ANNEX C - REQUIREMENTS TO OBTAIN THE DOUBLE DEGREE

To get the double degree, students must follow one of the following study plan templates. Each study plan must be approved by the two Universities.

Students from UNIPI:

FIRST YEAR AT UNIPI
Mandatory courses from the corresponding master's curriculum.

SECOND YEAR AT UMA
The student will propose a Learning Agreement (LA) with the programme of studies to be followed at UMA, which must be approved by the student and the coordinators of both UNIPI and UMA during the first year.   - The LA will consist of **36** ECTS from the list of topics the student should take in the second year at UMA, based on the list of courses agreed by both coordinators.   - The LA will additionally include the Master's thesis[1] (**24 ECTS**).

Students from UMA:

FIRST YEAR AT UMA
Mandatory courses corresponding to the first year of the master.

SECOND YEAR AT UNIPI
The student will propose a Learning Agreement (LA) with the programme of the studies to be followed at UNIPI, which must be approved by the student and the coordinators of both UMA and UNIPI during the first year.   - The LA will consist of **24 ECTS** from the list of topics the student should take in the second year at UNIPI, based on the list of courses agreed by both coordinators.   - The LA will include the Master's thesis[1] (**24 ECTS**).   - The University of Pisa will recognize **12 ECTS** as "Free choice"[2] courses to students who acquired a 4-year BS Degree in Computer Science, in Computer Engineering, in Software Engineering or similar.

In case the UMA student chooses to obtain the UMA Master specialty in "*Data Science and Engineering*", UNIPI could grant the UNIPI Master Degree with a specialization in "*Data and Knowledge: Science and Technologies*" (KD). For it, the student must take in the second year at UNIPI 24 ECTS detailed as follows:

1) Algorithm Engineering (9 ECTS)
2) Advanced Databases or Machine Learning (9 ECTS)
3) Big Data Analytics (6 ECTS)

In case the UMA student chooses to obtain the UMA Master specialty in "*Data Science and Engineering*", UNIPI could grant the UNIPI Master Degree with a specialization in "*ICT Solutions Architect*" (ICT). For it, the student must take in the second year at UNIPI 24 ECTS detailed as follows:

1) Algorithm Engineering (9 ECTS)
2) Peer to peer systems and blockchains (6 ECTS)
3) One additional course of 9 ECTS chosen in the group of "ICT electives", namely:
   a. Parallel and distributed systems: paradigms and model
   b. Software validation and verification
   c. Data mining
   d. Machine learning

[1] Each thesis will be co-tutored by one supervisor from the University of Pisa and one supervisor from the University of Malaga.
[2] The University of Pisa can recognize these 12 credits to students who acquired a 4-year BS Degree in Computer Science, in Computer Engineering, in Software Engineering, or similar.

ECTS grading scale and grade equivalence

ECTS Grade	Definition	UMA grade	UNIPI grade
A	EXCELLENT- outstanding performance with only minor errors	M.H. 10	30 e lode
B	VERY GOOD- above the average but with some errors	SOBRESALIENTE 9-9.9	29-30
C	GOOD- generally sound work with a number of notable errors	NOTABLE 7-8.9	27-28
D	SUFFICIENT – performance meets minimum criteria	APROBADO 5-6.9	18-26
E	SATISFACTORY- fair but with significant shortcomings		
F	FAIL- considerable further work is Required.	SUSPENSO 0-4.9	0-17
Fx	FAIL- some more work required before credit can be awarded.		

Language requirements

Those students whose first language is not English must demonstrate a level of knowledge, spoken and written at a level equal to or higher than B2 according to the European framework of reference for languages.

Joint committee

The members of this committee will be in charge of the organization of the double degree program, participation of students in the program and approval of the student's Learning Agreement. It will be integrated by the UMA and UNIPI master coordinators.