Introduction to Engineering Projects

1. **Course number and name:** 020PIINI4/020IEPNI4 Introduction to Engineering Projects

2. **Credits and contact hours:** 2 ECTS credits, 1x1:15 contact hours + individual work

3. **Name of course coordinator:** Alain Ajami

4. **Instructional materials:** PowerPoint slides; project guidelines

5. **Specific course information**
   a. **Catalog description:**
      This course aims to instill a sense of responsibility in students, akin to that of researchers and engineers, by introducing and cultivating their skills in the scientific research process. It also seeks to integrate scientific and technological research endeavors and facilitate the development of conceptual and tangible components that actively contribute to the continuous process of knowledge creation, spanning from ideation to design and, in some cases, realization.

   b. **Prerequisites:** None

   c. **Required/Selected Elective/Open Elective:** Required

6. **Educational objectives for the course**
   a. **Specific outcomes of instruction:**
      - Develop skills in the scientific research process.
      - Promote the integration of scientific and technological research efforts.
      - Facilitate the development of conceptual and practical elements that actively contribute to the ongoing process of knowledge creation, including ideation, design, and, in some cases, realization.

   b. **PI addressed by the course:**

PI	1.1	2.1	2.2	2.3	2.4	2.5	3.1	3.2	4.2	5.1	5.2	7.1
Covered	x	x	x	x	x	x	x	x	x	x	x	x
Assessed	x	x	x	x			x	x	x	x	x	

7. **Brief list of topics to be covered**
   Students have the opportunity to choose projects based on their field of specialization from areas such as mechanical engineering, computer science, electrical engineering, or chemistry. These projects are conducted in groups, and upon completion, students are required to submit a report and present their work. Professors oversee and manage the projects by providing regular guidance and necessary support (12 lectures)