, RTF, plain text) for document exchange.
- Development of a metadistribution of GNU/Linux adapted to the UOC students (within the Hispalinux metadistros project).
- Search for free alternatives to proprietary programmes currently on use in the official degrees.

## Why a Master degree on FS?



- Increasing request for qualified professionals in FS technologies.
- Our students (who are employed) feel quite satisfied with the use of GNU/Linux and other FS products in the official degrees.
- Several lecturers in the Computing and Multimedia Department believe in FS and encourage its promotion and diffusion.
- IT professionals do not usually have enough time to become selftaught in FS technologies (sites, forums, papers, books, etc.)
- This master offers guided/tutored teaching, materials written by experts and different itineraries according to the students needs or preferences.
- The students of the Master can help promote and diffuse FS.

### Programme design



- Different itineraries according to professional profiles:
  - Networks and Operating Systems administrator
  - Web and e-commerce administrator
  - Applications developer
  - Information Systems management in a free software environment

## Programme design



**Networks & OS** 

Web & e-commerce

**Application** development

**IS** management

Common block #1: Introduction to Free Software Platform GNU/Linux

Speciality courses on Networks & OS

Speciality courses on web & e-commerce

Speciality courses on Application development

**Speciality Courses** on IS management

Common block #2: Free Software Systems Implantation

Networks & OS project

Web & e-commerce project

Development project

IS management project

## Scientific advising council



- A scientific council integrated by recognised experts of different fields has been constituted in order to:
  - Watch over the quality of the Master's contents and design.
  - Take into account sound opinions of different members of the FS community.
  - Contribute to the promotion, diffusion and development of FS projects.
  - Take into account viewpoints coming from different cultures and environments.
  - Make the Master programme internationally known to gather students from various origins.

### Scientific advising council



#### Members:

- Manuel Castells, president (UOC)
- Vinton Cerf (WorldCom)
- Marcelo D'Elia Branco (software livre project, Brazil)
- Juantomás García (Hispalinux)
- Jesús M. González Barahona (Univ. Rey Juan Carlos)
- Pekka Himanen (University of California at Berkeley)
- Miguel de Icaza (Ximian/Novell)
- Òscar del Pozo (Softcatalà)
- Pam Samuelson (University of California at Berkeley)
- Rafael Macau, secretariat (UOC)
- Jordi Mas, secretariat (UOC)
- David Megías, secretariat (UOC)





- A great part of the didactic materials will be freed (under the GFDL) so that they can be widely used, modified, extended, edited, etc.
- A bibliographic corpus on FS is being created.
- The final projects and developments carried out within this programme will be free.



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#### Programme courses

#### **International Master on Free Software**

Itinerary #1 540 h

Itinerary #2 585 h

Itinerary #3 675 h

Itinerary #4 360 h

Networks and Operating Systems Administrator

Web and E-commerce Administrator Application Developer Information Systems Management



#### Introduction to Free Software

#### **Basic Operating System GNU/Linux**

Advanced Administration of the OS GNU/Linux

Computer Networks

Advanced Networking: Security Issues Advanced Administration of the OS GNU/Linux

Web Development

**Database Systems** 

Advanced Administration of the OS GNU/Linux

Introduction to Software Development Advanced Aspects of Software Development

Free Software Engineering Legal Aspects and Exploitation

**Utilities and Tools** 

**Implantation** 

Networks and OS Project Web Project Development Project IS Management Project



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#### Final remarks



- 91 students registered for the first edition of the master (started on November the 17th).
- Four virtual classrooms, two for each course: "Introduction to Free Software" and "Basic Operating System GNU/Linux", with about 45 students per classroom.
- A tutor for each classroom supporting the learning process and programs evaluation activities.
- The didactic materials of these two courses are published under the GFDL and will shortly be available in the portal www.uoc.edu.



## Presentation written using:



## www.uoc.edu