



HISTORY OF MATHEMATICS	
Enrollment year	2020/2021
Academic year	2020/2021
Regulations	DM270
Academic discipline	MAT/04 (COMPLEMENTARY MATHEMATICS)
Department	DEPARTMENT OF PHYSICS
Course	
Curriculum	Didattica e storia della fisica
Year of study	1°
Period	1st semester (05/10/2020 - 20/01/2021)
ECTS	6
Lesson hours	48 lesson hours
Language	Italian
Activity type	ORAL TEST
Teacher	ROSSO RICCARDO (titolare) - 6 ECTS
Prerequisites	Knowledge of elementary probability at the level of an undergraduate student.
Learning outcomes	The course aims to presenting the historical development of the theory of probability.
Course contents	<p>Prehistory of probability. Problems in combinatorial analysis related to game of chances. The problem of points from late-medieval manuscript to De Moivre. Early applications of the calculus of probability to mortality tables and life annuities. Jacob bernoulli's "Ars Conjectandi". The Bernoulli-De Moivre theorem. The Saint Petersburg's paradox. The birth of inverse probability: Bayes, Price and Laplace. Error theory. The criticism on the foundations of probability. The different approaches to probability: frequentist (von Mises), logicist (Keynes), subjective (De Finetti and Ramsey). The axiomatic approach to probability calculus from Bohlmann to Kolmogorov.</p>

Teaching methods	Lessons in a class
Reccomended or required readings	<p>I. Hacking "L'emergenza della probabilità" Il Saggiatore (1975).</p> <p>A. Hald: "History of Probability and Statistics and their applications before 1750" Wiley (2003).</p> <p>A. Hald: "A History of Mathematical Statistics From 1750 to 1930" Wiley (1998).</p> <p>M.C. Galavotti: "Philosophical Introduction to Probability" CSLI (2005).</p> <p>I. Dale: "A History of Inverse Probability. From Thomas Bayes to Karl Pearson" Springer (1999).</p> <p>T.M. Porter: "The rise of statistical thinking 1820-1900" Princeton University Press (1986).</p> <p>S.M. Stigler: "The History of Statistics. The measurement of Uncertainty before 1900".</p> <p>J. von Plato: "Creating modern probability" Cambridge University Press (1998).</p> <p>Notes available on the website of the course.</p>
Assessment methods	Oral exam. The student chooses a topic to present among those covered in the course. Other questions are chosen by the teacher, clearly among topics covered in the course
Further information	
Sustainable development goals - Agenda 2030	\$ibl legenda sviluppo sostenibile