

**Institute for  
Advanced Studies  
in Basic Sciences**



**[www.iasbs.ac.ir](http://www.iasbs.ac.ir)**



# Institute for **A**dvanced **S**tudies in **B**asic **S**ciences (IASBS)

Zanjan, Iran

Founded in 1991, the IASBS is a postgraduate institution dedicated to high-quality education and research in the basic sciences. It offers Master's and Doctoral programmes in a professional, student-centered environment.

The IASBS fosters collaboration with academic institutions and local industry and aims to contribute to the scientific and cultural development of Iran and the wider global community.

Open 24/7 for research, the IASBS is home to students passionate about science. The academic year is divided into three terms, each with ten weeks of instruction and ten days for evaluations.

## **IASBS Facts :**

- Founded in 1991
- 6 Faculty Departments, 3 Research Centers, 3 Science and Technology Park Tenants
- Over 750 Students, over 390 PhD Candidates, over 60 Foreign Students, over 3650 Alumni
- 110 Faculty Members, 80 Administrative Staff
- Close to 3,000 internationally indexed publications (2013–2023)
- Over 45 international Memoranda of Understanding (MoUs)
- Ranked first in International Relations among Iranian universities
- Ranked fifth nationally for Nature Index publications
- An 85-hectare campus located in Gavazang, Zanjan, Iran
- Over 13m<sup>2</sup> per capita student study area
- Over 17m<sup>2</sup> per capita residential spaces for students
- Over 26m<sup>2</sup> per capita space for student education



# IASBS



## Departments

**Department of Biology Sciences**, [iasbs.ac.ir/departments/bio](https://iasbs.ac.ir/departments/bio), [bio.info@iasbs.ac.ir](mailto:bio.info@iasbs.ac.ir)

The Biological Sciences Department was established in 2008, offering MSc and PhD programmes in Biochemistry and Biophysics, which include coursework and research in various labs focusing on Biochemistry, Biophysics, Bacterial Culture, Cell Culture, and Bioinformatics. Research topics pursued include Protein and Nucleic Acid Folding and Stability, Protein Aggregation and Amyloid Formation, Enzyme Research, Antibacterial Peptides, Biological Membranes, Drug Design, Drug–DNA Interaction, Photoproteins, Recombinant Vaccines, Radiation Therapy of Cancer Cells, Stem Cells, Organoid Technology, Mathematical Modelling of Biological Processes, and Magneto-tactic Bacteria.

**Department of Chemistry**, [iasbs.ac.ir/departments/chemistry](https://iasbs.ac.ir/departments/chemistry), [chem.info@iasbs.ac.ir](mailto:chem.info@iasbs.ac.ir)

The Department of Chemistry was established in autumn 1999, initially offering courses in Analytical and Organic Chemistry. The first PhD students began their studies in winter 2005. Currently, the department is active in six disciplines: Organic, Analytical, Physical, Inorganic, Nanochemistry, and Polymer Chemistry.

**Department of Computer Science and Information Technology**, [iasbs.ac.ir/departments/itcs](https://iasbs.ac.ir/departments/itcs), [itcs.info@iasbs.ac.ir](mailto:itcs.info@iasbs.ac.ir)

Established in 2003, the Department of Computer Science and Information Technology focuses on novel, fundamental, and applied academic topics of world-class quality, with national and international applications. Its students' technical and scientific competence matches that of their peers at the world's top universities, thanks to the dedication of the faculty and staff, which contributes to alumni success in both industry and academia.

**Department of Earth Sciences**, [iasbs.ac.ir/departments/earth](https://iasbs.ac.ir/departments/earth), [earth.info@iasbs.ac.ir](mailto:earth.info@iasbs.ac.ir)

The Department of Earth Sciences, with almost two decades of activity, is one of the youngest departments at the IASBS. It focuses on Geophysics, Tectonics, Petrology, Sedimentology and Sedimentary Rocks, Hydrogeology, and Geological Remote Sensing, while also engaging in interdisciplinary research and offering postgraduate training.

**Department of Mathematics**, [iasbs.ac.ir/departments/math](https://iasbs.ac.ir/departments/math), [math.info@iasbs.ac.ir](mailto:math.info@iasbs.ac.ir)

Established in 1994, the Department of Mathematics offers MSc and PhD programmes. Its active research groups focus on Algebra, Analysis, Geometry, Graph Theory, Computer Science, and Financial Mathematics. The department has hosted various international and national workshops, attracting renowned mathematicians, and participates in exchange programmes with the Abdus-Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy. Faculty members have published numerous scientific papers in international journals and conference proceedings.

**Department of Physics**, [iasbs.ac.ir/departments/physics](https://iasbs.ac.ir/departments/physics), [phys.info@iasbs.ac.ir](mailto:phys.info@iasbs.ac.ir)

The Department of Physics, comprising 36 faculty members and over 360 postgraduate students, excels in diverse research fields. Its activities have led to numerous patents that address national needs, and publications in prestigious journals like Nature and Physical Review Letters. Key research areas include different phases of soft and hard matter, classical and quantum optics, cosmology, and the physics of galaxies. The department has produced over 700 MSc and PhD graduates, many of whom continue their studies or work at esteemed institutions, reflecting the high standard of education and research at the IASBS.

## Centers

### **Torkaman Library, [iasbs.ac.ir/library](http://iasbs.ac.ir/library)**

Established in 1993 with the support of a well-known Iranian benefactor, the late Mohammad-Naghi Torkaman, the Torkaman Library offers a wide range of academic and general reference materials, including professional books, bilingual dictionaries, and encyclopaedias. All items are catalogued and indexed using the Library of Congress classification system. Faculty can borrow up to six volumes for one month, while students may borrow four volumes for two weeks, with one extension available.

Opening Hours:

- Saturday to Wednesday: 08:00 – 22:00
- Thursday: 08:00 – 20:00

### **IASBS Science and Technology Park, [technopark.ir](http://technopark.ir)**

The Science and Technology Park aims to enhance local businesses' competitive edge by advancing technology in regional industries. It seeks to foster knowledge-based companies and promote the use of innovative technologies developed locally. The park aspires to be a recognised centre for innovation and technological advancement within the province, and significantly contribute to regional development while serving as a vital link between academia and industry.

### **Research Center for Basic Sciences and Modern Technologies (RBST), [iasbs.ac.ir/sections/rbst](http://iasbs.ac.ir/sections/rbst)**

Established in 2003, the Research Centre for Basic Sciences and Modern Technologies supports and promotes interdisciplinary research through four groups:

1. Biophysics and Biochemistry Group
2. Nanomaterials Group
3. Mathematical Modelling Group
4. Green Chemistry Group

These groups work on innovative projects with practical applications. The RBST aims to enhance collaboration between the university and industry by facilitating joint research and knowledge transfer, while also developing advanced laboratory infrastructure. As an initial step in this direction, a high-performance computing laboratory has been established to support interdisciplinary research.

### **Center for Research in Climate Change and Global Warming (CRCC), [iasbs.ac.ir/sections/crcc](http://iasbs.ac.ir/sections/crcc)**

Established in autumn 2012, the Centre for Research in Climate Change and Global Warming coordinates and supports climate and environment activities by IASBS scientists and across Zanjan Province. After achieving this initial goal, the centre aims to define and implement climate-focused research projects and develop relevant research facilities. The CRCC operates under the IASBS and is supported by the Ministry of Science, Research, and Technology's Research Department.

### **The Language Teaching Section (LTS), [iasbs.ac.ir/sections/els](http://iasbs.ac.ir/sections/els)**

The Language Teaching Section aims to equip students with essential English skills for their academic studies and research. It focuses on enhancing their ability to present research, write basic academic emails, strengthen grammar, and expand their academic vocabulary. Courses and support programmes are designed to improve academic English and boost confidence in its use in academic settings.

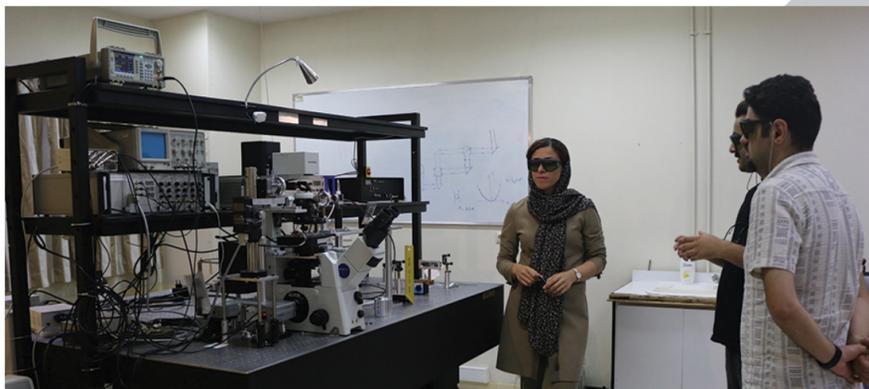
### **The Science House, [science-house-iasbs.ir](http://science-house-iasbs.ir)**

The IASBS Science House promotes the basic sciences and engages with the public, especially school students. Its main aim is to provide a platform for talented individuals to pursue university-level education in the basic sciences through various outreach activities. The Science House organises science classes, competitions, festivals, multi-day schools, science cinema events, and camps featuring visits to the Wonders of Science exhibition. It is a member of the Council of Iranian Mathematics Houses and hosts various programmes and competitions of the Council in Zanjan Province.

### **International Affairs, [iasbs.ac.ir/sections/international](http://iasbs.ac.ir/sections/international)**

The IASBS has gained international recognition for its academic contributions and collaborations. It was honoured by the Islamic Development Bank for its significant contribution to its scientific discipline and named an Emerging Regional Centre of Excellence by the European Mathematical Society. The IASBS maintains active educational and research collaborations with various international institutions including:

- The Abdus-Salam International Centre for Theoretical Physics (ICTP), Italy
- École Polytechnique, Paris-Saclay University, France
- RWTH Aachen University, Germany
- Biophysical Society, the United States
- Centre International de Mathématiques Pures et Appliquées (CIMPA)



# Institute for Advanced Studies in Basic Sciences (IASBS)

# IASBS



## Dining

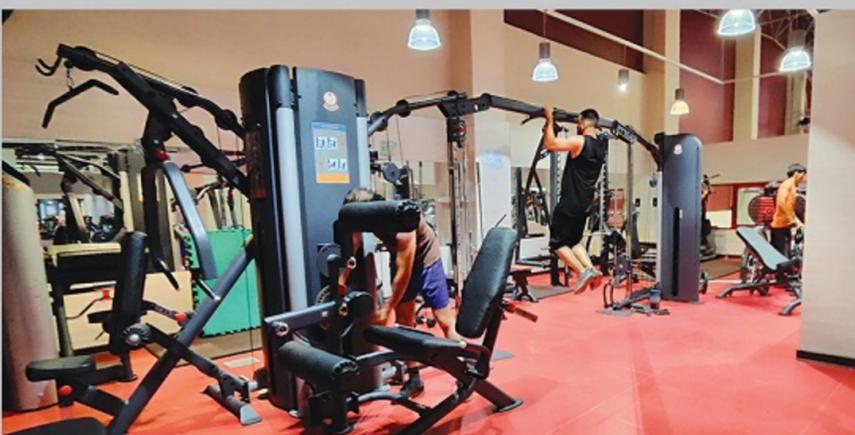
The IASBS self-service cafeteria, established in December 2007 through the generosity of the late Hassan Najafi, accommodates up to 340 people. The monthly-reviewed food plan allows meal reservations through the campus automation system, serving about 750 lunches and 450 dinners daily. A coffee shop within the dining hall offers a variety of hot and cold beverages, including various teas and coffees, at reasonable prices.

## Accommodation

The male dormitories are in the southern part of the campus, housing students in four-person suites, while the female dormitories in the north offer two- or four-person rooms. All accommodations come with essential facilities. Each wing shares a kitchen, refrigerator, vacuum cleaner, toilet, and bathroom, along with a communal study room. Rooms are carpeted but can be customised, and each is furnished with desks, chairs, beds, and wardrobes for the occupants. Common amenities include a television room and laundry facilities. A guest house, four kilometres from campus, is available for visiting family members. Concierge services operate 24 hours a day, with accommodation fees set at \$50 per term or \$200 per year.

## Sport and Recreation

The IASBS sports facilities include two gymnasiums: an old one and a newly built, fully equipped gym featuring modern amenities and professional sports equipment. They are managed by the Office of the Vice President for Student and Cultural Affairs, which organises exercise programmes, competitions, and sporting activities for students and staff. Facilities are available for aerobics, fitness, bodybuilding, and various team sports. Regular training sessions are held for volleyball, basketball, futsal, aerobics, and bodybuilding, with seasonal futsal matches and participation in provincial tournaments, selecting athletes for national sports Olympiads. Sports insurance is provided for all university students throughout the year.



# Subject of Study

Department	Subject	Field	MSc	PhD
Biological Sciences	Cellular and Molecular Biology	Biophysics	✓	
		Biochemistry	✓	✓
Chemistry	Chemistry	Chemical Physics	✓	✓
		Organic Chemistry	✓	✓
		Analytical Chemistry	✓	✓
		Mineral Chemistry	✓	✓
		Polymer Chemistry	✓	✓
		Nano Chemistry	✓	
Computer Science and Information Technology	Computer Engineering	Artificial Intelligence and Robotics	✓	
	Computer Science	Internet of Things	✓	
		Data Mining	✓	
		Systems Theory	✓	
Earth Sciences	Geophysics	Tectonics and Structural Geology	✓	
		Sedimentary and Sedimentary Rocks	✓	
		Geological Remote Sensing	✓	
		Hydrogeology	✓	
	Geology	Exploration Seismology	✓	
		Seismology	✓	✓
		Gravimetry		✓
Mathematics	Applied Mathematics	Numerical Analysis	✓	
		Optimization	✓	
		Financial Mathematics	✓	
		Cryptography and Coding	✓	
	Pure Mathematics	Scientific Computing	✓	
	Mathematics and Applications	Algebra	✓	✓
		Analysis	✓	✓
		Geometry and Topology	✓	✓
		Graph Theory and Combinatorics	✓	
	Mathematics	Applied Mathematics		✓
Physics	Physics	Condensed Matter	✓	✓
		Astronomy and Astrophysics	✓	✓
		Gravitation and Cosmology	✓	
		Optics and Lasers	✓	✓
		Nanophysics	✓	
		Photonics	✓	



# Institute for Advanced Studies in Basic Sciences (IASBS)

Zanjan, Iran

## University Degrees

As a specialised centre, this university is active solely in the basic sciences and offers programmes at the Master's and Doctoral levels. The academic degrees offered by the IASBS are as follows:

### Master's Degree

- o The Master's degree takes two years and consists of 10 to 12 courses in the first year, followed by the submission and defence of a thesis project in the second year.
- o Applicants holding a Bachelor's degree in related fields are eligible to apply.

### PhD Degree

- o The Doctoral degree is a four-year programme that includes the completion of at least six courses and the submission and defence of a dissertation, the results of which are expected to be published in prestigious international journals.
- o Applicants holding a Master's degree in related fields are eligible to apply.

### Tuition and dormitory fees for international students

- o Students with ranks 1-3 in their first season at IASBS will receive up to 50% discount in tuition fees.
- o Students may receive of Sobouti Foundation's scholarship.

	Per Season	Per Year
<b>Tuition fees</b>	<b>USD 400</b>	<b>USD 1200</b>
<b>Dormitories</b>	<b>USD 50</b>	<b>USD 150</b>

- o Tuition fees also cover student insurance.
- o Dormitories fee MSc and PhD students are fully equipped suites for four.

### Required Documents

- o Academic degree
- o Transcripts
- o Copy of first page of Passport
- o Curriculum vitae (CV)
- o Application form (or filling online)



**IASBS**



**Institute for Advanced Studies  
in Basic Sciences (IASBS)  
Office for Scientific and  
International Collaboration (OSIC)**

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