

SA.500 (DEVELOPMENT, CLIMATE AND SUSTAINABILITY)

Courses

SA.500.100. Green New Deals. 2 Credits.

SA.500.101. Financial Crises and Policy Dilemmas in Emerging Markets. 4 Credits.

The course will focus on key macroeconomic and financial policy issues with a focus on Emerging Markets. The course is divided into two parts. The first part explores the causes, dynamics and consequences of selected crises episodes affecting emerging markets, from the debt crises of the 1980's to the COVID-19 pandemic. The second part of the course addresses selected issues regarding crisis resolution, including the political economy of crises, their long run impacts on the economy, and the future of the international financial architecture. By the end of the course, it is expected that students will be able to identify the major factors leading to crises in emerging markets, assess the difficult policy trade-offs that policymakers face when dealing with crises, and evaluate alternative policy options.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.810.727[C]

SA.500.102. Corporate Sustainability, Business & Human Rights. 4 Credits.

This course will examine the complexities of transnational and cross-political business practices and strengthen students' understanding of the fast-developing field of business and human rights, corporate risk and sustainability. The class will examine seminal cases which lead to the development of voluntary global standards and will explore the new regulatory framework being created to protect stakeholders and hold corporations accountable for negative impacts created by them through their goods and services. We will also be looking at contemporary human rights challenges against corporations and corporate executives based upon their alleged complicity in human rights violations such as companies doing business in fragile, corrupt or war-torn states. We will focus on the crucial role of the financial sector (investors), advocacy groups, and consumers in rewarding (and penalizing) businesses that do not take human rights and sustainability into account. The class will cover a few sectors that pose specific human rights challenges in the business environment, namely: the apparel industry, agriculture, extractives, and Information and Communications Technology (ICT).

Prerequisite(s): Students may not register for this class if they have already received credit for SA.650.766[C]

SA.500.103. Climate Change Impacts: Foundations, Problems, and Solutions. 4 Credits.

This course will explore the impacts of climate change, with an emphasis on developing countries. In the first half of the course, we will characterize the current and expected impacts of climate change and the institutional landscape of global climate governance, particularly climate finance. In the second half of the course, we will examine specific issues arising from or linked to climate change, such as energy poverty and renewables, extreme weather and power grids, drought and human conflict, and adaptive agriculture. Students will become familiar with the scientific community's assessment of climate impacts, the problems arising from climate change in developing countries, and possible solutions to those problems. Students will write policy memos and undertake numerous negotiations on climate change.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.888[C]

SA.500.104. Climate Change: Economics and Politics. 4 Credits.

This course provides an overview of climate change policies and agreements at various levels, ranging from international to regional, national, and city-based. Topics covered include climate models and uncertainty, net zero targets, policy frameworks, international agreements (from Kyoto to Paris), regional agreements (EU, APEC), US federal legislation (IRA, CHIPs Act, etc.), subnational policies (based on America's Pledge Analysis), selection of state policies (e.g., Hawaii, Illinois), city plans (e.g., LA100), climate justice, decarbonization of the industrial sector, and policies supporting climate-friendly water use and agriculture. The course concludes with student presentations on country and city case studies.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.760[C]

SA.500.105. Comparative Energy and Environmental Governance. 4 Credits.

How are public policies addressing energy and environmental problems designed and implemented at various levels of governance? Why are certain pressing energy and environmental problems addressed, while others ignored? What drives some nations, but not others, to embrace renewable energy and decrease reliance on fossil fuels? Moving beyond the idea that differences in public opinion are primarily to blame for such variation, this course focuses instead on how the design of the state itself influences energy and environmental governance outcomes. Regime type, electoral systems, party rules, fiscal structures, and institutions that determine regional and municipal policy-making authority have enormous impact on policy design and implementation. In addition, energy and environmental problems span regional and national borders, often mapping poorly onto existing governance institutions and spawning a range of unintended consequences. To systematically examine the link between state institutions and energy and environmental governance, this discussion-intensive seminar applies theories and concepts from literatures on comparative politics to topics in energy and environment, moving gradually from multilateral institutions, through institutions at the national, regional, and municipal levels. The course ends with a class on non-state, market-based governance institutions. To facilitate detailed, comparative analysis and in-class discussion, each week introduces a range of empirical cases drawn primarily from China, Germany, and the United States.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.796[C]

SA.500.106. Development Strategies. 4 Credits.

Study of development reveals a range of proposals for economics, political and social reform and an equally wide range of constraints. But the challenge confronting development practitioners is to find a tractable and promising way forward, given country-specific realities. Drawing on a variety of emerging approaches to development policymaking, this course examines how to identify priorities for reform that are feasible in particular country circumstances and that have the potential to build and sustain momentum for development.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.818[C]

SA.500.107. Digital Development: Innovative Use of Technology in Emerging Markets. 2 Credits.

The aim of this course is to provide students with a practical, relevant framework to apply participatory and principled approaches to deploying information and communications technologies (ICTs) and digital tools to meet international development goals and improve outcomes in low and middle income countries (LMICs). The course will equip students with the skills and knowledge they need to understand and contribute to this emerging sub-field of international development practice. Each session will include an introduction to relevant foundational knowledge that will provide an entry point whereby technologies such as mobile phones, sensors, drones and tablets can be designed and deployed to address problems in health, education, agriculture, governance and environmental sustainability. Cross-cutting themes such as information security, policy, gender, and inclusion will also be explored. Students will have an understanding of the constraints and benefits of integrating technology into development programs.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.797[C]

SA.500.108. Energy Technology and Economics. 4 Credits.

The objective of this course is to make you familiar with key economic concepts, ground realities, and policies related to the supply and use of energy. There will be a focus on sustainable energy, but the course will not consider environmental implications, which will be part of the Environmental Economics course. We will consider supply issues (renewables and storage, petroleum, coal, natural gas, nuclear), energy demand and efficiency in various sectors, and their interactions with each other and with the rest of the economy.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.772[C]

SA.500.109. Facing the Oil Problem: The United States, Canada, OPEC and the World. 4 Credits.

Every aspect of foreign and domestic policy feels the effect of the oil problem. Solutions will be difficult. The course assesses direct and indirect costs of oil addiction, including global warming. Considers scenarios of supply disruption. Examines who controls oil and how. Explains "peak oil" and the loss of "spare capacity" to cushion price shocks. Looks at heavy oil production from Canada, America's largest oil supplier. Weighs energy initiatives, alternative energy development and future energy RD&D. Unravels complexities of the oil problem and explores what is to be done about it.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.759[C]

SA.500.110. Fundamentals of International Law. 4 Credits.

A general introduction to international law, surveying such areas as (among others) the sources of law, the law of treaties and customary international law, statehood and sovereignty, refugees and human rights, the laws of armed conflict, dispute resolution, international organizations, the law of the sea, use of armed force, the role(s) of NGOs, and the law of international trade. The course will consider the differences and similarities between international and domestic legal regimes, and how the two systems interact in theory and in practice. Considerable emphasis will be placed on legal reasoning, exposition, and advocacy.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.650.700[C]

SA.500.111. Geospatial Dimensions of Energy and Environment (GIS). 4 Credits.

The energy economy and the natural environment operate over a common matrix, that of geography. To gain a comprehensive understanding of how these phenomena interact and interrelate, one must apply tools that can accurately represent and model the spatial dimension. In this class, students will explore the use of Geographic Information Systems (GIS) and satellite imaging technologies to capture and analyze geospatial data. Topics covered include Spatial Thinking, GIS components, spatial data types and sources, and remote sensing principles, systems and technologies, as they apply to energy and environment. Students will investigate geospatial datasets and develop hands-on skills with mainstream and open-source GIS platforms.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.887[C]

SA.500.112. Global Electricity Markets. 4 Credits.

Electricity is fundamental to the functioning of modern society and the electricity grid has been called the greatest engineering achievement of the 20th century. It has also been deemed the lynchpin in combatting climate change – globally, the electricity sector accounts for just over 40% of carbon emissions, and 20% of final energy consumption. This course is designed to provide an introduction to the electric power industry, with a focus on the economic, policy, technology, institutional, and regulatory factors affecting the industry, major current issues and trends, and the prospects for the industry's future development and sustainability.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.730[C]

SA.500.113. Global Governance of Energy and Environment. 4 Credits.

This seminar introduces the institutional governance of international energy and environmental affairs. We will consider several questions of contemporary policy relevance. How have governments designed international institutions to meet energy demands in developing countries? What are the principle challenges for the international community in facilitating global energy transitions? To what extent are global institutions capable of meeting the challenges posed by climate change? How have global institutions evolved since the end of the Cold War to handle environmental issues? And what lessons can policymakers learn in designing or building institutions to govern energy sectors and the natural environment? By the end of the seminar we will have learned about the specific energy and environmental challenges and the international strategies developed to meet those challenges. Topics will include oil markets, climate change, renewable energy, ozone depletion, technology innovation, and financing mechanisms. We will cover the relationships between technology and energy, environment and energy, international relations and energy, domestic politics and fossil fuels, and oil and international relations. Sessions will focus on questions relating material from different parts of the seminar to provide continuity from one week to the next.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.889[C]

SA.500.114. Global Health Policy. 4 Credits.

The world's countries—low, middle and high-income alike—face numerous health challenges, many shaped by processes connected to globalization. These include combating the COVID-19 and HIV/AIDS pandemics, addressing non-communicable diseases, expanding health coverage and ensuring effective global governance for health. This course will examine these and other issues with an emphasis on facilitating your understanding and critical analysis of central issues in global health policy, and examining the role you can play to address health conditions—particularly those that affect disadvantaged populations.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.745[C]

SA.500.115. Humanitarianism, Aid & Politics. 4 Credits.

Over the past 20 years, the attention given to the humanitarian consequences of conflict has grown considerably, not least due to advances in media technology. These consequences are multiple and transnational: civilian casualties, insecurity and human rights abuses, population displacement and attendant health impacts, food insecurity, damage to traditional political and economic structures—what some have called “development in reverse”. The human toll of these conflicts—sometimes fueled by natural resources such as oil, water, land, diamonds, timber, or poppy—has placed substantial public pressure on donor governments and aid agencies to respond with ever more rapid and effective assistance. The resulting relief programs in turn carry real political repercussions, locally and internationally. The course examines these political repercussions. It provides a foundation for understanding the context of conflict and humanitarian crises, laying out such components as the nature of conflict, forced migration, humanitarian law, how the international aid community functions, and the use of militaries in humanitarian interventions. It also follows current trends in humanitarian action, tracking the role and use of Western aid agencies, the changes arising from counter terrorism policies, and the dynamics of specific crises.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.769[C]

SA.500.116. International Development Practicum. 4 Credits.

The International Development Practicum is a course designed to provide students with the tools and opportunity to work with an external client on a development problem or opportunity. It allows students the opportunity to apply their research, analysis, and practical skills to an issue that is of direct relevance to a client. The team of students works closely with the client to produce a high-quality output in the form of a publishable report, policy, or program that may be implemented by the client. Students audit the course in the fall semester (in addition to their full load) and take the Practicum as a 4-credit course in the spring semester as part of their full load. Note: successful completion of this course fulfills the capstone requirement for second-year MAIR students. Click here for Capstone course application information

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.901[C]

SA.500.117. International Environmental Law: Crisis and Cooperation. 4 Credits.

This course will explore various aspects of international environmental law and policy, including relating to human health. We will examine international regimes on the ownership, control and management of natural resources, including the international institutions designed to resolve disputes, as well as the prevention and management of pollution problems that do not respect national boundaries. Many international environmental problems are, unfortunately, in a state of crisis, the proliferation of hazardous chemicals and climate change being examples. These and other environmental problems can only be resolved through international cooperation. We will explore ways of catalyzing and actualizing such cooperation. We will also explore approaches to reconciling the particular needs of, and realities facing, developing countries in dealing with these issues. The course is intended to allow students to develop an analytic approach to international environmental problems in order to enable them to participate in designing and implementing solutions to those problems, particularly in an era of increasing interdependence and globalization. The course will also convey substantive information about specific problems and about the policies and legal regimes being used to deal with them.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.744[C]

SA.500.118. Energy & Environment Practicum. 4 Credits.

The Energy & Environment (E&E) Practicum is an opportunity for students to work in a consulting-like setting during their second year at SAIS. Teams of four are paired with a client organization on a pro-bono basis to tackle a real-world problem. This is an excellent opportunity to get hands-on consulting experience; acquire marketable skills that can be showcased on your resume and during interviews; and to contribute to the public discourse by addressing a meaningful problem in the energy, resources, and environment space. Note: successful completion of this course fulfills the capstone requirement for second-year MAIR students.Click here for Capstone course application information

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.775[C]

SA.500.119. International Human Rights Law Clinic. 4 Credits.

The International Human Rights Law Clinic is a practicum designed to provide hands-on experience in legal mechanisms for the promotion and protection of internationally-guaranteed human rights. The classroom portion of the course will seek to provide students with a solid grounding in human rights principles, treaties, enforcement procedures, and caselaw. The course culminates in a significant report on a case study that will be the principal focus of the entire academic year. The specific topic and subject country for the study will be announced at or shortly before the first class session, but the project will explore ways in which domestic legal systems internalize, implement, and enforce human rights norms, making them into legally-enforceable obligations. Students will research more developed systems, to analyze their successes and shortcomings, and will report based on their observation of the subject country, having researched its legal system and conducted interviews with government officials, lawyers, and individuals complaining of human rights violations. There will be an organized fact-finding mission to the subject country during Winter Break, with the report ready for publication by late spring. Students enrolled in the course must register as auditors in the fall semester – meaning that this class will not count towards their full-time status for the fall, but will be in addition to a full course load. They will receive four credits and a grade for the course, in the spring semester. This class has limited enrollment and is by application only. Note: successful completion of this course fulfills the capstone requirement for second-year MAIR students. [Click here for Capstone course application information](https://livejohnshopkins.sharepoint.com/sites/SAISInsider2/SitePages/DC-Capstones,-Professional-Skills-Courses.aspx)

Prerequisite(s): Students may not register for this class if they have already received credit for SA.650.780[C]

SA.500.120. International Migration, Diasporas and Development. 4 Credits.

While there are fierce debates on the impact of immigration on advanced industrial countries, the effects of emigration and diasporas on the source country are poorly understood. This seminar will seek to understand the economic, political and social consequences of international migration and diasporas on countries of origin. Is the phenomenon of greater import in the current (and future) context than it has historically been and if so, why? How do selection characteristics of international migrants and reasons for leaving – whether as students, workers or refugees – affect the country of origin? What are the human capital effects ranging from the “brain-drain” of limited human capital to “brain-gain” effects arising and social norms and thereby influence social and political change? When do diasporas engage in “long- distance” nationalism that support more polar political parties and groups from diasporic networks? What are the different forms of economic engagement of diasporas with their countries of origin, ranging from remittances to trade to FDI, and why do these vary? Do diasporas transmit “social” remittances which reshape individual preferences engaged in conflict and civil wars? And what are the effects of destination country policies on immigrant selection, assimilation and deportation on the above questions?

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.748[C]

SA.500.121. Energy and Environment in the 21st Century: The Fundamentals of a Global Transition. 4 Credits.

The world of energy and environment is going through a fundamental transition. The global geopolitics of the energy transition are increasingly about major conflicts related to climate change, fossil fuels, and the new energy economy. This course introduces students to the fundamentals of this global transition. It covers a wide range of topics from the functioning of electricity markets to the challenge of climate policy and the management of air pollution. It also introduces a host of key concepts and analytical frameworks that underpin policy analysis in the field, such as notions of collective action and the role of regulatory agencies in monopolistic markets. Students will have an opportunity to sharpen their analytical and writing skills through a series of case studies and policy memos.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.680[C]

SA.500.122. Life Cycle Assessment. 4 Credits.

Life cycle assessment (LCA) is a technique that is widely used by businesses, government, and civil society to quantify environmental impacts of products and processes from materials extraction to waste disposal (cradle-to-grave or even cradle-to-cradle). This course will provide a comprehensive introduction to LCA, an internationally recognized tool that is promoted by organizations such as the United Nations Environmental Program (through the Life Cycle Initiative). Studies employing this technique have uncovered surprising environmental findings, including the trade-offs between plastic and glass bottles, the upstream impacts of gasoline produced from the Canadian Oil Sands, and the hidden impacts of “zero emissions” vehicles. The classroom sessions will include in-depth discussions, exercises with and without software, and guest lectures to engage students with real-world LCA practice. The course has been structured for students to iteratively develop their own real-world LCA on a product of their choice throughout the semester. The technique enables in-depth comparative analyses which may be used to examine the environmental impacts of different products (e.g. dietary or energy choices) or even the influence of supply chain disruptions (e.g., related to COVID-19). While other products will be discussed, there will be an emphasis on energy technologies.

This course can fulfill quantitative reasoning requirements. Pre-requisite: Students are strongly encouraged to already have or acquire basic spreadsheet skills in advance of this course. Contact the professor with questions about the course and the prerequisite.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.855[C]

SA.500.123. Global Natural Gas and LNG Markets: Fundamentals, Forecasting and Political Drivers. 4 Credits.

This course acts as an introduction to global natural gas markets, with a focus on the methods energy companies, consulting firms, financial institutions, and governments use to analyze and forecast energy prices and fundamentals. The course covers four themes: (a) global natural gas and LNG market fundamentals (key producers, consumers, trade flows and market pricing) (b) methods for forecasting gas supply and demand; (c) geopolitical drivers and trade flows and (d) commercial strategies of international oil companies, national oil companies, and utilities. The primary project for this class is building an excel-based, bottom-up country level gas balance. Accordingly, while there are no prerequisites for this course, students will find the course easier if they have a background in economics (micro, macro) and if they can use data-processing software (e.g. Microsoft Excel). A paper and a presentation will accompany the model.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.793[C]

SA.500.124. Nuclear Non-Proliferation Challenges in the 21st Century. 4 Credits.

How can a world of multiple nuclear powers control the spread of this immensely powerful nuclear technology? This course will introduce the student to these challenges by looking at how nuclear weapons work, why some countries are tempted to seek them, and the implications of nuclear weapons for civilian nuclear power and geopolitical stability. 55 years have elapsed since an international non-proliferation regime was established based on the 1968 Nuclear Non- Proliferation Treaty (NPT). The Treaty assigned responsibility to the International Atomic Energy Agency of the United Nations (IAEA) for applying safeguards to nuclear and related materials, nuclear equipment and facilities to ensure that they remain in peaceful use. New challenges arise from growing interest by some nations in acquiring nuclear weapons to meet their perceived security needs, and the revival of interest in nuclear power as a carbon-free energy source, including from countries that have no experience in nuclear technology. Russia's veiled threats of possible nuclear use connected to the war in Ukraine have further heightened nuclear anxieties and heightened interest in acquiring nuclear capabilities, not to mention the concerns of nuclear weapons acquisition and possible use in the Middle East. In addition, increasing threats of nuclear terrorism from acts of malice, diversion, sale, and theft of nuclear material and technologies contribute to the scenario of competing nations able to master the technology and thirsting for the security benefits it seems to offer. North Korea and Iran are not alone in this. Students will gain an understanding of the political and military dynamics of nuclear weapons, ways to slow or halt the spread of such weapons and how to reduce the dangers of nuclear terrorism. Group discussions, simulated exercises, and guest lecturers by current and former expert nuclear practitioners will introduce additional real-world dimensions into the classroom.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.786[C]

SA.500.125. Reimagining International Development for Children and Youth. 4 Credits.

There are well over two billion children and youth in the world with half living in poverty. Threats to human security are already leading to social disruption in many parts of the world. Investing in education, healthcare, protection, and future economic opportunities for future generations is vital for building a safer, productive, and prosperous society. This course will enable students to have an overview on issues affecting young people's lives at the intersection of poverty and globalization. The course will have a heavy focus on social innovations that have been developed and implemented to support the most vulnerable young people globally. It will also examine many dynamic policies that deal effectively with these issues.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.753[C]

SA.500.126. Renewable and Distributed Energy Policy. 4 Credits.

Given the challenges presented by climate change, environmental degradation, and resource scarcity, virtually everybody agrees that "business as usual" in energy production and consumption is no longer tenable. However, for all the compelling reasons to increase the share of energy generated from renewable sources, the development of renewable energy sectors has varied widely across countries. In some economies, more than 30 percent of electricity are now generated from renewable sources, while others have made few attempts to establish domestic renewable energy sectors. This course will examine what's driving the remarkable growth in some countries while others lag behind. To understand such variation, this course provides an in-depth look at the policies and economics of renewable energy – from large scale wind and solar to distributed generation (DG) resources such as rooftop solar, micro-grids, and storage in the U.S., Europe, and Asia. Weekly, discussion-intensive class meetings examine how specific national and state policies are driving growth in renewable energy sectors, how these policies impact renewable energy projects (large and small scale), how and why these policies have differed across nations and over time, and what factors have contributed to policy failure.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.797[C]

SA.500.127. Research Seminar: Energy and Climate. 4 Credits.

Policy makers, business leaders, and other stakeholders in civil society confront many challenges in ensuring a transition to a sustainable energy future. In the Research Seminar: Energy & Climate, students will have the opportunity to conduct in-depth, focused research on a specific topic under the guidance of Prof. Banks with inputs from fellow students. Note: successful completion of this course fulfills the capstone requirement for second-year MAIR students. Click here for Capstone course application information

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.857[C]

SA.500.128. Sustainable Development in the Era of Climate Disruption. 4 Credits.

Students will get an introduction and participate in critical discussions of basic concepts, science and debate about climate change and how climate will impact sustainable development, climate change leadership, science, power and politics. This will cover the scientific overview of climate change over geological and historical time, its impact on the availability of basic necessities like freshwater, food security, and energy and a number of case studies that illustrate different societies interaction, adaptation and collapse in relation to climate change. Thereafter, students will learn global, regional and local efforts being undertaken to adapt and mitigate climate change and how these efforts are shaping the global development agenda and the Sustainable Development Goals. There will be case studies understanding the political and ethical contentions of climate and sustainable development and how present and future scenarios could impact food prices, conflict, infrastructure, migration, trade and geopolitical relationships.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.400.799[C]

SA.500.129. The Geopolitics of Energy. 4 Credits.

Energy and geopolitics are intrinsically linked. Profound shifts in the global energy landscape are having major impacts on international relations. This course will address the risks to global energy security, how countries and regions define their energy challenges, and how these perceptions impact their foreign policies and the international system. The course will look at global energy forecasts, the security considerations attached to different fuels and sources of energy, and the key issues impacting the geopolitics of energy in different regions of the world.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.765[C]

SA.500.130. The Water, Energy and Food Nexus. 4 Credits.

Energy underpins the modern economy, food and agriculture underpin civilization, and water underpins life on Earth. These three resources are the essence of human existence on this planet and yet their current exploitation and use imperils that very existence. The Food, Energy, Water Nexus, is the exploration of the interrelationships between these resources, the challenges they face individually, and the complex linkages between them. Dealing with these challenges requires an interdisciplinary approach to find integrative technology and policy solutions to complex problems especially as these challenges are exacerbated by global warming and climate change. In this class students will be exposed to the unique features of each element of the nexus, the complex dynamics of their interaction, and the pursuit of integrative solutions. Students will investigate historical, contemporary, and emerging practices that are essential for a sustainable and resilient human society.

Prerequisite(s): Students may not register for this class if they have already received credit for SA.680.792[C]

SA.500.131. Venture Capital and Impact Investing in Emerging Markets. 2 Credits.

This class will thus focus on the intersection of venture capital and impact investing, on this newer asset class for emerging markets, and its specific application in the service of consciously creating impact. Given the roots of the early success stories in impact investing in the financial services sector, this class will focus primarily (although not exclusively) on financial inclusion, as it helps to demonstrate the progression of one impact investment sector that has had both early stage VC support and multiple exits. Financial inclusion also offers an ideal laboratory because it offers a service typically provided by private sector entities (albeit to fewer people than it should) and has been the source of entrepreneurs pursuing pro-poor innovations for decades, led and supported by Grameen, Accion, Women's World Banking, Opportunity International, and many others who pioneered microcredit. But the course will go well beyond the field's microcredit roots and explore what is happening on the frontier in the fintech revolution, as significant portions of the financial services sector begin to digitize and financial services increasingly are delivered via mobile phones. As such, this focus on financial inclusion will, in turn, highlight the power of investing and value creation in many of the newest pro-poor sectors.

Prerequisite(s): SA.380.760[C] OR SA.510.102[C]; Students may not register for this class if they have already received credit for SA.400.795[C]

SA.500.132. Responsible Digital Development: Africa Study Trip. 4 Credits.

With advances in artificial intelligence and pervasive digitization, policymakers must now contend with ethical dilemmas including such issues as facial recognition, voter profiling and exclusion, labor displacement, algorithmic bias, and addiction. Beyond risks, policymakers must ensure that the communities in greatest need of the benefits of technology benefit from and have the ability to access it safely. Through engagements with digital development practitioners, the Practicum seeks to expose students to the tradeoffs involved in digitization and the ethical dimensions of these choices, while also providing participating clients with well-considered advice and recommendations on these tradeoffs. Note: successful completion of this course fulfills the capstone requirement for second-year MAIR students. Click here for Capstone course application information

SA.500.133. Theories of Change in Development: The Good, The Bad, and the Ugly. 4 Credits.

This course looks at the theory and reality of project planning in development agencies, and asks why it is so hard for them to be realistic and to plan to adapt. It covers the starting point of planning and project design and the most salient critiques (rigorous evidence bases and randomized control trials; systems thinking and complexity; Doing Development Differently; Thinking and Working Politically/political settlements). The course builds upon insider understandings of the incentives and processes within large donor bureaucracies and how those shape the processes and ultimately results of the work.

SA.500.134. Global Energy and Climate Policy. 4 Credits.

This course introduces students to global energy and climate policy. It aims at offering them a comprehensive toolkit to understand the main technological, economic, and geopolitical dimensions of the subject.

SA.500.135. Economic Development in Latin America. 4 Credits.

This course examines the economics of Latin America in contemporary comparative perspective. Starting with an overview of long term trends in growth and structural transformation, the course moves on to consider the theoretical approaches which economists have adopted to understand development processes in the region. The introductory phase of the course completed, the next three lectures survey the key macroeconomic themes of fiscal policy, monetary policy and the external balance. The difficulties countries in the region have faced in maintaining macroeconomic stability is an important theme of the course and is referred back to again and again in subsequent sessions. An equally important topic, that of poverty and inequality, forms the basis for the next section of the course. The remainder of the course deals with the challenge Latin America now faces as it struggles to compete in the global economy. The course will entail formal lectures and student presentations/group discussions. Each student (in conjunction with one or two colleagues) will be expected to prepare and present one 20 minute presentation at some point during the course. The presentations will be followed by group discussions led by the course lecturer. Broad indications of themes for the talks provided in this outline. More precise details of the talk topics – along with guidance on sources and formats – will be given in week one of the course.

SA.500.136. Challenges for Food and Agricultural Policies. 4 Credits.

Course description: This course will examine the current and future challenges facing food and agricultural systems and their implications for policymaking at national and international levels. Population and income growth are expected to raise the global demand for food, increasing pressures on natural resources. While globally agriculture produces ample calories, nearly a billion people remain undernourished, while an even greater number are overweight or obese. There is a pressing need to improve consumer's food security and nutrition, while ensuring sustainable production on the supply side. At the same time, climate changes will add to stresses facing the agricultural sector, which will itself need to make a much greater contribution to mitigation efforts. These long-term challenges need to be reconciled with immediate priorities in terms of rebuilding and strengthening resilience in the wake of the Covid pandemic and responding to the destabilizing impacts of the war in Ukraine. The course will examine how these challenges can be addressed in a coherent way, and the policy and institutional reforms that are required.

SA.500.137. Energy and Climate Change. 4 Credits.

This course will focus on the inseparable links between energy use and climate change and, consequently, the unavoidable connection between energy and environmental policy. Through an examination of the subject, we also hope to explore three closely-related themes that exemplify the complexity of the interaction between science and technology on the one hand and public policy on the other hand: the challenges of achieving political acceptance, both nationally and internationally, of scientific consensus in the face of ever-present scientific uncertainty; the extent and the limitations of science as a driving force for public policy; and the role of technological development in influencing political choices.

SA.500.138. Rural Development, Gender and Social Inclusion. 4 Credits.**SA.500.140. Labor Markets in Developing Economies. 4 Credits.**

The aim of this course is to advance student learning on labor markets in developing countries and examine the range of policies that can be employed to improve employment outcomes and human capital development. The course will focus not only labor market policies but also on more integrated policies linked with labor markets such as social policy and economic development. Active labor market policies – job finding/intermediation services, training, and wage subsidies in particular – are being adapted in developing countries to improve employment outcomes, in some cases with better performance than in the advanced nations. Latin America has had particular success in youth training which requires, not training for training's sake, but demand-based training that leads to employment or a return to school.

SA.500.142. Financial Inclusion. 2 Credits.

There are an estimated 1.4 billion people around the world that are left out of the formal financial system. The financially excluded, many of whom are low-income, do not have access to the products they need to live financially stable lives and to take advantage of opportunities. They may not have access to a safe savings account, credit to build their business, or insurance in the case of a health emergency. The delivery of quality financial services (loans, savings, insurance, money transfers) at affordable costs to all segments of society is, accordingly, an important policy goal in closing the income gap and improving quality of life. This is a seminar style course that provides an introduction to financial inclusion with a deeper dive into key questions that are driving the future of how we create more equitable financial systems for the poor. We will hear from guest lecturers who are considered experts at the top of their fields and who bring first-hand experience in a range of topics – from designing digital products to serve low-income customers at scale, creating enabling regulations by policy makers, and assessing investment opportunities from a venture capital perspective, to evaluating future careers in financial inclusion. There is one final project in the course, in which student groups will present a set of policy recommendations to advance financial inclusion in a specific country market, informed by a set of core practical and ethical questions related to the industry.

SA.500.143. Carbon Neutrality by Mid-Century: how to get there?. 4 Credits.

This interdisciplinary and holistic course addresses deep decarbonization strategies from technical, economic, social and (geo) political perspectives focusing on pitfalls, opportunities and trade-offs. Looking at the energy system as a whole, the course will address sectoral decarbonization approaches including the integration of large scale renewable energy into electricity systems, but also decarbonization strategies of hard to abate sectors. The course, where students will need to take an active role, will also focus on the dilemmas and trade-offs between the three main energy policy goals: energy security, energy equity (affordable, competitive and clean energy), and environmental sustainability, the so-called energy policy trilemma. Energy transitions are country-specific, and the transition strategies are plural and present multiple dilemmas. This course aims at providing students with the critical knowledge and skills to understand the difficult decisions that need to be made, and avoid superficial generalizations and simplifications, which unfortunately remain all too common.

SA.500.144. Agricultural Development. 4 Credits.

This course covers major topics in agricultural development, historically and in our current time. Our class is grounded in core concepts of agricultural economics, but there is no math involved and you do not need any prior economics courses to take this class. We will focus on the role of agriculture in reducing poverty, how it has contributed to economic growth and improved outcomes for people around the world and try to understand why it has not taken off in some areas that remain at low levels of per capita incomes, largely (but not exclusively) in sub-Saharan Africa. You will learn in depth about one topic through a group project, which your group will teach to the rest of the class in the second half of the course. We will critically analyze issues of inequality and inequity as it relates to the class topics and readings throughout the course. Towards the end of the semester, we will hear from professionals who work in agricultural development to learn about career pathways in the field.

SA.500.145. Gender Lens Investing in Global Supply Chains. 2 Credits.

This course offers an overview of the evolution of gender in global, corporate supply chains and frames discussions around the intersection of gender equity, business and investor interest. It offers a state of play of what's been done so far in supply chains for women, what we've learned, and where there is innovation moving forward. Students will have an understanding of how supply chains are composed and how key social impact and industry collaboration differs across apparel, agriculture, tech and women-owned businesses. During the course, students will learn about various corporate initiatives to engaged in gender programming in supply chain over the past 20 years, ranging from core business to philanthropy, and the course will unpack what has worked and what hasn't from a shared value lens (core business and philanthropy) and ideological differences among corporations. The course will dimension the ecosystem of actors that work on gender in supply chain, ranging from auditing firms, local industry associations, to local implementers and evaluators as well as investors. Students will learn what has been tried, evaluated and studied and where there is white space for greater scale and innovation in programming in multistakeholder partnership. 2-credit course paired with Digital Development; taught by Lauren Murphy

SA.500.146. Complex Crises and Gender in International Relations. 4 Credits.

This course will focus on the gendered dimensions of complex crises in fragile settings. Through a combination of thematic modules such as conflict, climate change, food insecurity, and global health, as well as contemporary case studies on recent and ongoing crises, the course will take an intersectional approach to examining the significance of gender as relates to preventing and managing compounding challenges in international relations. The class structure, syllabus, and assignments will be designed to introduce key policies and debates, challenge assumptions, encourage critical thinking, and foster robust discussions, with the goal of helping students develop and refine skills relevant to diverse career paths. The course will feature guest lecturers from the public, private, multilateral and non-profit sectors, offering students opportunities to hear multiple perspectives and engage in professional networking.

SA.500.147. Energy Transitions in the US. 4 Credits.

Do you like history? A good policy debate on an existential issue? Want a course centered on discussion? If so, this course is for you. The central premise of this course is that the ongoing dramatic energy transition in the U.S. is not occurring in a vacuum: it is informed by previous energy transitions involving a long, and often complicated history of interactions among political, economic, social, ethical, environmental, regulatory, technology, national security, and other societal factors embedded in energy policy making in the United States. Students will benefit from studying these historical themes in order to understand the context and assumptions influencing current energy policy discussions, and to play a constructive and impactful role in implementing an energy transition that best serves future generations. Some of the themes we will examine include, the role of government and regulation, energy and foreign policy, emergence and impact of the modern environmental movement, social and cultural trends and role of the consumer, and energy and ethics and the concept of "justice". The goal is to provide context for current challenges surrounding key public policy issues in the energy sector, up to and including recent Congressional legislation, such as the Inflation Reduction Act. We will review the historical context, but always with an eye to seeing the linkages with recent and current policy activities. Our focus is on the U.S., but where possible we will link transition themes to other countries. In short, we will use our understanding of historical developments and themes in the U.S. and relate them to debates surrounding the current transition to a decarbonized economy. Grading is based on class participation (discussion), brief student-led presentations, a formal debate, and a final written essay. There are no pre-requisites for this course, however, some basic knowledge of energy and climate change would be helpful.

SA.500.148. Development Finance and the Sustainable Development Goals. 4 Credits.

Summary: The Course is an overview course on key thematic challenges on the Development Agenda within the Framework of the Sustainable Development Goals (SDGs). The SDGs will be presented and discussed as the framework agenda but the course will focus in more depth on poverty, hunger, decent work, economic growth and the climate change agenda. A particular focus will be placed on how to address the negative impacts of the COVID pandemic and higher energy and food prices and subsequent high indebtedness which today burden economic growth in most developing countries. The second pillar of the course is the study of development finance to achieve the SDGs. The course will (i) present the key actors in development finance, such as multilateral and bilateral development finance institutions, the role of the International Monetary Fund, the role of the European Union as a development finance institutions, and the role of China as an important new actor. Private sector flows, foundations and remittances will be presented but not discussed in detail; and (ii) study selectively the instruments how development finance is delivered, such as project finance, budget support financing, delivery on results. The course will review the debate on aid effectiveness and study instruments how to assess effectiveness of aid institutions and their instruments. As part of the course, student will conduct a comprehensive simulation exercise on a Hydrodam Project in Georgia where they will assess the environmental and social impacts of this project and simulate a multilateral decision making process whether the project should be funded from a multilateral development finance institution. The course will be delivered in a seminar format with lectures and discussions but complemented by numerous guest speakers who will join the course online on the specific topics covered in the course.

SA.500.149. Global Environmental Politics. 4 Credits.

Description: In recent years, environmental considerations have become increasingly important for how we think about politics and policy at the local, national, and international levels. Much has been said on how we should address our troubled relationship with nature – from advice to individuals on what to buy and how to behave, to recommendations at the international level on how to cooperate and take collective action. This course takes a step back from the headlines to consider a more complex and critical analysis of how we arrived at our current environmental predicaments. The course begins with a discussion on the Anthropocene and introduces theoretical tools with which to understand global environmental politics. Analysis of global hierarchies of gender, race, and economic development are interwoven throughout. The second half of the course focuses on policymaking by international, regional, and nonstate actors and culminates in a climate simulation in the final week.

SA.500.150. Climate and Energy in Developing Economies. 4 Credits.

This course investigates the intersection of climate change and energy challenges in developing economies, covering mechanisms for climate change adaptation and mitigation, energy subsidies, and the global health impacts of fossil fuels. It also addresses changing demographics and shifts in energy consumption patterns. The course explores opportunities to increase energy access and reduce energy poverty, including off-grid solutions like solar home systems and microgrids, as well as clean cooking technologies. In countries with more developed electric grids, we examine the resiliency of grids and power production, the growth of electric vehicles industry, hydropower development, and emerging markets in hydrogen. We also delve into recent trends in deglobalization that have impacted international trade and geopolitics, with a focus on sourcing critical materials for the clean transition and international energy supply chains. The course additionally covers the energy-water nexus, energy efficiency in developing economies, and climate finance opportunities. Practical insights are gained through case studies of developing economies.

SA.500.151. EU Energy and Climate Policy. 4 Credits.

This course provides a grand tour of EU energy and climate policy. It aims at offering students a comprehensive overview of the various policy dimensions characterizing this fascinating space: energy policy and climate policy themselves, but also industrial policy, fiscal policy, social policy, and foreign policy. The course pays particular attention to the political economy and governance aspects of the EU energy and climate policy, highlighting its fundamental drivers of change and discussing in a critical manner its challenges and potential prospects. While the course provides an EU-level overview on this set of issues, it also offers specific insights on individual EU countries' energy and climate policy developments. Each class will be introduced by a short "Energy and climate news corner", where students will shortly present in class the most important global development in this space, so to get used of being up to speed with ongoing energy and climate policy developments, at the EU level but also globally.

SA.500.152. Circular Health: Policy Actions to co-advance health and sustainability. 4 Credits.

This highly interactive course is an introduction to the concept of Circular Health. The course provides an overview of key concepts leading to the Circular Health paradigm and links this novel approach to the SDG 2030 Agenda, by actively involving students to explore drivers of health within the SDG roadmap.

SA.500.153. Accelerating the Clean Energy Transition from Innovation to Deployment. 4 Credits.

Clean energy technologies are now cheaper than fossil sources of electricity in many parts of the global economy. Despite the rapidly decreasing capital costs associated with these technologies, the clean energy transition is not progressing at a pace aligned with the climate goals outlined in the Paris Agreement. This course examines the energy transition through the lens of structural transformation, involving the significant reallocation of economic activity from one energy system to another. Comparative analyses are drawn between the ongoing transition and historical instances of structural change, ranging from late economic development to past energy revolutions like the invention of the steam engine during the industrial revolution, and more recent shifts from manufacturing to service-based economies. By investigating coordination challenges, market failures, and economic frictions linked to structural change, the course identifies policy interventions to expedite the transition. Emphasizing wind, solar, and battery storage technologies, the curriculum follows the trajectory of clean energy innovations from the laboratory to the market. It encompasses the political economy of clean energy innovation, government initiatives to establish domestic clean energy supply chains, challenges on both supply and demand sides in constructing markets for clean energy technologies and explores land and labor market frictions that impede the pace of change.