

**92. Lean4 Smart Factory**

Level I

**Department of Industrial Engineering (DIEF)**

*The course will be carried out in collaboration with the  
University of Pisa and the University of Modena and  
Reggio Emilia*

**Course coordinator**

Filippo De Carlo

**STUDY PLAN**

| Subject  | Academic Discipline | CREDITS   |
|--|---------------------|-----------|
| M1 Introduction  | ING-IND/17          | 1         |
| M2 Enabling factors for Lean 4.0 projects in the company | ING-IND/17          | 7         |
| M3 Techniques and methods of preparation for Lean        | ING-IND/17          | 5         |
| M4 Lean manufacturing                                    | ING-IND/17          | 15        |
| M5 Supply Chain Management                               | ING-IND/17          | 5         |
| M6 Lean design   | ING-IND/17          | 5         |
| M7 Lean service e Lean office                            | ING-IND/17          | 5         |
| <b>Total credits of face-to-face classes</b>             |                     | <b>43</b> |
| Internship   |                     | 17        |
| Project work   |                     | 1         |
| <b>Final examination</b>                                 |                     | <b>61</b> |

**SINGLE  
MODULES**

| Subject  | Academic Discipline | CREDITS |
|--|---------------------|---------|
| M1 Introduction  | ING-IND/17          | 1       |
| M2 Enabling factors for Lean 4.0 projects in the company | ING-IND/17          | 7       |
| M3 Techniques and methods of preparation for Lean        | ING-IND/17          | 5       |
| M4 Lean manufacturing                                    | ING-IND/17          | 15      |
| M5 Supply Chain Management                               | ING-IND/17          | 5       |
| M6 Lean design   | ING-IND/17          | 5       |
| M7 Lean service e Lean office                            | ING-IND/17          | 5       |