1- Module title: Grapevine Anatomy and Genetics – 4 ECTS
Key words: Vitis, grapevine, anatomy, development, annual cycle, genetics, breeding 
Core module

2- Module leader(s) & guest lecturer(s)/expert(s): Enrico Peterlunger, Laurent Torregrosa, Guido Cipriani (Coordinators) 
Gabriele Di Gaspero (Guest lecturers) 

3- Main contact(s) for pedagogical queries:
Name: Enrico Peterlunger Phone: +39 0432 558629
E-mail: peterlunger@uniud.it Cell phone: +39 335 7316981
E-mail: guido.cipriani@uniud.it Phone: +39 0432 558628

4- Module objectives: Acquisition of basic knowledge of higher plant internal and external anatomy, at a whole plant level, as well as organ and tissue level. Understand the principles of grapevine development and the adaptation mechanisms that may be used to determine yield and quality. Understand peculiarity of grapevine genetics as well as the principles and practices of grape breeding.

5- Pre-requisites: Fundamentals in plant biology and biochemistry

6- Methodology: Classroom lessons with transparencies & .ppt files 
Visits in the vineyard. Laboratory with stereo microscope for organ dissection 
Computer practices.

7- Module contents:
Fundamentals of classical genetics. Grapevine genetics and breeding for resistance against biotic and abiotic stress, adaptation to environment, quality of fruit, wine. Molecular genetics. (2 CFU)

8- Bibliography:

Specific papers:
- Brown T.A., Genomes, 1999, Bios Scientific Publisher

9- Module assignment(s) / assessment(s) / evaluation:
Each module of 2 CFU will be examined with a written exam.