

List of subjects for “Aero and rocket engine design engineering” field of study

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 drawing and computer graphics
16. Chemistry
17. Machine engineering basics
18. Fluid and gas mechanics
19. Thermal dynamics and heat transfer
20. Introduction to rocket and space equipment
21. Fluid, gas and aerodynamics
22. Automatic control theory
23. CAD basics
24. Rocket design basics
25. Fuel and work processes in aircraft and rocket engines
26. General theory of aircraft and rocket engines
27. Energy-converting machinery and units
28. Impeller machine theory and calculation
29. Solid-propellant rocket engine construction and calculations
30. Rocket and space equipment testing and reliability control
31. Rocket engines
32. Liquid-propellant rocket engine theory and calculation
33. Rocket engine production technology
34. Rocket engine automatic equipment and control
35. Turbopump theory and design engineering
36. Rocket engine dynamics and reliability
37. CAD systems for technological processes in rocket and space equipment
38. Rocket ballistics
39. Hydraulic drive for aircrafts
40. Elements of pneumatic and hydraulic systems and aircraft automatic equipment
41. Applied calculation methods for rocket and space equipment
42. Solid modeling of rocket and space equipment
43. Spacecraft design engineering, construction and production
44. Solid- propellant rockets
45. Lifting and transport equipment
46. Air-jet engine theory, calculation and design engineering
47. Applied physical education
48. Machine engineering industry equipment
49. Numerical control machine tool
50. Structural robustness
51. Shell analysis
52. Goods testing and quality control
53. Aircraft pneumatic drive
54. Rocket engine assembly technology
55. Rocket assembly
56. Special machine-tool attachment design engineering
57. Assembly fixture design engineering
58. Composite constructions
59. Nanotechnology in rocket production
60. Education internship (internship for getting primary professional skills, including skills for research)
61. Production internship (technological)
62. Production internship (operational)
63. Production internship (pre-diploma)
64. State exams