

Syllabus 2022-2023

Teacher (name and affiliation)	Igor M. Villa (UNIMIB, Dep. Earth and Environmental Sciences) Marco G. Malusà (UNIMIB, Dep. Earth and Environmental Sciences)
Title	Detrital geochronology and thermochronology
Language	<i>English</i>
CFU	2
Hours	16 (<i>lessons</i>)
Program	<i>Detrital thermochronology studies are increasingly employed to investigate the erosional evolution of mountain belts and perform paleotectonic reconstructions starting from the analysis of sedimentary rocks. However, simple predictions of the detrital thermochronology approach are often in conflict with observations in sedimentary basins. In this course, we illustrate the main geo/thermochronologic methods that are commonly applied to the analysis of sedimentary rocks (zircon U-Pb, mica Ar-Ar, apatite and zircon fission-track and (U-Th)/He) and we discuss the main factors that influence the final complexity of the detrital thermochronology record in a sedimentary basin. The basic principles illustrated in the first part of the course are applied to case histories from the Alps, the Apennines and the Himalaya.</i>
Evaluation: YES/NO	NO
Calendar	<i>1 semester</i>