



Tuesday, February 12

Lecture title: *Effective Visual Communication of Science*

Lecturer: *Dr. Jernej Zupanc, Seyens Ltd.*

Description:

The lecture will address all aspects of science communication that can be presented visually through diagrams, schemes, data visualizations, journal papers, project proposals, conference posters, and slides. The students will understand the visual communication fundamentals and how to apply them to all types of scientific presentation. It's a way of thinking that will help you make your research ideas and results more easily understood.

9.00 – 9.10	10min	Welcome and registration
9.10 – 10.40	1h30min	<ul style="list-style-type: none">- Structuring the message to simplify comprehension- Communicating with scientific vs non-scientific audiences
10.40 – 11.00	20min	<i>Coffee break</i>
11.00 – 12.30	1h30min	<ul style="list-style-type: none">- Visual perception and what we find intuitive- Visual organization: how to structure to simplify comprehension
12.30 – 14.00	1h30min	<i>Lunch at Politecnico canteen</i>
14.00 – 15.20	1h20min	<ul style="list-style-type: none">- Eye-flow: effortlessly guide the audience through the design- Colors: how to amplify, not 'fancify'
15.20 – 15.40	20min	<i>Coffee break</i>
15.40 – 17.00	1h20min	<ul style="list-style-type: none">- Typography: how to create legibility, structure and aesthetics- Visual consistency: how to make multiple figures follow the same style

Wednesday-Thursday, February 13-14

Lecture title: *Research Integrity*

Lecturer: *Prof. Enrico Bucci, Resis Srl*

Description:

The course consists in a series of training modules concerning the fraud and integrity of scientific research, with particular reference to the engineering field. The material presented is customized for the engineering area, with examples taken from engineering sciences (also applied to biomedicine). The skills acquired by students must be useful to:

- to frame scientific fraud in a broad cultural context, as an example of deviation from the methodological practice of modern science;
- evaluating the reliability of a scientific publication, on a quantitative basis;
- recognizing the most widespread errors and manipulations in the clinical field in order to "weigh" the incoming information necessary for the development of engineering applications

Wednesday, February 13

9.50 – 10.00	10min	Welcome and registration
10.00 – 11.00	1h	Scientific fraud: what is it?
11.00 – 11.20	20min	<i>Coffee break</i>
11.20 – 12.20	1h	How many frauds?
12.20 – 14.20	2h	<i>Lunch at Politecnico canteen</i>
14.20 – 15.20	1h	Causes and consequences of scientific fraud
15.20 – 15.40	20min	<i>Coffee break</i>
15.40 – 16.40	1h	Efforts to fix the problem

Thursday, February 14

9.50 – 10.00	10min	Welcome and registration
10.00 – 11.00	1h	Analysis of a scientific paper: numbers
11.00 – 11.20	20min	<i>Coffee break</i>
11.20 – 12.20	1h	Analysis of a scientific paper: figures
12.20 – 14.20	2h	<i>Lunch at Politecnico canteen</i>
14.20 – 15.20	1h	Analysis of a scientific paper: text
15.20 – 15.40	20min	<i>Coffee break</i>
15.40 – 16.40	1h	Clean meta-analysis: How to find what the scientific consensus is



Friday, February 15

Lecture title: *How to write scientific papers and to prepare a scientific talk*

Lecturers: *Profs. Claudio Casetti and Mario Casu, Politecnico di Torino*

Description:

“How to write scientific papers?”

Writing a scientific paper is not just about providing sound, interesting content, but it also requires that authors package it in a way that appeals to reviewers and readers. This lecture will provide advice on writing a scientific paper, avoiding common pitfalls and maximizing your chance to have your paper accepted.

“How to write to prepare and give a scientific talk?”

How do you prepare a successful presentation that has an impact on the audience? This lecture focuses on aspects like material organization and structure, slide design, style, etc. The slides are not the talk. They support you during the presentation but it's up to you to make it successful. This lecture also gives you some practical tips on how to give a successful presentation.

9.00 – 9.10	10min	Welcome and registration
9.10 – 11.20	2h10min	How to write scientific papers (Prof. C. casetti)
11.20 – 11.40	20min	<i>Coffee break</i>
11.40 – 12.40	1h	How to prepare a scientific talk (Prof. M. Casu)
12.40 – 14.10	1h30min	<i>Lunch at Politecnico canteen</i>
14.10 – 16.00	1h50min	How to give a scientific talk (Prof. M. Casu)
16.00 – 16.30	30min	Final exam