KYOTO UNIVERSITY

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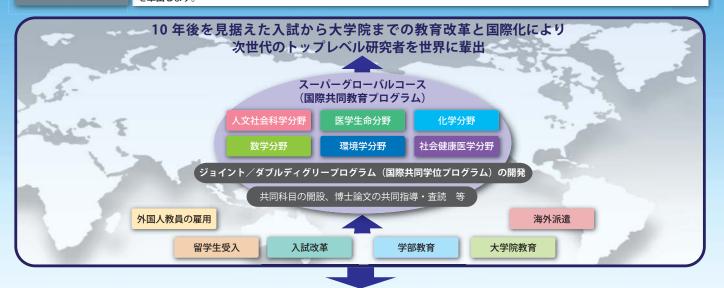
Japan Gateway:

京都大学ジャパンゲートウェイ構想

Kyoto University Top Global Program

構想の概要・目的

本学が十分な国際競争力を持つ分野を擁する大学院に、各分野の世界トップレベル大学と連携して実施する国際共同教育プログラム「スーパーグローバルコース」を設置します。各分野のスーパーグローバルコースにおいては、パートナー大学との共同科目の開設、博士論文の共同指導・査読等の取組を行うとともに、国際共同学位プログラム「ジョイント/ダブルディグリープログラム」の開発を進めます。これによる大学院教育の国際化と、入試改革、外国人教員の雇用促進、留学生の受入れおよび学生の海外派遣の増加、英語による授業の増加等、大学教育の様々な側面の国際化との相乗効果により、本学の研究・教育力の更なる強化を図り、世界で活躍する次世代のトップレベル研究者を輩出します。



海外連携大学との相互交流により、国際共同研究・国際共著論文の比率を増加させ、 世界大学ランキング TOP10 へ

人文社会科学分野

人文社会科学分野では、"持続可能性"と"跨境性"をキーワードに経済学・文学・農学の3研究科が協力し国際共同教育・学位プログラムを実施しています。広範領域を網羅していることに加え世界各地域の大学と連携を持つ強みを活かし、これまでに文学研究科でハイデルベルク大学とのジョイントディグリープログラム(修士課程・国際連携文化越境専攻)を、また経済学研究科ではグラスゴー大学とのダブルディグリープログラム(博士後期課程)を開始しました。研究交流ハブ拠点となることを目指し、ワーヘニンゲン大学、ストラスブール大学、ゲッティンゲン大学、チュラロンコーン大学等、欧州・アジアの主要大学との研究交

流、第一線の研究者に よる直接指導を通じ、 国際的競争力のある学 生育成を推進していま



医学生命分野

医学生命分野では、ノーベル医学生理学賞、ロベルト・コッホ賞、アルバート・ラスカー賞などの世界的に著名な賞の受賞者を数多く輩出してきました。その世界第一線級の研究力、プレゼンスをより一層強化するため、ゲノム医学領域を中心に、マギル大学、ボルドー大学、パスツール研究所といった欧米トップクラスの海外パートナー校とのさらなる連携体制の構築に取り組んできました。さらに、平成30年4月より、国際共同教育プログラムの発展形として、マギル大学との国際共同学位プログラム「京都大学・マギル大学ゲノム医学国際連携専攻(博士課程)」を開設し、大学院

教育の徹底した国際化を 断行し、国際競争力のあ る人材を育成するととも に、京都大学の世界的評 価を高めることを目指し ます。



化学分野

化学分野を構成する工学研究科化学系6専攻は分子レベルの理論的解析から地球規模の環境、エネルギー問題の対応までを含む、非常に幅広い教育・研究を実施する世界的に見ても最大規模の化学系大学院組織であり、ノーベル化学賞、フンボルト賞をはじめとする世界的な賞を数多く受賞しています。また化学工学分野ではQSランキングの世界5位となっています。本分野では当化学分野の持つ特徴を最大限に生かし、マサチューセッツ工科大学等の海外連携大学教員による集中講義形式の科目を含め、講義の多く(博士後期課程においてはすべて)を英語で開講する教育プログラム

を設置して国際水準の教育を確立し、大学院生の俯瞰力の強化と国際化を図るとともに、質の良い留学生数の増加も目指しています。



数学分野

数学分野は、フィールズ賞をはじめとする世界的に著名な賞を数多く受賞し数理科学の広範な分野をカバーする世界最高水準の研究者集団を擁し、時代を先導する研究を数多く行ってきました。大学院生は、主指導教員であるこれらの本学教員に加えて、第一線の外国人研究者を副指導教員とした共同研究指導を受けることにより、数学の高い研究能力と十分な語学力を備えて、国際的な環境の中で博士論文の研究を行うことができます。平成27年度には3名、平成28年度には7名、平成29年度には5名の大学院生が海外の研究者を副指導教員として博士の学位を取得しました。また国際的な研究ネットワークを構

築し、学位論文の成果が国際 的に周知されることで、国際 的な活躍の場が広がります。



環境学分野

地球環境学堂/学舎・農学研究科からなる環境学分野は、自然科学、社会科学、人文科学など多分野から構成され、環境問題に資する学際的・実践的な教育・研究を行っています。教育においては、Rattan Lal 氏 (The Ohio State University)、Denis Petitprez 氏 (Lille University) など著名な研究者を招へいし、環境学分野における先端事例を提供するとともに、マヒドン大学、ボゴール農業大学などと新たなダブルディグリープログラムを実施しています。加えて、提携大学における国際インターン研修の実施など、教育プログラムの国際化を推進しています。研究においても、日本学術振興会賞 (勝見武)、日経地球環境技術賞・優秀賞(真

常仁志ら)、日本農学賞(近藤直)を受賞するなど、新たな環境技術が評価されています。



社会健康医学分野

社会健康医学分野は、21世紀のグローバルヘルスを 先導するワールドプレミアム公衆衛生大学院の創成を 目標として、専攻内に国際化推進室を設置し、チュラ ロンコン大学、マラヤ大学、マヒドン大学、国立台湾 大学等の ASEAN、東アジア、欧米の主要大学と連携し つつ、教育プログラムの学際化・国際化、学位プログ ラムの国際化を強力に推進すると共に、若手研究者に 焦点化した国際交流を推進しています。これまでに、 必修科目、一部選択科目、及び HP を英語化し、英語による教育・広報体制を前進させると共に、台湾、 ASEAN、英国の主要公衆衛生系大学院から若手研究者 を招聘して国際会議を開催し、併せて、国際共同研究 の推進を図るため、連携海外大学との間で、活発な学 生、教員の交流(派

立、 ・招聘) を行いま □ た



WYOTO UNIVERSITY

京都大学ジャパンゲートウェイ構想

Japan Gateway:

Kyoto University Top Global Program

Program Summary

The project will establish international joint education programs called "Top Global Courses" at graduate schools covering research areas in which KU has significant international competitiveness, which will be implemented in partnership with universities that are world leaders in their respective fields. As well as initiating courses that are jointly operated with partner institutions and providing joint guidance and assessments of dissertations under "Top Global Courses" in the respective research areas, we will develop "joint/double degree programs." Through the synergetic effects of internationalization of graduate education arising out of these initiatives and from internationalization of various aspects of undergraduate education including admission reform, promotion of employment of non-Japanese faculty members, increasing inbound and outbound student mobility, and offering more courses in English, the project is aimed at further reinforcing the university's strengths in research and education to produce the next generation of world-leading researchers.

Education reform from admission to graduate schools with a 10-year vision in tandem with internationalization to produce the next generation of world-leading researchers

> **Top Global Courses** (International joint education programs)

Environmental Studies

Public Health

Developing joint / double degree programs

Initiating jointly operated courses, joint guidance and assessment of dissertations, etc.

Recruiting International Faculty Members

Accepting International Students

Admission Reform

Undergraduate Education

Overseas Programs

Graduate Education

Boosting the proportion of international joint research and co-authored publications through interaction with overseas partner institutions to rank among the world's top 10 universities

Social Sciences and Humanities

In the Social Sciences and Humanities, three graduate schools -- Economics, Letters and Agriculture -- have been working together to offer international collaborative educational and degree programmes that embrace common themes such as "sustainability" and "transcultural". Taking advantage of the breadth of areas covered and existing ties with universities in different parts of the world, thus far the Graduate School of Letters has introduced a Joint Degree Master of Arts Program in Transcultural Studies with Heidelberg University and the Graduate School of Economics has introduced a Double Degree Doctoral Programme in Economic and Social History in collaboration with the University of Glasgow. By fostering research interaction, we promote the development of individuals who can compete in the international arena through educational exchange opportunities, including direct guidance

from leading researchers, in collaboration with European and Asian universities, such as Wageningen University, the University of Strasbourg, the University of Göttingen and Chulalongkorn University.



Human Biosciences

In the field of human bioscience, we have produced a number of recipients of prestigious international accolades, including the Nobel Prize in Physiology or Medicine, the Robert Koch Prize, and the Albert Lasker Award for Basic Medical Research. To further strengthen the university's world-leading research capabilities and presence, we have worked to build a framework for strong connections to leading American and European universities with such leaders in genomic medicine as McGill University, the University of Bordeaux, the Pasteur Institute, and Imperial College London included in our alliance. Furthermore, by establishing an international joint degree program, the Kyoto-McGill International Collaborative School in Genomic Medicine (doctoral program), launched in 2018 as our first fully implemented international

joint education program, we will comprehensively internationalize our graduate education with the aim of producing individuals who can compete in the international arena and further enhance Kyoto University's global reputation.



Chemistry and Chemical Engineering

The six chemistry-based departments of the Graduate School of Engineering. which make up the Chemistry and Chemical Engineering section of this program, constitute one of the world's largest graduate schools in the field of chemistry. The school covers a broad spectrum of education and research, from molecular-level theoretical analysis through responses to global environmental and energy issues. Members of our faculty have been awarded major global prizes, including the Nobel Prize in Chemistry and the Humboldt Prize. Kyoto University also ranks fifth in the QS World University Rankings for Chemical Engineering. In this section, taking full advantage of the strengths of these departments, we aim to establish an education system of international caliber by introducing educational programs in which most (or, in the case of doctoral programs, all) lectures are conducted in English. The programs include intensive lecture courses provided by faculty members

from our overseas partners, such as MIT, with the aim of encouraging graduate students to develop broader perspectives and an international mindset, while increasing the number of high-quality international students



Mathematics

In the field of mathematics, Kvoto University boasts a group of researchers of the highest international caliber, who have recorded a significant number of pioneering research achievements, covering a wide range of subjects in the mathematical sciences and winning numerous world-renowned prizes, including the Fields Medal. Under the joint research guidance provided by these distinguished Kyoto University faculty members as supervisors and by top researchers from overseas as co-supervisors, graduate students can pursue their research for doctoral dissertations in an international environment, which is designed to equip them with superior research skills in mathematics and proficiency in foreign languages. With research guidance provided by overseas researchers serving as co-supervisors, three of our graduate students earned doctoral degrees in academic year 2015, seven

in 2016, and five in 2017. By building their own international research networks, whilst making their dissertations available to the international research community, students will have more opportunities to play active roles on the international stage



Environmental Studies

The Environmental Studies section, comprising the Hall of Global Environmental Research, School of Global Environmental Studies and Graduate School of Agriculture, covers a number of fields, including natural sciences, social sciences and humanities. We conduct interdisciplinary and practical education and research activities that contribute to endeavors in relation to environmental issues. In educational activities, along with presenting cases of pioneering endeavors in environmental fields by inviting such renowned researchers as Professor Rattan Lal from the Ohio State University and Professor Denis Petitorez from Lille University, we have launched new double-degree programs with Mahidol University and Bogor Agricultural University. We also undertake other initiatives, such as international internship programs at our partner universities, to promote internationalization of education programs. Also in research activities, our new environmental technologies have received high ratings, as evidenced

by receipt of the JSPS Prize (Takeshi Katsumi), the Excellence Award in the Nikkei Global Environmental Technology Awards (Hitoshi Shinjo et al.) , and the Japan Prize of Agricultural Science (Naoshi Kondo)



Public Health

Aiming to create a world premium public health graduate school that leads global healthcare in the 21st century, we have established an Internationalization Promotion Office within the School of Public Health to vigorously promote interdisciplinary and international approaches to our educational programs and internationalization of our degree programs whilst collaborating with major universities in ASEAN, East Asia, America and Europe in order to promote international exchange focused on young researchers. We have translated teaching materials into English for required courses and certain elective courses, as well as creating an English version of our website, thereby improving our English language capabilities for educational and public relations purposes. We also organized an international conference to which were invited young researchers from major public health graduate schools in Taiwan, ASEAN and the UK. In addition, we provided many opportunities for interaction among our students and faculty

members and those of our overseas partner institutions (dispatching/inviting) in order to encourage international research

