



Programme of Course "Metodi analitici applicati alla geometria"

- Code: DT0419
- Type of course unit: Elective (Bachelor Degree in Mathematics curriculum Generale)
- Level of course unit: Undergraduate Degrees
- Semester: 1

Number of ects credits: (Bachelor Degree in Mathematics) 6 (workload 150 hours)

Teachers: Barbara Nelli

1	Course objectives	We foresee that the student will be able to deal with topology basic notions, that are necessary during the B.D. in mathematics. Moreover, after having learned a bunch of notions about curves and surfaces from the intrinsic and extrinsic viewpoint, the student will be able to solve problems about these topics.
2	Course content and learning outcomes (dublin descriptors)	<p>On successful completion of this module, the student should :</p> <ul style="list-style-type: none"> • The student should have deep knowledge of the theory of curve and surfaces immersed in R^3 and good knowledge of the basic notions of intrinsic geometry of surfaces. Moreover the student should acquire a sound knowledge of all basic notions and concepts of general topology. • The student should be able to solve problems about the theory of curves and surfaces immersed in R^3 and some problem about intrinsic geometry of surfaces. Moreover the student should be able to recognize when the acquired notions of general topology are necessary to the comprehension of other topics. • The student should be able to understand problems of curves and surfaces theory and topology and recognize the best method to solve them. • The student should be able to explain the statements and the proofs of the theorems about curves, surfaces and topology • The student should have acquired the ability of reading and understanding more advanced intrinsic theory of surfaces and topology.
3	Course prerequisites	first year courses of B.D. in mathematics
4	Teaching methods and language	Theoretical course Language: Italian
5	Assessment methods	The exam is as follows: first a written exam and, if it is good, the student is allowed to participate to an oral exam.