

Course Code	5170001	Term	A1A2	Credits	2
Course Title	Research Design Seminar				
Faculties	CHEN/HENG/AOI/SHIGEOKA				
Course Objectives/Overview	<p>Given the increasingly complex world, one discipline is insufficient to address most policy challenges. This course (and the companion course, Project Seminars), aimed primarily at Ph.D. candidates, adopts an interdisciplinary perspective while pursuing high academic standards for specialty training. Our focus is to demonstrate how specialized disciplines identify research questions, shape hypotheses, and deploy appropriate research methods to answer the questions.</p>				

Course Code	5170002	Term	A1A2	Credits	2
Course Title	Project Seminar				
Faculties	AOI/SHIGEOKA/CHEN/HENG				
Course Objectives/Overview	<p>Given the increasingly complex world, one discipline is insufficient to address most policy challenges. This course (and the companion course, Project Seminars), aimed primarily at Ph.D. candidates, adopts an interdisciplinary perspective while pursuing high academic standards for specialty training. Our focus is to demonstrate how specialized disciplines identify research questions, shape hypotheses, and deploy appropriate research methods to answer the questions.</p>				

Course Code	5170003	Term	年度跨り	Credits	6
Course Title	国際公共政策研究				
Faculties	各教員				
Course Objectives/Overview	<p>Main supervising professors provide supervision for writing doctoral thesis. Collaborating professors will cooperate supervision for writing doctoral thesis by providing broader perspectives relating to international finance and development, and international security.</p>				

Course Code	5170004	Term	年度跨り④	Credits	6
Course Title	国際公共政策研究				
Faculties	各教員				
Course Objectives/Overview	<p>Main supervising professors provide supervision for writing doctoral thesis. Collaborating professors will cooperate supervision for writing doctoral thesis by providing broader perspectives relating to international finance and development, and international security.</p>				

Course Code	5171003	Term	A 1	Credits	2
Course Title	国際金融・開発研究：経済学系（International Financial Policy）				
Faculties	UEDA Kenichi				
Course Objectives/Overview	Understand objectives and effects of key policies in international finance from both theoretical and empirical perspectives. In particular, this course focuses on a fundamental question: How does, and should, the international financial system play roles in two important macroeconomic phenomena, i.e., business cycle and economic growth? In addition, this course covers frequently discussed recent policy issues such as monetary union, international reserve, and spillovers of macroeconomic policies to other countries.				

Course Code	5171004	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（Development Economics: Microeconomic Approach）				
Faculties	TAKASAKI Yoshito				
Course Objectives/Overview	The objective of this course is to understand the basic concepts and methods of development microeconomics. It is designed for a wide range of students who are interested in international development. It covers development, poverty, inequality, vulnerability, program evaluation, demography, health, education, labor, migration, social protection, and finance. This lecture course is offered in English.				

Course Code	5171005	Term	S1S2	Credits	2
Course Title	国際金融・開発研究：経済学系（Development Economics: Macroeconomic Approach）				
Faculties	UEDA Kenichi				
Course Objectives/Overview	Understand key policy issues in macro development from both theoretical and empirical perspectives. First, students are expected to build theoretical foundations through neo-classical growth theory and the new growth theory. Second, students are expected to build empirical foundations through key data analyses for the catch-up process of developing countries. Third, students are expected to recognize various barriers to economic development, the effects of removing barriers in the development process (of now advanced countries), and policy implications from the related studies. In addition, students are expected to find that key barriers lie in the financial system and the labor markets as well as in the social institutions (e.g., family and environment).				

Course Code	5171006-2	Term	S 2	Credits	2
Course Title	国際金融・開発研究：経済学系（Foundations of Development Economics）				
Faculties	SAWADA Yasuyuki				
Course Objectives/Overview	This course will be composed of English lectures on advanced graduate-level development economics.				

Course Code	5171007	Term	S 1	Credits	2
Course Title	国際金融・開発研究：経済学系（Monetary Policy）				
Faculties	AOKI Kosuke				
Course Objectives/Overview	<p>本講義では金融政策にかかわるトピックをマクロ経済学の分析手法を用いて解説する。取り上げる分野は、金融政策の波及経路、ニューケインジアンモデル、最適金融政策、中央銀行の独立性、資産市場と金融政策等、非伝統的金融政策である。</p> <p>講義は、単一の教科書に基づくものではないが、以下の教科書が有用である。"Monetary Policy, Inflation, and the Business Cycle" by Gali, "Monetary Theory and Policy" by Walsh. 講義ノートはウェブページで入手可能。</p> <p>To learn various topics on monetary policy. Topics covered include: identification of the monetary transmission mechanism, the New-Keynesian models, optimal monetary policy, unconventional monetary policy, central-bank independence, financial markets and monetary policy.</p> <p>The course will not be based on a single textbook, but the following textbooks are useful: "Monetary Policy, Inflation, and the Business Cycle" by Gali, "Monetary Theory and Policy" by Walsh. Additional readings will be made available to students through the course homepage.</p>				

Course Code	5171008	Term	S1S2	Credits	2
Course Title	国際金融・開発研究：経済学系（International Trade Policy）				
Faculties	KUCHERYAVYY Konstantin				
Course Objectives/Overview	<p>This is an introductory class to International Trade. In the class we will address the main issues associated with international trade:</p> <ul style="list-style-type: none"> <li>- Is free trade beneficial to countries?</li> <li>- What are the potential consequences of trade liberalization?</li> <li>- What are the ways trade can improve country's welfare?</li> <li>- How does trade impact income inequality?</li> <li>- Who are the winners and losers from trade?</li> <li>- What are the right trade policies?</li> </ul> <p>While answering these questions, we will cover some of the main theories of international trade: Ricardian, Heckscher–Ohlin, Krugman, and Melitz models. The focus will be in understanding these theories on the conceptual level, rather than going into in-depth mathematical details of these models.</p>				

Course Code	5171013	Term	S1S2	Credits	2
Course Title	国際金融・開発研究：経済学系（Macro Contract Theory and Empirics）				
Faculties	UEDA Kenichi				
Course Objectives/Overview	Understand the general equilibrium of contract theory and its implications for a macroeconomy. Note that this course is primarily for doctoral students or those who hope to enter a doctoral program. This course is quite mathematical and starts with				

	learning key mathematical concepts such as topology and probability measures. Students are expected to understand the fundamental mechanisms (e.g., Nash equilibrium, core, lottery equilibrium) to support a general equilibrium with frictions, particularly financial frictions. Students are expected to recognize key model assumptions to make decentralized allocations of consumption and investments to be equal to, or not equal to, the socially optimal allocations. Policy implications naturally follow.
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Course Code	5171015	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（国際開発政策・評価論）				
Faculties	青柳 恵太郎				
Course Objectives/Overview	<p>エビデンスに基づく国際開発援助実践（Evidence-Informed Practice in International Development）のために必要となる基礎知識の習得を目指す。具体的には、①エビデンス（介入効果の検証結果）を用いた開発援助プロジェクトの立案ができるようになること、②有効性が実証されていない介入については、その検証方法（評価デザイン）を描けるようになることの2点を目標とする。後者については、特にランダム化比較試験（Randomized Controlled Trial：RCT）による効果検証を中心に据え、開発援助実務者の視点から実践方法について学ぶ。</p> <p>RCTは確証度のもっとも高いエビデンスを作り出せる評価デザインである。その基本的な考え方は、対象者を介入群（介入を受けるグループ）と統制群（受けないグループ）にランダムに割り当て、介入群への介入実施後に両群の状態を比較するという非常に単純なものである。しかし、現実社会のなかでRCTによってエビデンスをつくり出す際には、開発課題を明確化させることに始まり、政策担当者や現場担当者との合意形成、検証方法のデザイン策定、実施プロセス管理、データ収集、分析、そして結果のまとめといった非常に泥臭いプロセスの中で様々な課題やつまづきに頻繁に直面することになる。本講義では現実味のある環境を想定した演習の中で準備からデータ分析までの一連のプロセスを体感することで、実践力を養成することを重視する。</p>				

Course Code	5171016	Term	S1S2	Credits	2
Course Title	国際金融・開発研究：経済学系（Development Operations of the World Bank Group）				
Faculties	NAKA Hiroshi				
Course Objectives/Overview	<p>The World Bank Group (WBG) institutions (World Bank (IBRD and IDA), IFC and MIGA) operate in developing countries to end extreme poverty and to boost shared prosperity. The operations of the Group also contribute to achieve the Sustainable Development Goals (SDGs) agreed by the member countries of the United Nations. This course covers the key operations of the WBG and the principles which regulate the operations to manage risks deriving from external and internal factors. As some senior management of the World Bank Group give lectures online, this course</p>				

	<p>provides students with good opportunities to directly discuss development operations with them.</p> <p>The objective of this course is to better understand how the WBG operate for developing countries. It will help students develop policies, programs and projects to accelerate the growth of a country addressing environmental and social challenges. Students who finish this course and fully understand the operations of the WBG can start working for the WBG from day-one when they get a job in the WBG.</p>
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Course Code	5171018	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（Advanced Time Series Analysis）				
Faculties	SHINTANI Mototsugu				
Course Objectives/Overview	<p>Most macroeconomic data show dynamic properties in the sense that the current value is connected to events in the past in some forms. A formal statistical analysis of this dynamic feature helps us understand and forecast the macroeconomy. In the course, we learn the basic time series models including autoregressive (AR) model, vector autoregressive (VAR) model, dynamic factor model and machine learning. Motivated undergraduate students are also welcome.</p>				

Course Code	5171019	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（Interdisciplinary Issues in Development Economics）				
Faculties	庄司 匡宏				
Course Objectives/Overview	<p>This course covers interdisciplinary research topics in economic development, such as health, gender, non-cognitive skills, and community.</p> <p>Each topic consists of two sections. In the first section, we comprehensively review the broad literature in economics and related fields, such as sociology and psychology. The goal of this section is to understand various socio-economic issues in developing countries comprehensively.</p> <p>In the second section, we focus on a few recent empirical papers and discuss the details, such as their contributions to the literature, econometric methodology, and policy implications. This section aims to learn how to read and write academic papers rigorously.</p> <p>This course is for a broad range of students who are interested in any careers related to international development, including development practitioners and researchers.</p>				

Course Code	5171021	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（Macroeconomic and Financial Policies I）				
Faculties	UEDA Kenichi／NAKATA Taisuke				
Course Objectives/Overview	<p>Become capable of reading and writing theoretical and empirical analyses on current global economic issues at the level often discussed among international policy experts.</p>				

	<ul style="list-style-type: none"> <li>• To build the capacity to understand policy issues on current macroeconomic and financial issues in the world.</li> <li>• To be familiar with major theoretical arguments and empirical methods.</li> <li>• To improve policy discussion skills: <ul style="list-style-type: none"> <li>oPresenting (advertising/defending)</li> <li>oServing as discussant (praising/criticizing)</li> <li>oOpen-floor discussions (involving others)</li> </ul> </li> </ul>
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Course Code	5171022	Term	S1S2	Credits	2
Course Title	国際金融・開発研究：経済学系（Macroeconomic and Financial Policies II）				
Faculties	NAKATA Taisuke／UEDA Kenichi				
Course Objectives/Overview	<p>Become capable of reading and writing theoretical and empirical analyses on current global economic issues at the level often discussed among international policy experts.</p> <ul style="list-style-type: none"> <li>• To build the capacity to understand policy issues on current macroeconomic and financial issues in the world.</li> <li>• To be familiar with major theoretical arguments and empirical methods.</li> <li>• To improve policy discussion skills: <ul style="list-style-type: none"> <li>oPresenting (advertising/defending)</li> <li>oServing as discussant (praising/criticizing)</li> <li>oOpen-floor discussions (involving others)</li> </ul> </li> </ul>				

Course Code	5171023	Term	S1S2	Credits	2
Course Title	国際金融・開発研究：経済学系（Data Science for Practical Economic Research）				
Faculties	KUCHERYAVYY Konstantin				
Course Objectives/Overview	<p>Despite its name, this class is on forecasting methods in economics and applications of machine learning methods to forecasting. A typical class on machine learning focuses on cross-sectional data, leaving almost no space for a discussion of how to work with time series data and how to make forecasts with such data. The purpose of this class is to cover this gap. This class might be useful for students who plan to work at financial companies and government entities tasked with making forecasts. We will closely follow the textbook by G. Elliott and A. Timmermann "Economic Forecasting". The book is quite advanced and requires good understanding of probability and statistics. During the lectures, we will cover chapters from this textbook and perform hands-on sessions. All homework assignments for this class will be practical: students will be asked to apply methods covered in the class to real datasets. The required programming language is Python.</p> <p>Students taking this class will be assumed to be familiar with basics of Machine Learning, probability and statistics, as well as programming in Python.</p>				

Course Code	5171026	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（Evolution of Global Economic Policies）				

Faculties	NAKAO Takeo
Course Objectives/Overview	<p>Students study through this course i) how economic policies have evolved since the demise of the Bretton Woods system in the 1970s, ii) what were impacts of Asian financial crisis in the late 1990s and the global financial crisis in 2008/09, iii) how Asian countries have achieved high growth and poverty reduction, and iv) what are new and emerging challenges for Asia and the World.</p> <p>Lecture is both theoretical and empirical, and based on the lecturer's experiences as Chairman of Institute, Mizuho Research &amp; Technologies (April 2020-), President of Asian Development Bank (ADB) (2013-2020), Vice-minister of Finance for International Affairs dealing with G7, G20, and IMF issues (2011-2013), and other work at the Japan's Ministry of Finance, including tax, budget, and financial sector policy (1978-2013) and as an advisor in IMF's Policy Development and Review Department (1994-97).</p>

Course Code	5171028	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：経済学系（Contemporary Issues in Development Economics）				
Faculties	CHEN Stacey				
Course Objectives/Overview	<p>This course covers contemporary topics in development economics. It is appropriate for graduate students in economics, public policy, agricultural and resource economics, and related fields.</p> <p>**Prerequisite: Econometrics for Public Policy or its equivalent</p>				

Course Code	5172002	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：政治学系（Governance and Development）				
Faculties	MOTODA Yuka				
Course Objectives/Overview	<p>The objectives of the course are: 1) to give students a historical understanding of the context of the rise and fall of major development theories on which donors have based their aid policies; 2) to deal with the ways in which current international development cooperation takes place in the areas at issue - with the primary focus being placed on 'governance' amongst them; 3) to provide a critical assessment of the ways in which the concept of 'governance' and the role of state are framed through international development discourse in general and development aid in particular.</p> <p>By the end of the course, students will be able to understand firstly why a certain theory was emerged at a certain point of history and why it was adopted by donors, and how it was turned into their aid policies. Secondly, students will deepen their understandings of the impact of implemented aid policies on recipient states' governments and societies at large - i.e. the governance of recipient states. Thirdly, students will be able to follow up emergent 'unorthodoxies' that challenge the dominant discourse on governance and development in the international aid industry.</p>				

Course Code	5173001	Term	A1A2	Credits	2
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Course Title	国際金融・開発研究：法学系（国際経済法）
Faculties	伊藤 一頼
Course Objectives/Overview	国境を越えた経済活動は絶えず加速しており、特に貿易・投資の分野においては明確な国際ルールの必要性が高いため精緻な条約システムが構築されている。本講義では、貿易分野における世界貿易機関(WTO)、および投資分野における投資保護協定といった国際法制度を中心に、その歴史や規律内容の理解を目的とする。また、地域経済統合の進展や大国間の貿易摩擦など近年の新たな動向についても解説を加える。これらを通じて、現代の国際経済関係を法的な視点から読み解き、的確な分析を加えるための視点を獲得するとともに、国際経済法務に携わるうえで必要となる実践的な知識を身に付けることが目標である。

Course Code	5174001	Term	S 2	Credits	2
Course Title	国際金融・開発研究：学際系（International Projects）				
Faculties	KATO／KOMATSUZAKI／MORIKAWA				
Course Objectives/Overview	We civil engineers are involved not only in construction of infrastructure but also in solving a variety of social problems. For example, the Great East Japan Earthquake set a new task to build new embankments along the Sanriku Coast. It is not a purely technical issue but a social one as social acceptance would be necessary to build those embankments. Even experts of structural mechanics cannot avoid or ignore it. The same thing can be said to international project. You, as future civil engineers, must have competencies to deal with such various aspects of international project. Students are expected to learn the skills of problem solving (analysis, evaluation and forecast) and solution design and the professional knowledge of international project through case method in this course. The instructors with different professional backgrounds will give you an opportunity to learn a wide range of expertise to manage and/or initiate international project in future.				

Course Code	5174002	Term	A1A2	Credits	2
Course Title	国際金融・開発研究：学際系（International Intellectual Property Management）				
Faculties	WATANABE Toshiya				
Course Objectives/Overview	The "International IPR Management" course covers the fundamental aspects of intellectual property from Innovation and business perspective. Course of this year especially focus on IP management from startup business, and developing countries perspective as well. Both of situation face problems of little management resources. How we create IP and competitiveness for little management resources is topic of this year. The course is organized by combining series of lectures and workshops by guest speakers ,group work sessions and case study sessions for better understanding the IPR management through real issues in business scene. In order to facilitate effective interactive process in “case based teaching”, a number of enrolled students could be restricted. In this process, students in the TMI departments as well as those				

	in TMI sub-major have some priority. In 2022, this class will be organized as face to face, hybrids & online class.
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Course Code	5175004	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系（Transformation of Warfare and Technology）				
Faculties	AOI Chiyuki				
Course Objectives/Overview	<p>There have developed quite separate debates concerning, on the one hand, the Transformation of Warfare, and Revolution in Military Affairs on the other. Conventional knowledge is that while the former approach encompasses a vast range of scholarly analysis on how war in the contemporary era might have transformed in all spheres of economy, politics and society, the latter has focused on the impact of technological advancement in a narrower sense on warfare, especially the way in which warfare has been conducted or ought to be conducted. However, to discuss changes in the character of war in these quite distinct spheres, each with specific preoccupations with no interactions, is not very conducive to a meaningful generalization about the transformation of warfare itself. The purpose of this seminar is to consider the impact of modern and contemporary technological changes, especially focusing on communication and media spheres, on the character and conduct of warfare today, hence bridging the two distinct spheres of interests.</p>				

Course Code	5175005	Term	S1S2	Credits	2
Course Title	国際安全保障研究：政治学系（Global Conflicts & Cooperation）				
Faculties	Endo Ken				
Course Objectives/Overview	<ul style="list-style-type: none"> <li>- to grasp the concept/nature of globalisation and its governance</li> <li>- to understand the variety of global issues and conflicts involved in them</li> <li>- to explore the cooperative ways in which to mitigate/settle/solve those conflicts</li> </ul>				

Course Code	5175006	Term	A 2	Credits	2
Course Title	国際安全保障研究：政治学系（Science, Technology and Public Policy）				
Faculties	MATSUO／ALEMANNO				
Course Objectives/Overview	<p>The development and diffusion of science innovative technologies is indispensable for modern society. However, despite its benefits, the development of science and technology is not without various risks and social problems. So far as we are going to make societal decisions for the use of science and technologies with diverse social implications that encompass both risks and benefits, sometimes involving values implications, there is a need for mechanisms of decision making and management of the development and utilization of science and technology. Decisions can be different depending on environmental, institutional and cultural conditions. In addition, innovative policy instruments/ mechanisms to deal with rapidly changing science and technology, including regulatory measures, are required for implementing decisions.</p>				

	<p>This course will deal with wide range of issues from local to global levels faced at the interface areas between science, technology and public policy from comparative perspective of Japan, the US and Europe. It offers key theoretical issues surrounding Science and Technology and provides students with the tools and frameworks, such as risk assessment/ management and transition management, to analyze them. This course invites students from both natural science backgrounds (i.e. the graduate school of engineering, new frontier science and so on) and social science backgrounds (graduate school of public policy, law and politics, and economics and public policy). We expect students to acquire interdisciplinary perspective in addition to their primary major, which is one of the critical skill in analyzing complex social technical issues posed by science and technology.</p>
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Course Code	5175007-1	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系（Contemporary Chinese Politics）				
Faculties	LIM Jaehwan				
Course Objectives/Overview	In addition to enhancing understandings of the structure and processes of contemporary Chinese politics, this course aims to familiarize students with prominent theories of authoritarian politics. Among the topics this course will examine in the Chinese context are: factionalism, elite bargains and power-sharing, corruption; political participation; contentious politics; censorship and manipulation.				

Course Code	5175007-2	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系（Contemporary Chinese Diplomacy）				
Faculties					
Course Objectives/Overview	This course looks into the diplomacy of the People's Republic of China. It discusses the development of Chinese diplomacy from the days of Mao Zedong and Zhou Enlai to the current period. Important questions to be tackled include the policy process, especially the linkage between internal politics and external policy.				

Course Code	5175008	Term	S1S2	Credits	2
Course Title	国際安全保障研究：政治学系（International Politics in East Asia）				
Faculties	佐橋 亮				
Course Objectives/Overview	This course does not focus on a particular nation's foreign policy. Rather, we examine the impacts of both the rise of Asia, regionalism and American commitment on the order in East Asia. Behaviors of not only great powers but small and middle powers are to be analyzed.				

Course Code	5175010	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系（国際政治経済の諸問題）				

Faculties	飯田 敬輔
Course Objectives/Overview	本演習は国際政治と国際経済の接点にある各種の問題について実証的に研究することを目的とする。輪読のテーマは、主要国の貿易政策の比較である。米国、日本のみならず、その他の主要国の貿易をめぐる政策決定過程を幅広く取り扱いたい。文献については開講後指示する。

Course Code	5175011	Term	通年	Credits	4
Course Title	国際安全保障研究：政治学系（アメリカ政治外交史）				
Faculties	UMEKAWA Takeshi				
Course Objectives/Overview	このゼミでは文献購読を行うとともに、参加者にアメリカで生じている具体的な政治現象についての調査・報告、ならびにセミナー・ペーパーの執筆をしてもらう。				

Course Code	5175012	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系（Global Political Economy）				
Faculties	SUZUKI Kazuto				
Course Objectives/Overview	European Union has a unique system of governance. On the one hand, it has a feature of international organization as a collection of sovereign state, but on the other, it has autonomous authority and competence to govern. This course will provide how EU came to this form of governance and what are the policies that has been conducted within EU. It will discuss the issues in recent years such as Brexit, emergence of populist movements, and migration issues.				

Course Code	5175013	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系(Governance of Space Activities)				
Faculties	SUZUKI Kazuto／VERSPIEREN Quentin				
Course Objectives/Overview	<p>This course aims to raise awareness on the critical role of space technology in our daily lives and the important implications it has on domestic policymaking and international relations.</p> <p>The first part of the course, titled “Space and Society”, provides an overview of major space technologies and their applications. It then demonstrates how space assets have become a critical infrastructure on which advanced societies are over-reliant, and the hazards and threats that they are facing.</p> <p>The second part of course delves into political science and international relations. It addresses the various approaches to space policymaking, the structure of international relations in outer space and the major challenges ahead for the space sector.</p>				

Course Code	5175014	Term	A1A2	Credits	2
Course Title	国際安全保障研究：政治学系（Strategic Communications and International Politics）				
Faculties	青井 千由紀				
Course Objectives/Overview	<p>Strategic communications occupy a particularly significant place in world politics today. This course provides the background for understanding the expanded role of communications in contemporary international security and provides a theoretical framework for analyzing/explaining the role of communications in contemporary diplomacy and statecraft. This course will further situate contemporary uses of strategic communications in the evolving character of warfare today, especially the hybridization of threats and warfare. Issues covered include: the social impact of the evolution of ICT technologies; functions of strategic communications; public affairs and public diplomacy; military psychological operations and information operations; history of disinformation, misinformation, and malinformation; uses of strategic communications by non-state actors; governmental institutions and the apparatus of strategic communications; and strategic communications in Asia and the Indo-Pacific.</p> <p>This course is offered by the Strategic Communications Education and Research Unit (SCERU), with support from the European Union (EU). It also serves as a preparatory course for the GraSPP-King's College London double-degree programme.</p>				

Course Code	5176001	Term	A1A2	Credits	2
Course Title	国際安全保障研究：法学系（国際組織と法）				
Faculties	森 肇志				
Course Objectives/Overview	<p>近年国際条約、とりわけ多数国間条約が数多く結ばれているが、これらのうち、条約により運営機関が設置されるものが多くみられ、条約体制と呼ばれるものが形成されている。それらは当該条約の適用・履行確保さらには発展という、国際法の実現において大きな役割を果たしている。また、こうした条約によるもの以外に、非拘束的合意（ソフトロー）によるものの重要性も増している。</p> <p>そうした条約等の多くは、それを実施するための国内法や国内裁判所による適用等を通じて、国内法平面においても、したがって国内実務家にとってもますます重要になってきている。</p> <p>本演習では、こうした条約体制（国際組織を含む）の構造ならびに実際の運用のあり方を、参加者のリサーチを中心に明らかにすることを通し、現代国際法の現実の姿の一端を明らかにする。具体的イメージとして、森肇志他『分野別国際条約ハンドブック』（有斐閣・2020年）、とりわけその「概論」を参照されたい。</p> <p>本演習は法科大学院との合併授業である。</p>				

Course Code	5176002	Term	S 1	Credits	2
Course Title	国際安全保障研究：法学系（国際人権法）				

Faculties	寺谷 広司
Course Objectives/Overview	今日、人権は国際社会における最も中心的な関心の一つであり、日本でも法曹関係者を初め、多くの立法・行政機関関係者、民間団体が「国際人権」に関与するようになってきている。この授業では、人権の国際的保障の現状とあるべき姿について考察する。そのために、現行諸制度の仕組みと運用について理解を深めるのはもちろんのこと、背景となる歴史と理論、特に国際法理論との連続を重視して討論する。

Course Code	5178001	Term	S1S2	Credits	2
Course Title	国際安全保障研究：学際系（Resilience Engineering）				
Faculties	SHIBASAKI Ryuichi／FURUTA Kazuo				
Course Objectives/Overview	Resilience is the intrinsic ability of a system to adjust its functioning prior to, during, or following changes and disturbances, so that it can sustain required operations under both expected and unexpected conditions. Resilience can be an advanced concept of safety based on probabilistic concept of risk and now drawing attention of researchers and practitioners. Resilience engineering is an academic area of study to pursue methodologies how to implement resilience to complex socio-technological systems. This lecture provides fundamental concepts, frameworks of resilience engineering as well as an up-to-date overview of specific applications.				

Course Code	5178002	Term	S 2	Credits	2
Course Title	国際安全保障研究：学際系（Energy Systems）				
Faculties	KOMIYAMA Ryouichi／FUJII Yasumasa				
Course Objectives/Overview	In this course, basics of energy systems on and around nuclear energy are explained comprehensively. Environmental and economic evaluation methods associated with energy use and development are also mentioned so that the students can obtain balanced knowledge and ways of thinking of energy systems.				

Course Code	5178003	Term	S1S2	Credits	2
Course Title	国際安全保障研究：学際系（Global Health Policy）				
Faculties	HASHIZUME Masahiro／CHRIS NG FOOK SHENG				
Course Objectives/Overview	<p>本特論は、グローバルヘルスにおける主な課題の論点および理論的背景を概説するとともに、政策課題の分析と解釈のための実践的演習を行う。グローバルヘルスの第一線で活躍する外部講師による特別講義も適宜実施し、理論と実践の双方を習得する。扱うテーマは、グローバルヘルスの政策とガバナンス、地球環境問題と健康、疾病負荷、健康格差、健康の社会的決定要因等である。</p> <p>This course introduces the principles and theories of major global health challenges, discusses key issues in improving global population health, as well as practical</p>				

	applications of quantitative methods to analyze and interpret these issues and challenges for policy. Topics will include global health policy and governance, global burden of diseases, global environmental change, environmental health, health equity, infectious disease surveillance, non-communicable diseases and prevention, maternal and child health, health risk assessment, etc.
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Course Code	5171101	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Governance and Development）				
Faculties	MOTODA Yuka				
Course Objectives/Overview	<p>The objectives of the course are: 1) to give students a historical understanding of the context of the rise and fall of major development theories on which donors have based their aid policies; 2) to deal with the ways in which current international development cooperation takes place in the areas at issue - with the primary focus being placed on 'governance' amongst them; 3) to provide a critical assessment of the ways in which the concept of 'governance' and the role of state are framed through international development discourse in general and development aid in particular.</p> <p>By the end of the course, students will be able to understand firstly why a certain theory was emerged at a certain point of history and why it was adopted by donors, and how it was turned into their aid policies. Secondly, students will deepen their understandings of the impact of implemented aid policies on recipient states' governments and societies at large - i.e. the governance of recipient states. Thirdly, students will be able to follow up emergent 'unorthodoxies' that challenge the dominant discourse on governance and development in the international aid industry.</p>				

Course Code	5171104	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Transformation of Warfare and Technology）				
Faculties	AOI Chiyuki				
Course Objectives/Overview	<p>There have developed quite separate debates concerning, on the one hand, the Transformation of Warfare, and Revolution in Military Affairs on the other. Conventional knowledge is that while the former approach encompasses a vast range of scholarly analysis on how war in the contemporary era might have transformed in all spheres of economy, politics and society, the latter has focused on the impact of technological advancement in a narrower sense on warfare, especially the way in which warfare has been conducted or ought to be conducted. However, to discuss changes in the character of war in these quite distinct spheres, each with specific preoccupations with no interactions, is not very conducive to a meaningful generalization about the transformation of warfare itself. The purpose of this seminar is to consider the impact of modern and contemporary technological changes, especially focusing on communication and media spheres, on the character and conduct of warfare today, hence bridging the two distinct spheres of interests.</p>				

Course Code	5171105	Term	A 2	Credits	2
Course Title	科学技術政策研究：政治学系（Science, Technology and Public Policy）				
Faculties	MATSUO / ALEMANNNO				
Course Objectives/Overview	<p>The development and diffusion of science innovative technologies is indispensable for modern society. However, despite its benefits, the development of science and technology is not without various risks and social problems. So far as we are going to make societal decisions for the use of science and technologies with diverse social implications that encompass both risks and benefits, sometimes involving values implications, there is a need for mechanisms of decision making and management of the development and utilization of science and technology. Decisions can be different depending on environmental, institutional and cultural conditions. In addition, innovative policy instruments/ mechanisms to deal with rapidly changing science and technology, including regulatory measures, are required for implementing decisions.</p> <p>This course will deal with wide range of issues from local to global levels faced at the interface areas between science, technology and public policy from comparative perspective of Japan, the US and Europe. It offers key theoretical issues surrounding Science and Technology and provides students with the tools and frameworks, such as risk assessment/ management and transition management, to analyze them. This course invites students from both natural science backgrounds (i.e. the graduate school of engineering, new frontier science and so on) and social science backgrounds (graduate school of public policy, law and politics, and economics and public policy). We expect students to acquire interdisciplinary perspective in addition to their primary major, which is one of the critical skill in analyzing complex social technical issues posed by science and technology.</p>				

Course Code	5171106	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（国際政治経済の諸問題）				
Faculties	飯田 敬輔				
Course Objectives/Overview	<p>本演習は国際政治と国際経済の接点にある各種の問題について実証的に研究することを目的とする。輪読のテーマは、主要国の貿易政策の比較である。米国、日本のみならず、その他の主要国の貿易をめぐる政策決定過程を幅広く取り扱いたい。文献については開講後指示する。</p>				

Course Code	5171107	Term	S1S2	Credits	2
Course Title	科学技術政策研究：政治学系（Japan's Modernization Experience and Its ODA Policy）				
Faculties	TAKAHARA / IOKIBE / KATO / KAYASHIMA / KITAOKA / KITANO / KOBAYASHI / NISHIZAWA / MATSUBARA / HAYASHI / MAKIHARA / YAMADA				
Course Objectives/Overview	<p>This course is designed to offer an overview of Japan's experience in modernization and how it has extended its assistance to other countries' modernizing efforts. As the first non-western country to modernize, Japan's experience, both positive and</p>				

	negative, presents an important reference point for other countries to investigate. This course is conducted in cooperation with JICA, the Japan International Cooperation Agency. Those taking part in the JICA Development Studies Program are required to take this course, while other students are most welcome to take part.
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Course Code	5171108	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Space Development and Public Policy）				
Faculties	SHIROYAMA／NAKASUKA／KURIYAMA				
Course Objectives/Overview	<p>This course aims to provide an overview of space governance from the perspectives of space policy and law. For this purpose, lectures are to be given by academia, practitioners and specialists in outer space activities and utilization. The course requires students to explore the possible solutions/proposals on specific themes through joining group work and writing individual report.</p> <p>Space governance and space policy are interrelated and the key terms in understanding how space missions need to cope with the existing regulatory framework and how to identify pressing issues/challenges that all space actors need to go through. Such knowledge is beneficial not only to traditional actors (e.g., government and national space agencies) but also to New Space actors (e.g., private entities) or new space-faring nations (e.g., UAE) who started space missions recently. With the increasing number of space actors, due to growing interest in Sustainable Development Goals (SDGs), various space applications both by government and private sector are flourishing to support societal needs. Considering such a crowded situation in Earth orbit and the limits of resources available in outer space, this course provides comprehensive lectures that help students to explore the possible and practical solutions necessary for pursuing further space activities.</p> <p>In FY 2023, before dealing with the latest topics including space traffic management (STM), space resources exploration, and space x SDGs, the course provides introductory lectures on space policy and law, governance of various space activities, the role of space actors (i.e., space agencies, industry, international organizations) and the process/forum of rule-making for sustainable space activities.</p>				

Course Code	5171109	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Global Governance）				
Faculties	TIBERGHIEEN Yves				
Course Objectives/Overview					

Course Code	5171110	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（海洋科学技術政策論）				
Faculties	山口 健介				

Course Objectives/Overview	<p>科学技術の進歩等により、「海洋の自由」という国際法上の原則では海洋の管理が不十分になりつつあります。すなわち、海洋調査技術、資源開発技術、エネルギー技術等の進歩により、海が資源としての意味を持ち始めた結果、海洋開発をめぐる権利や利益が利害関係者間で争われる対象として立ち現れてきました。海は誰のものか？どのように利害関係を調整するのか？本講義の目的は、科学技術が海洋権益を生み出す過程とそれへの対応過程を理解し、関連する公共政策上の論点を学ぶことです。国際海洋研究所によるベーシックなテキストブックを学び合う形式で進めます。評価は、授業への貢献を基本とし、レポート等を加味します。</p>
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Course Code	5171111	Term	S1S2	Credits	4
Course Title	科学技術政策研究：政治学系（テクノロジーアセスメント）				
Faculties	谷口 武俊／松尾 真紀子				
Course Objectives/Overview	<p>科学技術は科学的知識に関する不確実性と技術の利用形態に関する不確実性という二重の不確実性をもつ。そして、科学技術の研究開発や利用活動には多様なアクターが関わり、そこには様々な利害が生じ、複雑なリスクトレードオフ構造が形成される。科学技術の社会導入は多様な社会的含意をもつ。社会経済活動がより重層的に繋がり相互依存性を高めている社会にあって、科学技術の研究開発・利用を巡る公共政策は極めて重要である。研究開発・利用を押し進める政策立案者や意思決定者は上述した科学技術の本質を踏まえ、技術がもたらす安全性への影響のほか、倫理的・法的・社会的含意・課題（ELSI：Ethical, Legal, Social Implications/Issues）を事前に検討し、責任ある研究イノベーション（RRI：Responsible, Research Innovation）を展開することが求められる。</p> <p>本講義では、先端科学技術に関する意思決定支援アプローチである「テクノロジーアセスメント(Technology Assessment: TA)」(技術の社会影響評価)の考え方・手法・制度を学習し、具体的な科学技術を取り上げ実践的に TA 試みることを通して、上述のような問いについて考えていく。これまで受講生が取り上げてきた技術は、ジオエンジニアリング、人工光合成などの環境・エネルギー分野、M2M や仮想現実・拡張現実、メタバース、ウェアラブル IoT などの情報通信技術分野、角膜再生や BMI などの健康・医療技術分野、宇宙デブリ除去技術、宇宙新輸送システムなどの宇宙分野、自動運転技術、自動翻訳などの人工知能分野、ゲノム編集技術、培養肉、合成生物学のバイオテクノロジー分野等がある。本年度は、脳情報科学分野、グリーンイノベーションにかかわる環境分野、情報分野等の具体的な技術を取り上げることを想定している。</p>				

Course Code	5171112	Term	S1S2	Credits	2
Course Title	科学技術政策研究：政治学系（人工知能と社会）				

Faculties	江間 有沙／國吉 康夫
Course Objectives/Overview	<p>交通・エンタメ・農業・医療・金融・サービス業等、様々な領域に人工知能が導入され、私たちの生活や働き方に影響を及ぼしています。そのため、国内外で人工知能技術の開発や利活用の原則や、技術の倫理的、法的、社会的影響（Ethical, Legal and Social Implications）の議論が行われています。このような議論には多様な分野の知見が求められており、今後、情報系研究者も倫理・法・社会的知見を持つこと、政策関係者や実務家、人文・社会科学の研究者も情報技術に関する知見を持つことが必要となります。</p> <p>本授業では、「どうやったら技術を社会に受容してもらえるのか」「技術が私たちの社会をどう変えてしまうのか」という技術決定論的あるいは受け身な態度ではなく、「どのような社会を目指し、そのために技術や人は何ができるか」といった視点から「人工知能と社会」における論点を考えます。</p> <p>本授業では「人間中心」の考えに基づく責任ある人工知能の開発と利用に取り組む国際的なイニシアチブ Global Partnership on AI (GPAI)の「仕事の未来」分科会での議論や研究に関連し、特定のテーマや業界に関しての最終レポートを作成します。また、学生には授業前にテーマに関する資料を予習し、質疑応答やディスカッションに主体的に参加することが求められます。</p> <p>なお、本授業は総合文化研究科、情報理工学系研究科、公共政策大学院の合併授業です。</p>

Course Code	5171114	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（デジタル社会とパブリックマネジメント）				
Faculties	青木 尚美／江崎 浩／羅 芝賢／座間 敏如／平本 健二				
Course Objectives/Overview	<p>デジタル化が進む現代社会において、パブリック・マネジメント（PM）－ 行政・公共サービスの提供に関わる組織の運営及びガバナンス－ は変革を迫られている。この授業では、チェンジ・マネジメントの観点を柱とし、様々な PM の領域で必要とされるデジタル・テクノロジーを活用した変革を理解し、その変革をもたらすための施策を考察することを目的とする。授業では毎回、専門家による講義とディスカッションを交えながら、① 何が必要とされている変革で、②変革を後押ししている要因、③変革の障害となっている要因を多角的に特定し、変革を達成し、定着化させる施策を考察する。参加者は PM とデジタル・テクノロジーが交差する領域に関心を持つテーマについて、チェンジ・マネジメントの視点からレポートをまとめ発表することが求められる。</p>				

Course Code	5171115	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Institutions and Methods of Health Technology				

	Assessment in Healthcare Policy)
Faculties	KAMAE Isao
Course Objectives/Overview	<ul style="list-style-type: none"> <li>• Students learn about Health Technology Assessment (HTA) institutions in the world and develop the HTA literacy with global standards, which is required for public policy-making and business in healthcare.</li> <li>• A group of two or three students is asked to perform a short presentation regarding one institution assigned in advance (for example, NICE in the UK), and the presentation is followed by class discussions.</li> <li>• International HTA experts in Asia, the US or Europe are invited in several classes to give their lectures online.</li> </ul>

Course Code	5171116	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Global Political Economy）				
Faculties	SUZUKI Kazuto				
Course Objectives/Overview	European Union has a unique system of governance. On the one hand, it has a feature of international organization as a collection of sovereign state, but on the other, it has autonomous authority and competence to govern. This course will provide how EU came to this form of governance and what are the policies that has been conducted within EU. It will discuss the issues in recent years such as Brexit, emergence of populist movements, and migration issues.				

Course Code	5171117	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系(Governance of Space Activities)				
Faculties	SUZUKI Kazuto／VERSPIEREN Quentin				
Course Objectives/Overview	<p>This course aims to raise awareness on the critical role of space technology in our daily lives and the important implications it has on domestic policymaking and international relations.</p> <p>The first part of the course, titled “Space and Society”, provides an overview of major space technologies and their applications. It then demonstrates how space assets have become a critical infrastructure on which advanced societies are over-reliant, and the hazards and threats that they are facing.</p> <p>The second part of course delves into political science and international relations. It addresses the various approaches to space policymaking, the structure of international relations in outer space and the major challenges ahead for the space sector.</p>				

Course Code	5171118	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系(Evidence-based Science & Technology Policy Design)				
Faculties	SHIBAYAMA Sotaro				
Course	Science, technology, and innovation (STI) shape the foundation of the contemporary				

Objectives/Overview	society and thus make a major arena of public policy. The complex nature of the STI system poses various challenges, and effective policymaking approaches have been explored and developed. Evidence-based policy making (EBPM) is one such approach that is expected to address the challenges and has been implemented in STI policy design, although it has its own challenges and limitations. In this course, students are expected to learn the context of STI and the basis of EBPM as well as to learn how EBPM can be applied to STI policy design.
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Course Code	5171119	Term	A1A2	Credits	2
Course Title	科学技術政策研究：政治学系（Strategic Communications and International Politics）				
Faculties	青井 千由紀				
Course Objectives/Overview	<p>Strategic communications occupy a particularly significant place in world politics today. This course provides the background for understanding the expanded role of communications in contemporary international security and provides a theoretical framework for analyzing/explaining the role of communications in contemporary diplomacy and statecraft. This course will further situate contemporary uses of strategic communications in the evolving character of warfare today, especially the hybridization of threats and warfare. Issues covered include: the social impact of the evolution of ICT technologies; functions of strategic communications; public affairs and public diplomacy; military psychological operations and information operations; history of disinformation, misinformation, and malinformation; uses of strategic communications by non-state actors; governmental institutions and the apparatus of strategic communications; and strategic communications in Asia and the Indo-Pacific.</p> <p>This course is offered by the Strategic Communications Education and Research Unit (SCERU), with support from the European Union (EU). It also serves as a preparatory course for the GraSPP-King's College London double-degree programme.</p>				

Course Code	5172103	Term	S1S2	Credits	2
Course Title	科学技術政策研究：法学系（企業の技術戦略と国際公共政策）				
Faculties	中川 淳司／米谷 三以				
Course Objectives/Overview	<p>本事例研究は、企業が経営戦略・技術戦略として公共政策形成に関与するかに関わるか、とくに国際ルールの形成にどのように関わり、国際ルールをどのように利用しているか、の実務を学ぶことを狙いとす。今日、公共政策にどう関わるか等の対政府渉外活動、あるいは、いわゆる「非市場戦略」の企業にとっての重要性が高まっているのみならず、技術開発・海外投資等の経営戦略との複合的な考慮が必要となっている。脱炭素・プラスチックごみ対策など公共政策の変化が技術革新を要求し、標準化の巧拙が技術競争の重要な要素になってきていることはその現れである。また関税や投資規制・保護等のルールは、サプライチェーンの構築に大きく影響する。国際ルールの比重が高まり、かつ国際ルール形成における企業・NGOなど非政府機関の関与する機会が増加している今日においては、国際ルー</p>				

	<p>ル形成に関わる企業戦略の巧拙が業績に大きく影響する。同時に、<b>Brexit</b>に見られるように、国家の規制主権を取り戻そうとする動きもあり、対象の動きは複雑化している。</p> <p>こうした活動を立案・実施するためには、法と政策に関わる知見に加え、技術に関する知見も必要であり、総合的な専門性が必要とされるが、必要な専門能力・経験を備えた人材は不足している。この現状に鑑み、企業が国際公共政策に関わるとはどのようなことか、とくに、技術戦略にどのような影響があるか、どのような関わり方によって目的を実現できるか、とくに、技術的なソリューションをどのように組み合わせるか、そのために必要な能力・知見は何か等について、企業活動の最前線でルール of 立案・交渉・実施にあたっている実務家の経験と知見を学び、実務につなげる。経済活動に対する国際ルールの規律の現状とその底流となる政策論の方向性、国際ルールの形成と実施のための手続の実際、かかる手続における政府、企業、NGO等のステークホルダーの関与等について、個別の事例の検討を通じて考察を深め、さらに今日的な課題にいかに関与するかについて実践的な議論を行い、実務において直面する問題に対する解決能力を高めることをねらいとする。</p>
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Course Code	5173103	Term	S1S2	Credits	2
Course Title	科学技術政策研究：経済学系（Development Operations of the World Bank Group）				
Faculties	NAKA Hiroshi				
Course Objectives/Overview	<p>The World Bank Group (WBG) institutions (World Bank (IBRD and IDA), IFC and MIGA) operate in developing countries to end extreme poverty and to boost shared prosperity. The operations of the Group also contribute to achieve the Sustainable Development Goals (SDGs) agreed by the member countries of the United Nations. This course covers the key operations of the WBG and the principles which regulate the operations to manage risks deriving from external and internal factors. As some senior management of the World Bank Group give lectures online, this course provides students with good opportunities to directly discuss development operations with them.</p> <p>The objective of this course is to better understand how the WBG operate for developing countries. It will help students develop policies, programs and projects to accelerate the growth of a country addressing environmental and social challenges. Students who finish this course and fully understand the operations of the WBG can start working for the WBG from day-one when they get a job in the WBG.</p>				

Course Code	5173105	Term	S1S2	Credits	2
Course Title	科学技術政策研究：経済学系（Data Science for Practical Economic Research）				
Faculties	KUCHERYAVYY Konstantin				

Course Objectives/Overview	<p>Despite its name, this class is on forecasting methods in economics and applications of machine learning methods to forecasting. A typical class on machine learning focuses on cross-sectional data, leaving almost no space for a discussion of how to work with time series data and how to make forecasts with such data. The purpose of this class is to cover this gap. This class might be useful for students who plan to work at financial companies and government entities tasked with making forecasts. We will closely follow the textbook by G. Elliott and A. Timmermann "Economic Forecasting". The book is quite advanced and requires good understanding of probability and statistics. During the lectures, we will cover chapters from this textbook and perform hands-on sessions. All homework assignments for this class will be practical: students will be asked to apply methods covered in the class to real datasets. The required programming language is Python.</p> <p>Students taking this class will be assumed to be familiar with basics of Machine Learning, probability and statistics, as well as programming in Python.</p>
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Course Code	5173108	Term	S1S2	Credits	2
Course Title	科学技術政策研究：経済学系（Economic Analysis of Innovation）				
Faculties	YARIME Masaru				
Course Objectives/Overview	<p>This course discusses the functions and mechanisms of innovation systems and the economic assessment of their impacts, with implications for industrial structure and dynamics and societal challenges. A particular attention is paid to corporate strategy, public policy, and institutional design. Among the issues to be discussed in this course include models of technological change, systems approaches to innovation, research and development, intellectual property rights, university-industry collaboration, public policy for innovation, and case studies in various sectors. The processes of producing, adopting, and utilizing innovations are elaborated from a perspective of co-evolution of technology and institutions. Analysis of economic evolution is introduced, and its concepts and methodologies are elaborated to represent and model the dynamics of innovations. Systemic approaches are taken to discuss the functions and structure of innovations at the national as well as industrial levels. These theoretical frameworks introduced in the first half of the course are utilized to understand the mechanisms of creating innovations on various types of societal issues, including food, energy, chemicals, information and communication, and health. Implications for public policy and institutional design are explored for a transition towards global sustainability.</p>				

Course Code	5174101	Term	S 2	Credits	2
Course Title	科学技術政策研究：学際系（International Projects）				
Faculties	KATO／KOMATSUZAKI／MORIKAWA				
Course Objectives/Overview	<p>We civil engineers are involved not only in construction of infrastructure but also in solving a variety of social problems. For example, the Great East Japan Earthquake set a new task to build new embankments along the Sanriku Coast. It is not a purely technical issue but a social one as social acceptance would be necessary to build those embankments. Even experts of structural mechanics cannot avoid or ignore it. The same thing can be said to international project. You, as future civil engineers,</p>				

	must have competencies to deal with such various aspects of international project. Students are expected to learn the skills of problem solving (analysis, evaluation and forecast) and solution design and the professional knowledge of international project through case method in this course. The instructors with different professional backgrounds will give you an opportunity to learn a wide range of expertise to manage and/or initiate international project in future.
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Course Code	5174102	Term	A1A2	Credits	2
Course Title	科学技術政策研究：学際系 (International Intellectual Property Management)				
Faculties	WATANABE Toshiya				
Course Objectives/Overview	<p>The "International IPR Management" course covers the fundamental aspects of intellectual property from Innovation and business perspective. Course of this year especially focus on IP management from startup business, and developing countries perspective as well. Both of situation face problems of little management resources. How we create IP and competitiveness for little management resources is topic of this year.</p> <p>The course is organized by combining series of lectures and workshops by guest speakers ,group work sessions and case study sessions for better understanding the IPR management through real issues in business scene. In order to facilitate effective interactive process in "case based teaching", a number of enrolled students could be restricted. In this process, students in the TMI departments as well as those in TMI sub-major have some priority.</p> <p>In 2022, this class will be organized as face to face, hybrids &amp; online class.</p>				

Course Code	5174103	Term	S1S2	Credits	2
Course Title	科学技術政策研究：学際系 (Resilience Engineering)				
Faculties	SHIBASAKI Ryuichi／FURUTA Kazuo				
Course Objectives/Overview	<p>Resilience is the intrinsic ability of a system to adjust its functioning prior to, during, or following changes and disturbances, so that it can sustain required operations under both expected and unexpected conditions. Resilience can be an advanced concept of safety based on probabilistic concept of risk and now drawing attention of researchers and practitioners. Resilience engineering is an academic area of study to pursue methodologies how to implement resilience to complex socio-technological systems. This lecture provides fundamental concepts, frameworks of resilience engineering as well as an up-to-date overview of specific applications.</p>				

Course Code	5174104	Term	S 2	Credits	2
Course Title	科学技術政策研究：学際系 (Energy Systems)				
Faculties	KOMIYAMA Ryouichi／FUJII Yasumasa				
Course Objectives/Overview	<p>In this course, basics of energy systems on and around nuclear energy are explained comprehensively. Environmental and economic evaluation methods associated with energy use and development are also mentioned so that the students can obtain balanced knowledge and ways of thinking of energy systems.</p>				

Course Code	5174105	Term	S1S2	Credits	2
Course Title	科学技術政策研究：学際系（Global Health Policy）				
Faculty	HASHIZUME Masahiro／CHRIS NG FOOK SHENG				
Course Objectives/Overview	<p>本特論は、グローバルヘルスにおける主な課題の論点および理論的背景を概説するとともに、政策課題の分析と解釈のための実践的演習を行う。グローバルヘルスの第一線で活躍する外部講師による特別講義も適宜実施し、理論と実践の双方を習得する。扱うテーマは、グローバルヘルスの政策とガバナンス、地球環境問題と健康、疾病負荷、健康格差、健康の社会的決定要因等である。</p> <p>This course introduces the principles and theories of major global health challenges, discusses key issues in improving global population health, as well as practical applications of quantitative methods to analyze and interpret these issues and challenges for policy. Topics will include global health policy and governance, global burden of diseases, global environmental change, environmental health, health equity, infectious disease surveillance, non-communicable diseases and prevention, maternal and child health, health risk assessment, etc.</p>				

Course Code	5179001	Term	S1S2	Credits	2
Course Title	国際公共政策実践研究（Social Design and Global Leadership）				
Faculty	H. SUZUKI／K. SUZUKI				
Course Objectives/Overview	<p>This is the introductory lecture course for graduate leading program on social design and management. Basic concepts and methods for social design and management in organization settings are introduced, followed by concrete cases in various sectors and discussion on global leadership as a cross cutting issue. This course especially focuses on problem definition phase of social design and management.</p>				

Course Code	5179002	Term	S1S2	Credits	2
Course Title	国際公共政策実践研究（Public-Private Partnerships）				
Faculty	NISHIZAWA／SEETHARAM／IKEMOTOTHARAM				
Course Objectives/Overview	<p>This course will help students deepen their understanding of Public-Private Partnerships (PPPs) as a framework for public services provision—such as economic, social, and institutional infrastructures—essential to the smooth functioning of society and to people’s well-being. Furthermore, the mobilization of private funds for public goods provision is discussed in light of the emerging practice of impact investing. As a practical training course with an active learning approach, students must work in teams under the instructor’s guidance. Their deliverables will be reviewed by and submitted to external “clients” as if the students run a real-world consultancy project. The course also serves as hands-on training for professional writing. Overall, the course aims to prepare students for future positions engaged in innovative public services provision in both the public and private sectors.</p>				

	† External clients are the Asian Development Bank (ADB)'s Office of Public-Private Partnership; GR Japan; and Japan International Cooperation Agency (JICA)'s Private Sector Partnership and Finance Department.
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Course Code	5179004-1	Term	S 2	Credits	2
Course Title	国際公共政策実践研究 (International Field Workshop in Asia)				
Faculties	NISHIZAWA Toshiro				
Course Objectives/Overview	This course provides students with opportunities to discuss current public policy issues with officials, managerial staff, and experts in government agencies, international organizations, business entities, NPOs, and research institutions in Asia with the following four objectives. First, it helps students identify today's public policy challenges and learn how to design solutions. Second, it assists students to develop skills to communicate professionally—in written and oral forms—and moderate a meeting discussion. Third, it encourages students to learn how to deliver their messages among public policy practitioners and general public. Fourth, it gives students opportunities to network with professionals to broaden their future career potential.				

Course Code	5179006	Term	A1A2	Credits	2
Course Title	国際公共政策実践研究 (Project Based Learning on Technological Innovation and Social Solutions)				
Faculties	SUZUKI / ISOZUMI / AOKI				
Course Objectives/Overview	In this course, students from multidisciplinary backgrounds collaboratively develop innovative, tech-driven solutions to complex societal problems. The course provides opportunities for students to interact with expert clients who present them with a problem or challenge that needs to be addressed and to practice working effectively in a multidisciplinary team. Students are asked to make hard choices to produce a thoughtful solution, which requires careful problem identification and the assessment of alternative options.				

Course Code	5179008	Term	S1S2	Credits	2
Course Title	国際公共政策実践研究 (Introduction to Cybersecurity Policy)				
Faculties	SUZUKI / TAKAMIZAWA				
Course Objectives/Overview	<p>The course objectives include but are not limited to,</p> <ul style="list-style-type: none"> <li>● Understanding the policy issues that center on international relations, business continuity, and risk/crisis management to protect intellectual property, assets, reputation, and other organizational assets from any threat or attack related to cybersecurity.</li> <li>● Understanding the role of technical standards to supplement legal and regulatory requirements.</li> <li>● Analyzing critical incidents including data breaches or related events to design and implement organizational strategies to address such risks.</li> <li>● Gaining a basic understanding for future technical and other research in security</li> </ul>				

	(whether it is public or public sector)
	<ul style="list-style-type: none"> <li>● Gaining a basic grounding for policy via the examination of current research issues and problems</li> <li>● Gaining experience handling real-world security policy challenges through analysis of public documents and artifacts using written and oral communication.</li> <li>● Developing the multidisciplinary skills needed to analyze, manage, and resolve the challenges associated with public policy, international relations, and governance.</li> <li>● Students are encouraged to take experiment provided by Interfaculty Initiative in Information Studies/Graduate School of Interdisciplinary Information Studies</li> </ul>

Course Code	5179010-1	Term	S1S2	Credits	2
Course Title	国際公共政策実践研究 (Energy Security)				
Faculties	ARIMA Jun				
Course Objectives/Overview	Learn about individual energy sectors from global energy security perspective. Find out public policy issues for each sector and develop policy responses to enhance secure, affordable and sustainable energy supply.				

Course Code	5179010-2	Term	A1A2	Credits	2
Course Title	国際公共政策実践研究 (Energy Security)				
Faculties	ARIMA Jun				
Course Objectives/Overview	Learn about individual energy sectors from global energy security perspective. Find out public policy issues for each sector and develop policy responses to enhance secure, affordable and sustainable energy supply.				

Course Code	5179011	Term	S1S2	Credits	2
Course Title	国際公共政策実践研究 (医療イノベーション政策)				
Faculties	鈴木 寛／昌子 久仁子				
Course Objectives/Overview	<p>国の医療の水準、そしてその結果としての健康の水準は、医療に対する支出の全体の水準と個別の価格設定、提供される医療の安全・安心や一定の質を確保するための国家の関与、医療事故に対する責任の構造、効率的で公平な国民のアクセスを提供するための人的・物的インフラの整備のルールなどに対して、医師、患者、病院、保険者、薬局、製薬企業、医療機器メーカーなど様々な主体が反応していく行動の総体として決定される。そして、これらの主体の行動や制度の有効性は、少子高齢化の進展、グローバル化の展開、経済成長の動向、医療技術の進歩などにより変化している。</p> <p>本講義は、医療水準やその結果としての国民の健康の水準を決定する様々な制度について、当事者間の合意と市場の働きに委ねるのではなく国家の関与が必要とされる理由にさかのぼって考え理解するとともに、特に近年、医療・健康政策と経済成長のための政策の</p>				

	<p>両面から注目されている「医療イノベーション」に視点を当ててこれらの諸制度の評価を行う。</p> <p>医療をめぐる近年の急速な技術進歩やグローバル化の進展を理解するとともに、基礎的科学から患者への提供にいたるヘルスケア産業のイノベーションの過程を取り上げ、国際的な比較を交えて、日本のイノベーション環境の評価を行う。また、「医療イノベーション」を経済成長のための政策としてみる場合の留意点について理解する。それらに合わせて、先端医療技術の活用におけるリスクや不確実性、個人情報保護、倫理上の課題も取り扱う。具体的な事例としては、医薬品・再生医療・医療機器に関する研究開発や承認プロセス等を扱う予定である。</p>
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Course Code	5179012	Term	S1S2	Credits	2
Course Title	国際公共政策実践研究 (Social Design and management)				
Faculties	ORSI / ARAI / MARUYAMA / YAGI / KANO / DEL BARRIO				
Course Objectives/Overview	<p>In this seminar, students are expected to examine research in various fields such as resources, environment and energy, health and medicine, space and ocean, security, global economy, food and life, AI and digitalization, and learning and communication in relation to various social issues, and attempt to design solutions (technical and institutional solutions) to social issues in concrete ways. In doing so, students will consciously consider what other fields of knowledge are necessary in addition to the knowledge in their own field of expertise, and students will attempt to compare various solution options. Students will also examine the challenges of implementing such solutions in society.</p>				