

**Course offered for the PhD program
in Civil, Chemical and Environmental Engineering
Curriculum in Chemical, Material and Process Engineering –
academic year 2022/2023**

(possibility of participation for students in other PhD cycles or other PhD courses)

1. Title

Introduction to Smart and Connected Supply Chain: Case of Pharmaceutical and Food Supply Chains

2. Course Description

The course aims at providing knowledge and expertise on supply chain management, value chain management, pharmaceutical and food traceability, and sensor-based technologies for packaging applications.

The course will include the following topics:

- Introduction to supply chain management
- Introduction to value chain management
- Introduction to hyperconnected value chain
- Introduction to smart packaging technologies
- Application of smart packaging for track and trace

3. Course Organization

The course is organized in a single module with classroom lessons.

4. Teacher

The teachers of the course will be Prof. Bahar Aliakbarian from Michigan State University.

5. Duration and credits

The course (5 hours) will consist of 2 classroom lessons (2.5 hours each) for a total of 1 credit.

6. Activation mode and teaching period

The course will be held yearly if at least three students will be registered sending an e-mail to Dr. Bahar Aliakbarian (bahara@msu.edu). The course will be held on December 7 and December 14th of 2022.

7. Deadline for registration

Students are requested to inform the teacher by e-mail about their registration.

8. Final exam

The examination test will consist of a final project developed on a topic defined with the teachers.