

**October 2022**

**School of Physical Sciences  
The Graduate University for Advanced Studies, SOKENDAI  
Application Guidelines**

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The Application Guideline (PDF) and a booklet of application forms are required to initiate an application.  
Please contact the address below to ask for a booklet or any further information.

**Please make sure to confirm the changes of application guideline in each department due to COVID-19: <https://www.soken.ac.jp/news/6567/>**

[Contact Information]

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The Graduate University for Advanced Studies, SOKENDAI  
Shonan Village, Hayama, Miura, Kanagawa 240-0193 JAPAN  
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The following Application Guidelines in English are provided for the purpose of non-Japanese Applicants' convenience only. In the event of any inconsistency between the Japanese Application Guidelines and the English version, the Japanese version shall prevail.

## I . Admission Policy

### **Department of Structural Molecular Science**

< Basic Policy>

The Department of Structural Molecular Science conducts education and research aimed at elucidating the static and dynamic properties of matter at a molecular level, based on structural analyses of molecules and molecular aggregates. The Department aims to nurture researchers with broad perspectives and world-class abilities to lead the next generation of molecular science research.

< Student>

The Department seeks students who are strongly interested in structural molecular science, are willing to develop their intellect and sensibilities throughout their educational and research activities in the Department, and can lead the next generation of molecular science research.

<Basic standard of selection method>

(Five-year doctoral program)

- 1) The Department selects applicants who are appropriate in light of the basic policy of the Department of Structural Molecular Science.
- 2) The Department requires applicants to attend a written examination, which focuses on their basic scholastic and linguistic abilities, with respect to the relevant specialized fields.
- 3) The Department requires applicants to attend an interview, which focuses on their motivation and logical thinking abilities.

(Third-year applicants)

- 1) The Department selects applicants who are appropriate in light of the basic policy of the Department of Structural Molecular Science.
- 2) The Department requires applicants to attend an interview, which focuses on their scholastic ability, motivation, and logical thinking abilities.

### **Department of Functional Molecular Science**

<Basic Policy>

The Department of Functional Molecular Science conducts education and research aimed at elucidating the functional expressions of molecules and molecular aggregates at a molecular level and establishing guidelines for novel functional molecular designs. The Department aims to nurture researchers with broad perspectives and world-class abilities to lead the next generation of molecular science research.

<Student>

The Department seeks students who are strongly interested in structural molecular science, are willing to develop their intellect and sensibilities throughout their educational and research activities in the Department, and can lead the next generation of molecular science research.

<Basic standard of selection method>

(Five-year doctoral program)

- 1) The Department selects applicants who are appropriate in light of the basic policy of the Department of Functional Molecular Science.
- 2) The Department requires applicants to attend a written examination, which focuses on their basic scholastic and linguistic abilities, with respect to the relevant specialized fields.
- 3) The Department requires applicants to attend an interview, which focuses on their motivation and logical thinking abilities.

(Third-year applicants)

- 1) The Department selects applicants who are appropriate in light of the basic policy of the Department of Functional Molecular Science.
- 2) The Department requires applicants to attend an interview, which focuses on their scholastic ability, motivation, and logical thinking abilities.

### **Department of Astronomical Science**

<Basic Policy>

The Department of Astronomical Science aims to nurture individuals who can contribute to society, that is, researchers who can engage in world-leading research, experts who can develop cutting-edge technologies, and individuals who use their high-level expert knowledge to promote science.

<Student>

The Department seeks students with a strong interest in astronomy and the universe, as well as passion for unraveling scientific questions through theoretical and observational research and research on the development of new observational instruments, and students who have not only basic academic skills but also the necessary logical and creative aptitude for advanced research.

<Basic standard of selection method>

(Five-year doctoral program)

1. The Department selects applicants who are appropriate in light of its basic policy.
2. In forming a judgment, the Department considers comprehensively factors, such as the applicant's basic knowledge and understanding of physics, mathematics, and other relevant subjects, their English language proficiency, logical rigor, originality, motivation to conduct research, and prospects.

(Three-year doctoral program)

1. The Department selects applicants who are appropriate in light of its basic policy.
2. The Department examines whether the applicant is strongly interested in issues concerning astronomical science, and whether they are capable of attaining the doctorate within the specified timeframe.
3. In forming a judgment, the Department considers comprehensively factors such as the applicant's basic knowledge and understanding of astronomy and the physical sciences, their ability to communicate their own research, motivation to conduct research, prospects, and English language proficiency.
4. Applicants who do not have a background in astronomy will be selected if they are determined to have the

potential to contribute to research in fields related to astronomical science.

### **Department of Fusion Science**

<Basic Policy>

The Department of Fusion Science conducts experimental research on high-temperature plasmas, using large fusion experimental devices, and various engineering research necessary for fusion reactors with a view to realizing nuclear fusion power generation that can provide a next-generation energy source. The Department also provides instruction on a theoretical inquiry into the complex behavior of high-temperature plasmas. In this way, the Department aims to contribute to the advancement of fusion research and nurture high-level researchers with discernment and broad perspectives.

<Student>

The Department seeks students who are strongly interested in and passionate about a broad range of research, ranging from the basic analyses to the applications, which is aimed at the achievement of fusion power generation; and have formidable intellect, abundant sensibilities, and the potential to develop into high-level researchers with discernment and broad perspectives.

<Basic standard of selection method>

(Five-year doctoral program)

- 1) The Department conducts a written examination and an interview in the admission selection to seek the students who are appropriate according to both the philosophy of the School of Physical Science and the basic policy of the Department of Fusion Science.
- 2) In the written examination, the proficiency in English and the basic knowledge and comprehension in mathematics, physics, and engineering of the applicants are examined.
- 3) In the interview, various latent abilities of the applicants such as individuality, talent, aptitude, and motivation to research are examined through questions and answers.

(Three-year doctoral program)

- 1) The department conducts a written examination and an interview in the admission selection to seek the students who are appropriate according to both the philosophy of the School of Physical Science and the basic policy of the Department of Fusion Science.
- 2) In the written examination, the applicants are required to compose an English essay. Proficiency in English and logical expressiveness are examined.
- 3) In the interview, the applicants are required to present their research performed prior to this selection and to answer questions. Skill in the communication of scientific results and prospects as a researcher in addition to various latent abilities of the applicants such as individuality, talent, aptitude, and motivation to research are examined.

### **Department of Space and Astronautical Science**

<Basic Policy>

The Department of Space and Astronautical Science conducts multidisciplinary education and research in space

science using space vehicles or in space engineering for the research and development of space technologies. The Department aims to cultivate individuals with a high level of expertise, broad perspectives and international proficiency to act as researchers forging the future of space science and related technologies and to contribute to the development and application of astronautical science as a whole.

<Student>

The Department seeks students with a strong interest in space science using space vehicles or space engineering for the research and development of space technologies; with fundamental academic skills as well as logical thinking and application abilities necessary to solve problems; and with the autonomy and communication skills necessary to collaborate and learn in international research environments.

<Basic standard of selection method>

Applicants will be assessed comprehensively and selected based on the evaluation results of application materials (including English exam results), written examinations (mathematics and physics) and an interview. (Students of the 3-year doctoral program are exempt from the written examinations.) Particular consideration will be given to the following:

- Whether the student has the fundamental academic skills necessary for conducting research will be comprehensively confirmed through the application materials, written examinations and interview.
- The student has a strong interest and vigorous inquiring mind in space science using space vehicles or space engineering for the research and development of space technologies.
- The student possesses the fundamental academic skills as well as logical thinking and application abilities necessary to solve problems and acquire cutting-edge expertise.
- The student possesses the autonomy and communication skills necessary to collaborate and learn in international research environments.
- The student will advance research with a high sense of ethics and is strongly aware of its contributions to society.

## II . Outline: School of Physical Sciences

SOKENDAI (The Graduate University of Advanced Studies) is a national university that has a five-year doctoral program and accepts only the students who aim to obtain a doctoral degree. Those who hold a Master's degree may be enrolled in the third year of the five-year doctoral program (which can be considered as "three-year doctoral program").

The School of Physical Sciences includes five departments: Department of Structural Molecular Science, Department of Functional Molecular Science, Department of Astronomical Science, Department of Fusion Science, and Department of Space and Astronautical Science. We conduct advanced educational research on the basis of common principle that rules the nature of the universe from the cosmological (ultimately macroscopic) to the elementary particle (ultimately microscopic) scale. We capture the essence of the nature in terms of energy and matter based on physics, chemistry and astronomy, and unravel the dynamic transition of nuclear, atoms, molecules, and astronomical objects, through development of new-generation equipment and methodology.

In the education of the graduate students, we fully utilize the large-scale and/or unique equipment that are accommodated in four Inter-university Research Institute (IURIs: the Institute for Molecular Science, the National Astronomical Observatory of Japan, the National Institute for Fusion Science, and the Institute for Space and Astronautical Science). These Institutes are open to many leading scientists of the world in respective fields. Students can enjoy this ideal research environment to become internationally competitive researchers with exceptional professional expertise and broad perspectives.

In the School, five departments cooperate to offer classes of "Common Subjects of the School (Common Specialized Basic Subjects of the School of Physical Sciences and Comprehensive Subjects)", while each department offers "Special Subjects". The "Common Subjects of the school" are mainly offered in an intensive-course style to overcome the constraints due to the geographical separation of the departments, using each IURI's accommodation facility.

### **Department of Structural Molecular Science**

Education and research are primarily concerned with a systematic unveiling of the static and dynamic properties of materials through real images of molecules and molecular assemblies deduced from detailed structural analyses. Advanced training and research are conducted in the field of structural molecular science with the use of new methods for detecting and analyzing dynamic structures, in addition to a variety of traditional spectroscopic and theoretical techniques for structural analysis.

### **Department of Functional Molecular Science**

Education and research are primarily directed towards, firstly unveiling the underlying mechanisms of various functions of materials at the atomic or molecular level, and secondly the design and generation of new functional properties of molecules and molecular assemblies. Advanced training and research are conducted in the field

of functional molecular science with an emphasis on the development of modern techniques for functional analysis and novel theoretical approaches.

### **Department of Astronomical Science**

Department of Astronomical Science conducts advanced education and research based on observational and theoretical research activities exploiting state-of-the-art optical and radio telescopes.

The department also pursues cutting-edge technologies and their astronomical applications, design, fabrication and testing of new observational instruments, and development of new methods of data acquisition and analysis.

### **Department of Fusion Science**

The Department of Fusion Science is intended to provide graduate education for students interested in experimental and theoretical/simulation researches related to nuclear fusion science. For experimental research students will learn about the fusion plasma physics and a wide range of the latest technologies needed for the development of fusion reactors. For theoretical/simulation research students will be guided to use a super-computer in order to understand the physics of a variety of processes taking place in plasmas.

### **Department of Space and Astronautical Science**

Distinctive feature of the Department is to provide students with comprehensive research education for the advanced space engineering and space science (space observation/space exploration) which is supported by the space engineering. Furthermore, through participation in the most advanced large-scale project-type research in the world, it is possible for students to acquire planning and proposal capability for the most advanced science satellite projects in addition to rich knowledge on space science and engineering.

### **Degree Requirements**

Doctor of Philosophy shall be conferred to students who have satisfied the requirements of their respective program as prescribed below.

#### **Five-year doctoral program**

Students must be enrolled in SOKENDAI for at least five years; additionally, they must earn the necessary credits, receive necessary research guidance, and pass the examination for a doctoral thesis. Students who are recognized as having achieved significant progress may be able to graduate within a shorter time frame.

#### **Three-year doctoral program**

Students must be enrolled in SOKENDAI for at least three years; additionally, they must earn the necessary credits, receive necessary research guidance, and pass the examination for a doctoral thesis. Students who are recognized as having achieved significant progress may be able to graduate within a shorter time frame.

### III. Five-year Doctoral Program: Application Procedures and Important Notes

#### 1 Number of Students Accepted

Department	Division	Number of Students Accepted
		October Admission
Structural Molecular Science	Electronic Structure Area, Material Chemistry Area	
Functional Molecular Science	Molecular Dynamics Area, Excited State Dynamics Area	
Astronomical Science	Optical and Infrared Astronomy area, Radio Astronomy area, General Astronomy and Astrophysics	
Fusion Science	Division of Fusion System, Division of Fusion Simulation	A few
Space and Astronautical Science	Science and Engineering for Space Exploration, Space Observation Science Using Satellite and Space Exploration Vehicles, Space Technologies	A few
Total		—

#### 2 Qualifications for Application

Applicants must fulfill one of the following conditions

##### Applicants who are not required to have qualification screening;

- (1) Applicants who have graduated or are expected to graduate from a Japanese university specified in Article 83 of the School Education Law by the preceding month of enrollment.
- (2) Applicants on whom a Bachelor's degree has been conferred or are expected to be conferred by the preceding month of enrollment in accordance with Article 104, Paragraph 4 of the School Educational Law.  
\*1
- (3) Applicants who have completed or are expected to complete 16-year course of school education in a foreign country by the preceding month of enrollment.
- (4) Applicants who have completed or are expected to complete 16-year course of school education in a foreign country by taking the correspondence courses provided by a school in said foreign country while residing in Japan by the preceding month of enrollment.
- (5) Applicants who have completed or are expected to complete a program in an educational institute in Japan designated separately by the Minister of Education, Culture, Sports, Science and Technology, that provides programs of a foreign university within the 16-year school education of said foreign country, by the preceding month of the enrollment. This applies solely to those who have completed 16-year program of school education in said foreign country.
- (6) Applicants who have been conferred or are expected to be conferred a degree equivalent to a Bachelor's degree by the preceding month of enrollment by completing an educational course of three or more years in a foreign university or in a foreign educational institute; which shall be evaluated by an organization approved by a relevant official institution in the country for their education and research activities, or recognized as so by the Minister of Education, Culture, Sports, Science and Technology. The course shall include a correspondence course which enables students to study in Japan by a university or an

educational institute which is approved by the educational system of the country and satisfy the above requirements.

- (7) Applicants who have completed or are expected to complete the specialized course of a vocational school designated separately by the Minister of Education, Culture, Sports, Science and Technology in accordance with Enforcement Regulation of the School Education Law, Article 155, paragraph 1, item 5 (limited to programs for which the term of study is four years or more, and which satisfies the standards determined by the Minister of Education, Culture, Sports, Science and Technology) on or after the date determined by the Minister of Education, Culture, Sports, Science and Technology, or by the preceding month of enrollment.
- (8) Applicants who are designated by the Minister of Education, Culture, Sports, Science and Technology in accordance with Enforcement Regulation of the School Education Law, Article 155, paragraph 1, item 6 (i.e., Ministry of Education Notification number 5, 1953) \*2

**Applicants who are required to have qualification screening before the general application can be submitted;**

- (9) Applicants who fulfill any of the following provisions (a) to (c) below, and have been recognized by SOKENDAI as having acquired the specified credits with excellent results; (Note)
  - (a) Applicants who have completed 15-year course of school education in a foreign country by the end of preceding month of enrollment,
  - (b) Applicants who have completed 15-year course of school education in a foreign country by taking the correspondence courses provided by a school in said foreign country while residing in Japan,
  - (c) Applicants who have completed or are expected to complete a program in an educational institute in Japan designated separately by the Minister of Education, Culture, Sports, Science and Technology, that provides courses of a foreign university within the 15-year school education of said foreign country, by the preceding month of the enrollment. This applies solely to those who have completed 15-year course of school education in said foreign country.
- (10) Applicants who have been or will have been enrolled in a Japanese university specified in Article 83 of the School Education Law for at least three years by the end of preceding month of enrollment, and have been recognized by SOKENDAI as having acquired the specified credits of said university with excellent results. (Note)
- (11) Applicants who have entered a graduate school other than SOKENDAI in accordance with the Article 102, paragraph 2 of the School Education Law, and have been recognized by SOKENDAI as having the appropriate academic ability to follow the content of graduate coursework. (Note)
- (12) Applicants who have been recognized as having academic ability equivalent to a university graduate or higher by the individual screening of Admission Qualifications of SOKENDAI, and attain the age of 22 by the end of preceding month of enrollment. (Note) \*3

\*1 Applicants to whom the provision (2) above applies are those on whom a Bachelor's degree has been conferred or is expected to be conferred by National Institute for Academic Degrees and Quality Enhancement of Higher Education (formerly, National Institution for Academic Degrees and University Evaluation).

\*2 Applicants to whom the provision (8) above applies are those who have graduated or are expected to

graduate from a university under Old University Ordinances, or Daigakko under orders for organization and acts of establishment of government ministries or agencies.

\*3 Applicants to whom the provision (12) above applies are those who have graduated or are expected to graduate from junior college, technical college, vocational school, other schools, Japan campus of foreign university, foreigners' school in Japan and other educational institutes, and who have been recognized by SOKENDAI as having academic ability equivalent to a university graduate or higher by individual screening.

If you have any questions regarding the qualification for admission, please contact the Student Affairs Section (E-mail: [gakusei@ml.soken.ac.jp](mailto:gakusei@ml.soken.ac.jp) ) in advance.

### 3 Qualification Screening for Application

Applicants who intend to apply under the provisions (9), (10), (11) or (12) in section 2 are required to submit the following documents to the Student Affairs Section by the designated deadline. Application documents shall be withheld until the qualification screening is completed.

#### (1) Documents required for screening

(a) Application for Certifying Applicant's Qualification (Attached **Form 7-1**)

(b) Application documents (as described in section 5 below)

Examination fee, however, should be paid after application qualification is approved.

(c) Other documents required by each Department. For details, please refer to each Department.

(a), (b) and (c) above must be submitted all together.

#### (2) Application Period for Qualification Screening

Department	Application Period
	October 2022 Admission
Fusion Science	June 13 (Monday) to June 16 (Thursday), 2022
Space and Astronautical Science	June 13 (Monday) to June 16 (Thursday), 2022

\*Dep. of Structural Molecular Science, Functional Molecular Science and Astronomical Science accepts only April 2023 Admission.

The application must arrive no later than the last day of the application period without fail.

It must be received during 09 : 00~12 : 00, 13 : 00~17 : 00 on weekdays of the application period.

#### (3) Procedure for Qualification Screening

The complete set of application documents should be submitted by registered express mail. Applicants should write "Application Documents and Application for certifying Applicant's Qualification Enclosed" in red ink on the face of the envelope.

#### (4) Result of Qualification Screening for Application

The result of Qualification Screening for Application shall be notified prior to the application period.

Applicants who have been approved by the screening should send in the payment for the examination fee in accordance with **Form 8**. After remittance is completed, please submit **Form 8** on which the remittance receipt is attached.

#### 4 Application Procedure

##### (1) Application Period

Department	Application Period
	October 2022 Admission
Fusion Science	July 7 (Thursday) to July 13 (Wednesday), 2022
Space and Astronautical Science	July 7 (Thursday) to July 13 (Wednesday), 2022

\*Dep. of Structural Molecular Science, Functional Molecular Science and Astronomical Science accepts only April 2023 Admission.

The application must arrive no later than the last day of the application period without fail.

It must be received during 09 : 00~12 : 00, 13 : 00~17 : 00 on weekdays of the application period.

##### (2) Application Method

**The complete set of application documents should be submitted by registered express mail in principle to the following address:**

<Mailing address>

Student Affairs Section, Academic and Student Affairs Division  
 The Graduate University for Advanced Studies, SOKENDAI  
 Shonan Village, Hayama, Miura, Kanagawa 240-0193 JAPAN  
 Telephone number +81-46-858-1525/1526

The application must reach SOKENDAI no later than the last day of the application period. Please note that application documents will not be accepted by any Parent Institute or Department office.

#### 5 Application Documents

Please read through the “Important Notes” and V.Common specialized Basic Subjects of the School Physical Sciences, Outlines of Courses Provided by School of Physical Sciences, and Faculty members beforehand. Also, the application documents must fill in the application forms with black or blue pen without erasable pen.

##### (1) Application form and admission ticket for the examination (**Form 1**)

Please attach two identical photographs (4.5cm by 3.5cm taken within the past three months, upper body, full-faced with no hat) on Form 1. Please read through the Application Guidelines. Your signature is required on Form 1.

##### (2) Academic transcripts (original)

(a) Applicants who intend to apply under the provision (1) in section 2 should submit academic transcript from the undergraduate school. In case any of the credits was approved after transferred to the undergraduate school, academic transcripts from the technical college or other college are

also required.

- (b) Applicants who intend to apply under the provision (2) in section 2 should submit all the academic transcripts concerning the Bachelor's degree.
  - (c) Applicants who intend to apply under the provisions (3) to (9) in section 2 should submit the academic transcripts from the foreign undergraduate school.
  - (d) Applicants who intend to apply under the provisions (10) to (12) in section 2 should submit the academic transcript from their final academic background.
- (3) Certificate of (expected) graduation (original)
- (a) Applicants who intend to apply under the provision (1) in section 2 should submit the certificate of graduation from the undergraduate school which a Bachelor's degree has been conferred from.
  - (b) Applicants who intend to apply under the provision (2) in section 2 should submit the certificate from National Institute for Academic Degrees and Quality Enhancement of Higher education (formerly, National Institute for Academic Degrees and University Evaluation).
  - (c) Applicants who intend to apply under the provisions (3) to (9) in section 2 should submit the certificate of (expected) graduation from the foreign undergraduate school.
  - (d) Applicants who intend to apply under the provision (10) in section 2 should submit the school-certificate, and applicants who intend to apply under the provisions (11) and (12) in section 2 should submit the certificate of (expected) graduation of their final academic background.
- (4) Statement of Purpose (**Form 2**)
- Applicants who apply to the second-choice department should copy the Form and prepare "Statement of Purpose" for the second-choice department separately.
- (5) Examination fee of 30,000 yen
- For payment details, please refer to **Form 8**. MEXT scholarship students do not have to bear the examination fee, therefore certificate of MEXT scholarship student status is required.
- (6) Recipient's address label (**Form 9**)
- (7) Envelope for admission ticket for the examination
- Applicant's name, address and zip code (postal code) should appear on the envelope (attached to the Application guidelines), and 674 yen of postage stamp should be affixed.
- When the postal charges are revised in accordance with the raise of consumption tax rate, please confirm the postage stamp price on SOKENDAI web page.
- (8) Curriculum Vitae (**Form 1-2**)
- Only for international applicants and Japanese applicants who received their education outside Japan
- (9) Documents certifying the applicant's research abilities, such as thesis, research reports and other materials are also accepted, if applicable.
- Applicants who apply to the second-choice department should submit another set of copy of the documents for the second-choice department separately.
- (10) TOEFL/TOEIC/IELTS score
- Applicants to Department of Fusion Science: Please refer to "Important Notes" on pages 17-19.
- Applicants to Department of Space and Astronautical Science: Please refer to "Important Notes" on pages 20-22.

(11)Application for exemption from English examination (**Form 10**)

Applicants to Department of Fusion Science who wish to be exempted from the English examination, please refer to “Important Notes” on pages 17-19.

(12)Application for language request for the examination of major subjects (**Form 11**)

Applicants to Department of Fusion Science are required to submit **Form 11**.

(13)Permission for Studying While in Employment (**Form 6**)

Applicants who are currently employed full-time are required to submit Permission for Studying While in Employment (**Form 6**). In case the permission cannot be obtained or the applicant intends to resign before enrollment, s/he may submit a statement of reason sealed by her/himself. In this case, “Letter of Permission to be enrolled while employed” or “Certificate of Resign” must be submitted at the time of admission.

(14)A copy of Residence Card (international applicants residing in Japan) or

A copy of passport (international applicants residing outside Japan at the time of application)

Notes:

- i. Incomplete documents shall not be accepted. No documents shall be returned.
- ii. In case the applicant’s name has changed after marriage etc., a copy of family register should be attached.
- iii. **Form 2** is also available at our website  
[https://www.soken.ac.jp/en/admission/general\\_admission/guideline/butsuri/](https://www.soken.ac.jp/en/admission/general_admission/guideline/butsuri/)  
For other forms, please submit the form in the application guidelines of the booklet version.
- iv. Application documents should be written in Japanese or English. If you submit the certificate neither in Japanese nor English, please also attach the certificate in Japanese or English.

## 6 Screening Procedures

Screening will be conducted based on submitted application documents and results of academic tests. For the details of the screening methods for each department, please refer to “Important Notes” for each Department.

If you apply to more than two departments, please note that screening is conducted individually, and the date or venue may differ depending on the screening.

Department	Examination Dates
	October 2022 Admission
Fusion Science	Subsequent 2 days between August 16 (Tuesday) and August 19 (Friday), 2022
Space and Astronautical Science	August 18 (Thursday) and August 19 (Friday), 2022

Note: Detailed information about the time and place of the examination will be issued with the admission ticket for the exam. In case the ticket shall not be delivered one week prior to the date of examination, please contact the Student Affairs Section. Please see our website

([https://www.soken.ac.jp/en/admission/general\\_admission/guideline/butsuri/](https://www.soken.ac.jp/en/admission/general_admission/guideline/butsuri/)) for the delivery status of the admission ticket.

## Venue of the examination

Department	Location and Directions
Fusion Science	National Institute for Fusion Science 322-6, Oroshi-cho Toki-city, GIFU 509-5292 From Tajimi station (JR Chuo Line), take Tohnoh Tetsudou bus towards "Kakuyugo-kagaku-kenkyusho" or "Toki premium Outlets" and get off at "Kakuyugo-kagaku-kenkyusho" bus stop. <a href="https://www.nifs.ac.jp/en/michi/index.html">https://www.nifs.ac.jp/en/michi/index.html</a>
Space and Astronautical Science	Japan Aerospace Exploration Agency Sagamihara Campus 3-1-1 Yoshinodai, Chuo-ku, Sagamihara, Kanagawa. 252-5210 20-minute walk from the South Exit of Fuchinobe station (JR Yokohama Line). <a href="https://www.isas.jaxa.jp/en/access/">https://www.isas.jaxa.jp/en/access/</a>

## 7 Announcement of Results

Admission	Notification
October 2022	Middle of September 2022

Further details will be sent to applicants.

Results will be posted on the notice board in each research institute and Hayama Campus, as well as notification to be mailed to the successful applicants. Announcement of results will be made on the SOKENDAI website ([https://www.soken.ac.jp/en/admission/general\\_admission/result/](https://www.soken.ac.jp/en/admission/general_admission/result/)), however, results shall be confirmed by notification by mail. Inquiries regarding the results by telephone or other means will not be responded to.

## 8 Admission Procedures

(1) Admission period is scheduled as below:

Late September 2022 for the enrollment of October 2022

Successful applicants must complete the admission procedures during the prescribed period. Further details will be notified to successful applicants separately.

(2) Fees required for admission are as follows.

Entrance Fee: JPY 282,000

Tuition Fee for six months: JPY 267,900

Student Insurance Fee for five years: JPY 5,750

(Personal Accident Insurance for Students Pursuing Education and Research)

Note:

(a) In case the entrance or tuition fees are revised at the time of or during enrollment, the revised fees shall be applied from the date of revision.

(b) Entrance fees shall not be refunded under any circumstances once the payment is made. Premium for the student insurance, however, may be refunded only if applicants decline the admission by the cut-off dates as below:

September 30, 2022 for the enrollment of October 2022

- (3) Applicants who are currently employed full-time should submit a “Letter of Approval” issued by the employer that acknowledges the enrollment while employed. Resignation certificate must be submitted if you resign before you enroll at SOKENDAI.
- (4) Applicants who are enrolled at a school other than SOKENDAI at the time of application (not including applicants who will have graduated/completed the school before you enroll at SOKENDAI) must submit the certificate of withdrawal from said school.
- (5) Foreign nationals are strongly advised to acquire a College Student visa unless a particular reason would prohibit them from doing so. Detailed information on how to acquire this type of visa is available on the SOKENDAI’s website.

## **9 Extended Study Program**

Extended Study Program is for students who have extenuating circumstances, such as being employed, so that they can study for a longer period instead of the 5-year standard program term. For further information, please contact the Educational Affairs Section.

E-mail: [kyomu@ml.soken.ac.jp](mailto:kyomu@ml.soken.ac.jp), or Fax: +81-46-858-1632

## **10 General Notes**

- (1) Before applying and taking the entrance examination, applicants should read through “Important Notes” and V. Common Specialized Basic Subjects of the School Physical Sciences, Outlines of Courses Provided by School of Physical Sciences and Faculty members.
- (2) Submitted documents shall not be returned. No changes or alternations to the submitted documents will be accepted after filing.
- (3) Admission might be revoked in case of any false entry or act of dishonesty on application documents and other documents.
- (4) Applicants who wish to transfer to SOKENDAI from other graduate school must contact Student Affairs Section before the last day of the application period.
- (5) Physically challenged applicants who require special consideration at the examination and after enrollment are advised to inform SOKENDAI three months prior to the application period.
- (6) Applicants should inform the Student Affairs Section if they wish to withdraw their applications.
- (7) In case the applicant has changed the mailing address after submitting the application documents, please inform the Student Affairs Section of the change.  
E-mail: [gakusei@ml.soken.ac.jp](mailto:gakusei@ml.soken.ac.jp), or Fax: +81-46-858-1632
- (8) Students are not allowed to simultaneously register at other universities while studying at SOKENDAI.

## **11 Security Export Control**

Depending on the specifics of the education and research instructions they wish to receive upon entering the program, applicants may be subject to regulations on the export/transfer of controlled technologies based on the Foreign Exchange and Foreign Trade Law. Please consult each department office for further details.

## **12 Privacy Policy**

- (1) Any personal information including applicant's name and address submitted to SOKENDAI as part of the application documents shall be used during the application process such as applicant/examination procedures, notification of results and admission procedures. After enrollment, personal information shall also be used for student affairs (school register and course registration), student services (health care, tuition exemption and scholarship application, and career support) and administrative purposes of processing payments for entrance and tuition fees.
- (2) Personal information obtained in the screening process such as examination results, shall be used for aggregate analyses of examination results and research for use in the screening process.

## Important Notes for Applicants to Department of Fusion Science (Five-year Doctoral Program)

Graduate students in the Department of Fusion Science will learn about fusion science from the basics to the leading edge level to conduct experimental projects, using the world-largest helical plasma confinement device: The Large Helical Device (LHD) and will also carry out theoretical/simulation research, using a super - computer. Fusion science is such an interdisciplinary major that all undergraduate education can be found useful. As such, the Department of Fusion Science seeks applicants with a wide range of background, working for these high academic degrees.

### 1. Research field selection

Applicants are to choose a program consulting the description of the research contents of our faculty members on this guideline, along with our website (<https://soken.ac.jp/en/faculty/>), and state the name of the division within the department you have chosen (you may write your first and second choices). If you are not sure which supervisor to work with at the point of submitting an application, it is accepted to only state the division of choice (Division of Fusion System or Division of Fusion Simulation) and decide on details after entering the program. It is also accepted to visit the institute before applying to learn about the contents of our research and education programs. Those who wish to do so may contact the office below.

### 2. Selection Method

Screening is conducted by examining submitted documents, results of written examination (day one) and interview (day two).

- 1) Paper screening: transcripts and other supplemental materials
- 2) Written examination (day one):

Test Subjects	Date	Description of examination and remarks
English	10:00 – 11:30 (1 hour and 30 minutes)	Test of English-to-Japanese and Japanese-to-English translation. Applicants are not allowed to bring anything other than writing materials. However, English-Japanese and Japanese-English dictionaries will be loaned out.
Special subjects	13:30 – 16:30 (3 hours)	There will be questions from classical mechanics, electromagnetism, quantum mechanics, statistical thermodynamics, mathematics, electrical engineering, six of them in total. Applicants are to choose three questions out of the above and answer. (It is not allowed to bring anything other than writing materials.)

Applicants who acquire the score of 586 in TOEIC or higher or the score of 61 in TOEFL-iBT or higher in the last three years from the first day of the examination may be exempted for the written English test by the following procedure.

- ① Submit Form 10 in the application. (Use the Form sheet inserted additionally, not the Form sheet bound in this book.) Attachment of the copy of the official score is not required in the submission of **Form 10**.
- ② Submit the original of one of the following documents. The submitted original document will be returned

on the day of the examination, after being photocopied.

•In the case of the TOEFL score, submit directly the original TOEFL Official Score Report no later than one week prior to the first day of the examination to Student Affairs Section, Division of Academic and Student Affairs SOKENDAI.

•In the case of the TOEIC score, bring the original TOEIC Official Score Certificate (group examinations such as IP tests are not acceptable) by 11:30 am on the first day of the examination to Graduate Student Affairs Section, National Institute for Fusion Science.

Be advised that if the applicant fails to submit the original TOEFL Official Score Report or the original TOEIC Official Score Certificate or the submitted score does not satisfy the requirement, he or she will not be considered for admission, even having sent the **Form 10**.

3) Interview (day two):

Applicants are asked to explain their motivation for application and hopes and plans after entering the school.

**3. Criteria for admission decision**

Admission decision is made by comprehensively considering application documents, results of written examination and interview.

**4. In case of emergency**

1) When the schedule and/or the details of the examination are determined to be changed due to some disasters or extraordinary weather, the information will be informed on the web site of Department of Fusion Science. In some cases, the information will be directly informed to the applicants by phone from the number 0572-58-2042.

2) In some case where difficulty in the applicants return is expected due to rough weather on the second day, the interview may be advanced to the first day.

3) When the examination cannot help being postponed, the examination dates will be rescheduled as follows.

Dates for ordinary examination	Dates for postponed examination
August 16 (Tuesday) and August 17 (Wednesday), 2022	Subsequent 2 days between August 17 (Wednesday) and August 19 (Friday), 2022

**5. Financial support**

There is a program to partially support students with admission or tuition fees. Please inquire for further information.

## **6. Contact details for inquiries**

Graduate Student Affairs Section  
Research Support Division  
National Institute for Fusion Science,  
National Institutes of Natural Sciences (NINS)  
Oroshi-cho 322-6, Toki-city, Gifu  
509-5292 Japan  
TEL: +81-572-58-2042, 2843      FAX: +81-572-58-2603  
E-mail: [daigakuin@nifs.ac.jp](mailto:daigakuin@nifs.ac.jp)  
URL: <https://soken.nifs.ac.jp/en/>

## **Important Notes for Applicants to Department of Space and Astronautical Science (Five-year Doctoral Program)**

The department of Space and Astronautical Science provides students with comprehensive research guidance in space science (mainly astrophysics and solar system sciences) using space vehicles as well as in astronautical engineering, where research and development are being conducted on advanced space technologies that will lead to practical space development.

A distinctive characteristic of this department is to cultivate not only a rich knowledge of space science but also the ability to plan space projects by involving students in the world's most advanced large-scale projects.

Through a program of structured education and research, we are focusing on cultivating leaders who, from a highly specialized and international perspective, will take up cutting-edge research in future space sciences and will support the development and utilization of the entire aerospace field by applying what they have learned.

1. Applicants who wish to enter the department must contact the academic advisor they wish to work with and discuss their intended research topic before submitting their application, while referring to the Application Guidelines. The academic advisor chosen by applicants should be a professor or associate professor except a special case. If you wish to select an assistant professor as your academic advisor, please contact us in advance.

### **2. Selection Method**

Screening is conducted by examining submitted documents, results of a written examination (day one) and the interview (day two). The interview will apply to all applicants taking the written examination.

#### 1) Paper screening:

Application documents including the transcripts are examined.

#### 2) Written examination:

(i) English: There is no specific test. Instead, presentation of the TOEFL-iBT or TOEIC Listening and Reading Test score report is required.

The details of score requirements, etc., are as follows.

- Scores must be reported regardless of whether the applicant has Japanese nationality or Japanese language ability.
- Only scores of a test conducted within two years before the application deadline will be accepted.
- The application cannot be accepted if the score is not greater than or equal to 500 (TOEFL PBT), 61 (TOEFL-iBT), or 586 (TOEIC).

Submission of other certification of your English skills\* may be accepted as an alternative to TOEFL or TOEIC. For details, please contact the department office below in advance.

\*Reference: IELTS Academic Module: 5, Cambridge English: PET, PTE Academic: 40

- When submitting a TOEFL score, applicants may either have the Official Score Report sent directly to the SOKENDAI Student Affairs Section by the application deadline, or enclose a copy of the Test Taker Score Report (formerly, Examinee Score Report) with the application documents. If a copy of

the Test Taker Score Report is submitted, applicants must bring the original, whose copy was submitted with the application, on the day of examination.

- When submitting a TOEIC score, a copy of the Official Score Certificate, the Score Report for the IP test, or a printed version of the IP test (online) score screen (or PDF) must be sent with the application documents. In this case, applicants must bring the original, whose copy was submitted with the application, on the day of examination.
- Those who have enclosed a copy of their score report must submit the original on the day of examination when instructed by the person in charge. It will be returned on the day of examination after being photocopied. Please be advised that if the applicant fails to present the original, he/she will not be considered for admission.

(ii) Specialized subjects: Specific examinations are administered.

- Mathematics: 10:30 – 12:00 (90 minutes)  
A total of 2 questions on calculus and algebraic geometry
- Physics: 13:00 – 14:30 (90 minutes)  
A total of 2 questions on classical mechanics and electromagnetism

3) Interview:

- At the interview, 5 minutes are allocated for the presentation while another 10 minutes are for a question and answer session. The presentation must focus on the applicant's motivation for their application to this department, the research that the applicant wishes to conduct as well as his/her future goals, with presentation materials (slides) of around 3 pages (excluding the front page). A question and answer session will be conducted based on the contents of the presentation, submitted documents, and the applicant's answers in the written examination.
- Please prepare a document summarizing the presentation (within 1,000 words) in addition to the presentation material to be used in the interview. The logical structure should be described clearly in this summary, similar to an abstract of a thesis.
- Please send one copy each of the presentation summary and the presentation materials to be used in the interview by simple registered mail to the address in "6. Contact details for inquiries" by Friday, August 5, 2022 (as indicated by the postmark). Be sure to clearly state "presentation materials for interview" on the front of the envelope.

Any submission after the deadline, or by any methods other than that mentioned above, such as hand-carrying the material directly to the contact address, will be considered invalid, regardless of the reason.

### **3. Criteria for grading, evaluation and admission decision**

The admission decision will be made by comprehensively examining results of submitted documents, the written examination and the interview. We pay due consideration to whether the applicant:

- has clear ambitions and an active spirit of academic inquiry as well as strong motivation for research.
- has the basic academic skills required to conduct research as well as application skills and the ability to construct discussions in a logical manner.

- has good communication skills that enable him/her to accurately explain ideas and to adequately conduct question and answer sessions.
- is able to conduct research with high standards of ethics.

#### 4. Application of foreign students

Foreign students are requested to contact the department office at least two months prior to their applications, as they may need to go through additional procedures. If you do not contact us in time, you may not be able to take the test.

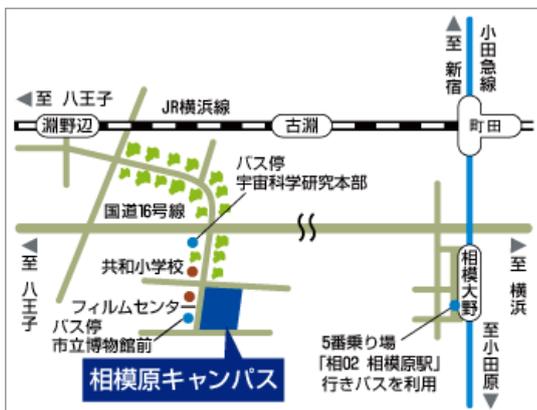
#### 5. Financial Support Program

There are financial support programs for students such as a Research Assistant (RA) program. A special scholarship program has been conducted since the October 2017 enrollment. Please inquire for further information.

#### 6. Contact details for inquiries

Graduate School Section, Management and Integration Department,  
 Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (JAXA)  
 3-1-1 Yoshinodai, Chuo-ku, Sagamihara, Kanagawa. 252-5210  
 TEL : +81-42-759-8012  
 FAX : +81-42-759-8443  
 E-mail : sokendai@ml.jaxa.jp  
 URL : <https://www.isas.jaxa.jp/sokendai/e/>

#### 7. Map to Japan Aerospace Exploration Agency, Sagamihara Campus



##### From Fuchinobe Station

Leave from the South exit of Fuchinobe Station on the JR Yokohama Line.  
 Go to the Kanagawa Chuo Kotsu Bus Station (No. 2 platform).  
 Board the No.36/37 bus bound for “Fuchinobe Station (Roundtrip)”.  
 Disembark at “Shiritsu-Hakubutsukan-Mae”.  
 Alternatively, walking will take 20 minutes.

##### From Sagami-Ono Station

Leave from the North exit of Sagami-Ono Station on the Odakyu Line.  
 Go to the Kanagawa Chuo Kotsu Bus Station (No. 5 platform).  
 Board the No.2 bus bound for “Sagamihara Station”.  
 Disembark at "Uchukagaku Kenkyu Honbu".

## IV. Three-year Doctoral Program and Important Notes

### 1 Number of Students Accepted

Department	Division	Number of Students Accepted
		October Admission
Structural Molecular Science	Electronic Structure Area, Material Chemistry Area	/
Functional Molecular Science	Molecular Dynamics Area, Excited State Dynamics Area	/
Astronomical Science	Optical and Infrared Astronomy area, Radio Astronomy area, General Astronomy and Astrophysics	A few
Fusion Science	Division of Fusion System, Division of Fusion Simulation	A few
Space and Astronautical Science	Science and Engineering for Space Exploration, Space Observation Science Using Satellites and Space Exploration Vehicles, Space Technologies	A few
Total		—

### 2 Qualifications for Application

Applicants must fulfill one of the following conditions

#### **Applicants who are not required to have qualification screening;**

- (1) Applicants who hold or are expected to obtain a Master's degree or a Professional degree by the preceding month of enrollment.
- (2) Applicants on whom a Master's degree or a degree equivalent to a Professional degree has been conferred or is expected to be conferred in a foreign country by the preceding month of enrollment.
- (3) Applicants who have completed the correspondence courses provided by a school in a foreign country while residing in Japan, and have been conferred or are expected to be conferred a Master's degree or a degree equivalent to a Professional degree by the preceding month of enrollment.
- (4) Applicants who have completed or are expected to complete a program in an educational institute in Japan that provides courses from a foreign graduate school within the school education system of said foreign country, and that is designated separately by the Minister of Education, Culture, Sports, Science and Technology, and have been conferred or are expected to be conferred a Master's degree or a degree equivalent to a Professional degree by the preceding month of enrollment.
- (5) Applicants who have completed a course at the United Nations University and have been conferred or are expected to be conferred a degree equivalent to a Master's degree by the preceding month of enrollment, in accordance with the Enforcement Regulation of the School Education Law, Article 156, Item 4.

#### **Applicants who are required to have qualification screening before the general application can be submitted;**

- (6) Applicants who have completed a course of study at a school in a foreign country or an educational institute that has graduate school in a foreign country or the United Nations University, and have passed or will have passed the examinations and screening equivalent to those specified in Article 16-2 of the

Standards for Establishment of Graduate Schools (1974 Ministry of Education, Science and Culture Ordinance Number 28), and who have been or will have been recognized by SOKENDAI as having academic abilities equivalent to those who have a Master's degree.

- (7) Applicants who have graduated from a university and have been or will have been engaged in research at a university or a research institute for at least two years by the preceding month of the enrollment, and have been recognized by SOKENDAI as having academic ability equivalent to or superior to those who have a Master's degree or a Professional degree based on said research achievement.
- (8) Applicants who have completed 16-year course of school education in a foreign country or 16-year course of school education by taking the correspondence courses provided by a school in a foreign country while residing in Japan, and thereafter, have been or will have been engaged in research at a university or a research institute for at least two years by the preceding month of the enrollment, and have been recognized by SOKENDAI as having academic ability equivalent to or superior to those who have a Master's degree or a Professional degree based on said research achievement.
- (9) Applicants who have been recognized by SOKENDAI as having academic ability equivalent to or superior to those who have a Master's degree or a Professional degree by the individual screening of Admission Qualifications of SOKENDAI, and attain the age of 24 by the end of preceding month of enrollment.

If you have any questions regarding the qualification for admission, please contact the Student Affairs Section (E-mail: [gakusei@ml.soken.ac.jp](mailto:gakusei@ml.soken.ac.jp)) in advance.

### 3 Qualification Screening for Application

- (1) Applicants who intend to apply under the provisions (6), (7), (8) or (9) in section 2 are required to submit the following documents to the Student Affairs Section by the designated deadline. Application documents shall be withheld until the qualification screening is completed.
- (2) Applicants who wish to apply under the provisions (6), (7) or (8) in section 2 are required to submit the following documents for screening to be recognized as "having academic ability equivalent to those who have a Master's degree or a Professional degree". An interview will also be conducted, if necessary.
- (3) Applicants who wish to apply under the provision (9) in section 2 above, shall be screened as follows.

Department	Procedure
Astronomical Science	Screening will be conducted based on the submitted documents. An interview may be added if necessary.
Fusion Science	Screening will be conducted based on the submitted documents. Qualification Examination may be added if necessary.
Space and Astronautical Science	Screening will be conducted based on the submitted documents.

Please consult each department for further details.

(a) Documents required for Qualification Screening for Application are as follows:

( i ) Application for Certifying Applicant's Qualification (**Form 7-2**)

( ii ) Application Documents as specified in Section 5 Application Documents.

Examination Fee, however, should be paid after the application is approved.

( iii ) Other documents required by each Department

Please consult each department for details.

( i )( ii ) and ( iii ) above should be submitted all together.

(b) Application Period for Qualification Screening

Department	Application Period
	October 2022 Admission
Astronomical Science	June 13 (Monday) to June 16 (Thursday), 2022
Fusion Science	June 13 (Monday) to June 16 (Thursday), 2022
Space and Astronautical Science	June 13 (Monday) to June 16 (Thursday), 2022

The application must arrive no later than the last day of the application period without fail.

It must be received during 09 : 00~12 : 00, 13 : 00~17 : 00 on weekdays of the application period.

\*Dep. of Structural Molecular Science and Functional Molecular Science accepts only April 2023 Admission.

(c) Procedure for Qualification Screening

The complete set of application documents should be submitted by registered express mail. Applicants should write "Application Documents and Application for certifying Applicant's Qualification Enclosed" in red ink on the face of the envelope.

(d) Result of Qualification Screening for Application

The result of Qualification Screening for Application shall be notified prior to the application period. Applicants who have been approved by the screening should send in the payment for the examination fee in accordance with **Form 8**. After the remittance is completed, please submit **Form 8** on which the remittance receipt is attached.

## 4 Application Procedure

(1) Application Period

Department	Application Period
	October 2022 Admission
Astronomical Science	July 7 (Thursday) to July 13 (Wednesday), 2022
Fusion Science	July 7 (Thursday) to July 13 (Wednesday), 2022
Space and Astronautical Science	July 7 (Thursday) to July 13 (Wednesday), 2022

The application must arrive no later than the last day of the application period without fail.

It must be received during 09 : 00~12 : 00, 13 : 00~17 : 00 on weekdays of the application period.

\*Dep. of Structural Molecular Science and Functional Molecular Science accepts only April 2023 Admission.

(2) Application Method

**The complete set of application documents should be submitted by registered express mail in principle to the following address:**

<Mailing address>

Student Affairs Section, Academic and Student Affairs Division  
The Graduate University for Advanced Studies, SOKENDAI  
Shonan Village, Hayama, Miura, Kanagawa 240-0193 JAPAN  
Telephone number +81-46-858-1525/1526

The application must reach SOKENDAI no later than the last day of the application period. Please note that application documents will not be accepted by any Parent Institute or Department office.

## 5 Application Documents

Applicants must consult their prospective supervisors prior to the application. Please read through the “Important Notes” and V.Common Specialized Basic Subjects of the School of Physical Sciences, Outlines of Courses Provided by School of Physical Sciences and Faculty members beforehand. Also, the application documents must fill in the application forms with black or blue pen without erasable pen.

(1) Application form and Admission Ticket for the Examination (**Form 1**)

Please attach two identical photographs (4.5cm by 3.5cm taken within the past three months, upper body, full-faced with no hat) on Form 1. Please read through the Application Guidelines. Your signature is required on Form 1.

(2) Academic transcripts (original)

(a) Applicants who intend to apply under the provision (1) in section 2 should submit the academic transcript from the graduate school or the professional graduate school, and that from the undergraduate schools. In case any of the credits was approved after transferred to the undergraduate school, academic transcripts from the technical college or other college are also required.

(b) Applicants who intend to apply under the provisions (2) to (5) in section 2 should submit the academic transcript from the graduate school in said foreign country (a Master’s degree or a Professional degree) and that from the university or undergraduate school concerning the Bachelor’s degree.

(c) Applicants who intend to apply under the provisions (6) to (9) in section 2 should submit the academic transcript from the final academic background.

(3) Certificate of (expected) graduation (original)

(a) Applicants who intend to apply under the provision (1) in section 2 should submit the certificate of (expected) graduation from the graduate school which a Master’s degree or a Professional degree has been conferred from or is expected to be conferred. The certificate should state conferment of the Master’s degree or the Professional degree.

(b) Applicants who intend to apply under the provision (2), (3), (4) or (5) in section 2 should submit the certificate of (expected) graduation from the graduate school in the foreign country.

(c) Applicants who intend to apply under the provision (6) in section 2 are required to consult the Student

Affairs Section. (Refer to page 23-24)

(d) Applicants who intend to apply under the provisions (7), (8) or (9) in section 2 should submit the certificate of graduation of their final academic background.

(4) Summary of Previous Research Experience (**Form 3**)

(5) List of Research Presentations and Publications (**Form 4**)

(6) Research Proposal (**Form 5**)

Research Proposal (**Form 5**) must specify the outline of the research plan after enrollment.

Those who apply to the second-choice department are advised to copy the form and prepare Research Proposal for the second-choice department separately.

(7) Examination fee of 30,000 yen

For payment details, please refer to **Form 8**. MEXT scholarship students do not have to bear the examination fee, therefore, a certificate of MEXT scholarship student status is required.

If not applicable, specify "None" and submit the Form.

(8) Recipient's address label (**Form 9**)

(9) Envelope for Admission Ticket for the Examination

Applicant's name, address and zip code (postal code) should appear on the envelope (attached to the Application Guidelines), and 674 yen of postage stamp must be affixed.

(10) Curriculum Vitae (**Form 1-2**)

Only for international applicants and Japanese applicants who received their education outside Japan

(11) Two copies of Master's thesis

Applicants who have (or are expected to obtain) a Master's degree or a Professional degree are required to submit the Master's thesis. Specify "Master's thesis" on the upper-right corner of the front page in red ink.

Applicants who apply to the second-choice department should submit another set of copy of the Master's thesis for the second-choice department separately.

(12) Two copies of academic publications (if any)

Applicants who apply to the second-choice department should submit another set of copy of the academic publications for the second-choice department separately.

(13) Letter of Recommendation

Applicants to Department of Astronomical Science are strongly advised to submit the Letter of Recommendation from those who are appropriate to evaluate the applicant's academic ability. The letter must be sealed up by the writer.

(14) TOEFL/TOEIC score

Applicants to Department of Space and Astronautical Science only should submit TOEFL/TOEIC score.

Refer to "Important Notes" on pages 36-38.

(15) Permission for Studying While in Employment (**Form 6**)

Applicants who are currently employed full-time are required to submit Permission for Studying While in Employment (**Form 6**). In case the permission cannot be obtained or the applicant intends to resign before enrollment, s/he may instead submit a statement of reason with her/his signature.

(16) A copy of Residence Card (international applicants residing in Japan), or

A copy of passport (international applicants residing outside Japan at the time of application)

## Notes

- i. Incomplete documents shall not be accepted. No documents shall be returned.
- ii. In case the applicant's name has changed after marriage etc., a copy of family register should be attached.
- iii. Form 3, 4, and 5 are also available at our website  
[https://www.soken.ac.jp/en/admission/general\\_admission/guideline/butsuri/](https://www.soken.ac.jp/en/admission/general_admission/guideline/butsuri/)  
For other forms, please submit the form in the application guidelines of the booklet version.
- iv. Application documents should be written in Japanese or English. If you submit the certificate neither in Japanese nor English, please also attach the certificate in Japanese or English.

## 6 Screening Procedures

Screening will be conducted based on submitted application documents and results of academic tests. For details of the screening methods for each department, please refer to "Important Notes" for each Department. If you apply to more than two departments, please note that screening is conducted individually, and the date or venue may differ depending on the screening.

Department	Examination Dates
	October 2022 Admission
Astronomical Science	August 22 (Monday), 2022
Fusion Science	Subsequent 2 days between August 16 (Tuesday) and August 19 (Friday), 2022
Space and Astronautical Science	August 18 (Thursday) and August 19 (Friday), 2022

Detailed information about the time and place of the examination will be issued with the admission ticket for the exam. In case the ticket shall not be delivered one week prior to the date of examination, please contact the Student Affairs Section. Please see our website ([https://www.soken.ac.jp/en/admission/general\\_admission/guideline/butsuri/](https://www.soken.ac.jp/en/admission/general_admission/guideline/butsuri/)) for the delivery status of admission ticket.

\*Dep. of Structural Molecular Science and Functional Molecular Science accepts only April 2023 Admission.

## Venue of the examination

Department	Location and Directions
Astronomical Science	National Astronomical Observatory of Japan 2-21-1 Osawa, Mitaka-city, Tokyo 181-8588 *From the South Exit of JR Musashi-sakai station (JR Chuo Line), take Odakyu bus No.91 at the No.3 bus stop and get off at "Tenmondai Mae" bus stop. *From the North Exit of Keio Chofu station, take Odakyu bus (91 and 51) at the No.14 bus stop, and get off at "Tenmondai Mae" bus stop. <a href="http://www.nao.ac.jp/en/access/mitaka/access.html">http://www.nao.ac.jp/en/access/mitaka/access.html</a>

Fusion Science	National Institute for Fusion Science 322-6, Oroshi-cho Toki-city, GIFU 509-5292 From Tajimi station (JR Chuo Line), take Tohnoh Tetsudou bus towards “Kakuyugo-Kagaku-kenkyusho” or “Toki premium Outlets” and get off at “Kakuyugo-kagaku-kenkyusho” bus stop. <a href="https://www.nifs.ac.jp/en/michi/index.html">https://www.nifs.ac.jp/en/michi/index.html</a>
Space and Astronautical Science	Japan Aerospace Exploration Agency Sagamihara Campus 3-1-1 Yoshinodai, Chuo-ku, Sagamihara, Kanagawa 252-5210 20-minute walk from the South Exit of Fuchinobe station (JR Yokohama Line) <a href="https://www.isas.jaxa.jp/en/access/">https://www.isas.jaxa.jp/en/access/</a>

## 7 Announcement of Results

Admission	Notification
October 2022	Middle of September, 2022

Further details will be sent to applicants.

Results will be posted on the notice board both in each research institute and Hayama Headquarter, as well as notification to be mailed to the successful applicants. Announcement of results will be made on SOKENDAI website ([https://www.soken.ac.jp/en/admission/general\\_admission/result/](https://www.soken.ac.jp/en/admission/general_admission/result/)), however, results shall be confirmed by the notice sent to the successful applicants by mail. Inquiries regarding the results by telephone or other means will not be responded.

## 8 Admission Procedures

(1) Admission procedures period is scheduled as below:

Late of September 2022 for the enrollment of October 2022

Successful applicants must complete the admission procedures during the prescribed period. Further details will be notified to successful applicants separately.

(2) Fees required for admission are as follows.

Entrance Fee: JPY 282,000

Tuition Fee for six months: JPY 267,900

Student Insurance Fee for three years: JPY 3,620

(Personal Accident Insurance for Students Pursuing Education and Research)

Note:

- (a) In case the entrance or tuition fees are revised at the time of or during enrollment, the revised fees shall be applied from the date of revision.
- (b) Entrance fees shall not be refunded under any circumstances once the payment is made. Premium for the student insurance, however, may be refunded only if applicants decline the admission by the cut-off dates as below:

September 30, 2022 for the enrollment of October 2022

(3) Applicants who are currently employed full-time should submit the “Letter of Approval” issued by the employer that acknowledges the enrollment while employed. Resignation certificate must be submitted if

you resign before you enroll at SOKENDAI.

- (4) Applicants who are enrolled at a school other than SOKENDAI at the time of application (not including applicants who will have graduated/completed the school before you enroll at SOKENDAI) must submit the certificate of withdrawal from said school.
- (5) Foreign nationals are strongly advised to acquire a College Student visa unless particular reason would prohibit them from doing so. Detailed information on how to acquire this type of visa is available on the SOKENDAI's website: <https://www.soken.ac.jp/en/campuslife/international/immigration/>

## **9 Extended Study Program**

Extended Study Program is for students who have extenuating circumstances, such as being employed, so that they can study for a longer period instead of the 5-year standard program term. For further information, please contact the Educational Affairs Section.

E-mail: [kyomu@ml.soken.ac.jp](mailto:kyomu@ml.soken.ac.jp), or Fax: +81-46-858-1632

## **10 General Notes**

- (1) Before applying and taking the entrance examination, applicants should read through “Important Notes” and V. Common specialized Basic Subjects of the School Physical Sciences, Outlines of Courses Provided by School of Physical Sciences and Faculty members.
- (2) Submitted documents shall not be returned. No changes or alternations to the submitted documents will be accepted after filing.
- (3) Admission might be revoked in case of any false entry or act of dishonesty on application documents and other documents.
- (4) Applicants who wish to transfer to SOKENDAI from other graduate school must contact Student Affairs Section before the last day of the application period.
- (5) Physically challenged applicants who require special consideration at the examination and after enrollment are advised to inform SOKENDAI three months prior to the application period.
- (6) Applicants should inform the Student Affairs Section if they wish to withdraw their application.
- (7) In case the applicant has changed the mailing address after submitting the application documents, please inform the Student Affairs Section of the change.

E-mail: [gakusei@ml.soken.ac.jp](mailto:gakusei@ml.soken.ac.jp), or Fax: +81-46-858-1632

- (8) Students are not allowed to simultaneously register at other universities while studying at SOKENDAI.

## **11 Security Export Control**

Depending on the specifics of the education and research instructions they wish to receive upon entering the program, applicants may be subject to regulations on the export/transfer of controlled technologies based on the Foreign Exchange and Foreign Trade Law. Please consult each department office for further details.

## **12 Privacy Policy**

- (1) Any personal information including applicant's name and address submitted to SOKENDAI as part of the application documents shall be used during the application process such as applicant/examination procedures, notification of results and admission procedures. After enrollment, personal information shall also be used for student affairs (school register and course registration), student services (health care, tuition exemption and scholarship application, and career support) and administrative purposes of processing payments for entrance and tuition fees.
- (2) Personal information obtained in the screening process such as examination results, shall be used for aggregate analyses of examination results and research for use in the screening process.

## **Important Notes for Applicants to Department of Astronomical Science (Three-year Doctoral Program)**

Department of Astronomical Science offers, by exploiting one of the most advanced set of research facilities it has access to, including optical and radio telescopes and a supercomputer, an environment in which students can be involved in theoretical, observational or instrumentation researches at the highest levels, and aims to train researchers in the forefront of the international stage of research, leading experts in advancement of technology, or education and public outreach professionals with advanced knowledge.

Department of Astronomical Science seeks students with interests in astronomy, motivated to tackle scientific questions by theoretical or observational researches or through developing instruments, and equipped not only with basic academic skills but also with ability to think logically and creatively, which are all crucial for the pursuit.

### **1. Research field**

When deciding on research theme etc., please discuss well with a supervisor you intend to work with in advance. Applicants are strongly recommended to have a seminar presentation at the appropriate research group in the department. In the application form indicate the names of the supervisor of the first and the second choice. The list of all the potential supervisors, including assistant professors, can be found at the url: <https://www.guas-astronomy.jp/Supervisors/index.html>. If you are to choose an assistant professor as your supervisor, please contact the Department (Graduate Student Affairs Unit of NAOJ) prior to the submission. Please note that research staff of Astrobiology Center, NINS, has now joined Department of Astronomical Science.

Department of Astronomical Science : <https://guas-astronomy.jp/Intro/outline.html>

National Astronomical Observatory of Japan : <https://www.nao.ac.jp/en/>

### **2. Three-year doctoral program**

The program is for those who are with basic trainings in astronomy or related fields, typically with 2-year education in a graduate course and a master thesis describing the research he/she has done, or an equivalent. If you are not sure about your qualification, you are recommended to apply for Five-year doctoral program.

### **3. Selection Method**

Paper screening and interview are carried out. (On Monday, August 22, 2022)

(1) At interview, applicants are first asked to have a presentation on their study. Then, an oral examination follows. At the oral examination, applicants are provided with basic text in English that is related to astronomy and physics, and to answer questions either in Japanese or English. Following that, an interview is carried out to examine the applicant's future plans and other general matters. For presentation, a PC projector will be provided.

(2) On the day of interview, there is also an English test (30 minutes. A dictionary cannot be used.).

### **4. Criteria for grading, evaluation and admission decision**

Grading is conducted by the submitted documents and results of interview. Applicants are evaluated by contents

of submitted transcripts, Master's thesis, research plan, presentation at the interview, question and answer session, answer at the oral examination and English ability. At interview, applicant's motivation for applying and willingness are highly considered.

To make an admission decision, we comprehensively consider the followings: 1) Being aligned with objectives of Department of Astronomical Science, the applicant must have ability to become a "world-class researcher," "professional to lead improvement of advanced technology," or "education and public outreach professional with advanced knowledge" in the field of astronomy or related area; 2) the applicant must have strong awareness of the issues in the field and motivation and is able to obtain doctoral degree within the prescribed period of attendance; 3) the applicant must also have basic knowledge and understanding of physics and astronomy, expressive ability to render his or her ideas, solid motivation for research, future potential and English ability. Application of students from other academic field is welcome if we find his or her experience would contribute to researches in the field of astronomy or its related area.

#### **5. Languages used in entrance examination**

For applicants who are unable to read or write in Japanese, an examination in English is available. Research presentation and question and answer session can be done either in Japanese or English.

#### **6. Financial support**

There is an "Assistant Researcher" system that provides a certain amount of monthly allowance to reward the students' contribution to researches. Please contact us for further information.

#### **7. Contact details for inquiries**

Graduate Student Affairs Unit,  
Research Promotion Division, Administration Department,  
National Astronomical Observatory of Japan  
2-21-1 Osawa, Mitaka-city Tokyo 181-8588  
TEL +81-422-34-3659  
E-mail [daigakuin@nao.ac.jp](mailto:daigakuin@nao.ac.jp)

## **Important Notes for Applicants to Department of Fusion Science (Three-year Doctoral Program)**

Graduate students in the Department of Fusion Science will learn about fusion science from the basics to the leading edge level to conduct experimental projects, using the world-largest helical plasma confinement device: The Large Helical Device (LHD) and will also carry out theoretical/simulation research, using a super-computer. Fusion science is such an interdisciplinary major that all undergraduate education can be found useful. As such, Department of Fusion Science seeks for applicants with a wide range of background, working for these high academic degrees.

1. When preparing application documents, please consult the Application Guidelines. Applicants must contact the academic advisor they wish to work with prior to applying in order to discuss the contents of his or her future research.

### **2. Selection Method**

Paper screening and interview

- 1) Paper screening: transcripts, Master's thesis and its supplemental materials
- 2) Written examination: An English essay examination is given. (Test time: 1 hour and 30min, day one. Applicants are not allowed to bring anything other than writing materials, however, an English-English dictionary will be loaned out.)
- 3) Interview: Applicants are questioned mainly about his or her past studies and plans for future research (approximately 30 minutes per applicant, day two).
- 4) Schedule: The details of the examination schedule will be informed by postal mail together with the admission ticket.

### **3. Please take note of the following regarding the interview.**

In the interview, applicants are required to have a presentation for 10 minutes using a PC projector to outline their Master's theses, past studies and contents of the research they intend to conduct. The presentation must be conducted either in Japanese or English. Please submit a copy of the abstract for the presentation to the address below by the day before the interview.

\* If you need any equipment other than a PC projector for your presentation, please inform us beforehand.

### **4. Criteria for evaluation of interview**

We comprehensively evaluate the applicant's motivation for research, professional knowledge, creativity, expressive ability and aptitude as a researcher.

### **5. Criteria for admission decision**

The admission decision is made mainly based on evaluation of the written examination and interview, while examining submitted documents as well.

## 6. In case of emergency

- 1) When the schedule and/or the details of the examination are determined to be changed due to some disasters or extraordinary weather, the information will be informed on the web site of Department of Fusion Science. In some cases, the information will be directly informed to the applicants by phone from the number 0572-58-2042.
- 2) When the examination cannot help being postponed, the examination dates will be rescheduled as follows.

Dates for ordinary examination	Dates for postponed examination
August 16(Tuesday) and August 17 (Wednesday), 2022	Subsequent 2 days between August 17 (Wednesday) and August 19 (Friday), 2022

## 7. Financial support

For those in the three-year doctoral program, there is an “Assistant Researcher” system that provides a certain amount of monthly allowance to reward the students’ contribution to research. There is also a program to partially support students with the admission fee.

## 8. Contact details for inquiries

Graduate Student Affairs Section  
Research Support Division  
National Institute for Fusion Science,  
National Institutes of Natural Sciences (NINS)  
Oroshi-cho 322-6, Toki-city, Gifu 509-5292 Japan  
TEL: +81-572-58-2042,2843      FAX: +81-572-58-2603  
E-mail: [daigakuin@nifs.ac.jp](mailto:daigakuin@nifs.ac.jp)  
URL: <https://soken.nifs.ac.jp/en/>

## **Important Notes for Applicants to Department of Space and Astronautical Science (Three-year Doctoral Program)**

The department of Space and Astronautical Science provides students with comprehensive research guidance in space science (mainly astrophysics and solar system sciences) using space vehicles as well as in astronautical engineering, where research and development are being conducted on advanced space technologies that will lead to practical space development.

A distinctive characteristic of this department is to cultivate not only a rich knowledge of space science but also the ability to plan space projects by involving students in the world's most advanced large-scale projects.

Through a program of structured education and research, we are focusing on cultivating leaders who, from a highly specialized and international perspective, will take up cutting-edge research in future space sciences and will support the development and utilization of the entire aerospace field by applying what they have learned.

1. Applicants who wish to enter the department must contact the academic advisor they wish to work with and discuss their intended research topic before submitting their application, while referring to the Application Guidelines. The academic advisor chosen by applicants should be a professor or associate professor except a special case. If you wish to select an assistant professor as your academic advisor, please contact us in advance.

### **2. Selection Method**

Paper screening (including test of English) and interview.

#### 1) Paper screening

We examine the transcripts from the Master's course, application forms as well as the Master's thesis and its supplemental materials.

(If you are a prospective graduate of the Master's course and cannot submit a Master's thesis at the time of application, please submit it when it is ready, after sending other application documents.)

#### 2) Test of English

There is no specific test. Instead, presentation of the TOEFL-iBT or TOEIC Listening and Reading Test score report is required.

The details of score requirements, etc., are as follows.

- Scores must be reported regardless of whether the applicant has Japanese nationality or Japanese language ability.
- Only scores of a test conducted within two years before the application deadline will be accepted.
- The application cannot be accepted if the score is not greater than or equal to 500 (TOEFL PBT), 61 (TOEFL-iBT), or 586 (TOEIC).

Submission of other certification of your English skills\* may be accepted as an alternative to TOEFL or TOEIC. For details, please contact the department office below in advance.

\*Reference: IELTS Academic Module: 5, Cambridge English: PET, PTE Academic: 40

- When submitting a TOEFL score, applicants may either have the Official Score Report sent directly

to the SOKENDAI Student Affairs Section by the application deadline, or enclose a copy of the Test Taker Score Report (formerly, Examinee Score Report) with the application documents. If a copy of the Test Taker Score Report is submitted, applicants must bring the original, whose copy was submitted with the application, on the day of examination.

- When submitting a TOEIC score, a copy of the Official Score Certificate, the Score Report for the IP test, or a printed version of the IP test (online) score screen (or PDF) must be sent with the application documents. In this case, applicants must bring the original, whose copy was submitted with the application, on the day of examination.
- Those who have enclosed a copy of their score report must submit the original on the day of examination when instructed by the person in charge. It will be returned on the day of examination after being photocopied. Please be advised that if the applicant fails to present the original, he/she will not be considered for admission.

### 3) Interview:

- At the interview, 20 minutes are allocated for the presentation while another 20 minutes are for a question and answer session. The presentation is expected to focus on the applicant's ambitions for future research as well as his/her plans and goals, while also including details of the Master's thesis or its equivalent. The question and answer session will be conducted based on the contents of the presentation and submitted documents.
- Please prepare a document summarizing the presentation (within 1,000 words) in addition to the presentation material (slides) to be used in the interview. The logical structure should be described clearly in this summary, similar to an abstract of a thesis.
- Please send one copy each of the presentation summary and the presentation materials to be used in the interview by simple registered mail to the address in "6. Contact details for inquiries" by Friday, August 5, 2022 (as indicated by the postmark). Be sure to clearly state "presentation materials for interview" on the front of the envelope.

Any submission after the deadline, or by any methods other than that mentioned above, such as hand-carrying the material directly to the contact address, will be considered invalid, regardless of the reason.

### 3. Criteria for grading, evaluation and admission decision

The admission decision will be made by comprehensively examining results of paper screening (including test of English) and the interview. We pay due consideration to whether the applicant:

- has clear ambitions and an active spirit of academic inquiry as well as strong motivation for research.
- is able to design an appropriate research plan.
- has the basic academic skills required to conduct research as well as application skills and the ability to construct discussions in a logical manner.
- has good communication skills that enable him/her to accurately explain ideas and to adequately conduct question and answer sessions.
- is able to conduct research with high standards of ethics.

#### 4. Application of foreign students

Foreign students are requested to contact the department office at least two months prior to their applications, as they may need to go through additional procedures. If you do not contact us in time, you may not be able to take the test.

#### 5. Financial Support Program

There are financial support programs for students such as a Research Assistant (RA) program. A special scholarship program has been conducted since the October 2017 enrollment. Please inquire for further information.

#### 6. Contact details for inquiries

Graduate School Section, Management and Integration Department,  
Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (JAXA)

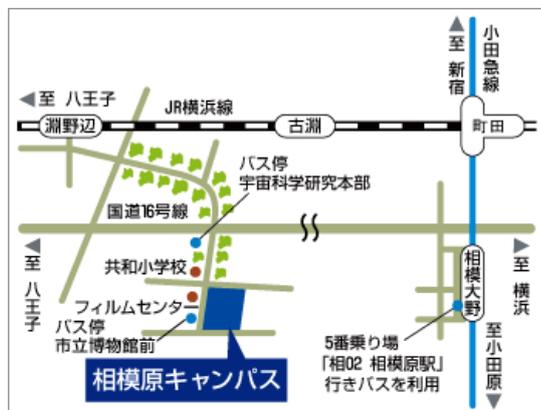
3-1-1 Yoshinodai, Chuo-ku, Sagami-hara, Kanagawa 252-5210

TEL: +81-42-759-8012 FAX: +81-42-759-8443

E-mail: sokendai@ml.jaxa.jp

URL: <https://www.isas.jaxa.jp/sokendai/e/>

#### 7. Map to Japan Aerospace Exploration Agency, Sagami-hara Campus



##### From Fuchinobe Station

Leave from the South exit of Fuchinobe Station on the JR Yokohama Line.

Go to the Kanagawa Chuo Kotsu Bus Station (No. 2 platform).

Board the No.36/37 bus bound for "Fuchinobe Station (Roundtrip)".

Disembark at "Shiritsu-Hakubutsukan-Mae".

Alternatively, walking will take 20 minutes.

##### From Sagami-Ono Station

Leave from the North exit of Sagami-Ono Station on the Odakyu Line.

Go to the Kanagawa Chuo Kotsu Bus Station (No. 5 platform).

Board the No.2 bus bound for "Sagami-hara Station".

Disembark at "Uchukagaku Kenkyu Honbu".

## **V . The Faculty members in the School of Physical Sciences**

Please see the websites below for course subjects and the faculty.

SOKENDAI website

[https://www.soken.ac.jp/en/rcourse/physical\\_sciences/](https://www.soken.ac.jp/en/rcourse/physical_sciences/)

Department of Astronomical Science

<https://guas-astronomy.jp/eng/Supervisors/index.html>

Department of Fusion Science

<https://soken.nifs.ac.jp/en/>

Department of Space and Astronautical Science

<http://www.isas.jaxa.jp/sokendai/e/about/staff/>