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

TITLE	Mineralization versus biomineralization: an overview
Lecturer	Cristina Carbone
Duration and Credits	8 hours – 2 CFU
Course description	The aim of this course is to provide an overview of principles of nucleation and growth of mineralizations and biomineralizations processes forming in different environmental conditions. To provide insight into the secondary phase formation the lessons were focused on: iron and manganese mineralization processes (residue deposits and lava tube); sulfur (sulfidic systems), amorphous and colloidal silica (cave deposit); carbonate compounds (speleothems and moonmilk deposits), nitrate and phosphate (guano deposits). Moreover, an outline of essential and pathogenic biominerals of the human body will be addressed (bioapatite and kidney stone).
Course organization	This course consists of frontal lessons.
Teaching period	April - May 2020