

List of subjects for “Technological machines and equipment” field of study

Major – Vacuum and compressor equipment for physical units

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. Engineering drawing and computer graphics
12. Fluid and gas mechanics
13. Chemistry
14. Foreign language for specific purposes
15. Industrial safety basics
16. Special technology
17. Vocational profession
18. Research
19. Technological units automation
20. Vocational profession training
21. Physical experiment basics
22. Corrosion and material prevention
23. Machine engineering technology basics
24. Metrology
25. Material science and construction materials technology
26. Electrical engineering and electronics
27. Applied mechanics
28. Thermal dynamics and heat transfer
29. Applied physical education
30. Primary technological processes in chemical and petrochemical industry
31. Chemical technology processes and equipment
32. Reciprocating compressor theory, calculations and construction
33. Compressor and pump equipment for low temperature units
34. Dynamic compressor machines theory, calculations and construction
35. Gas separation and liquefaction systems
36. Pump and compressor stations and pipeline systems
37. Stationary and mobile compressor stations
38. Computer technology in chemical and petrochemical machine engineering, compressor and low temperature equipment
39. Basics of low temperature, technological and compressor equipment automated engineering
40. Vacuum equipment
41. Pump and compressor equipment for chemical industry
42. Compressor and vacuum machines and units engineering
43. Engineering of machines and unit for chemical industry
44. Refrigerating machines and units
45. Low temperature machines
46. Basics of production, maintenance and installation of technological equipment for chemical and oil and gas industry
47. Pipeline systems and equipment for transportation and storage of gases and fluids
48. Refrigerating engineering basics
49. Conditioning theory basics
50. Heat transfer equipment for compressor, low temperature and chemical and technological units
51. Working fluids for low temperature, vacuum and compressor equipment
52. Rotary compressor theory, calculation and construction
53. Technological processes physics
54. Low temperature, pump and compressor systems and complexes engineering basics
55. Mathematical modeling of heat transfer processes in compressor, refrigerating and technological units
56. Education internship (internship for getting primary professional skills, including skills for research)
57. Production internship (internship for getting professional skills and experience in the field of study)
58. Production internship (pre-diploma practice)
59. State exams

Major – Chemical industry machines and devices

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. Engineering drawing and computer graphics
12. Fluid and gas mechanics
13. Chemistry
14. Foreign language for specific purposes
15. Industrial safety basics
16. Special technology
17. Vocational profession
18. Research
19. Technological units automation
20. Vocational profession training
21. Physical experiment basics
22. Corrosion and material prevention
23. Machine engineering technology basics
24. Metrology
25. Material science and construction materials technology
26. Electrical engineering and electronics
27. Applied mechanics
28. Thermal dynamics and heat transfer
29. Applied physical education
30. Chemical technology processes and devices
31. Primary technological processes in chemical and petrochemical industry
32. Reciprocating compressor theory, calculations and construction
33. Compressor and pump equipment for low temperature units
34. Dynamic compressor machines theory, calculations and construction
35. Gas separation and liquefaction systems
36. Pump and compressor stations and pipeline systems
37. Stationary and mobile compressor stations
38. Computer technology in chemical and petrochemical machine engineering, compressor and low temperature equipment
39. Basics of low temperature, technological and compressor equipment automated engineering
40. Chemical industry machines and devices
41. Chemical industry pump and compressor equipment
42. Chemical industry machines and devices engineering
43. Refrigerating machines and units
44. Low temperature machines
45. Basics of production, maintenance and installation of technological equipment for chemical and oil and gas industry
46. Pipeline systems and equipment for transportation and storage of gases and fluids
47. Refrigerating engineering basics
48. Conditioning theory basics
49. Heat transfer equipment for compressor, low temperature and chemical and technological units
50. Working fluids for low temperature, vacuum and compressor equipment
51. Rotary compressor theory, calculation and construction
52. Technological processes physics
53. Education internship (internship for getting primary professional skills, including skills for research)
54. Production internship (internship for getting professional skills and experience in the field of study)
55. Production internship (pre-diploma practice)
56. State exams

Major – Oil refining and chemical industries machines, units and devices

1. History
2. Foreign languages
3. Philosophy
4. Life safety
5. Physical education
6. Enterprise economy and production management
7. Physics
8. Mathematics
9. Computer science
10. Ecology
11. Applied mechanics
12. Material science and construction materials technology
13. Engineering drawing and computer graphics
14. Chemistry
15. Machine engineering technology basics
16. Fluid and gas mechanics
17. Research
18. Corrosion and material prevention
19. Metrology
20. Engineering analysis of technological machines and systems
21. Electrical engineering and electronics
22. Technological units automation
23. Reciprocating compressor theory, calculations and construction
24. Pump and compressor stations and pipeline systems
25. Computer technology in chemical and petrochemical machine engineering, compressor and low temperature equipment
26. Refrigerating machines and units
27. Heat transfer equipment for compressor, low temperature and chemical and technological units
28. Applied physical education
29. Chemical industry processes and devices
30. Primary technological processes in chemical and petrochemical industry
31. Thermal dynamics and heat transfer
32. Hydraulic system and thermal engineering
33. Dynamic compressor machines theory, calculations and construction
34. Gas separation and liquefaction systems
35. Steel and alloys material science
36. New construction materials
37. Technological processes physics
38. Vacuum equipment
39. Engineering of machines and unit for chemical industry
40. Compressor and vacuum machines and units engineering
41. Chemical industry machines and devices
42. Pump and compressor equipment for chemical industry
43. Research methodology
44. Experiment management and planning
45. Rotary compressor theory, calculation and construction
46. Pipeline systems and equipment for transportation and storage of gases and fluids
47. Refrigerating equipment theory basics
48. Conditioning theory basics
49. Physical experiment basics
50. Low temperature experiment devices and equipment
51. Powder metallurgy technology
52. Working fluids for low temperature, vacuum and compressor equipment
53. CAD and preproduction
54. Basics of mathematical modeling in machine engineering
55. Intellectual property protection
56. Patent and licensing program
57. Education internship (internship for getting primary professional skills, including skills for research)
58. Production internship (internship for getting professional skills and experience in the field of study)
59. Production internship (pre-diploma practice)
60. State exams