

2. Specialized Courses 専攻教育科目

Categories 区分		Subject 授業科目(単位数)	Minimum Number of Credits Required by Course Category 科目区分毎の 最低修得単位数	Total 合計	
S p e c i a l i z e d C o u r s e s	Technical Communication テクニカルコミュニケーション	Technical Communication 1-I (テクニカルコミュニケーション1-I) (I) Technical Communication 1-II (テクニカルコミュニケーション1-II) (I) Technical Communication 2-I (テクニカルコミュニケーション2-I) (I) Technical Communication 2-II (テクニカルコミュニケーション2-II) (I) Technical Communication 3-I (テクニカルコミュニケーション3-I) (I) Technical Communication 3-II (テクニカルコミュニケーション3-II) (I)	6	82	
	Tutorial チュートリアル	Introduction to Bioresource and Bioenvironmental Sciences 1-I (生物資源環境科学入門1-I) (I) Introduction to Bioresource and Bioenvironmental Sciences 1-II (生物資源環境科学入門1-II) (I) Introduction to Bioresource and Bioenvironmental Sciences 2-I (生物資源環境科学入門2-I) (I) Introduction to Bioresource and Bioenvironmental Sciences 2-II (生物資源環境科学入門2-II) (I)	4		
	Common Basic Subjects 共通基礎・特別科目	Core Seminar I (コアセミナーⅠ) (I) Core Seminar II (コアセミナーⅡ) (I) Analytical Chemistry I (分析化学Ⅰ) (I) Analytical Chemistry II (分析化学Ⅱ) (I) Introductory Biochemistry I (生物化学Ⅰ) (I) Introductory Biochemistry II (生物化学Ⅱ) (I) Bio-organic Chemistry I (生物有機化学Ⅰ) (I) Bio-organic Chemistry II (生物有機化学Ⅱ) (I) Physiology I (生理学Ⅰ) (I) Physiology II (生理学Ⅱ) (I) Applied Cell Biology I (応用細胞生物学Ⅰ) (I) Applied Cell Biology II (応用細胞生物学Ⅱ) (I) Basic Ecology and Biology I (基礎生態生物学Ⅰ) (I) Basic Ecology and Biology II (基礎生態生物学Ⅱ) (I) Ecological Developmental Biology I (生態発生生物学Ⅰ) (I) Ecological Developmental Biology II (生態発生生物学Ⅱ) (I) Systematics, Diversity and Evolution I (分類学・系統進化学Ⅰ) (I) Systematics, Diversity and Evolution II (分類学・系統進化学Ⅱ) (I) General Physics I (一般物理Ⅰ) (I) General Physics II (一般物理Ⅱ) (I) Physical Mathematics and Practices I (物理数学・同演習Ⅰ) (2) Physical Mathematics and Practices II (物理数学・同演習Ⅱ) (I) Information Processing and Practices I (情報処理学・同演習Ⅰ) (2) Information Processing and Practices II (情報処理学・同演習Ⅱ) (I) Elementary Statistics I (統計学基礎Ⅰ) (I) Elementary Statistics II (統計学基礎Ⅱ) (I) Elementary Economics I (経済学基礎Ⅰ) (I) Elementary Economics II (経済学基礎Ⅱ) (I) Current Global Agricultural Issues I (国際関係論Ⅰ) (I) Current Global Agricultural Issues II (国際関係論Ⅱ) (I) Field-Based Learning in Agriculture, Science, and Technology 1 (実地見学Ⅰ) (I) Field-Based Learning in Agriculture, Science, and Technology 2 (実地見学Ⅱ) (I) Scientific Japanese 1 (I) Scientific Japanese 2 (I) Global Bioresource Studies 1-I (グローバル生物資源学習Ⅰ-I) (I) Global Bioresource Studies 1-II (グローバル生物資源学習Ⅰ-II) (I) Global Bioresource Studies 2-I (グローバル生物資源学習Ⅱ-I) (I) Global Bioresource Studies 2-II (グローバル生物資源学習Ⅱ-II) (2) Global Bioresource Studies 3-I (グローバル生物資源学習Ⅲ-I) (I) Global Bioresource Studies 3-II (グローバル生物資源学習Ⅲ-II) (3) Active Japanese 1 (アクティブ日本語Ⅰ) (I) Active Japanese 2 (アクティブ日本語Ⅱ) (I) Progressive Japanese 1 (プログレッシブ日本語Ⅰ) (I) Progressive Japanese 2 (プログレッシブ日本語Ⅱ) (I) Business Communication in Japanese 1 (国際ビジネス・コミュニケーションⅠ) (I) Business Communication in Japanese 2 (国際ビジネス・コミュニケーションⅡ) (I) International Co-Learning Practice in Science and Technology (農工連携国際共修演習PBL) (2) Collaborative Fieldwork in Science and Technology III (科学技術協働実地見学) (I) Entrepreneurship Career Design (アントレプレナーシップキャリアデザイン) (I) Internship in Science and Technology I (科学技術インターンシップⅠ) (I) Internship in Science and Technology II (科学技術インターンシップⅡ) (I) Volunteering for Sustainable Future I (持続可能な未来のためのボランティアⅠ) (I) Volunteering for Sustainable Future II (持続可能な未来のためのボランティアⅡ) (I) Career Seminars in Science and Technology (科学技術キャリアセミナー) (I)	27		30
		Advanced Bioresource and Bioenvironmental sciences 1 (生物資源環境科学特論Ⅰ) (I) Advanced Bioresource and Bioenvironmental sciences 2 (生物資源環境科学特論Ⅱ) (I) Agricultural Economics and Policy I (農政経済学Ⅰ) (I) Agricultural Economics and Policy II (農政経済学Ⅱ) (I) Genetics and Plant Breeding (遺伝・育種学) (2) Agro-production Environmental Engineering I (生物生産環境工学Ⅰ) (I) Agro-production Environmental Engineering II (生物生産環境工学Ⅱ) (I) Agri-Food Production System Engineering I (生物生産システム工学Ⅰ) (I) Agri-Food Production System Engineering II (生物生産システム工学Ⅱ) (I) Crop Production and Physiology I (作物生産生理学Ⅰ) (I) Crop Production and Physiology II (作物生産生理学Ⅱ) (I) Plant Protection and Pest Management I (植物保護管理Ⅰ) (I) Plant Protection and Pest Management II (植物保護管理Ⅱ) (I) Special lecture on Agricultural Engineering and Economics 1 (農業工学・経済学特別講義Ⅰ) (I) Special lecture on Agricultural Engineering and Economics 2 (農業工学・経済学特別講義Ⅱ) (I) Special Lecture on Bioresource and Bioenvironmental sciences 1 (生物資源・生物環境科学特別講義Ⅰ) (I) Special Lecture on Bioresource and Bioenvironmental sciences 2 (生物資源・生物環境科学特別講義Ⅱ) (I) Microbiology I (微生物学Ⅰ) (I) Microbiology II (微生物学Ⅱ) (I) Molecular Biology I (分子生物学Ⅰ) (I) Molecular Biology II (分子生物学Ⅱ) (I) Bio-Engineering I (生命工学Ⅰ) (I) Bio-Engineering II (生命工学Ⅱ) (I) Food Science I (食品科学Ⅰ) (I) Food Science II (食品科学Ⅱ) (I) Special Lecture on Applied bioscience 1 (応用バイオサイエンス特別講義Ⅰ) (I) Special Lecture on Applied bioscience 2 (応用バイオサイエンス特別講義Ⅱ) (I) Forest Management I (森林管理Ⅰ) (I) Forest Management II (森林管理Ⅱ) (I) Forest Products Science I (森林資源学Ⅰ) (I) Forest Products Science II (森林資源学Ⅱ) (I) Biomaterial Science I (生物材料科学Ⅰ) (I) Biomaterial Science II (生物材料科学Ⅱ) (I) Special Lecture on Forest and Forest products 1 (森林・林産物特別講義Ⅰ) (I) Special Lecture on Forest and Forest products 2 (森林・林産物特別講義Ⅱ) (I) Environmental and Ecological Science for Animal Production I (動物生産・環境学Ⅰ) (I) Environmental and Ecological Science for Animal Production II (動物生産・環境学Ⅱ) (I) Animal Life Science (動物生命科学) (I) Marine Life Science (水産生命科学) (I) Utilization of Animal and Marine Resources I (動物資源利用学Ⅰ) (I) Utilization of Animal and Marine Resources II (動物資源利用学Ⅱ) (I) Special Lecture on Animal and Marine Science 1 (動物海洋学特別講義Ⅰ) (I) Special Lecture on Animal and Marine Science 2 (動物海洋学特別講義Ⅱ) (I)	3		
	専 攻 教 育 科 目	Advanced Bioresource and Bioenvironmental sciences 1 (生物資源環境科学特論Ⅰ) (I) Advanced Bioresource and Bioenvironmental sciences 2 (生物資源環境科学特論Ⅱ) (I) Agricultural Economics and Policy I (農政経済学Ⅰ) (I) Agricultural Economics and Policy II (農政経済学Ⅱ) (I) Genetics and Plant Breeding (遺伝・育種学) (2) Agro-production Environmental Engineering I (生物生産環境工学Ⅰ) (I) Agro-production Environmental Engineering II (生物生産環境工学Ⅱ) (I) Agri-Food Production System Engineering I (生物生産システム工学Ⅰ) (I) Agri-Food Production System Engineering II (生物生産システム工学Ⅱ) (I) Crop Production and Physiology I (作物生産生理学Ⅰ) (I) Crop Production and Physiology II (作物生産生理学Ⅱ) (I) Plant Protection and Pest Management I (植物保護管理Ⅰ) (I) Plant Protection and Pest Management II (植物保護管理Ⅱ) (I) Special lecture on Agricultural Engineering and Economics 1 (農業工学・経済学特別講義Ⅰ) (I) Special lecture on Agricultural Engineering and Economics 2 (農業工学・経済学特別講義Ⅱ) (I) Special Lecture on Bioresource and Bioenvironmental sciences 1 (生物資源・生物環境科学特別講義Ⅰ) (I) Special Lecture on Bioresource and Bioenvironmental sciences 2 (生物資源・生物環境科学特別講義Ⅱ) (I) Microbiology I (微生物学Ⅰ) (I) Microbiology II (微生物学Ⅱ) (I) Molecular Biology I (分子生物学Ⅰ) (I) Molecular Biology II (分子生物学Ⅱ) (I) Bio-Engineering I (生命工学Ⅰ) (I) Bio-Engineering II (生命工学Ⅱ) (I) Food Science I (食品科学Ⅰ) (I) Food Science II (食品科学Ⅱ) (I) Special Lecture on Applied bioscience 1 (応用バイオサイエンス特別講義Ⅰ) (I) Special Lecture on Applied bioscience 2 (応用バイオサイエンス特別講義Ⅱ) (I) Forest Management I (森林管理Ⅰ) (I) Forest Management II (森林管理Ⅱ) (I) Forest Products Science I (森林資源学Ⅰ) (I) Forest Products Science II (森林資源学Ⅱ) (I) Biomaterial Science I (生物材料科学Ⅰ) (I) Biomaterial Science II (生物材料科学Ⅱ) (I) Special Lecture on Forest and Forest products 1 (森林・林産物特別講義Ⅰ) (I) Special Lecture on Forest and Forest products 2 (森林・林産物特別講義Ⅱ) (I) Environmental and Ecological Science for Animal Production I (動物生産・環境学Ⅰ) (I) Environmental and Ecological Science for Animal Production II (動物生産・環境学Ⅱ) (I) Animal Life Science (動物生命科学) (I) Marine Life Science (水産生命科学) (I) Utilization of Animal and Marine Resources I (動物資源利用学Ⅰ) (I) Utilization of Animal and Marine Resources II (動物資源利用学Ⅱ) (I) Special Lecture on Animal and Marine Science 1 (動物海洋学特別講義Ⅰ) (I) Special Lecture on Animal and Marine Science 2 (動物海洋学特別講義Ⅱ) (I)			14
	Specialized Subjects 専攻科目	Laboratory Rotation 1 (生物資源環境学Ⅰ) (2) Laboratory Rotation 2 (生物資源環境学Ⅱ) (2)	4		
	Laboratory Subjects ラボラトリー科目	Bioresource and Bioenvironment Experiments and Practice C-I; Analytical chemistry (生物資源環境学実験・演習 C-I; 分析化学) (I) Bioresource and Bioenvironment Experiments and Practice C-II; Natural products chemistry (生物資源環境学実験・演習 C-II; 天然物化学) (I) Bioresource and Bioenvironment Experiments and Practice; Computational Biology (生物資源環境学実験・演習; 計算生物学) (I) Bioresource and Bioenvironment Experiments and Practice M-I; Molecular biology (生物資源環境学実験・演習 M-I; 分子生物学) (I) Bioresource and Bioenvironment Experiments and Practice M-II; Molecular biology (生物資源環境学実験・演習 M-II; 分子生物学) (I) Bioresource and Bioenvironment Experiments and Practice; Developmental biology and toxicology (生物資源環境学実験・演習; 発生生物学と毒性学) (I) Fieldwork on Bioresource and Bioenvironment 1 (生物資源環境学実習Ⅰ) (I) Fieldwork on Bioresource and Bioenvironment 2 (生物資源環境学実習Ⅱ) (I)	1 1 1 1 1 1 2		6
	Thesis 卒業研究科目	Seminar and Exercise Related to Graduation Thesis (卒業実験・演習) (2) Graduation Thesis (卒業研究) (8)	10		
	Others その他	※ 2nd and 3rd-year students can take eight credits designing in the Common Basic subjects, Others and some temporary subjects. ※ Students in the Dual-Degree Program will take eight credits by International Exchange Seminars and Practices I & 2.	8		

7. Career Development Program (For Students in School of Engineering and School of Agriculture)

- **Purpose:** The career paths of students in the International Undergraduate Programs in English (IUPE) at Kyushu University significantly differ from other international students who study in the Japanese language. The IUPE, part of the School of Agriculture and Engineering, offers a specialized career education program tailored to the diverse needs of its students. This program focuses on providing high-quality career-development education to international students from diverse background.
- **Period:** Junior ~Senior fall/winter (3.5 years)
- **Description:** Modern career development models are based on the idea that careers are constantly evolving, diverse, and unpredictable, motivating us to adjust to these changes. This educational program is designed to prepare students for successful and fulfilling careers after graduation. It aims to help students develop mindsets and skills to adapt to changing environments, create opportunities for themselves, and manage their learning and development throughout their long-term careers.
- **Details:** Upon successful completion of the program, students not only gain valuable skills but also have the opportunity to earn a prestigious “Career Development Certificate” in recognition of their achievements.

Required Courses

1 credit from the following courses:

- Career Seminars in Science and Technology

This course involves attending guidance sessions, participating in the IUPE’s own Japan Employment Workshop, attending four alumni webinars, taking part in internship debriefing sessions, and submitting a report.

Elective Courses

1 credit from the following courses (Course names are tentative):

- Volunteering for a Sustainable Future I / II (Specialized course): 1 credit each
- Internship in Science and Technology I / II (Specialized course): 1 credit each
- Entrepreneurship related course: Any of the courses offered by QREC: 1 credit
- Basic Skills for Career Development (KIKAN Education Intensive Course): 1 credit
- Specialized Education Japanese Language Courses: 6 classes at 3 levels from Elementary Intermediate to Advanced (1 credit each)

Non-credit activities

My Project

Students will have the opportunity to work on self-selected projects outside of their undergraduate studies. This experience will help them broaden their perspectives, develop new values, and motivate them to push their boundaries to achieve their full potential.

My Portfolio

Students are required to submit the final version of the portfolio they have been building since their first year at the university. This portfolio serves as a comprehensive record of their academic and personal growth, reflecting their evolving skills and knowledge.

7. 農工連携学士課程国際コースのキャリア教育（工学部・農学部学生向け）

- **趣旨：** 多国籍の学生で英語のみで学ぶ学士課程国際コースの学生のキャリアパスは、従来の日本語のみで学ぶ留学生のキャリアパスと大きく異なる。農工学部の一部であるIUPEは、学生の多様なニーズに合わせた専門的なキャリア教育プログラムを提供する。このプログラムは、留学生に質の高いキャリア教育を提供することに焦点を当てている。
- **時期：** 1年秋冬Q～4年秋冬Q（3.5年間）
- **内容：** 現代のキャリア開発モデルは、キャリアが動的で複雑かつ不確実であるという前提に基づいている。本教育プログラムでは、コース生が卒業後の長期にわたるキャリア開発の過程で、変化する環境に適応し、自ら機会を作り、自分の学習と能力開発を管理するマインドの涵養とスキルの修得を目標にしている。
- **説明：** 1年生から4年生の秋学期までに以下の条件を満たすことで証明書を発行する。

必修科目

以下の科目を1単位修得

- 科学技術キャリアセミナー（1単位）新設
ガイダンス、学士課程国際コース独自の日本就職ワークショップ、卒業生ウェビナー4回、インターンシップ報告会等への出席、及びレポート提出により1単位を認定する。

選択科目

以下の科目より1単位以上を修得する

- 持続可能な未来のためのボランティアⅠ/Ⅱ（専攻教育・各1単位）
- 科学技術インターンシップⅠ/Ⅱ（専攻教育・各1単位）
- 起業家的行動能力科目：QRECの開講する科目いずれか（1単位）
- キャリア形成基礎（基幹教育・総合科目・通年集中講義）（1単位）
- 専攻教育の日本語科目 初中級～上級3レベル6クラス（各1単位）

単位外活動

マイ・プロジェクト

学業以外の自ら選択したプロジェクトに取り組む。この経験は、視野を広げ、新しい価値を開発し、自らの可能性を最大限に発揮するために自分の限界を押し広げることにつながる。

ポートフォリオ

1年次より構築してきたポートフォリオの最終版を提出する。このポートフォリオは、身につけたスキルと知識を反映して、学問的および個人的な成長の包括的な記録となる。

8. International Collaborative Capstone Project (For Students in School of Engineering and School of Agriculture)

- **Purpose:** A capstone is the last stone to be placed at the top of a pyramid. This capstone project is an innovative 1.5-year educational program for both IUP students and Japanese course students who have completed their KIKAN education, in which both agriculture and engineering students study together and collaborate. The program focuses on fostering the qualities and abilities necessary for scientists and engineers of the global era to solve global-scale problems through international collaboration and interdisciplinary fusion.
- **Period:** (IUP) Sophomore Spring/Summer ~ Junior Spring/Summer (1.5 years)
(Japanese) Sophomore Spring/Summer ~ Junior Spring/Summer (1.5 years)
- **Description:** Students will receive a certificate of completion after obtaining the required number of credits in the “MEXT International Co-Learning Class of Science and Technology” and passing the “International Co-Learning Practice in Science and Technology (new, PBL*)” in which teams of students from agriculture and engineering work together.
* PBL (Problem-based Learning): a learning method in which students discover problems by themselves and gain knowledge and experience in the process of problem-solving. It is a means of education that aims to cultivate students’ thinking skills and draw out their initiative by developing solutions to open-ended real-world problems with no predefined answers.

■ Details:

International Co-Learning Practice in Science and Technology

International students and Japanese students work as a team to learn a series of collaborative problem-solving processes, including setting issues, planning actions to solve the problems, and proposing solutions that incorporate an awareness of sustainable development goals (SDGs). SDGs are the global goals set by the UN for building a sustainable society, including zero hunger, clean energy for all, responsible consumption and production, and disaster forecasting and response. In addition to improving communication and presentation skills, students will share their awareness of multifaceted issues, such as regional differences in each country and differences in perspective on issues between individuals from different fields, while fostering an attitude of critical reconsideration of existing concepts and ideas.

Collaborative Fieldwork in Science and Technology

The faculties of engineering and agriculture are located adjacent to each other on the Ito Campus of the university, with an on-campus farm and various demonstration and experimental facilities. Taking advantage of this, students from the two faculties discuss and share their awareness of problems and solutions to the issues they have identified through experience of each other’s subject area in a workshop format.

Technical Communication 1~3

Students will acquire the knowledge and skills necessary for writing academic papers and making oral and poster presentations. This includes not only practical skills such as the use of databases and preparation of figures but also an awareness of scientific ethics, which is essential for scientists and engineers. Through co-learning, School of agriculture and School of engineering students acquire a bidirectional perspective and an awareness of research tasks and various related issues.

Japanese Language Education related to science and technology

Japanese language classes enrich international students’ life and study in Japan, including deepening their relationship with the local community and developing their potential and ability to be active in the future within Japan. Japanese Language education experts guide students in small class groups. The IUP course offers Active/Progressive Japanese I, II, and Japanese business communication for students.

8. 国際連携キャップストーンプロジェクトについて（工学部・農学部学生向け）

- **趣旨：**キャップストーンとはピラミッドの頂点に最後に載せる石のことを言う。本キャップストーンプロジェクトは、基幹教育を終えたIUPの学生及び日本人学生を対象とした1.5年間、農工の学生が共修・協働する革新的教育プログラムである。世界規模の課題を、国際連携及び異分野融合により解決することで、グローバル時代の科学者とエンジニアに必要な資質能力を育成する。
- **時期：**2年春夏Q～3年春夏Q（1.5年間）／（日本人）2年前期～3年前期（1.5年間）
- **内容：**「MEXT農工国際共修プログラム」で一定の単位を修得し、農工の学生チームにより構成されるチームで取り組む「農工連携国際共修演習（新規、PBL*）」に合格することで修了証を授与する。
* **PBL(Problem-based Learning)**：日本語で「問題（課題）解決型学習」と訳される。自ら問題を発見し、問題解決する過程の中で知識や経験を得ていく学習方法のこと。正解のない問題を解くことで、学生の思考力の養成や自発性を引き出すことを目的とした教育手段。

■ 説明：

農工連携国際共修演習

留学生と日本人学生がチームとなり、“飢餓をゼロに”、“エネルギーをみんなに。そしてクリーンに”、“つくる責任、つかう責任”、“災害予測と対処”など持続可能な社会の構築に対する世界的な目標SDGsを意識した課題設定、課題解決に向けた行動計画、解決策の提案までの一連のプロセスを共修する。さらにその成果を互いに発表して、コミュニケーションや発表能力を磨くとともに、学生間で各国の地域性の違いや分野間での課題視点の違いなど多面的問題意識の共有と既成概念への批判的再考姿勢を醸成する。

農工連携フィールドワーク

本学の伊都キャンパスでは両学部が隣接しており、さらにオンキャンパス農場や様々な実証・実験施設を有している。この利点を活用して、互いのフィールドを実体験することで認識した課題について、問題意識や解決策をワークショップ形式で議論し共有する。

テクニカルコミュニケーション1～3

科学技術者に必要な学術論文作成、口頭発表、ポスター発表に必要な知識やスキルを科学倫理、データベースの利用方法を含めて習得する。農工の学生が共修を通して切磋琢磨することで、研究課題に対して双方向の視点と幅広い問題意識を身につける。

農工連携日本語教育

日本での学習・生活を実りあるものにし、また地域社会との関わりを深め、さらには将来日本を軸に世界で活躍する可能性と能力を高めるため、入学から卒業まで4年間の独自の充実した日本語習得カリキュラム（入門から上級まで）を展開する。入学後の1年半は留学生センターの専門教員により能力に応じた8レベルに分かれて週に2～4コマのペースで日本語の基礎を学ぶ。専攻教育では、農工の学士課程国際コースを対象とする3種類3レベルの充実した実践的日本語カリキュラムを整備し言語教育の専門教員が少人数クラスで指導する。

Course List **科目リスト**

区分 Categories		科目名 Subject Name	単位 Credits	
農 Agriculture	工 Engineering		全設定単位 All setting Credits (16)	最低修得単位 Minimum Credits (10)
Common Basic	Common/Elective	農工連携国際共修演習PBL(2) International Co-Learning Practice in Science and Technology	2	2
Common Basic	Common/Elective	農工連携フィールドワークⅠ(1)*、Ⅱ(1)*、Ⅲ(1) Collaborative Fieldwork in Science and TechnologyⅠ*,Ⅱ*,Ⅲ *In school of agriculture, these subjects conduct in Field-Based Learning in Agriculture, Science, and Technology 1 & 2.	3	1
Technical Communication	Common/Required	Technical Communication 1-Ⅰ(1),Ⅱ(1) Technical Communication 2-Ⅰ(1),Ⅱ(1) Technical Communication 3-Ⅰ(1),Ⅱ(1)	6	6
Common Basic	Common/Elective	Active JapaneseⅠ(1) Active JapaneseⅡ(1) Progressive JapaneseⅠ(1) Progressive JapaneseⅡ(1) Business Communication in JapaneseⅠ(1) Business Communication in JapaneseⅡ(1)	6	1