MANAGEMENT ENGINEERING - INGEGNERIA GESTIONALE (LM54)

(Lecce - Università degli Studi - Università degli Studi)

Insegnamento COMPUTER AIDED PRODUCTION

GenCod A000228
Docente titolare Francesco NUCCI

Insegnamento COMPUTER AIDED PRODUCTION

Insegnamento in inglese COMPUTER AIDED PRODUCTION

Settore disciplinare ING-IND/16

Corso di studi di riferimento MANAGEMENT ENGINEERING -

Tipo corso di studi Laurea Magistrale

Crediti 6.0

Ripartizione oraria Ore Attività frontale: 54.0

Per immatricolati nel 2014/2015

Erogato nel 2015/2016

Anno di corso 2

Lingua

Percorso PERCORSO COMUNE

Sede Lecce - Università degli Studi

Periodo Primo Semestre

Tipo esame Orale

Valutazione Voto Finale

Orario dell'insegnamento
https://easyroom.unisalento.it/Orario

BREVE DESCRIZIONE DEL CORSO

The aim of the course is the study of Computer Aided Production systems applied to manufacturing.

- The first part of the course is oriented to the problem of Pallet configuration.

PREREQUISITI

Office Automation tools, Manufacturing elements, CAD system basic skills

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OBIETTIVI FORMATIVI

Knowledge and understanding
After the course the student should understand the following aspects

- Production system configuration
- Pallet configuration
- Use of computer aided techniques to manage production

Applying knowledge and understanding
After the course the student should be able to

- Describe different approaches of production layout.
- Formulate and solve production system configuration problems
- Manage state-of-the-art techniques to represent part program

Making judgments
Students should obtain the skill to compare pros and cons of different methods to the solution of a specific problem through examples and problems.

Communication
The aptitude to communicate on technical issues should be obtained by discussing in a rigorous method both concepts and the accepted solution to a specific problem.

Learning skills
Selected problems will be recommended that involve developing on presented theories and techniques. Identifying solutions to case study problems will be acquired for professional career.

METODI DIDATTICI	The course is based on: a) frontal lessons, based on slides; b) practical group exercises, based on worksheets; c) individual laboratory experiences supported by the teacher. The teaching material is available to the students through the dedicated website http://nucci.unisalento.it/cap. Lessons aim at achieving the educational objectives through the parallel presentation of theory and practice of the manufacturing field.

MODALITA' D'ESAME	The exam is divided into two parts.

In the first part a project report related to a workgroup is developed. This refers to a generic industrial case study that is customized for each group of students. For attending students, the project is assigned in the final part of the course to allow the first phase to be carried out during laboratory hours with the support of the teacher.

In the second part there is an oral interview consisting in the discussion of the developed project and the topics of the entire course.

PROGRAMMA ESTESO

Lectures

- Product-process-system modeling
- Part Program concept
- Pallet configuration Production system configuration

Tutorial

- Systems modelling of machining
- Determination of the part program
- Configuration methods for a production system.

Project work

- A real case study of Computer Aided Production

Lab

- Use and application of packages for part program modeling
- Use and application of packages for the system analysis

TESTI DI RIFERIMENTO

- Luggen W.W., "Flexible Manufacturing Cells and Systems", Prentice Hall, 1991, ISBN: 0-13-321977-1.
- Groover M.P., "Automation, Production Systems, and Computer-Integrated Manufacturing", 2nd edition, Prentice-Hall, 2001, ISBN 0-13-088978-4. *
- Rembold U, Nnaji, B.O, Storr, A., "Computer Integrated Manufacturing and Engineering", Addison-Wesley 1993, ISBN 0-201-56541-2. *
- R.B. Chase, R.F. Jacobs, N.J. Aquilano, A.Sianesi, "Operations Management", 2nd edition McGraw Hill, ISBN: 9788838664502
- Douglas C. Montgomery, "Design and Analysis of Experiments", Wiley, ISBN: 978-1118146927.