



# Curriculum Development for Rapid Prototyping



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KA2 - Cooperation for Innovation and the Exchange of Good Practices  
KA203 - Strategic Partnerships for higher education

# Curriculum Development for Rapid Prototyping in Engineering Education

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# **Contents of Thematic Intensive Course II**

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Rapid  
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.

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Rapid  
Prototyping

# Technology and Methodologies (Day 2)

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

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Rapid  
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# 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.

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Development  
Rapid  
Prototyping



# Reverse Engineering (Day 4)

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

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Development  
Rapid  
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.

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