



**UniTn**  
**Mathematics for Economics  
and Finance**

**prof. L. Tubaro**  
**L. Di Persio**

Aims at preparing students to a career in *financial* institutions. Internships (*stage* or *tirocinio*) at research centres of banks, assurances, etc. are available, e.g.



# Main goals

- Strong background in mathematics with emphasis on stochastic processes and their application to financial problems
- Financial and Economics language
- Numerical methods for statistical analysis and simulation of mathematical financial models

# First Year – First Semester

Course	Type	Credits (CFU)
<b>Advanced Analysis</b>	<i>Caratterizzante</i>	9
<b>Integral Transforms</b>	<i>Caratterizzante</i>	6
<b>Statistical models</b>	<i>Affine</i>	3
<b>Math. Finance 1</b>	<i>Affine</i>	3
<b>Language skills</b>		
<b>Financial Markets</b> MUT - From Master in International Management	<i>Affine</i>	8

# First Year – Second Semester

Course	Type	Credits (CFU)
<b>Stochastic Processes I</b>	<i>Caratterizzante</i>	6
<b>Stochastic Processes II</b>	<i>Affine</i>	3
<b>Statistics of Stochastic Processes</b>	<i>Affine</i>	6
<b>Laboratorio Simulazioni Finanziarie</b>	<i>Mutuato da LM Finanza</i>	6

## Second Year– First Semester

Course	Type	Credits (CFU)
<b>Stochastic Differential Equations</b>	<i>Caratterizzante</i>	6
<b>Mathematical Finance II</b>	<i>Affine</i>	3

## Second Year– Second Semester

Course	Type	Credits (CFU)
<b>Applications and Numerical Methods for Math.Fin.</b>	<i>Affine</i>	9

- Students must also take **9 credits** in courses *caratterizzanti* in the settori from MAT/01 to MAT/05
- Students must also take **10 credits** in *free courses*
- Students must also take **12 credits** for internship/stage; **18 credits** for thesis.

## Courses advised as free-choice

- **Strumenti di investimento e derivati** (11 CFU, LM Finanza)\*
- **Laboratorio di modelli statistici per l'economia e la finanza** (6 CFU, LM Finanza\*)
- **Microeconomics and game theory** (10 CFU, 1st sem., Master in Economics);

Students missing some prerequisites in analysis or probability theory can include appropriate courses (in Italian) from Bachelor's degree (*Laurea triennale*) among free-choice courses.



GOOD LUCK!

