STUDY PLAN – DTIM PROGRAM

- **Compulsory courses** for 30 ECTS (6 hours/ECTS), with final verification, as follows:
    A. Foundations Area, 15 ECTS;
    B. Thematic Area, 10 ECTS;
    C. Summer School, 5 ECTS.

- **Elective courses** taken from Master degrees, for 12 ETCS, with no final verification.

Total number of credits for the three-year PhD period: 42 ETCS

COMPULSORY COURSES OFFERED BY THE PROGRAM

- **Foundations Area, 2 courses, 15 ECTS**

AREA	COURSE	CONTENT	HOURS
Foundations 15 ETCS– 90 hours	Methods for research 5 ETCS – 30 hours	Research Design, Scientific writing, Oral presentation	6
		Intellectual property management	12
		Research ethics	3
		Fund raising and project writing and management (e.g., European project H2020 and FP9)	9
		Total	**30**
	Research Applied Methods 10 ECTS – 60 hours	Simulation methods and tools	18
		Design of Experiments – DOE	12
		Applied Quantitative Methods	4
		Product and process sustainability	12
		Applied programming (Matlab, VBA, Python, Access)	14
		Total	**60**
	Total		**90**

- **Thematic Area, 10 ECTS:**
    a. **At least 2 thematic courses (at least 5 ECTS)**
        - At least 2 thematic courses must be chosen (5 ETCS) among the 4/5 yearly offered in different thematic areas by DTIM;
        - Minimum of three students for a thematic course to be activated.
    b. **PhD courses offered by other doctoral programs. Thematic workshops.**

- **Summer School, 5 ECTS**
    - Summer School for PhD students or other Summer Schools.

ORGANIZATION NOTES

- Courses in the **Foundations Area** are offered to 1st year students, by means of videoconferencing
- Courses in the **Thematic Area** are offered to 2nd year students, by means of videoconferencing o Skype.