A. Burkitbayev Institute of Power and Mechanical Engineering

Department of Mechanical Engineering»

EDUCATIONAL PROGRAM

8D07111 Digitalization of Engineering Manufacturing

Code and Classification of the Field of Education:
8D07-Engineering, Manufacturing and Construction Industries
Code and Classification of Training Directions:
8D071-Engineering and Engineering Affairs
Group of Educational Programs:
D103-Mechanics and Metal Working
Level based on NQF: 8
Level based on SQF: 8
Study period: 3 years
Amount of credits: 180

Almaty 2026

The Educational Program 8D07111 Digitalization of Engineering Manufacturing was approved at the meeting of the Management Board of Satbayev University

Minutes No. 5, dated March 10, 2026.

Reviewed and recommended for approval at the meeting of the Educational and Academic Council of K.I. Satbayev Kazakh National Research Technical University

Minutes No. 8, dated February 26, 2026.

Reviewed and recommended for approval at the meeting of the Educational and Methodological Council of K.I. Satbayev Kazakh National Research Technical University

Minutes No. 3, dated December 25, 2025.

The Educational Program 8D07111 Digitalization of Engineering Manufacturing as reviewed developed at the mitting of the Academic Committee.

Minutes No. 2, dated January 19, 2026.

4. Passport of the Educational Program

4.1 General information

№	Field name	Comments
1	Code and classification of the field of education	8D07- Engineering, manufacturing and construction industries
2	Code and classification of training directions	8D071- Engineering and engineering affairs
3	Educational program group	D103- Mechanics and metal working
4	Educational program name	8D07111-Digitalization of engineering manufacturing
5	Short description of educational program	The professional activity of the doctoral student is aimed at developing a strategy and design goals, analyzing technical information, modeling objects and processes using computer-aided design software packages, conducting research in the field of additive manufacturing. Doctoral students will gain knowledge of effective methods of solving problems of technology, economics and management; they will acquire the skills and abilities of mathematical, physical and computer modeling of additive technological processes, conducting research with the search for optimal solutions when creating competitive products.
6	Purpose of EP	Training of competitive and qualified personnel with high spiritual and moral qualities, capable of solving research and design tasks, as well as developing high-quality and inclusive education in the context of sustainable development of the engineering industry.
7	Type of EP	Innovative
8	The level based on NQF	8
9	The level based on IQF	8
10	Distinctive features of EP	no
11	Education form	full-time
12	Period of training	3 years
13	Amount of credits	180
14	Languages of instruction	Russian, Kazakh, and English languages
15	Academic degree awarded	Doctor of Philosophy PhD
16	Developer(s) and authors:	Nugman Ye.Z., Kerimzhanova M.F., Mustafa A.K., Mukhiddinov Z.N., Andreev V.I., Oralkhan A.B., Sarqyt Q.S.