**INDICATIVE STUDY PLAN - MASTER'S DEGREE IN COMPUTER SCIENCE– Data Science Area**
*These examples are indicative only, because there are many possible options within the Master's degree. Please consult the "Manifesto" for a complete list of all courses.*

*In selecting a course, students must check in the "Manifesto" any possible other course recommended as a prerequisite, and include it in the study plan as a free-choice course.*

| First Year | | | | | | |
|---|---|---|---|---|---|---|
| **First Semester** | **CFU** | **Professor** | | **Second Semester** | **CFU** | **Professor** |
| 145451 - Computability and computational complexity | 6 | Kuper G. | | 145462 - Simulation and performance evaluation | **6** | Lo Cigno R. |
| 145936 - Innovation and Entrepreneurship Basic | 6 | Stoycheva M. | | 145615 - Intelligent Optimization for data science | 6 | Battiti R. |
| 145062 - Machine learning | 6 | Passerini A. | | 145299 - Language Understanding Systems | 6 | Riccardi G. |
| 145453 - Data Mining | 6 | Velegrakis Y. | | BREADTH requirements | 12 | |
| Free-choice course/s** | 6 | | | Free-choice course/s ** | | |
| **Second Year** | | | | | | |
| **First Semester** | **CFU** | **Professor** | | **Second Semester** | **CFU** | **Professor** |
| 145614 -  Multimedia Data Security | 6 | Boato G. | | | | |
| 145612 -  Advanced remote sensing systems | | Bruzzone L. | | Internship  or Stage | 6 | |
| BREADTH Requirements | 6 / 18 | | | Final examination | 24 | |
| Free-choice course/s** | | | | | | |

*\*\* At the discretion of the student, to be chosen among the courses listed in the "Manifesto"*

For the BREADTH Requirement courses (chosen in another area) it is recommended to take:
- 45085 - Web Architectures (2nd year, 1st semester)

Among the free-choice courses the following are recommended:
- 145616 – Knowledge representation in an open world (1st year, 1st semester)
- 145914 - Statistical Models (1st year, 1st semester) o 145561 - Bayesian Statistics (1st year, 2nd semester)
- 145296 – Advanced Natural Language Processing and Information Retrieval (1st year, 2nd semester)