



EST – MOLEC IMAG

Early Stage Training Site for Molecular Imaging Techniques

Workshop on Advanced Tools in Research

15th – 25th November 2005

Scope

The scope of this workshop is to provide enough knowledge on the different tools available to enhance research. Basic steps will be taught in order to encourage more deep insight on different methods, namely Matlab, Labview, 3Dmax, Inventor, and others. These will be taught on a computer (two students per terminal) in a series of 1 hour lectures plus 2 hours practice. These course are oriented towards all specialities, Biology, Physics, Computer Science and Applied Mathematics.

Dates

The courses will be held between the 15th and the 25th of November 2005

Location

All clases and practice will take place in Institute of Computer Science's room in front of the library (where the Autocad lessons take place).

Registration

All those interested please contact Jorge Ripoll (jripoll@iesl.forth.gr). You will need to register separately for each of the courses. **There are only 28 postions available per course**, having the *EST-Molecular Imaging trainees* priority to attend these courses. In order to register, please fill the registration form and send it by email together with a CV. We will try to keep a balance between attendants from different disciplines.

Courses

- **3D Studio Max** – 3D max is a 3D animation software which enables creation of movies and animated 3D enviroments. It is an extremely useful fool for preparing presentations, explaining concepts and experimental setups. The course will consists of 3 hours of lecture plus 6 hours of practice. The lecturer will be Juan Perez-Fajardo, director of The Fly Factory, www.theflyfactory.net
- **Matlab** – Matlab is a programming enviroment which has great possibilities in image processing and data analysis. It has very powerful graphic tools for data display. Basic concepts will be taught regarding reading, manipulating and storing images and data. Emphasis will be placed in Fourier analysis. The course will consist of 2 hours of lecture plus 4 hours of practice. The lecturer will be Jorge Ripoll.
- **Labview** – Labview is a visual programming language that allows the creation of graphical user interfaces. It is the method of choice when sending or receiving information to external hardware (i.e. controlling cameras, lasers, etc). Basic notions of how to program in labview will be given. The course will consist of 2 hours of lecture plus 4 hours of practice. The lecturer will be Yiannis Orphanos.
- **Inventor** – Inventor is a designer tool for 2D and 3D. Basic steps in designing plans for different experimental components will be presented. The course will consist of 2 hours lecture plus 4 hours of practice.
- **Image J** – Image J is a freeware software that can perform several imaging processing opeartions. Since it is a freeware software many labs have developed their own plugins. An overview of Image J will be presented, together with some of the main plugins. The course will consists on 1 hour lecture plus 2 hours of practice.

Time Schedule

NOVEMBER 2005

	Monday 14th	Tuesday 15th	Wed. 16th	Thurs. 17th	Friday 18th
10:00-11:00		3D max Lecture	3D max Lecture	3Dmax Lecture	Image J Lecture
11:00-12:00		3Dmax practice	3Dmax practice	3Dmax practice	Image J Practice
12:00-13:00		3Dmax practice	3Dmax practice	3Dmax practice	Image J Practice

	Monday 21st	Tuesday 22nd	Wed. 23rd	Thurs. 24th	Friday 25th
10:00-11:00	Labview Lecture	Labview Lecture	Matlab Lecture	Matlab Lecture	Inventor Lecture
11:00-12:00	Labview Practice	Labview Practice	Matlab Practice	Matlab Practice	Inventor Practice
12:00-13:00	Labview Practice	Labview Practice	Matlab Practice	Matlab Practice	Inventor Practice