

# Examination Schedule

## April 2023 Admission

| Type of Examination  | Application Period<br>(The application must be postmarked within the period)   |                                  | Examination Period<br>(The designated one day of the following period) | Date of Notification of Admission Decision |
|--|--|----------------------------------|--|--|
| Regular Examination  | First Examination  | June 20 – 30, 2022               | August 17 - 26, 2022<br>(except Sat., Sun. and etc.)                   | September 6, 2022                          |
|  | Second Examination   | October 25<br>– November 8, 2022 | December 12 - 22, 2022<br>(except Sat., Sun. and etc.)                 | January 20, 2023                           |
| Examination for Admission on Recommendation for Overseas Residents | ( Submission deadline for pre-check: )<br>November 17, 2022<br>-----<br>Application period:<br>November 9 - December 1, 2022 |                                  | Documentary screening  | January 20, 2023                           |

Note: Applicants who do not possess a master's or professional degree may be required to pass through the Judgment of Eligibility prior to applying. For details, please refer to the instructions for each type of examination.

# Important notices for applicants to the Division of Transdisciplinary Sciences

The Division of Transdisciplinary Sciences is offered jointly with Kanazawa University. The applicants should be aware of the following:

- Students will enroll in the university to which their supervisor (the dedicated supervisor who primarily provides research instructions) belongs. They will receive instructions from the supervisor of the university to which they belong, and from other instructors, including the vice supervisor at the other university. Students belonging to Japan Advanced Institute of Science and Technology (hereafter JAIST) will have as the supervisor one of the instructors listed on p.4 “Supervisor”.
- Those who have completed the required curriculum at JAIST will be awarded a “Doctor of Philosophy”, “Doctor of Philosophy in Science” or “Doctor of Philosophy in Engineering” jointly by JAIST and Kanazawa University. As a requirement for the program, students must participate in a lab rotation project at Kanazawa University. Students enrolled in Doctoral Program must earn at least 10 credit units at Kanazawa University.
- For classes offered by Kanazawa University, students, in principle, must attend the Kanazawa University campus. However, we have adopted a mechanism to help reduce commuting by using a distance-learning media platform to deliver lectures and by holding intensive lectures.
- Students belonging to JAIST may use Kanazawa University facilities, such as a library. However, there may be certain restrictions placed on the use of some facilities.
- As for an application and examination, applicants must send an application to the University where the supervisor under whom they wish to study belongs. They will take an entrance examination of that university and enroll in that university. If they apply to JAIST, take an examination, and enroll, the tuition must be paid to JAIST. Other procedures, such as scholarship applications, must also go through the University, to which the students belong.
- The Division of Transdisciplinary Sciences is a single program operated by two constituent universities. For this reason, if applicants have completed the admission procedure of one of the universities, they cannot enroll in the other university even if they pass an entrance examination of the other university.
- Division of Transdisciplinary Sciences Scholarship (Benefit type, no repayment required)  
Division of Transdisciplinary Sciences Scholarship is for applicants who pass the Examination with a high achievement.

Benefit: 100,000 yen per month for 3 years

\*The result for this scholarship will be announced with the result of admission decision at the same time.

# Human Resource Development

Doctoral human resources that are capable of creating a foundation of innovative science and technology based on unique ideas and outstanding research ability and applying it to the society according to the needs and trends of the global society.

## Admission Policy

The doctoral program accepts applicants who have a strong desire to actively create new and advanced values for the development of society. In addition to utilizing the specialized knowledge acquired in the master's program, they are expected to draw on their multifaceted reasoning skills to engage in concerted activities with others to play an active role in a global society. They will be called upon to identify and solve various complex problems through transdisciplinary sciences.

## Diploma Policy

In the doctoral course, students are required to acquire the 1-5 and 6 or 1-5 and 7 abilities and competences listed in the "academic achievement" below through the pursuit and practice of a "Methodology for Transdisciplinary Science" based on the four forces listed as the educational philosophy. The doctoral degree is conferred on students who have mastered these competencies, enrolled in the program for a specified period of time, earned the specified number of credits, and then have passed the Doctoral Dissertation Examination. Among the students mentioned above, those who have acquired the 1-5 and 6 are conferred a doctoral degree "Doctor of Philosophy" and those who have acquired 1-5 and 7 are conferred doctoral degree "Doctor of Philosophy in Science" or "Doctor of Philosophy in Engineering".

1. Ability to identify, structure and solve the social problems related to science, technology and innovation.
2. Cutting-edge knowledge and practical skills related to your discipline.
3. Ability to utilize knowledge and technology of other disciplines for your discipline.
4. Ability to present and discuss your research in foreign language in an international conference or a joint research in overseas.
5. Practical research ethics of science, technology and life.
6. Ability to integrate your discipline with other disciplines and create new knowledge.
7. Ability to create new knowledge based on your discipline.

# Supervisor

- **AOKI Toshiaki** /Professor  
[Research areas] Software engineering, Software science  
[Keywords] Formal methods, Formal verification, Testing, Model checking, Theorem proving, Automotive systems, Safety critical systems
  
- **IKEDA Kokolo** /Professor  
[Research areas] Game Informatics, Machine Learning  
[Keywords] Computer Game Player, Entertainment, Education, Procedural Content Generation, Reinforcement Learning, Genetic Algorithm, Monte-Carlo Tree Search
  
- **KOYANO Mikio** /Professor  
[Research areas] Develop next-generation energy conversion using thermoelectric technology, Condensed matter physics  
[Keywords] Thermoelectrics, DFT calculation, Waste-heat recovery, Energy harvesting, Low-dimensional materials
  
- **HAYASHI Yukio** /Professor  
[Research areas] Complex Network Science  
[Keywords] Network Science, Wireless Communication, Fractal Statistical Physics, Algorithm, Optimization, Biological Mechanism, SNS, Influencer
  
- **MATSUMI Noriyoshi** /Professor  
[Research areas] Creation of Energy Related Materials  
[Keywords] Lithium ion secondary batteries, Metal-air batteries, Electrocatalysis (oxygen reduction, photo-electrochemical water splitting), Solid polymer electrolytes, Ionic liquids, Organoboron compounds/materials
  
- **YUIZONO Takaya** /Professor  
[Research areas] Collaboration Technology, CSCW, Creativity, Knowledge Science  
[Keywords] Creativity Support, Community Support, Intercultural Collaboration, Interaction Design, Content Co-creation, Social Media
  
- **TSUTSUI Hidekazu** /Associate Professor  
[Research areas] biophysics, neurophysiology, molecular & cell biology, bioengineering  
[Keywords] neuron, synapse, molecular sensor, next generation electrophysiology, bio-imaging
  
- **NISHIMURA Shun** /Associate Professor  
[Research areas] Catalyst chemistry, Solid catalyst, Alloy catalyst, Biomass transformation  
[Keywords] New energy sources, Metal nanoparticle, Solid acid/base catalyst, Catalyst design, Mechanistic study