

Master's programs offered by INRTU

Code	Program
07.04.01	Architecture <ul style="list-style-type: none"> • Architecture of sustainable environment • Interiors of residential and public buildings
07.04.04	Urban planning <ul style="list-style-type: none"> • Design of urban planning landscapes • Urban planning reconstruction of historical objects
08.04.01	Building <ul style="list-style-type: none"> • Innovative technologies of water drainage, waste water treatment, residue processing and utilization • Innovative technologies in technical operation of buildings and municipal engineering systems • Technology, organization and management at building enterprises • Legal construction and cost expertise • Design, construction and operation of automobile roads • Prediction of parameters of life-support systems • Expertise of investment projects • Efficient bindings and concretes based on them • Design of buildings and structures in seismic areas
09.04.01	Informatics and computer engineering <ul style="list-style-type: none"> • Networks and telecommunications
09.04.02	Information systems and technologies <ul style="list-style-type: none"> • Analysis and synthesis of information systems • Bioinformatics • Corporate information systems • Innovative methodologies and platforms • Information technologies in trade and consumers services
11.04.01	Radio engineering <ul style="list-style-type: none"> • Radio engineering telecommunication devices and systems
13.04.01	Heat power engineering and technology <ul style="list-style-type: none"> • Technology of production of electric and heat energy • Automated systems of heat process control • Mathematical simulation and optimization technical and economic research of promising and existing heat and power plants
13.04.02	Electrical power engineering and technology <ul style="list-style-type: none"> • Electrical stations, systems and networks • Optimization of developing systems of electric power supply • Energy efficiency, energy audit and energy department management • Non-traditional and renewable power engineering • Insulating, cable and condensing equipment • Computer technologies in electric drive • Technical support of optimal functioning of electric transport • Physics of insulating, cable and condensing equipment • Smart power supply systems • Renewable power engineering • Prediction and development strategy of power systems and complexes in the region • Modern electrical power engineering

15.04.01	Mechanical engineering <ul style="list-style-type: none"> • Technology, equipment and quality system of welding production • Mechanical engineering materials and technologies
15.04.02	Technological machines and complexes <ul style="list-style-type: none"> • Theory of design of equipment for oil-refining, petrochemical and chemical industries • Anticorrosive protection of equipment and constructions • Food engineering • Design of control systems of technological processes and equipment
15.04.05	Engineering and design support of mechanical engineering production <ul style="list-style-type: none"> • Topological modelling of parts and machines with 3D tolerance using CAD of new generation • Finishing and strengthening processing in mechanical engineering • Machining process of parts using high performance equipment
18.04.01	Chemical technology <ul style="list-style-type: none"> • Chemical technology of organic substances and fuels
19.04.02	Foodstuff of plant materials <ul style="list-style-type: none"> • Biotechnology of foodstuff
20.04.01	Technosphere safety <ul style="list-style-type: none"> • Population saving, occupational, environmental and disaster risk management • Utilization and processing of production and consuming waste • Ecological safety • Fire safety
22.04.02	Metallurgy <ul style="list-style-type: none"> • Enhancement and optimization of technological processes of non-ferrous metal production
23.04.01	Technology of transport processes <ul style="list-style-type: none"> • Logistical management and traffic safety
23.04.03	Operation of transport and technological machines and complexes <ul style="list-style-type: none"> • Technical operation of automobiles
27.04.02	Quality control <ul style="list-style-type: none"> • Integrated management systems and engineering
27.04.05	Innovatics <ul style="list-style-type: none"> • Investment engineering

**PhD programs
offered at Irkutsk National Research Technical University**

Code	Program
01.00.00	MATHEMATICS AND MECHANICS <ul style="list-style-type: none"> • Dynamics, strength of machinery, devices and equipment
03.00.00	PHYSICS AND ASTRONOMY <ul style="list-style-type: none"> • Devices and methods of experimental physics • Radio physics
04.00.00	CHEMISTRY <ul style="list-style-type: none"> • Organic chemistry • Inorganic chemistry • Chemistry of hetero-organic compounds • Physical chemistry
05.00.00	EARTH SCIENCES <ul style="list-style-type: none"> • Ecology(in building and communal services, in transport, in chemistry and petrochemistry) • Hydrogeology • Engineering geology, permafrost and soil studies • Geochemistry, geochemical exploration methods • Geophysics, geophysical exploration methods • Geology and exploration of minerals, minerageny • Cartography • Geoinformatics • Geoecology (in oil and gas industry, in mining industry, in metallurgy)
07.00.00	ARCHITECTURE <ul style="list-style-type: none"> • Theory and history of architecture, restoration and reconstruction of historical heritage • Urban planning, planning of rural settlements
08.00.00	BUILDING TECHNIQUE AND TECHNOLOGY <ul style="list-style-type: none"> • Building constructions, buildings and structures • Heat supply, ventilation, conditioning, gas supply and lighting • Water supply, drainage, building systems of water object protection • Building materials and products • Technology and organization of building
09.00.00	INFORMATICS AND COMPUTER ENGINEERING <ul style="list-style-type: none"> • Automation and control of technological processes and production in industry • Mathematical and software support of computers, computing complexes and networks; • Mathematical modelling, numerical methods and software complexes
11.00.00	ELECTRICAL ENGINEERING, RADIO ENGINEERING AND COMMUNICATION SYSTEMS <ul style="list-style-type: none"> • Radio engineering including TV systems

13.00.00	ELECTRICAL AND THERMAL POWER ENGINEERING <ul style="list-style-type: none"> • Electrical complexes and systems • Electrical technology • Power engineering systems and complexes • Electrical power stations and electrical power systems
14.00.00	NUCLEAR POWER ENGINEERING AND TECHNOLOGIES <ul style="list-style-type: none"> • Heat, electrojet engines and power plants of aircraft
15.00.00	MECHANICAL ENGINEERING <ul style="list-style-type: none"> • Technology and equipment of mechanical and physicotechnical processing • Technology of mechanical engineering • Road-making, building and lifting-and-shifting machines • Mining machinery
18.00.00	CHEMICAL TECHNOLOGIES <ul style="list-style-type: none"> • Technology of electrochemical processes and corrosion protection • Technology of organic substances • Technology and processing of polymers and composites • Chemical technology of fuels and high-energy substances • Processes and devices of chemical technologies • Technology and equipment of chemical processing of wooden biomass; chemistry of wood
19.00.00	INDUSTRIAL ECOLOGY AND BIOTECHNOLOGY <ul style="list-style-type: none"> • Technology of storage and processing of grain crops, legumes, cereals, fruits and vegetables and vine-growing
21.00.00	APPLIED GEOLOGY, MINING ENGINEERING, OIL AND GAS INDUSTRY AND GEODESY <ul style="list-style-type: none"> • Concentration of minerals • Technology and methodology of survey works • Mining and oil and gas geology, geophysics, mine survey and subsurface geometry • Geotechnology (underground, open and building)
22.00.00	MATERIAL TECHNOLOGIES <ul style="list-style-type: none"> • Material science • Metallurgy of ferrous, non-ferrous and rare metals
23.00.00	TECHNOLOGY OF LAND-BASED TRANSPORT <ul style="list-style-type: none"> • Operation of automobile transport
38.00.00	ECONOMICS AND MANAGEMENT <ul style="list-style-type: none"> • Production organization • Economics and economy management • Mathematical and instrumental methods of economics
39.00.00	SOCIOLOGY AND SOCIAL WORK <ul style="list-style-type: none"> • Social structures, social institutes and processes