Curriculum in Statistical Methods

The **Curriculum in Statistical Methods** is embedded within the cross-disciplinary and interdisciplinary nature of the overall PhD programme, with a specific focus on the methodological and applied aspects of statistical sciences.

The programme aims to train highly qualified researchers and professionals with advanced expertise in statistical disciplines, enabling them to conduct independent research and assume positions of responsibility in information-processing systems and decision-making processes under uncertainty. The educational objectives are therefore designed to broaden knowledge and strengthen competencies in the areas of statistical inference, both parametric and non-parametric; the development and estimation of statistical models, with particular emphasis on the analysis of dynamic phenomena; selection and classification methods; computer-intensive techniques, including those aimed at the analysis of high-dimensional data; forecast evaluation; and risk management.

The curriculum-specific educational activities include:

- Advanced courses in core statistical disciplines, complementing the joint coursework offered within the PhD programme;
- Thematic seminars covering the main research areas of the curriculum;
- Periods of study and research at internationally renowned academic institutions;
- Research activities related to the topics identified within each doctoral candidate's individual research project.

The advanced training activities and scientific research conducted within the curriculum may benefit from the technical support of the **Laboratory for Research and Advanced Teaching in Statistics (StatLab)**: https://www.statlab-unisa.it/it/.

Internationalisation Profile

The Faculty Board of the Curriculum in Statistical Methods has long-standing scientific and research collaborations with several international academic institutions through visiting periods, the development of joint research projects, the coordination of international research networks, and participation in scientific conferences.

Evidence of these collaborations can be found in the curriculum's scientific output, published in leading international journals of high academic standing.