佐賀大学大学院理工学研究科 環境・エネルギー・健康科学グローバル教育プログラム 博士後期課程(外国人留学生-在日) 学生募集要項

Guide for the Application for the Foreign Students of Education Program for Global Advancement (EPGA) in Environmental, Energy and Health Science

(Doctor Course)

2021

Application Deadline: January 25, 2021.

Examinations and Interview: February 26, 2021.

Academic year start: April 1, 2021.

*This exam schedule is scheduled as of October 14. Depending on the future spread of the novel coronavirus (COVID-19) infection, the entrance examination schedule may be postponed. If the test cannot be conducted at Saga University due to the spread of the novel coronavirus (COVID-19), the test will be postponed and/or conducted via the Internet.

Graduate School of Science and Engineering SAGA UNIVERSITY

Personal Information Use

In accordance with enforcement of the Act on the Protection of Personal Information Held by Independent Administrative Agencies, personal information written on the application form submitted by applicants is utilized for educational purpose (including exemption of entrance and tuition fees, payment extension of entrance fee, and scholarship) as well as the selection of applicants by entrance examinations (including additional business such as statistical transaction).

Personal information possessed by Saga University is not utilized for different purposes from the aim denoted above, and is not provided to a third person without the applicant's agreement, except for the case prescribed by the item no.9 of the Act on the Protection of Personal Information Held by Independent Administrative Agencies.

Education Program for Global Advancement (EPGA) in Environmental, Energy and Health Science

(Doctor Course)

2021

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GUIDE FOR THE APPLICATION FOR THE FOREIGN STUDENTS OF EDUCATION PROGRAM FOR GLOBAL ADVANCEMENT (EPGA) IN ENVIRONMENTAL, ENERGY AND HEALTH SCIENCE

The Education Program for Global Advancement (EPGA) in Environmental, Energy and Health Science provides all lectures, seminars, and internships, etc. on global environmental, energy problems and health expertise in English for both foreign and Japanese students. Students from overseas can learn and study completely in Japan without a hurdle of Japanese language. The EPGA is an educational course in the Graduate School of Science and Engineering, Saga University, that started in October 2020, in order to bring up global researchers and engineers who will contribute to the environmental, energy and health science. This is a call for application to a three-year Doctor Course from the academic year of 2021.

The wisdom that mankind has created by the academic deepening has brought humanity a prosperous life through developing science and technology. To improve science and technology, it is necessary to spread health sciences in addition to efforts from the viewpoint of environmental and energy conservation. Educational study of the environmental, energy and health science should be performed from the all-round and global viewpoint. The EPGA has been established in the Graduate School of Science and Engineering in order to discuss and solve environmental, energy and health problems. The scope and goal of this EPGA is the education for students to possess an all-round insight for the environment, energy and health science from the global point of view after their completion by acquiring knowledge and thinking power.

In the Doctor Course program of the EPGA, education and research guidance of the fields are given in the Graduate School of Science and Engineering: Mechanical and Electrical Energy Engineering, Civil Engineering and Architectural Design and Biological and Material Engineering. Applicants are encouraged to decide the research fields and prospective relevant supervisor(s) appearing on the List of Academic Staffs, and contact with the supervisor(s).

Students who complete the Doctor Course program of the EPGA are granted the Doctor's Degree (Science, Engineering or Ph.D.). The month of entrance for foreign students is April, and they can enter the EPGA course immediately after completing their Master's Degree program without learning Japanese language.

Qualifications

- 1. **Nationality:** Non-Japanese citizens staying in Japan can apply for this program.
- 2. **Academic carrier:** The following candidates may apply for admission.
 - a. Those who have received Master's Degree from Japanese University as of March 31, 2021.
 - b. Those who have received a Degree equivalent to Master's Degree of Japanese Universities in foreign country, or will receive it in foreign country as of March 31, 2021.
 - c. Those who have received a Degree equivalent to Master's Degree of Japanese Universities from a foreign school through correspondence education in Japan, or will receive the Degree as of March 31, 2021.
 - d. Those who have received a Degree equivalent to Master's Degree of Japanese Universities at educational institutions of the foreign country in Japan, which is designated by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government, or will receive the Degree as of March 31, 2021.
 - e. Those who have been designated by the Minister of Education, Culture, Sports, Science and Technology of the Japanese Government.
 - f. Those who are 24 years old or more as of March 31, 2021, and are admitted by the Graduate School of Saga University as that their academic abilities are equivalent to or higher than Master's Degree of Japanese Universities upon reviewing the submitted materials.
 - * Those who intend to apply based on the terms e or f should submit the application form to the Entrance Examination Office of Saga University one month earlier than the application deadline.
- 3. **Language proficiency:** A good working level of English is required.

Tuition expenses

- 1. **Entrance examination fee:** 30,000 yen.
 - (N.B. The entrance examination fee is not necessary for the applicant who will graduate the Master Course from this University in March, 2021.)
- 2. **Entrance fee:** 282,000 yen.
- 3. **Tuition fee:** 267,900 Yen for each semester (scheduled). [535,800 Yen per academic year (scheduled).] Amount of due might be slightly revised depending on the decision of the administration council.

Payments must be done for each semester biannually within the beginning two months of the semester.

For the information on the tuition assistance, exemption subsidization, and scholarships is available at the Benefits section in the following pages.

Selection

- Selection for admission shall be achieved by written and/or oral examinations on the selected major subjects and interview. All examinations and interview will be conducted in English on February 26, 2021. This exam schedule is scheduled as of October 14. Depending on the future spread of the novel coronavirus (COVID-19) infection, the entrance examination schedule may be postponed. If the test cannot be conducted at Saga University due to the spread of the novel coronavirus (COVID-19), the test will be postponed and/or conducted via the Internet. In this case, the detail of entrance examination will be noticed to the applicant by e-mail and examination ticket.
- 2. The final results of selection will be noticed to the applicant by a letter. It will be dispatched on **March 9, 2021**.
- 3. A few students can be admitted.

Admission

- 1. Date of enrollment is April 1, 2021.
- 2. Date of registration for admission: March 22 to March 26, 2021. If the applicant does not register on these days, his/her admission shall be canceled.
- 3. Admission shall be canceled if the applicant fails to receive the Master's Degree on or before March 31, 2021.

Application

- 1. Applicants should prepare the following documents to be forwarded to the Entrance Examination Office, Saga University.
 - ① **Application Form** (Form A).
 - ② Official transcript of **Master's degree** or certificate representing that the applicant will be conferred Master's degree by March 31, 2021. Official transcript of Bachelor's degree is required in the case that the applicant will be qualified by the criterion 2-e of **QUALIFICATIONS** described above. The transcript or certificate must be sealed by the authority or sent directly from the college. Original diploma is also acceptable; in this case the examination office may exemplify the diploma and the original may be returned at the office.
 - ③ Transcripts of **Academic Record** issued by university authorities and its English translation. (The criteria of academic assessment should be also shown.)
 - ④ English summary of **Master Thesis** or it's equivalent if available, not exceeding four sheets of A4 size paper typed in double space. If a Master Thesis is not required by the University from which the applicant graduated, prepare a statement to this matter.
 - ⑤ Certificate of **Citizenship** issued by appropriate authorities.
 - 6 Recommendation and Reference
 - a. A letter of **Recommendation** (Form B) from the head (Dean, in case of University) of the applicant's affiliated institution.
 - b. Letter(s) of **Reference** (Form C) from those who know the applicant's research/study capability addressed to the President of Saga University.

The letters of recommendation and reference should indicate the English proficiency of the applicant. Enclose, therein, a certificate indicating the scores of TOEFL or a corresponding English Ability Test, if any.

- \bigcirc Three **Photographs** (hatless portrait), 4.5 cm \times 3.5 cm in size, taken within six months before the date of application. Two copies should be attached to the application form. One extra copy should be enclosed therein, with the applicant's name and nationality on the reverse side of the copies.
- **Entrance Examination Fee**: 30,000 yen.
- 2. All documents should be sent by registered mail and received by the Entrance Examination Office between **January 18 and January 25, 2021.**

Remarks

- 1. The above documents should be type-written in English on A4 size paper.
- 2. Incomplete documents are not acceptable.
- 3. None of the documents submitted is returned to the applicant.

Notes

- 1. The applicant will be deprived his/her entrance under the following cases:
 - a. False statements on the documents.
 - b. Violation of the pledge.
- 2. Applicants are recommended to be well acquainted with the Japanese language, culture, customs, etc. A knowledge of the Japanese language is necessary in daily life.
- 3. Applicants are expected to complete their Doctor Course Program within three years.

Benefits

- 1. Exemption of tuition fee from complete to 50% may be granted depending on circumstances.
- 2. There are several scholarships for private-expense foreign students. Students can apply for these scholarships.
- 3. Housing: Students can apply to Saga University International House, or low-cost apartments supported by Saga prefecture and other organizations.

Correspondence

Any correspondence relating to the application for the EPGA should be sent by mail to the address below.

Entrance Examination Office Saga University 1 Honjo-machi Saga 840-8502, Japan

E-mail: epga@mail.admin.saga-u.ac.jp

ACADEMIC STAFFS ATTENDING EPGA COURSES AND THEIR RESEARCH INTERESTS AND MAJOR FIELDS

Graduate School of Science and Engineering [Doctor course]

Mechanical and Electrical Energy Engineering Course

Thermo-Fluid Energy Engineering
Thermal Engineering
Thermodynamics, energy conversion, power plant systems Heat exchanger, condensation, evaporation, absorption
Fluid Engineering
Fluid Engineering
Material and Design Engineering
Mechanics of Materials, Solid and Structures
Strength of materials Advanced solid mechanics Computational mechanics Numerical analysis for structures Fatigue strength of metals and advanced materials
Design and Production EngineeringZhang, B., Hasegawa, H., Mawatari, T.
and Ohshima, F.
Design of machinery and machine elements Tribology of machine elements Surface engineering
Advanced Robotics Tsujimura, T.
Sustainable robot design Networked robot control systems Meta-heuristics for robots Design and manufacturing system of gears
Control Engineering
Ocean Energy Engineering
Ocean EngineeringImai, Y. and Murakami, T.
Wave energy conversion system, Marine hydrodynamics, Floating system
Thermal Engineering
Thermal Energy Conversion Systems

Electronics, Information and Communication Advanced Microwave Engineering......Toyoda, I., Tanaka, Takayuki. and Nishiyama, E. Advanced OptoelectronicsGuo, Q. Bionic and Cybernetic EngineeringWakuya, H. Advanced Electronics Packaging TechnologySasaki, S. **Advanced Power Electronics** Microwave Electronic Devices and Circuits......Oishi, T. Plasma Energy Engineering....... Ohtsu, Y. and Ihara, S. Civil Engineering and Architectural Design Course **Civil Engineering** Theory and practice of geotechnical engineering prediction and prevention of ground disaster Advanced geotechnical engineering Advanced geo-environmental engineering Geomechanics and rock engineering Advanced soil mechanics Structural EngineeringObiya, H. Advanced earthquake engineering Theory of basic and application of large scale structure systems Advanced structural analysis System analysis of structures Advanced structural design Advanced computational mechanics Construction Materials Ito, Y. Improvement of mechanical properties of construction materials Utilization of waste materials Advanced concrete engineering Maintenance management of concrete structures Development of inspection technique for concrete structure Advanced geotechnical materials Geotechnical materials engineering **Environmental System Engineering** Water Management System......Ohgushi, K., Yamanishi, H. Narumol, V. and Oshikawa, H. Water resources engineering Wastewater treatment systems Computational hydraulics and remote sensing engineering for water environment Water resources management Water environmental systems engineering

Environmental systems engineering

Water pollution control systems Advanced hydraulic network system planning Planning theory on water environment

Urban System and Environment Li, H., and Inohae, T.

Transportation system and planning.

Urban development and urban systems.

Residential environment evaluation.

Prevention for urban disaster.

Urban energy management.

Urban environmental evaluation.

Architecture and Urban Design

Urban Design and Architecture Mishima, N., Goto, R., Hirase, Y. and Miyahara, M.

Basic principle and application of urban planning and transportation planning

Advanced urban space design

Advanced transportation planning

Advanced environmental evaluation

Town space design

Advanced Architectural environmental control

Urban and Building Environment

Biological and Material Engineering Course

Biomedical Engineering

Compensation of hand movement by additional force

Power system control; Reliability analysis of equipments in power stations,

Modeling and analysis of geothermal power station

Plant system control; Modeling and control of Ocean/Spring Thermal Energy

Conversion(OTEC/STEC), Modeling and control of chemical plant

Mechatronic system control; Simulator for articulated robot arm,

Cooperative control of plural robots, Forcefree control

Biosensors; Intelligent-composite multisensors

Biosensors; Tactile sensors mimicking human perceptions

Biosensors; Non-invasive imaging with composite sensors

Biomedical imaging; Photoacoustic imaging

Biomedical imaging; Nonlinear optics

Applied Computing....... Muramatsu, K. and Dozono, H

Numerical analysis of electromagnetic field

Optimal design of electromagnetic apparatus

Modelling of magnetic materials

Soft computing

Self-organizing maps

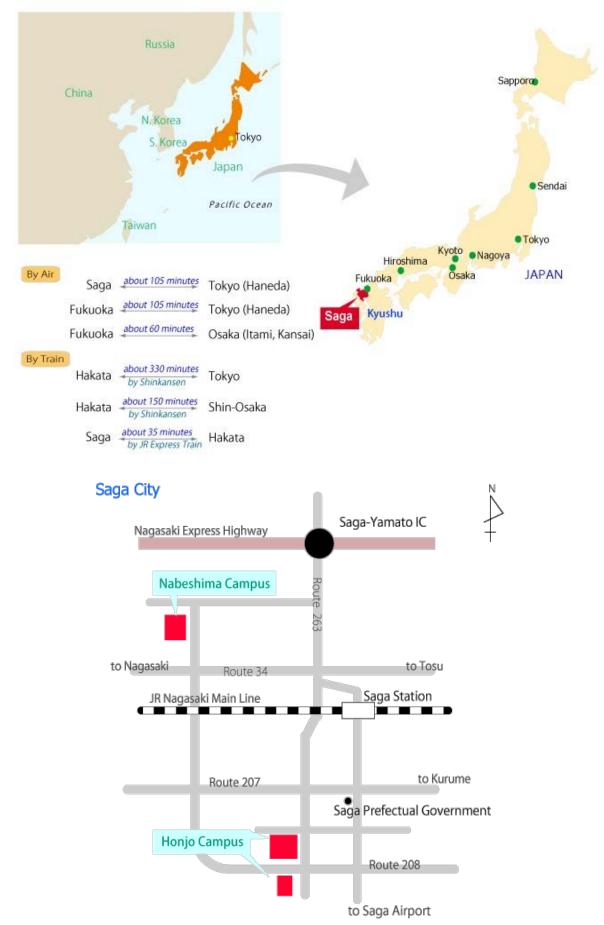
Compressible fluid flow, effective utilization of fluid energy, multiphase flow

Non-destructive testing.

Inverse problems in multidimensional sensing. Wave-field analysis Biomedical sensing by ultrasound Photonic Sensing. Nano-scale Sensing. Signal processing Interface Devices	
Advanced Material Chemistry	
Functional Ceramics	
Advanced Organic Materials	
Advanced supramolecular chemistry Molecular design of advanced materials	
Environmental Chemical Engineering	
Photoreceptor proteins	
Chair of Chemistry and Applied Chemistry	
Inorganic Materials Chemistry	
Coordination Chemistry	
Organic Materials Chemistry	
Advanced Organic Materials	
Advanced Biological Materials	

	Synthesis and structure of biologically active peptides. Chemistry of ion channel forming peptides. Mechanism-based design and synthesis of enzyme or receptor inhibitors.
Environmen	atal Physical Chemistry
Physical	Chemistry for Photonic and Optoelectronic Materials Era, M Optoelectronic materials Advanced Solid State Chemical Physics
Physical	Chemistry for Biological Molecules
Physical	Chemistry of functionalized materials
Physical	Chemistry for bioelectrochemistry
Environmen	ital Chemistry and Engineering
Environ	mental Chemical Engineering Ohto, K. and Morisada, S Advanced environmental chemistry
Solution	Chemistry

Access to Honjo Campus, Saga University



EDUCATION PROGRAM FOR GLOBAL ADVANCEMENT (EPGA) IN ENVIRONMENTAL, ENERGY AND HEALTH SCIENCE

GRADUATE SCHOOL OF SCIENCE AND ENGINEERING, SAGA UNIVERSITY

APPLICATION FORM

INSTRUCTIONS (記入上の注意)

- 1. Application should be typewritten or written in Roman block capitals. (記入は楷書又は大文字のローマ字体を用いること。)
- 2. Numbers should be written in Arabic figures. (数字は算用数字を用いること。)
- 3. Year should be written in the Anno Domini system. (年号はすべて西暦とすること。)
- 4. Proper nouns should be written in full and not be abbreviated. (固有名詞はすべて正式な名称とし、一切省略しないこと。)
- 5. An Examination fee of 30,000 Yen should be enclosed. (検定料 30,000 円を添えること。)
- 6. Write your name and the address within the box below for notifying the result of the selection. This box will be used for the addressing stickers. (合格通知書等を送付するので氏名と住所を下記欄に記入のこと。この欄は住所ラベルとして使用する。)

Name	:		
Present address	:		
Tel/Fax	:		

*受験番号	
第	号

EDUCATION PROGRAM FOR GLOBAL ADVANCEMENT (EPGA) IN ENVIRONMENTAL, ENERGY AND HEALTH SCIENCE GRADUATE SCHOOL OF SCIENCE AND ENGINEERING, SAGA UNIVERSITY (DOCTOR COURSE)

2021 年度佐賀大学大学院理工学研究科環境・エネルギー・健康科学グローバル教育プログラム (博士後期課程)入学志願票

Co	urse					Paste a passport size
	Mechanical and Electrica	al Energy En	gineering			photograph or digital
	Civil Engineering and Ar	chitectural I	Design			image taken within th
	Biological and Material I	Engineering				past 6 months. Write you name and nationality in
	air and Research Field					block letters on the back of
	Chair:					the photo.
_	Research Field:					(4.5 cm×3.5 cm photo) (写真 (4.5 cm×3.5cm))
Na	me of the desired supervi	sor(指導を希望	望する主指導教員	名をかならず記	!入すること。)	
1.	Name in full, in native	language (姓	名(自国語))			
-	(Family name)	, (First	name)	, (Mi	ddle name)	(Sex)
	In Roman block capitals	; (四字)				□Male (男) □Female (女)
_	(Family name)	(First	name)	(Mi	ddle name)	(Marital Status) □Single (未婚)
2.	Nationality (国籍)					□Married (既婚)
3.	Date of birth (生年月日)	Year 19 (年)	,Month	,Date	,Age (年齢)	(As of April 1st, 2021)
4.	Present status; with the (現職(在学大学名又は勤務先名ま	name of the	university :	** *		oyer
5.	Present address and tel (現住所及び電話, ファックス番 Present address (現住所)	号,E-mail アド		e number o	r E-mail add	ress
	電話番号/FAX番号(Telepho	ne/facsimile	number):			
	E-mail address :					
6.	Permanent address (本氣	籍):				
7.	Field of specialization s (過去に専攻した専門分野(できる			detailed an	d specific as	possible.)

8. Educational background (学歴)

	Name and Address of School (学校名及び所在地)	Year and Month of Entrance and Completion (入学及び卒業年 月)	Amount of time spent at the school attended (修学年数)	Diploma or Degree awarded,Major subject (学位・資格,専攻科目) When taking leave of absence,the period and reason. (休学した場合はその期間・理 由)
Elementary Education (初等教育)	Name (学校名)	From (入学)	years (年)	
Elementary School (小学校)	Location (所在地)	To (卒業)	and months (月)	
Secondary Education (中等教育)	Name (学校名)	From (入学)	years (年)	
Lower Secondary School (中学)	Location (所在地)	To (卒業)	and months (月)	
Upper Secondary School (高校)	Name (学校名) Location (所在地)	From (入学) To (卒業)	years (年) and months (月)	
Higher Education (高等教育)	Name (学校名)	From (入学)	years (年)	
Undergraduate Level (大学)	Location (所在地)	To (卒業)	and months (月)	
Graduate Level (大学院)	Name (学校名) Location (所在地)	From (入学) To (卒業)	years (年) and months (月)	
(以上を通算した全	ling mentioned above 学校教育修学年数) ril 1, 2021 月 1 日現在)	years(年)		

- * If the blank spaces above are not sufficient for the information required, please attach a separate sheet ((注)上欄に書ききれない場合には、適当な別紙に記入して添付すること。)
- 9. State the titles or subjects of books or papers (including graduation thesis authored by the applicant), if any, with the name and address of publisher and the date of publication. (著書, 論文(卒業論文を含む。)があればその題名, 出版社名, 出版年月日, 出版場所を記すこと。)

10. Employment Record: Begin with the most recent employment, if applicable. (職歷)

Name and address of organization (勤務先及び所在地)	Period of employment (勤務期間)	Position (役職名)	Type of work (職務内容)
	From To		
	From To		

ii)	Period of study:	from	to	,
	(学習期間)	Year (年) Mon	th (月) Year (年)M	Ionth (月) Years(年間)
iii)	Name of teacher (教師名)		

	Excellent(優)	Good(良)	Fair(可)	Poor(不可)
Reading (読む能力)				
Writing (書く能力)				
Speaking (話す能力)				

12. Foreign language proficiency: Evaluate your level and insert an X where appropriate in the following blank space. (外国語能力を自己評価のうえ、該当欄に×印を記入すること。)

	Excellent(優)	Good(良)	Fair(可)	Poor(不可)
English(英語)				
French(仏語)				
German(独語)				
Spanish(西語)				

13. Family background (家族状況)

Name(氏名)	Relationship (続柄)	Age (年齢)	Occupation (職業)

mem * He invo are : been	nbers to Sag s/She is advis lved in findinadvised to confound. 家族用の宿舎を	a, Japan.)同伴家族欄(fed to take into considerang living quarters. There ome alone first and let t	e following information if y 生質に来る場合,同伴予定の家 tion various difficulties and efore, those who wish to be a cheir dependents come after あり賃貸料も非常に割高になるの をみつけた後,家族を呼び寄せる	族がいる場合に記the great expenaccompanied by suitable accom	入すること。) ase that will be their families amodation has
	,	Name	Relationship		ge
	(氏 名)	(続析)	(年	齢)
15. Pers	son to be noti Name in ful		country in case of emergenc	y: (緊急の際の母国の	連絡先)
ii)	Address: wi	th telephone number, fac スを記入のこと。)	csimile number, e-mail addr	ess:(住所:電話番号,)	
電話	番号/FAX 番号(Telephone/facsimile num	nber):		
E-m	nail address :				-
iii)	Occupation (職業):			-
iv)	Relationship	(本人との関係):			
16. Imm	nigration Rec	ords to Japan. (日本への渡船	坑記録)		
Date	(日付)	Purpose (渡航目的)			
From To					
From To					
		Date of application(申請	年月日):		
		Applicant's signature(#			
		Applicant's name (in Ro			
		block capitals)(申請者氏名):		

Form A-2

※西暦

* 受験番号 第 号

EDUCATION PROGRAM FOR GLOBAL ADVANCEMENT (EPGA) IN ENVIRONMENTAL, ENERGY AND HEALTH SCIENCE (DOCTOR COURSE) ADMISSION TICKET FOR THE EXAMINATION

Graduate School of Science and Engineering, Saga University 2021 年度佐賀大学大学院理工学研究科環境・エネルギー・健康科学グローバル教育プログラム(博士後期課程) 受験票

☐ Mechanical☐ Civil Engine☐ Biological ar	eering and Arc	Energy Engineering hitectural Design ngineering (志望部門,研究分野) Research Field			Photo 4.5cm×3.5cm Taken within months.	
	e) ock capitals (□ Female (女) nguage (氏名(自国語)) (First name) ローマ字) (First name)	(Mid	, dle name) dle name)		
	納付 EXAMINAT	書		領	領収番号※第 収証書 RECEIPT	7
※第 号	受験者氏名 (Applicant's Name)	ION FEE			0,000	
2021 年度	研究科名 (Graduate Course)	理工学研究科			SE CURRENCY	7)
	専攻名 (Department)	理工学専攻			人学検定料 IATION FEE)	
		引に限る PANESE CURRENCY)		※西暦 受験者氏名 (Applican		日様

国立大学法人佐賀大学

領収証書及び納付書の氏名、研究科及び専攻名欄には、必ず氏名を明記すること。 ※印の欄は、記入しないこと。

日 領収

月

(Applicant should not fill in except his/her name, Graduate Course and Department.)

推 薦 書 LETTER OF RECOMMENDATION

佐賀大学長 様

To: President of Saga University

	被推薦者 Recommendee 氏名 Full Name: 生年月日 Date of Birth: 国籍 Nationality:	
	日付 Date:(month) (date) (year)	
推薦者 Recommender 署名 Signature: 氏名 Print Name:		
役職 Title and Institution (or Company):		
現住所 Present Address:		
E メールアドレス E-mail Address:		

*	受験番号	
第		号

証 明 書 LETTER OF REFERENCE

佐賀大学長 様

To: President of Saga University

	被証明者 Referenced person 氏名 Full Name: 生年月日 Date of Birth:	
	国籍 Nationality:	
	日付 Date: (month) (date) (year)	
証明者 Reference person 署名 Signature: 氏名 Print Name:		
役職 Title and Institution (or Company):		
現住所 Present Address: —		
E メールアドレス E-mail Address:		