

Course offered for the STAT PhD program starting from a.y. 2019/2020

TITLE	Advanced techniques for gene expression profile analyses and next generation sequencing of genomes in living organisms
Lecturer	Sonia Scarfi
Duration and Credits	2 CFU
Course description	The course will be divided into two parts, in the first part the basic and advanced techniques of gene expression analysis on living organisms will be explained giving examples of applications in diagnostic and basic research related to the human, as well as the animal and vegetal world. In the second part of the course, starting from the first generation sequencing techniques we will move to the variegated next generation sequencing world giving examples of application to the human, as well as animal and vegetal genomes. The learning outcomes of this course will be the acquisition of a basic knowledge of these useful techniques and it will give the students the means to learn how and when use them in their biology research projects both in basic as well as in applied research.
Course organization	The course will be organized into 4 frontal lessons with “in itinere” tests and exercises at the end of each lesson to evaluate the student participation and learning outcomes
Teaching period	Spring-summer (anyway after the course held by prof. Pozzolini)