

# Biology (Life Sciences)

## University of Tyumen

Language of study: **English**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **275 000 RUB per year**

Programme webpage at the university website: <https://sas.utmn.ru/en/ba-program-en/#Life-Sciences>

SAS's BA program offers the most international undergraduate education in Russia. It proceeds from a liberal arts and sciences philosophy. Accordingly, in addition to providing specialized majors, our program is designed to mobilize interdisciplinary breadth, critical thinking, communication, and leadership skills.

### What are Life Sciences?

The life sciences are a collection of natural science disciplines that investigate the structure and function of living things at various scales, from molecules to entire ecosystems. These disciplines are unified by a particular way of looking at the world, in which evolutionary principles form a cornerstone. Compared to the physical sciences or to chemistry, the developments in our understanding of Biology have been more recent, and general principles might not yet be widely recognized or sufficiently developed in Biology as they are in these other fields. However, Biology deals with systems of a higher level of complexity, and thus might necessitate a different kind of understanding. In any case, Biology's repercussions on the public sphere are also perhaps deeper and more widespread, e.g. with the serious medical, environmental, ethical and philosophical repercussions that arise from its findings. Tomorrow's biologists will thus undoubtedly play a crucial role in society's development.

### What are Life Sciences at SAS?

The following elements distinguish the Life Sciences program at SAS from traditional biology programs:

- **World issues** . The SAS program teaches biology in light of current environmental and public health issues, such as global warming, environmental pollution, or the diseases of affluence. We believe that biology's particular way of seeing the world can be fruitfully applied to an understanding of the current world problems.
- **Holistic, integrative** . Given that world issues span multiple scales and disciplines, students will be trained to develop a holistic understanding of biology that meaningfully integrates its various scales of inquiry (molecular, cellular, evolutionary, etc.) with each other and with the natural sciences, the social sciences, and the humanities.
- **Emphasis on complex systems and evolutionary principles** . Emphasis is placed on thoroughly understanding the principles governing complex and evolutionary systems and on using this lens to understand and integrate more specific biological topics. For example, what can we infer about genetics or ecology from the study of complex systems, or about physiology from the principles of evolution?
- **Collaborative science** . Addressing world problems requires effective collaborative problem solving.<sup>1</sup>

Students are taught to truly collaborate with other biologists and other disciplines, in light of the recent developments in the field of collaborative science research. A core course is devoted to the topic, and the principles learned are applied in the research projects undertaken in the electives.

Life Sciences at SAS are taught in collaboration with X-Bio Institute for Ecological and Agricultural Biology which will provide our students with the access to their lab infrastructure.

## **Specializations within this programme**