

List of subjects for “Machine engineering” field of study

Major – Equipment and welding technology

1. History
2. Foreign language
3. Philosophy
4. Life safety
5. Physical education
6. Enterprise economics and production management
7. Physics
8. Mathematics
9. Computer science
10. Ecology
11. Applied mechanics
12. Metrology
13. Electrical engineering and electronics
14. Material science and construction materials technology
15. Engineering and computer graphics
16. Chemistry
17. Machine engineering technology basics
18. Fluid and gas mechanics
19. Vocational profession
20. Knowledge and skills systematization in professional activity
21. Thermodynamics and heat transfer
22. Engineering analysis of technological machines and systems
23. CAD and preproduction
24. Corrosion and material prevention
25. Steel and alloys material science
26. Physics of technological processes
27. Powder metallurgy technology
28. Applied physical education
29. Intellectual property protection
30. Welded constructions design engineering
31. Welded constructions production
32. Welding processes theory
33. Welded construction quality control
34. Special power sources
35. Plasma processes
36. Plastic welding and ultrasound technology
37. Special methods of welding and soldering
38. Power sources for welding
39. Fusion welding modern systems
40. Technological basics of fusion welding
41. Basics of different steel classes welding
42. Contact welding technology and equipment
43. Building construction pressure welding
44. Equipment for fusion welding and thermal cutting
45. Welding standard requirements
46. Technical documentation for access to Federal environmental, industrial and nuclear supervision service of Russia facilities (Rostekhnadzor)
47. Technical systems management
48. Automated design engineering in welding
49. Welding processes automation
50. Welding mechanization
51. Education internship (internship for getting primary professional skills, including skills for research)
52. Production internship (internship for getting professional skills and experience in the field of study)
53. Production internship (pre-diploma practice)
54. State exams
55. Elementary mathematics

Major – Machines and metal forming technology

1. History
2. Foreign language
3. Philosophy
4. Life safety
5. Physical education
6. Enterprise economics and production management
7. Physics
8. Mathematics
9. Computer science
10. Ecology
11. Applied mechanics
12. Metrology
13. Electrical engineering and electronics
14. Material science and construction materials technology
15. Engineering and computer graphics
16. Chemistry
17. Machine engineering technology basics
18. Fluid and gas mechanics
19. Vocational profession
20. Knowledge and skills systematization in professional activity
21. Thermodynamics and heat transfer
22. Engineering analysis of technological machines and systems
23. CAD and preproduction
24. Corrosion and material prevention
25. Steel and alloys material science
26. Physics of technological processes
27. Powder metallurgy technology
28. Metal forming
29. Heating and heating devices
30. Hammering and die forging technology
31. Sheet metal stamping
32. Forging equipment
33. Applied physical education
34. Automation and mechanization of forging industry
35. Flexible die forging systems
36. Production of forging equipment and die tools
37. Die production and maintenance
38. Powder and plastic processing
39. Detail production from non-metallic materials
40. Hydraulic press. Hammer
41. Forging machines with hydraulic and gas drive
42. Forge shop design engineering
43. Forge shop technical and economic planning
44. Special methods of metal forming
45. Advanced methods of plastic deformation
46. Computer graphics of forge industry design
47. Graphic and draft editors in metal forming
48. CAD in forging industry
49. Solid modeling basics and technological processes analysis in metal forming
50. Education internship (internship for getting primary professional skills, including skills for research)
51. Production internship (internship for getting professional skills and experience in the field of study)
52. Production internship (pre-diploma practice)
53. State exams
54. Elementary mathematics

Major – Machines and blank production technology

1. History
2. Foreign language
3. Philosophy
4. Life safety
5. Physical education
6. Enterprise economics and production management
7. Physics
8. Mathematics
9. Computer science
10. Ecology
11. Applied mechanics
12. Metrology
13. Electrical engineering and electronics
14. Material science and construction materials technology
15. Engineering and computer graphics
16. Chemistry
17. Machine engineering technology
18. Fluid and gas mechanics
19. Research methodology
20. Knowledge and skills systematization in professional activity
21. Automated control theory
22. Foundry technology
23. Automated control in technical systems
24. CAD
25. Air-oil circuit
26. Technical systems reliability
27. Production department design engineering
28. Technological solutions
29. Information technology in machine engineering
30. Blank design engineering and production
31. Foundry shop equipment
32. Foundry industry automation
33. Applied physical education
34. Casting manufacturing theory
35. Smelting equipment in foundry shops
36. Metal and alloy physical chemistry
37. Casting quality control
38. Metal and alloy smelting
39. Foundry furnace
40. Foundry processes theory
41. Foundry alloy and smelting
42. Foundry physical and chemical basics
43. Fittings design engineering for special types of foundry
44. Special types of foundry
45. Metal and alloy structure theory
46. Ornamental casting technology
47. Education internship (internship for getting primary professional skills, including skills for research)
48. Production internship (internship for getting professional skills and experience in the field of study)
49. Production internship (pre-diploma practice)
50. State exams
51. Elementary mathematics