

## REVIEW

for the educational program of higher education in the direction "Electronics and Electrical Engineering" for training of bachelors of engineering and technology in the field of industrial electronics, electrical engineering, microcontrollers, mechatronics and programmable logic integrated circuits developed by the department "Electronics, telecommunications and space technologies» Kazakh National Research Technical University named after K.I. Satpaeva

The structure of the educational program (EP) in the direction "Electronics and Electrical Engineering" reflected in the curriculum of the educational program for recruitment for 2019-2020 academic year. year and includes training cycles: general education, basic, profile.

The program is compiled in accordance with the mandatory standard requirements of the State Educational Standard of the Republic of Kazakhstan for graduation from a university and the award of an academic degree of a bachelor: mastering at least 240 academic credits of theoretical training, completing a final thesis or passing a state exam in a specialty.

The disciplines of the curriculum for the reviewed educational program form the necessary list of general cultural and professional competencies. The overall structure of the plan is logical and consistent.

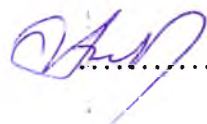
The program has specializations: "Electronic systems" and "Electrical devices".

The disciplines included in the plan reveal the essence of the current problems in the field of modern electronic and electrical devices for the sectors of the digital economy. The content of the disciplines corresponds to the competence model of the graduate. In addition, the educational program provides for all types of practices that allow you to consolidate theoretical knowledge and better understand the essence of the chosen profession, to gain practical skills.

This educational program takes into account the requirements of employers in the formation of professional cycle disciplines. New specialized disciplines have been added that consider the latest trends in the field of smart electronic devices, such as: "Electronic means circuitry", "Optoelectronics", "Artificial intelligence", "Ultra-high-frequency electronics", "Mechatronics", "Power electronics", "FPGA", etc.

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