

KA2 - Cooperation for Innovation and the Exchange of Good Practices KA203 - Strategic Partnerships for higher education **Curriculum Development for Rapid Prototyping in Engineering Education** Project Number: 2018-1-TR01-KA203-059739



Curriculum Development for Rapid Prototyping



Curriculum **Contents of Thematic 1011 Intensive Course I** Prototyping

Introduction of RP (Day 1)

- What's 3D Printing?
- Contents,
- History,
- Definitions,
- Abbreviations
- 3D Printing Process,
- RP Based design and production,
- Used hardware and softwares.

Technology and Methodologies (Day 2)

- Methodologies,
- Slicing approach,
- Moulding,
- RP process and using systems,
- 3D Printer Machines,
- Rapid tooling,
- Features and Quality.

Curriculum Development

RP Materials (Day 3)

- Using materials,
- Metals, plastics and additive manufacturing,
- Different industrial field applications,
- FDM, SLA, SLS methods,
- Material properties,
- Composites and ceramics,
- Features.

Reverse Engineering (Day 4)

- Methods,
- Cloud points and laser scanning,
- Measurements,
- Surface methodology,
- CAD based design and displacement analysis.

Prototyping

3D Printing Practical Education (Day 5)

- Using of 3D Printers will be introduced.
- Designed parts by students will be produced in real-time.
- 3D Printing studies.

Rapid Prototyping