## Conclusions

## NASE Course in Kazakhstan, 2025

The online course "Astrobiology: Life and the Universe," held from July 21 to 24, brought together almost 40 enthusiastic educators from across Kazakhstan. Organized in collaboration with the NASE team, the course aimed to introduce participants to key concepts in modern astrobiology and observational astronomy. Each of the four sessions covered distinct and thought-provoking topics, including astronomy beyond the visible spectrum (infrared, ultraviolet, gamma, X-ray, and radio waves), the detection and classification of exoplanets, the study of extremophiles and water on Mars, and a comprehensive look at the cosmological timeline of the universe.

All sessions were conducted in English, and to ensure accessibility and inclusiveness, our local team provided high-quality translations of the presentations into both Kazakh and Russian. Participants expressed deep interest in the search for habitable worlds, the possibility of life beyond Earth, and the engaging way in which these complex subjects were explained by the NASE experts. The course also emphasized practical applications and included activities that teachers could easily replicate in their classrooms, which was highly appreciated.

Feedback collected from participants was overwhelmingly positive, highlighting not only the scientific value of the content but also the clarity, organization, and inspirational tone of the lectures. This course, like previous NASE programs, plays a crucial role in strengthening STEM education in Kazakhstan, especially in regions where access to such international expertise is limited.

We are grateful for this fruitful collaboration with NASE, which continues to raise the level of astronomy education in Kazakhstan. We look forward to continuing this partnership in the future and reaching even more educators with high-quality, internationally supported science programs.

Caravan of Knowledge team