# Division of Advanced Science and Engineering of the Graduate School of Advanced Science and Engineering (Doctoral Course) Admission Policy

The Division of Advanced Science and Engineering of the Graduate School of Advanced Science and Engineering seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role in professional occupations such as researchers and engineers in areas related to natural science, engineering, and information science;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring sophisticated knowledge and study skills for the academic areas related to natural science, engineering, and information science as well as a wide range of intelligence; and
- (4) Common sense as a member of society and ethics required for researchers and highly-professional engineers.

# Contents

Admission Policy of Graduate School of Advanced Science and Engineering (Doctoral Course)	2
I Programs and Number of Students to be Admitted	4
II Outline of Entrance Examination  1. Schedule of the Entrance Examination  2. Application Eligibility, Required Documents and Selection Process  3. Application Procedure	···· 5 ···· 5
4. Result Announcement	
Science Programs  (Mathematics / Physics / Earth and Planetary Systems Science / Basic Chemistry)  1. Admission Policy	
2. Application Eligibility	8
3. Prerequisites for Application ······	8
4. Application Documents	
5. Selection Process ····	10
Engineering Programs & Informatics and Data Science Program	11
(Applied Chemistry / Chemical Engineering / Electrical, Systems, and Control Engineering / Mechanical Engineering / Transportation and Environmental Systems / Architecture / Civil and Environmental Engineering / Informatics and Data Science / Smart Innovation)	
1. Admission Policy ······ 2. Application Eligibility ·····	·· 11
2. Application Englothty  3. Prerequisites for Application	·· 13
4. Application Documents ·······	15
5. Selection Process ····	
	1.7
Quantum Matter Program  1. Admission Policy	·· 1/ 17
2. Application Eligibility······	17
3. Application Documents · · · · · · · · · · · · · · · · · · ·	17
4. Oral Examination ·····	18
Transdisciplinary Science and Engineering Program (Environmental and Natural Sciences)	10
1. Admission Policy ······	
2. Application Eligibility	19
3. Prerequisites for Application ·····	
4. Application Documents	
5. Selection Process ····	22
IV Application Procedure ····	23
V Miscellaneous	
1. Instruction for Application ·····	26
2. Consultation with the Applicant who Needs Special Consideration for the Entrance Examination	•
and/or Education in the Graduate School·····  3. Handling of Personal Information······	
4. Admission Procedure	
5. Application for Disclosure of Examination Results······	
6. Others	·· 27
Special Macrouna of Evaporation from the Enterior English Enterior E. C. (1. A. 1)	20
Special Measure of Exemption from the Entrance Examination Fee for the Applicant	28

# I Programs and Number of Students to be Admitted

The Division of Advanced Science and Engineering of Graduate School of Advanced Science and Engineering in Hiroshima University will accept applicants in Special Selection for International Students [For Students Living in Japan] for April 2021 admission to the Doctoral Course as indicated below.

April 2021 Admission

Division	Program	Capacity	Admission capacity	Contact Submission address for application documents
	Mathematics Program			
	Physics Program			Support Office for the fields of Science 739-8526
	Earth and Planetary Systems Science Program			1-3-1 Kagamiyama, Higashi-Hiroshima Tel: 082-424-7309, 4468
	Basic Chemistry Program			
	Applied Chemistry Program			
Di	Chemical Engineering Program			
vision	Electrical, Systems, and Control Engineering Program			
of A	Mechanical Engineering Program			
dvance	Transportation and Environmental Systems			Support Office for the fields of Engineering
d Scie	Program  Architecture Program	128	Several students	739-8527 1-4-1 Kagamiyama, Higashi-Hiroshima Tel: 082-424-7518
Division of Advanced Science and Engineering	Civil and Environmental Engineering Program			Tel: 082-424-7518
1 En	Informatics and Data Science Program			
ıgineer	Smart Innovation (Applied Chemistry)			
ing	Smart Innovation (Electrical, Systems, and Control Engineering)			

Quantum Matter Program C

# **II** Outline of Entrance Examination

#### 1. Schedule of the Entrance Examination

Application period	Date of the entrance examination	Examination subject	Examination result announcement
Monday, January 4, 2021 – Friday, January 8, 2021	A day between Monday, January 18, 2021 and Friday, February 5, 2021, specified by the head of each Program.	Oral examination	Planned to be 12:00-, Friday, February 19, 2021

#### (Caution)

Specific schedule of the entrance examination will be notified by the head of each Program.

## 2. Application Eligibility, Required Documents and Selection Process

Refer to the page for each Program listed in the section "III Application Eligibility, Required Documents and Selection Process" (page 6) and confirm the application eligibility, the required documents and selection process (examination subject, basic policy, and evaluation criteria).

#### 3. Application Procedure

- (1) Your application will be accepted via internet during the application period. Refer to the procedure described in the section "IV Application Procedure" (page 23).
- (2) Deliver or mail your application documents specified by each Program to the respective Support Offices listed in the section "I Programs and Number of Students to be Admitted" (page 4).

The Support Office is open from 8:30 to 17:00 during the application period for the applicant who delivers the application documents.

In the case of submission via mail, the documents must be sent in a registered mail and reach us no later than 17:00, Friday, January 8. The documents received after this time shall be accepted only when it is postmarked no later than Wednesday, January 6.

#### 4. Result Announcement

We will send the acceptance certificate and the admission guide to the successful applicants by mail. An announcement will also be made on the website of the Graduate School of Advanced Science and Engineering, Hiroshima University (https://www.hiroshima-u.ac.jp/adse). The announcement on the website is made as part of information provision and does NOT grant admission officially in any way. Only mailing of the acceptance certificate should be regarded as an official announcement of admission. Please also note that an announcement will not be made through posting on the bulletin board on campus. (We do not answer any inquiry via phone.)

# III Application Eligibility, Required Documents and Selection Process

Note that the application eligibility, the required documents and selection process vary for each program. For the details, refer to the page listed in the table below.

Program	Category	Page(s) to be referred
Mathematics Program  Physics Program  Earth and Planetary Systems Science Program	Science Programs	Pages 7 to 10
Basic Chemistry Program		
Applied Chemistry Program  Chemical Engineering Program  Electrical, Systems, and Control Engineering Program  Mechanical Engineering Program  Transportation and Environmental Systems Program  Architecture Program  Civil and Environmental Engineering Program  Informatics and Data Science Program  Smart Innovation (Applied Chemistry)  Smart Innovation (Electrical, Systems, and Control Engineering)	Engineering Programs & Informatics and Data Science Program	Pages 11 to 16
Quantum Matter Program		Pages 17 to 18
Transdisciplinary Science and Engir (Environmental and Natural Science		Pages 19 to 22

# **Science Programs**

# Mathematics / Physics / Earth and Planetary Systems Science / Basic Chemistry

#### 1. Admission Policy

#### [Mathematics Program]

The Mathematics Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① A strong questing mind for the mathematical truth and an ambition to take a role as a leading researcher in specialized and/or cross-disciplinary research of mathematics;
- ② The will to take the leading role in professional occupations such as researchers, educators, and highly-professional engineers in mathematics areas;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to mathematics as well as a wide range of intelligence; and
- (4) Common sense as a member of society and ethics required for researchers.

#### [Physics Program]

The Physics Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① The will to work in the frontier field in areas of physics based on the point of view of researchers in the internationally top level;
- ② The will to take the leading role in professional occupations such as researchers, educators, and highly-professional engineers in areas related to physics based on the basic knowledge of cutting edge physics;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to physics as well as a wide range of intelligence; and
- ④ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### [Earth and Planetary Systems Science Program]

The Earth and Planetary Systems Science Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for acquiring advanced expertise and research techniques related to the earth and planetary systems science to take the leading role in advanced and prominent research activities;
- ② The will to take the leading role in professional occupations such as researchers educators, and highly-professional engineers in earth and planetary science areas;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring knowledge and study skills for the academic areas related to mathematics as well as a wide range of intelligence, in addition to a strong curiosity about not only the earth and planetary systems science but also for the other areas; and
- ① Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### [Basic Chemistry Program]

The Basic Chemistry Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role in professional occupations such as researchers and highly-professional engineers in basic chemistry areas;

#### b) Application Documents

Download the specified forms (a b f g h i and j) from the web site of the Graduate School of Advanced Science and Engineering.

	Document Name	Note
a	Application Form for Preliminary Evaluation	Use the specified form to prepare.
b	Record of Application Eligibility Evaluation	Use the specified form to prepare.
c	Academic transcripts	Issued by the president of the university or the dean of the faculty from which the applicant has graduated.
d	Graduation certificate	Issued by the president of the university or the dean of the faculty from which the applicant has graduated.
e	Research Achievements	Use the specified form to prepare.
f	List of Research Achievements	Use the specified form to prepare.
g	Reasons for Application	Use the specified form to prepare.
h	Research Plan	Use the specified form to prepare.
i	Return Envelope	Use standard envelop (12cm×23.5cm in size) and fill out your address; affix a 374-yen stamp to the front.

(Caution) It is required to attach the English or Japanese translation to the application document written in the other language.

- (2) The evaluation results will be notified to the applicant by Monday, December 28, 2020.
- (3) The applicant who has successfully passed a preliminary evaluation must submit the application documents (except the ones which have been already submitted in a preliminary evaluation) specified for each program. Refer to the page listed in the section "4. Application Documents ".

# 4. Application Documents

After making the application via internet, submit all the documents listed below at once during the application period to the address indicated in the "Submission Address for Application Documents" (page 4).

No	Document Name	Note
1	Academic transcripts of the undergraduate school	Issued by the president of the university (the dean of the faculty) from which the applicant graduated.
2	Academic transcripts of the graduate school	Issued by the president of the university (the dean of the graduate school) from which the applicant graduated.
	Graduation certificate or	Issued by the president of the university or the dean of the graduate school which you have graduated.  The applicant who has graduated or is expected to graduate from the Graduate School of Science of Hiroshima University (Master Course) need not submit this document.  The applicant who has graduated or is expected to graduate from a university in China (excluding that in Taiwan, Hong Kong, and Macao) is required to obtain and submit the following document:
3	certificate of expected graduation	Graduate

4	4	Master's Thesis or Summary of Master's Thesis	Copy of Master's thesis Applicants scheduled to complete the master's program: a summary of their master's thesis (in free format printed on about two A4-size sheets)
4	5 Return envelope		Use standard envelope (12cm×23.5cm in size) and fill out your address and name; affix a 94-yen stamp to the front (for sending the Examination Card).

(Caution 1) It is required to attach the English or Japanese translation to the application document written in the other language.

(Caution 2) The applicant who has successfully passed a preliminary evaluation of application eligibility need not submit the document No. 1, 2 and 3 above.

#### **5. Selection Process**

#### (1) Basic Policy

## OMathematics Program

The academic aptitude of an applicant is evaluated by a presentation of his/her master's dissertation and an oral examination. The academic aptitude examination evaluates whether the applicant is inspired to carry out research after admission, and whether he/she has acquired the basic academic abilities necessary for carrying out research in the field he/she will specialize in. If the applicant has published an academic paper, the content of the paper is also evaluated at the time when his/her academic transcript is evaluated. Admission to the course is determined based on a comprehensive review of the result of the academic aptitude examination and these evaluations.

#### OPhysics Program

To confirm whether an applicant has acquired specialized knowledge and linguistic ability in the master's program and to evaluate whether the applicant can engage in academic activities in accordance with the Curriculum Policy of the course, an academic aptitude examination (oral) is given to the applicant. Whether the applicant has the qualities necessary for the Doctoral Program is determined based on the academic transcript of the applicant.

#### oEarth and Planetary Systems Science Program

To evaluate whether an applicant can engage in academic activities in accordance with the Curriculum Policy of the course, an oral examination is given to the applicant. The result of the oral examination is evaluated by a grade-based score. Admission to the course is determined by comprehensively evaluating the result of the examination and the academic transcript of the applicant.

#### OBasic Chemistry Program

The admission of a foreign applicant is determined by comprehensively evaluating the result of the academic aptitude examination (oral) and the academic transcript of the applicant. The academic aptitude of an applicant is evaluated by a presentation of his/her master's dissertation and an oral examination.

## (2) Evaluation criteria

As for the evaluation criteria for the oral examination and document examination, four-level evaluation (A, B, C, D) is performed.

#### (3) Date and Time of the oral examination

Oral examination will be held during the period described in "1. Schedule of the Entrance Examination" in "II. Outline of Entrance Examination" (page 5). Specific schedule of the oral examination will be notified by the head of the program to which you will apply.

#### [Mechanical Engineering Program]

The Mechanical Engineering Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role in professional occupations such as researchers and highly-professional engineers in mechanical engineering areas;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to the mechanical engineering as well as a wide range of intelligence; and
- ④ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### [Transportation and Environmental Systems Program]

The Transportation and Environmental Systems Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research:
- ② The will to take the leading role in professional occupations such as researchers and engineers in areas of the transportation system engineering or the environmental system engineering;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to the transportation system engineering and the environmental system engineering as well as a wide range of intelligence; and
- ④ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### [Architecture Program]

The Architecture Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role in professional occupations such as researchers and highly-professional engineers in architecture areas;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to architecture as well as a wide range of intelligence; and
- ④ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

### [Civil and Environmental Engineering Program]

The Civil and Environmental Engineering Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role as a high-level engineer or researcher in areas of civil and environmental engineering including disaster prevention and mitigation engineering;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to the civil and environmental engineering as well as a wide range of intelligence; and
- 4 Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### [Informatics and Data Science Program]

The Informatics and Data Science Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role in professional occupations such as researchers and highly-professional engineers in the informatics and data science;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to the informatics and data science as well as a wide range of intelligence; and
- ④ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### [Smart Innovation Program]

- ① The Smart Innovation Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it: An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research;
- ② The will to take the leading role in professional occupations such as researchers and highly-professional engineers in areas related to the smart material development, the smart measurement and control, and their fusion technologies;
- ③ A zeal for establishing the "science for sustainable development" from multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to the smart material development, the smart measurement and control, and their fusion technologies of them as well as wide range of intelligence; and
- ④ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### 2. Application Eligibility

The applicant must be of a non-Japanese nationality, reside in Japan, meet or is expected to meet either of the following items by the date of admission, and be proficient in either Japanese or English.

- (1) A person who has a master's degree or a professional degree;
- (2) A person who was conferred a degree equivalent to a master's degree or a professional degree in a foreign country;

education course within the school education system in the concerned foreign country, subsequently conducted research activities in a university or research institute for over two years or more, and has been approved by the Graduate School as having academic capabilities equivalent or superior to those of master's degree holders according to the result of the concerned research activities.

(8) A person who has been approved by the Graduate School as having academic abilities equivalent or superior to those of master's degree or professional degree holders according to the result of the admission qualification examination that was separately conducted, and is 24 years or older at the time of the admission.

#### (Caution)

- (1) The applicant who is expected to meet either of the categories of the items (1) to (6) above must meet the condition specified by the respective items by March 31, 2021.
- (2) The applicant who falls under the categories of the item (7) or (8) above must undergo a preliminary evaluation of application eligibility (refer to the "3. Prerequisites for Application").

## 3. Prerequisites for Application

(1) Preliminary Evaluation

The applicant who falls under the categories of the item (7) or (8) above must undergo a preliminary evaluation of application eligibility. The concerned applicant must follow the procedures below.

(a) Application Period

Monday, December 7, 2020, - 17:00, Friday, December 11, 2020

(In the case of submission via mail, the documents must be sent in a registered mail. Indicate the phrase "Application Form for Preliminary Evaluation is enclosed." in red on the front surface of the envelop)

(b) Application Documents

Download the specified forms (a, b, d, e and f) from the website of the Graduate School of Advanced

Science and Engineering.

	Science and Engineering.	1	
No	Document name	No	te
a	Application Form for Preliminary Evaluation	Use the specified form to prepare.	
b	Record of Application Eligibility Evaluation	Use the specified form to prepare.	
c	Academic transcript	Issued by the president of the unive which the applicant has graduated.	ersity or the dean of the faculty from
d	Research Achievements	Use the specified form to prepare.	
e	L esearch chievements		ch as a master's thesis, publication, etc. and attach a copy or abstract for
f	Reference for Educational Background	university in China (excluding that is required to obtain and submit the Graduate 历证书电 备毕业证书 硕 证书	or is expected to graduate from a in Taiwan, Hong Kong, and Macao) e following document:  Prospective graduate  线验证报  毕业预 证书  the Web authentication will be valid in the authentication system of the 历证书查询).
g	Return Envelope		23.5cm in size) and fill out your

- (Caution) It is required to attach the English or Japanese translation to the application document written in the other language.
- (2) The evaluation results will be notified to the applicant by Monday, December 28, 2020.
- (3) The applicant who has successfully passed a preliminary evaluation must submit the application documents (except the ones which have been already submitted in a preliminary evaluation) specified for each Program. Refer to the table listed in the "4. Application Documents" below.

#### 4. Application Documents

After making the application via internet, submit all the documents listed below at once during the application period to the Support Office indicated in the section "I Programs and Number of Students to be Admitted" (page 4). Download the specified forms (4, 5, 6, 7, 8 and 9) from the website of the Graduate School of Advanced Science and Engineering.

Document name Note Issued by the president of the university or the dean of the faculty from Academic transcript of 1 the undergraduate school which the applicant has graduated. Academic transcript of Issued by the president of the university or the dean of the graduate the graduate school school from which the applicant has graduated. Issued by the president of the university or the dean of the graduate school from which the applicant has graduated. The certificate must Certificate of graduation indicate that you were conferred a master's degree. or certificate of expected The applicant who falls under the categories of the items (2) to (6) above graduation must submit the document which proves that the applicant meets the condition specified by the respective items. Use the specified form to prepare. Letter of Issued by the last academic supervisor or the head of the institution to 4 Recommendation which the applicant belongs. 5 Research Plan Use the specified form to prepare. Use the specified form to prepare. The applicant who has passed through the master's course must indicate Summary of Master's 6 summary of the master's thesis. The applicant who is preparing the Thesis master's thesis must indicate the intermediate report of the master's thesis. 7 Research Achievements Use the specified form to prepare. List of Research 8 Use the specified form to prepare. Achievements Only for the applicant has graduated from a foreign university. Use the specified form to prepare. The applicant who has graduated or is expected to graduate from a university in China (excluding that in Taiwan, Hong Kong, and Macao) is required to obtain and submit the following document: Graduate Prospective graduate Reference for 历证书电 线验证报 9 毕业证书 毕业预 **Educational Background** 证书 Obtain the document for which the Web authentication will be valid at Friday, January 22, 2021 via the authentication system of the 历证书查 Ministry Education of China ( 询).http://www.chsi.com.cn/xlcx/bgys.jsp If your address is written on the back side of the card, make a two-sided 10 Copy of Residence Card copy. Use a standard envelope (12cm×23.5cm in size) and fill out your address 11 Return Envelope

	and name; affix a 94-yen stamp to the front (for sending the Examination
	Card)

#### (Caution)

- (1) It is required to attach the English or Japanese translation to the application document written in the other language.
- (2) The applicant who has successfully passed a preliminary evaluation need not submit the documents No.3, 7, 8 and 9 above.

#### **5. Selection Process**

(1) Basic Policy

The results of the oral examination (English-language proficiency, knowledge and problem-solving skills in Specialized subject in the area of desired Program, presentation of Master's Thesis (only for the applicant who has passed through the master's course), and questions about Research Achievements and Research Plan) and document screening will be comprehensively evaluated.

#### (2) Evaluation Criteria

Oral examination Scale of 1 to 4

Document screening Scale of 1 to 4

#### (3) Date of Oral Examination

Oral Examination will be held for each program during the period indicated in the "1. Schedule of the Entrance Examination" in the section "II Outline of Entrance Examination" (page 5). The date and place of the examination will be notified to the applicant by each Program.

# **Quantum Matter Program**

#### 1. Admission Policy

#### [Quantum Matter Program]

The Quantum Matter Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① The will to acquire sophisticated research ability and expertise to obtain the doctor degree and being engaged in advanced professional occupations such as researchers and engineers in area of the basic materials science, condensed material physics, material science and engineering, and electronic engineering;
- ② An ambition for unveiling new findings in physics and applying them in an engineering field and/or development of an integrated system regardless of the experience and background before entering the university;
- ③ A wish to build up new businesses as well as exploring scientific facts and applying scientific findings from the academic point of view;
- ④ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to the basic materials science, condensed material physics, material science and engineering, and electronic engineering as well as a wide range of intelligence; and
- ⑤ Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### 2. Application Eligibility

The applicant is required to be a person who do not have Japanese nationality, resides in Japan, and meets or is expected to meet either of the following qualifications before the date of admission:

- (1) A person who has a master's degree or a professional degree;
- (2) A person who has been engaged in research activities in a university or research institute for two years or more and whom this Graduate School approved to have academic capabilities equivalent or superior to those of master's degree or professional degree holders according to the result of the concerned research activities; or
- (3) A person who is approved to have academic capabilities equivalent or superior to those of master's degree or professional degree holders according to the result of the admission qualification examination that is separately conducted and is 24 years or older at the time of the admission.

#### (Caution)

The applicant who falls under the category of the item (2) or (3) above is required to submit documents for qualification during the period from Monday, December 7, 2020 to Friday, December 11, 2020.

Please contact with the person in charge in the address indicated in the column of "Contact" in page 4 for more information.

#### 3. Application Documents

After making the application via internet, submit all the documents listed below at once during the application period to the address indicated in the "Submission address for application documents" in the page 4. Download the specified forms (5, 6, 7 and 8) from the web site of the Graduate School of Advanced Science and Engineering.

No	Document name	Note
1		Issued by the president of the university (the head of the graduate school) from which the applicant has graduated.

	Т		
2	Graduation certificate or certificate of expected graduation	Issued by the president of the unschool) from which the applicant had (If you have completed a Master's certificate includes information about The applicant who has graduated university in China (excluding that it is required to obtain and submit the Graduate	as graduated. s course, please make sure that the out your degree.) or is expected to graduate from a in Taiwan, Hong Kong, and Macao) of following document:  Prospective graduate
		历证书电 备 毕业证书	
		at Friday, January 22, 2021 via Ministry Education of China (	the authentication system of the 历证书查询).
		http://www.chsi.com.cn/xlcx/bgy	
3	One copy of the master's thesis	The applicant who fall under the apitem (1)	oplication eligibility category of the
4	Intermediate report for the research results obtained after graduating from the university	Select a format arbitrarily to prepare the document. The applicant who fall under the application eligibility category of the item (2) or (3)	
5	Research Plan	Use the specified form to prepare. (	(600 words or longer)
6	Research Achievements	Use the specified form to prepare.	
7	List of Research Achievements	Use the specified form to prepare.	
8	Letter of Recommendation	Use the specified form to prepare. Signed by the academic advisor or the applicant is currently enrolled in	equivalent in the university which n or has graduated from.
9	Certificate of English language proficiency	Score certificate of a language abil and TOEIC®.	lity examination such as TOEFL®
10	Certificate of the Graduate Record Examinations (GRE) (voluntarily submitted)	Submit the certificate of GRE, if an	
11	A copy of residence card	If applicant's address is written or make a both sided copies.	n the back side of the card, please
12	Return Envelope	Use standard envelope (12cm×23.56 and name; affix a 94-yen stamper Examination Card)	

(Caution)

It is required to attach the English or Japanese translation to the application document written in the other language.

#### 4. Oral Examination

The oral examination will be given for areas listed below:

- (1) Reason for application
- (2) Research area and research plan for the Doctoral Course
- (3) Master's thesis
- (4) Basic knowledge in the area in which the applicant wants to conduct the research activities

# Transdisciplinary Science and Engineering Program (Environmental and Natural Sciences)

#### 1. Admission Policy

#### [Transdisciplinary Science and Engineering Program]

The Transdisciplinary Science and Engineering Program seeks students who have the following aspirations and motivation and have the basic academic abilities necessary for it:

- ① An ambition for taking the leading role in advanced and prominent academic and inter-disciplinary research:
- ② The will to explore new academic areas with both of the nature-oriented and human-oriented thoughts;
- ③ A zeal for establishing the "science for sustainable development" from a multifaceted perspective and for solving regional and international issues by acquiring wide range of academic knowledge and study skills for the academic areas related to natural science, engineering, and interdisciplinary areas such as the information science and the international cooperation studies as well as a wide range of intelligence; and
- ① Common sense as a member of society and ethics required for researchers and highly-professional engineers.

#### 2. Application Eligibility

The applicant is required to be a person who do not have Japanese nationality, resides outside Japan, meets or is expected to meet either of the following qualifications before the date of admission:

- (1) A person who has a master's degree or a professional degree;
- (2) A person who was awarded a degree equivalent to a master's degree or a professional degree in a country other than Japan;
- (3) A person who studied class subjects provided by a foreign school as a correspondence course in Japan and earned a degree equivalent to a master's degree or a professional degree;
- (4) A person who passed through an education course provided by a foreign education institution which is established within the school education system in the concerned foreign country and is approved by the Minister of Education, Culture, Sports, Science and Technology and earned a degree equivalent to a master's degree or a professional degree;
- (5) A person who passed through an education course of the United Nations University and earned a degree equivalent to a master's degree;
- (6) A person who passed through an education course of a national school, an education institute defined in the item (4) above, or the United Nations University, got through the examination and qualification defined in the item 2 of Article 16 of the Graduate School Establishment Standards, and approved as a person who have academic capabilities equivalent or superior to those of master's degree holders;
- (7) A person who is designated by the Minister of Education, Culture, Sports, Science and Technology (Notification of the Ministry of Education, Culture, Sports, Science and Technology, No. 118 of September 1, 1989);
  - (a) A person who has been engaged in research activities in a university or research institute for two years or more and whom this Graduate School approved to have academic capabilities equivalent or superior to those of master's degree holders according to the result of the concerned research activities; or
  - (b) Graduated from a university or passed through a 16-year education course in a foreign school and then has been engaged in research activities in a university or research institute for 2 years or more; and
  - (c) Has a research result such as a publication, academic paper, academic lecture, academic report, or patent that the Graduate School of Advanced Science and Engineering approve to be equivalent to a master's thesis.
- (8) A person who is approved to have academic capabilities equivalent or superior to those of master's degree or professional degree holders according to the result of the admission qualification examination that is separately conducted and is 24 years or older at the time of the admission.

(Caution)

- (1) The applicant who meets or is expected to meet either of the item (1) to (6) above before the date of admission must have the qualification by March 31, 2021.
- (2) The applicant who falls under the category of the item (7) or (8) above must refer to the next section "3. Examination of Application Eligibility and Evaluation."

## 3. Prerequisites for Application

(1) Preliminary Evaluation

The applicant who falls under the category of the item (7) or (8) above is required the preliminary evaluation for application eligibility and to carry out the procedure as follows;

(a) Application Period

Monday, December 7, 2020, Friday, December 11, 2020 no later than 17:00

(In the case of submission via mail, the documents must be sent in a registered mail with "Application Form for Preliminary Evaluation" in red on the envelop surface.)

(b) Documents to be submitted

Download the specified forms (1, 2, 5, 6, 7 and 8) from the web site of the Graduate School of

Advanced Science and Engineering.

No	Document name	Note
1	Application Form for Preliminary Evaluation	Use the specified form to prepare.
2	Record of Application Eligibility Evaluation	Use the specified form to prepare.
3	Academic transcripts of the last school	Issued by the president of the last school from which the applicant graduated.

Issued by the president of the university (the head of the graduate school) from which the applicant has graduated.

(If you have completed a Master's course, please make sure that the certificate includes information about your degree.)

The applicant who has graduated or is expected to graduate from a university in China (excluding that in Taiwan, Hong Kong, and Macao) is required to obtain and submit the following document:

Graduation certificate or 4 certificate of expected graduation

Graduate	Prospective graduate	
历证书电 备	线验证报	
毕业证书	毕业预 证书	
硕 证书		

each program. Refer to the page listed in the section "4. Application Documents ".

# **4. Application Documents**

#### **5. Selection Process**

#### (1) Basic policy

Academic abilities (based on the oral examination), foreign language (based on the oral examination), the academic transcript, master's thesis, and research plan will be comprehensively evaluated.

#### (2) Evaluation criteria

[Academic abilities(based on the oral examination),] Motivation, aspirations, and basic research knowledge will be evaluated in scale assessment.

[Foreign Language(based on the oral examination)] max. 100 points

#### (3) Date and Time of the oral examination

Oral examination will be held during the period described in "1. Schedule of the Entrance Examination" in "II. Outline of Entrance Examination" (page 6). Specific schedule of the oral examination will be notified by the head of the program to which you will apply.

#### (4) Contents of oral Examination

(1) Academic abilities

Details will be notified on the day.

② Foreign Language

Please select one foreign language from English or Japanese, which is required for your research. The applicant can submit the score certificate of the foreign language examination, or thesis, report, international conference material, etc. as a reference for the foreign language examination (oral examination). You may be asked to submit the reference materials by the faculty who is expected to be your advisor. Upon consultation with the advisor, choose one foreign language to be evaluated for the entrance examination and discuss the reference materials (foreign language certificate) you should submit.

- 1) The applicant who is taking the entrance examination in English can submit the score certificate of TOEIC® public test (L&R), TOEIC-IP test (L&R), TOEFL-PBT, TOEFL-iBT, the EIKEN Test in Practical English Proficiency, etc.
- 2) The applicant who is taking the entrance examination in Japanese can submit the score certificate of Japanese-Language Proficiency Test (N1) (Only for non-native speakers of Japanese).
- 3) Research thesis, report, international conference material, etc. written in the foreign language you are taking the entrance examination. (Caution)
- For the score certificates of either of 1-2 listed above, it is required to submit the original or a copy with the original certification. In the case you submit the copy, it is also required to bring the original score certificate on the day of entrance examination (the certificate which is printed from the internet cannot be accepted). The original certificate will be returned to the applicants at a later date.
- For the score certificates of either of 1-2 listed above, only the certificate of the examinations that has been held on April 1,2017 or later can be accepted.
- The original score certificates of either of 1-2 listed above that you acquired after the application deadline can be presented in the oral examination.
- The applicant who has the score certificates of other language than English and Japanese can submit the score certificate of the concerned foreign language in addition to the score certificates of either of 1-3 listed above.
- Applicants who are unable to submit any score certificate due to the suspension of language ability examination because of COVID-19 should contact the faculty who is expected to be your advisor in advance.

Contact Period: no later than Friday, December 11, 2020

# IV Application procedure

#### (1) Application method

Apply via internet and submit the application documents.

- ① Input the information regarding the application on the website.
- ② Pay the entrance examination fee of 30,000 yen.
- ③ Deliver or mail the application documents.

#### (Caution)

The application via internet will not be completed when only the input of the information on the website and the payment of the entrance examination fee are done. It is required to deliver or mail the application documents to be received before the deadline. The application will not be accepted when the applicant only sends the application documents.

## (2) Application period

The applicant must complete all the processes of 1, 2, and 3 listed in the "(1) Application method" during the application period.

Monday, January 4, 2021 – 17:00, Friday, January 8, 2021

In the case of ( a40.44nw 2.875 c 75 1038T4664 p rti35 T013.068 0 j 0 T..08()Tj -[(ag 0 -1ew 2.8

# Step 3: Input your account information (applicable to the admission examination category for which it is required).

The applicant who applies for exemption from the entrance examination fee must consult in advance with the respective Support Offices listed in the section "I Programs and Number of Students to be Admitted" (page 4) to obtain the alphanumeric characters of eight or more digits and input them.

#### Step 4: Input the information regarding the application in the Internet Application System.

Follow the instruction shown on the screen to input your name, address, etc.

#### Step 5: Upload your photograph.

Follow the instruction shown on the screen to upload the digital data of your photograph (File format: JPEG). It is not allowed to submit the photograph via mail.

#### Step 6: Pay the entrance examination fee of 30,000 yen.

Select either of the following payment methods on the "Input Payment Information" screen:

- 1. Credit card: VISA, MasterCard, JCB, AMERICAN EXPRESS, Diners Club
- 2. Convenience store: 7-ELEVEN, Lauson, MINISTOP, FamilyMart, Daily Yamazaki, and Seicomart
- 3. ATM of a financial institution [Pay-easy]
- 4. Net banking

(Caution)

The applicant has to pay the charge for use of the Internet Application System (650 yen per application) in addition to the entrance examination fee.

MEXT Scholarship students who have applied for (or intend to apply for) extension of scholarship payment period are exempted from the entrance examination fee. Those students who are enrolled in the university other than Hiroshima University at the time of application are required to submit the following two documents;

- (1) MEXT Scholarship Certificate
- (2) The document which proves that the applicant has applied for (or intends to apply for) extension of scholarship payment period (must be issued by the university the applicant is enrolled in).

The entrance examination fee once paid will not be returned for any reason after the application is accepted except for the following cases of (1) or (2).

In either case of (1) or (2), the entrance examination fee once paid will be returned after deducting the transfer fee from it. "Refunded Invoice for Entrance Examination Fee" will be sent to you. Fill in the required information, put your personal seal, and mail it back to the respective Support Office listed in the section "I Programs and Number of Students to be Admitted" (page 4) before Friday, February 26, 2021.

The charge for use of the Internet Application System will not be repaid for any case.

- (1) The applicant does not submit the application documents or the application documents are not accepted.
- (2) The payment of the examination fee is duplicated.

#### Step 7: Complete the registration of the application information.

Write down the application number of six digits shown on the screen.

#### Step 8: Deliver or mail the application documents.

Deliver or mail your application documents specified by the Program to the respective Support Office listed in the section "I Programs and Number of Students to be Admitted" (page 4).

The Support Office is open from 8:30 to 17:00 during the application period (except for Saturday, Sunday and national holidays) for the applicant who delivers the application documents.

In the case of submission via mail, the documents must be sent in a registered mail and reach us no later than Friday, January 8

## (4) Application documents

Required application documents vary for each Program.

Refer to the page for each Program listed in the section "III Application Eligibility, Required Documents and Selection Process" (page 6).

## (5) Submission address for application documents

Refer to the respective Support Offices listed in the section "I Programs and Number of Students to be Admitted" (page 4).

# V Miscellaneous

### 1. Instruction for Application

(1) Consult with the faculty who is expected to be your academic supervisor about your research theme before applying.

For the information regarding faculties of the Graduate School of Advanced Science and Engineering, refer to the following website.

URL https://www.hiroshima-u.ac.jp/en/adse/research

The consultation is held as part of information provision from the Graduate School and does not affect the result of the selection in any way.

- (2) The application documents with a defect might be rejected. After the application documents are accepted, they shall not be returned and it is not allowed to amend the information described in them for any reason.
- (3) For the certificates, it is required to submit the original or a copy with the original certification. Any copy without the original certification will not be accepted as the valid certificate.
- (4) The score certificate of English-language proficiency submitted for the application for Quantum Matter Program will be used for the following purposes.
  - ① Entrance examination
  - ② Statistics and analysis of English-language proficiency of applicants
- (5) The admission approval shall be withdrawn when it is found that the submitted documents contain any false indication.
- (6) The admission approval shall be withdrawn when the applicant who was expected to meet any of the application eligibilities at the time of application has failed to earn the expected degree or complete the expected school before the date of admission.

# 2. Consultation with the Applicant who Needs Special Consideration for the Entrance Examination and/or Education in the Graduate School

The applicant who needs special consideration for the entrance examination and/or education in the Graduate School is required to submit the application form (in free format) which contains the following information to the respective Support Office listed in the section "I Programs and Number of Students to be Admitted" (page 4) to arrange a consultation.

- A. Period for the consultation: Monday, December 7 Friday, December 11, 2020
- B. Information to be described in the application
  - ① Name & address of the applicant (the phone number must be included.)
  - ② Name of the university from which the applicant has graduated, Program for which the applicant will apply, and the name of the

and investigation & research activities (e.g. improvement of the entrance examination system, investigation and analysis on the trend of application). We neither use the information for the other purpose nor provide it to the person other than our concerned faculties and the staff.

#### 4. Admission Procedure

(1) Documents for admission procedure

The documents will be sent after the selection result is announced.

UCARO system is used as a part of the admission procedures.

(2) Fee

A: Enrollment fee: 282,000 yen B: Tuition (per year): 535,800 yen

The enrollment fee once paid will not be returned for any reason.

The amounts listed above are as of April 2020. When the amount is revised at the time of admission or while the student is enrolled in the university, it is required to pay the revised amount.

#### 5. Application for Disclosure of Examination Results

(1) The information regarding the result of the entrance examination for the Graduate School of Advanced Science and Engineering listed below is disclosed only to the person who has applied for the entrance examination (hereinafter referred to as the "applicant for disclosure").

#### Special Measure of Exemption from the Entrance Examination Fee for the Applicant

Hiroshima University has decided to implement a special measure of exemption from the entrance examination fee for the entrance examinations in the 2020 academic year, to alleviate the economic burden on and to secure educational opportunities for the applicants affected by the disasters.

The applicant who wishes to be exempted from the entrance examination fee must contact in advance the respective Support Offices listed in the section "I Programs and Number of Students to be Admitted" (page 4).

#### 1 Examinations to which the Special Measure is Applied

The entrance examinations held in the 2020 academic year (including selections of re-admission, transfers, and mid-course entry admission).

#### 2 Special Measure

Exemption from the entrance examination fees

\*Fees for the entrance examination result disclosure will be covered as well.

#### 3 Disasters to which the Special Measure is Applied

- (1) The 2016 Kumamoto Earthquake
- (2) The Heavy Rain Event of July 2018
- (3) Any disasters covered by the Disaster Relief Act after August 28, 2019

#### 4 The Applicant Eligible for Exemption

The applicant who was affected by the disaster specified in the "3 Disasters to which the Special Measure is Applied" in the areas covered by the Disaster Relief Act, and who falls under either of the following conditions.

(1) The house in which the family'

(For the applicant who falls under the condition of the item (2) of the "4 The Applicant Eligible for Exemption" above)

## 7 Application Process (Internet Application)

Refer to the PDF file available in the following website. https://www.hiroshima-u.ac.jp/system/files/130094/menjo\_r2.pdf

#### 8 Contact

Refer to the respective Support Offices listed in the section "I Programs and Number of Students to be Admitted" (page 4).