

Education institution stamp



APPROVED

«05» 01 2026 г.

Chairman
of the Admissions Committee,
Rector of Yanka Kupala State
University of Grodno

I. Kiturka
(signature)

THE LIST OF TOPICS OF EDUCATIONAL DISCIPLINES
for an additional interview with applicants
from among foreign citizens and stateless persons,
temporarily staying or temporarily residing in the Republic of Belarus,
for obtaining advanced higher education in the specialty
7-06-0714-02 «Innovative Technologies in Mechanical Engineering»

(English language of tuition)

Name of the educational discipline	The list of topics of the educational discipline
Materials science	1. Investigation of the properties of structural materials 2. Modification of compositions based on metal matrices 3. Investigation of the properties of composite materials based on polymeric binders. 4. Ceramic materials and areas of their application. 5. Fluorocomposites and production technologies. 6. Non-ferrous metals and alloys for the needs of foundry. 7. Investigation of nanomaterials and nanoobjects. 8. Smart materials with special properties: filtering, tribotechnical, flame retardant, etc.
Materials technology	1. Technological methods of production of polymeric materials (injection molding, extrusion, etc.). 2. Technologies for the formation of PVD and CVD coatings in a vacuum. 3. Technologies of formation of coatings by electrostatic precipitation. 4. Technology of formation of liquid-phase coatings. 5. Technological methods of forming joints by welding (electric arc, etc.). 6. Processing of metals by pressure: technological methods of preparing programs on CNC machines. 7. Technologies of 3D-prototyping and 3D-printing 8. Technologies of flexographic printing.
Mechanical engineering technology	1. Designing of tooling with the help of CAD / CAM / CAE programs. 2. Construction of tool materials.