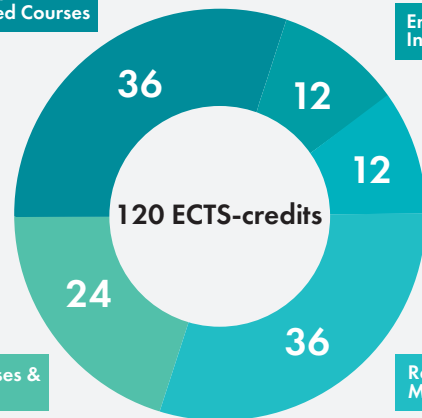


# Advanced Manufacturing Technologies



Compulsory & Recommended Courses



Entrepreneurship & Innovation

Industrial Immersion

Elective Courses & Projects

Research & MSc Thesis Projects

## Curriculum:

### Compulsory courses

Introduction to Advanced Manufacturing Technologies  
Continuum Mechanics  
Mechanics and Physics of Advanced Manufacturing  
Introduction to Product Lifecycle Management (PLM)

### Recommended Electives

Mathematics for Engineers  
Geometric Modeling  
Advanced Manufacturing of Composite Materials  
Materials Chemistry  
Structural Analysis and Design  
Numerical Methods in Engineering and Science  
Materials Selection in Design  
Additive Manufacturing  
Thermal Fluid Sciences  
Composite Materials and Structures  
Numerical Methods in Continuum Mechanics  
Industrial Robotics  
Advanced PLM techniques: Digital Design and Optimization  
Micromechanics  
Advanced PLM techniques: Product Prototyping  
Advanced PLM techniques: Testing and Model Validation  
Heterogeneous Volume Modeling and Digital Fabrication  
Fracture Mechanics

### Entrepreneurship & Innovation

Innovation Workshop  
Ideas to Impact  
Leadership for Innovators  
Business Communication  
Thinking Disruptive for a Big Future  
Biomedical Innovation and Entrepreneurship  
Intellectual Property and Technological Innovation  
New Product Design: from Idea to Market Launch  
Management of Research & Development  
Technology Entrepreneurship

### Elective Courses

See at the Skoltech Course Catalogue:  
◀ [skoltech.ru/en/education/course-catalogue](http://skoltech.ru/en/education/course-catalogue)