**Course offered for the PhD program**
**in Civil, Chemical and Environmental Engineering**
**Curriculum in Chemical, Material and Process Engineering**
**Academic year 2020/2021 (cycle XXXVI, XXXV, XXXIV)**
(attendance is open to students in other PhD cycles, or other PhD courses)

## 1. Title

**Emerging trends in loss prevention and occupational/process safety in industrial plants**

## 2. Course Description

The course aims at providing notions to PhD students on the emerging issues connected to occupational and process safety in the different industrial sectors, with emphasis on process industries and relevant innovations in technologies and industrial developments according to the neologistic Industry 4.0.
The course will include the following topics:

- Occupational safety vs. process safety
- Statistical safety performance indicators
- The role of human factor and its evaluation
- The basis of risk assessment
- Novel hazards and emerging trends: inherent safety, resilience, system dynamic and accident analysis
- Risk scenarios in multi-modal HazMat transportation

## 3. Course Organization

The course, organized into a single module, will consist of classroom lessons and applicative training.

## 4. Teacher

The course teachers will be Prof. ing. Bruno Fabiano and Dr. Fabio Currò.

## 5. Duration and credits

The course (15 hours) will consist of 6 lessons, for a total of 3 credits.

## 6. Activation mode and teaching period

The course will be delivered yearly, provided that at least one student will be formally registered by contacting the teacher, as in the following. The course will be held during the period January-April 2020. The lesson calendar will be confirmed and agreed with students, nearly three weeks before the beginning of the course.

## 7. Deadline for registration

Registration to the course must be made before January 10$^{th}$, 2020. Students are requested to perform registration by e-mail to the teacher (brown@unige.it)

## 8. Final exam

The final exam will consist in an interview with applicative case-study on the topics covered by the course. The date will be announced by the teacher at the end of the course.