

Prof. Raffaele Campanella

INDUSTRIAL PLANTS II

General information

DOUBLE DEGREE MASTER IN
δPRODUCTION ENGINEERING AND MANAGEMENTö

CAMPUS OF PORDENONE
UNIVERSITY OF TRIESTE

A.Y. 2021- 2022

PROGRAM

“ **Lean manufacturing**

- . Philosophy and Concepts
- . Techniques
- . Implementation and Applications

“ **Industrial plant maintenance**

- . Reliability, failures, Availability
- . Different maintenance Policies
- . Total Productive Maintenance (TPM)

“ **Numerical simulation**

- . Production system optimization
- . Product design optimization
- . CyberPlan: example of Advanced Planning and Scheduling software

GENERAL CONSIDERATIONS

Credits: 8

Lessons: frontal and recorded

Visit: If the pandemic restrictions will be withdrawn, we will have the chance to visit Electrolux Professional Plant in Vallenoncello (PN).

Seminar: A seminar about Production Simulation will be held by the company Cybertech (Trieste), part of Zucchetti Group in May and the students will have the chance to practice and work in groups with their software CyberPlan. At the end of the seminar, each student will present a work on a simple example that will allow, if well done, to increase the final grade. Individual Personal Computer is necessary.

GENERAL CONSIDERATIONS

Lesson Timing:

Tuesday: 2 hours (11.00 . 13.00)

Wednesday: 3 hours (9.00 . 12.00)

Exams: three possibilities during summer time (Date and time and conditions to be fixed)

Teaching material: prof. Pozzetto's slides supported by mine

IMPORTANT BOOKS

“ Further reading texts:

. Classic books:

- **Taiichi Ohno**: Toyota production System 1978
- **J. Womack & D. Jones**: The Machine that changed the world 1990
- **J. Womack & D. Jones**: Lean Thinking 1997
- **J. Womack & D. Jones**: Lean Solutions 2009
- **Masaaki Imai**: Gemba Kaizen 1997

Other texts:

- **Nicholas, John M.**: Lean production for competitive advantage: a comprehensive guide to lean methodologies and management practices - CRC press . 2011
- **Earley, John A.**: The lean book of lean: a concise guide to lean management for life and business - eBook - Bibliographies . 2016
- **Bicheno, John**: The lean games book: participative games for learning lean: an instruction book for facilitators - PICSIE . 2010
- **Al-Aomar, Raid**: Process simulation using WITNESS - eBook - Bibliographies . 2015
- **Maintenance engineering handbook** - Mc Graw-Hill - 2014

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