

# Williams College, MA in Policy Economics: Curriculum 2024-2025

**ORIENTATION: August through early September:** The orientation course includes a review of economic principles, math skills, probability and statistics with two or more lectures daily, assignments, and tests.

**FIRST SEMESTER: September through December, four courses required**

**501: DEVELOPMENT ECONOMICS I (required course):** This course examines concepts, tools, and models in contemporary economic theory relevant to development problems and their application in economic policymaking. Topics include growth processes and structural change; investment and sources of saving; capital, labor, and technological progress; policies for public, private, and foreign enterprises; policy making and negotiation in governments; and policies for reducing poverty and inequality. (Prof. Ashraf)

**502/503: ECONOMETRICS (required course – two sections):** These courses focus on methods of bringing economic theory and data together to provide empirical guidance for policy formulation, including the use of computers in econometric analysis. There will be two sections of the course to accommodate participants with different amounts of prior training in this field. (Profs. Godlonton and Ozier)

**504: PUBLIC ECONOMICS (required course):** This course considers the efficiency of market economies and rationales for government intervention in the market, such as public goods, externalities, information-based market failures, and equity. Applications to developing country situations will include environmental policy, education, health care, aid to the poor, and social security, as well as questions of how to make government work better. (Prof. Bakija)

**505/506: DEVELOPING COUNTRY MACROECONOMICS I (required course, two sections):** These courses examine the relationship between macroeconomic policies and economic growth in developing countries. One section focuses on a model suitable for analyzing macroeconomic issues, including the requirements of fiscal solvency and the contribution that fiscal policy can make to macroeconomic stability. It also analyzes central banking, focusing on central bank independence, time consistency of monetary policy, and the design of monetary policy rules in small open economies. The second section covers the core principles of macro-economics, with an emphasis on the issues facing developing, transitioning, and emerging market economies. (Profs. Montiel & Powell)

**371: TIME SERIES ECONOMETRICS AND EMPIRICAL METHODS (optional):** The course reviews concepts of estimation and inference for large data samples in the context of the challenges of multivariate endogenous systems, and will then focus on associated methods for analysis of short dynamics such as vector autoregressive techniques and methods for analysis of long run dynamics (e.g., cointegration techniques). Students will be introduced to concepts and techniques analytically, but also by intuition, learning by doing, and by computer simulation and illustration.  
**Prerequisites:** strong mathematical background and a placement test (CDE administered). (Prof. Pedroni)

**JANUARY TERM: One course required**

**51: INFRASTRUCTURE IN DEVELOPING COUNTRIES: CONSIDERATIONS FOR POLICY MAKERS:** Students will be introduced to the policy challenges of infrastructure in emerging markets. We will learn how infrastructure is changing with respect to energy and transport. New technologies have impacts on countries' options for addressing infrastructure needs, as does climate change. The course will illustrate the pros and cons of different policy approaches, and discuss why consensus on infrastructure policy can be hard to achieve. (Prof. Sheahan)

**52: MICRO-SIMULATION FOR EX ANTE POLICY ANALYSIS:** Micro-simulation modeling provides a powerful tool for ex ante evidence-based analysis of economic and social policy interventions. We will use a micro-simulation model to analyze public policies and interpret the findings. The course examines measurement issues, analytical tools, and their application to household survey data for a range of developing countries, and will link the outcomes of analysis with the challenges of policy implementation. (Prof. Samson)

**53: DATA FOR DEVELOPMENT:** This course is designed to provide hands-on experience using microeconomic data to assess trends in key indicators used to measure progress towards the sustainable development goals. The course will build students' skills in finding, accessing and using various data sources. It will also expose students to the range of new types of data for development. Students will build skills in data cleaning, data manipulation and data visualization

techniques. The course will use Stata, and most of the course will involve hands-on in-class data workshops, interspersed with some lectures and readings. Each student will focus on a lower middle-income country of their choice and produce a policy report using the data skills acquired during the course. (Prof. Jakiela)

**55: MONETARY POLICY IN EMERGING AND DEVELOPING ECONOMIES:** The goal of the class is to help you become an effective macroeconomic policy analyst. Specifically, you will acquire experience in obtaining, manipulating, and presenting macroeconomic data, learn how to effectively communicate economic ideas and analysis in writing, and hone oral presentation skills. The focus will be on four practical issues encountered in the formulation and implementation of monetary policy: (1) estimating monetary policy rules, (2) measuring potential output, (3) modeling inflation, and (4) understanding monetary policy transmission. The course will entail writing a case study in which you will use macroeconomic theory as a guide for interpreting macroeconomic data, and a policy memo in which you will make a case for a specific policy action based on sound theoretical and empirical analysis. (Prof. Kuttner)

**97: INDEPENDENT RESEARCH:** For those pursuing a second semester independent research project, it is required to begin that work during the January term. Project topic requires consent of an instructor and of the MA program Executive Committee. This course will involve the individual preparation and presentation of a major research paper.

### **SECOND SEMESTER: February through May**

#### **WRITING-INTENSIVE COURSES: Each student must choose one of the following**

In the tutorial format pairs of participants meet weekly with a faculty member. Each week, one student prepares a policy paper, presenting an argument, evidence, and conclusions. The other student provides a detailed written critique of the paper. The professor leads the discussion with questions that highlight critical points.

**532T: INCLUSIVE GROWTH AND CRISIS RESPONSE:** This tutorial allows students to explore the role of social safety nets in promoting inclusive economic growth, drawing on case studies from Africa, Asia, Latin America and Eastern Europe. Social safety nets provide a pro-poor policy instrument that can balance trade and labor market reform, fiscal adjustments (such as reduced general subsidies), and other economic policies aimed at enabling better market performance. (Prof. Samson)

**538T: RESILIENCE AND MACROECONOMIC POLICY:** This course aims to identify the causes of fragility and to discuss how policies should be changed to enhance resilience. The course will consider how policy is made; in particular, fiscal policy, monetary policy, exchange rate policy, and export promotion policy, as well as consider policy interactions. Finally, the course will focus on efforts to mitigate fragility and enhance resilience in such countries, including the role of structural policies and that of international financial institutions. (Prof. Chami)

**539T: DEBT SUSTAINABILITY:** The stock of government debt has skyrocketed in many countries. At the same time, interest rates have risen as global central banks have sought to tame inflation, generating concerns about the sustainability of public debt, especially in many lower-income and emerging market economies. What does fiscal/debt sustainability mean, and what are the implications of high public debt for growth and stability? How do the IMF and other institutions assess a country's public debt sustainability? How does uncertainty factor into these assessments, and what special considerations are relevant for natural resource exporters? How have governments sought to bring down high levels of debt, or to prevent excessive debt levels from arising in the first place? Do these approaches need to be modified to account for the impact of COVID on debt stocks? How will demographic developments and climate change affect debt sustainability? By addressing these questions, the course will seek a nuanced understanding of the role of public debt in the economy and its benefits and risks. (Prof. Gerson)

#### **540: INDEPENDENT RESEARCH (Continuation of January Independent Research)**

#### **SECOND SEMESTER ELECTIVE COURSES: Three elective courses are chosen from the following**

**471: TOPICS IN ADVANCED ECONOMETRICS:** The course uses both a practical and conceptual/theory-based approach, with emphasis on methods of structural identification of dynamics in VARs and cointegration analysis, both in conventional time series and panel time series which contain spatial dimensions. The course will also investigate methods of computer simulation related to these techniques. The course is well suited for students considering empirically oriented honors theses in fields that employ these techniques, such as macro, finance, growth, trade and development, as well as fields outside of economics that use time series data. It is also well suited for students majoring in economics,

statistics, computer sciences or mathematics who wish to expand their econometrics training and understanding to a more advanced level. (Prof. Pedroni)

**510: FINANCIAL DEVELOPMENT AND REGULATION:** This course focuses on the financial system in developing countries and its role in economic development and stability. From both theoretical and applied perspectives, we will investigate the implications of financial development on economic development & growth, income inequality, and short-term fluctuations. We will also explore the dynamics that shape the institutions of a society's financial structure and study the complexities of financial policy design. Throughout the course, a variety of tools of modern economics will be considered, such as theory-based quantitative structural methods, reduced form empirics, and field experiments, and we will study the consequences of finance on economic well-being. The first part of the course focuses on the functions of finance, how it contributes to growth and poverty alleviation, and what can be done to increase financial inclusion. What are the key parts of the infrastructure that are needed to improve access to financial services, including via 'fintech,' which is taking off in many developing countries? The second part of the course will build upon the first part and investigate how imperfections in financial development could make developing countries susceptible to short-term stability issues. A key focus of the second part will be how to prevent or minimize crises, and we will analyze the government's role as regulator, supervisor, standard setter, contract enforcer, and owner. (Prof. Burak Uras)

**514: TAX POLICY IN GLOBAL PERSPECTIVE:** This class explores tax policy from a global and comparative perspective. Because most students will be CDE fellows, we will emphasize tax policy issues, examples, and evidence that are pertinent to developing countries. However, tax policy lessons are universal so we will learn about tax policies in developed countries, especially issues relevant for transnational transactions. Topics addressed include: how economic principles can be applied to the efficiency and equity consequences of tax policies; how personal income taxes, corporate income taxes, and value-added taxes are designed and administered and how they influence the economy; ideas for fundamental tax reforms; the debate over progressive taxes versus "flat" taxes; how taxes affect incentives to save and invest; how market failures and administrative problems may influence the optimality of tax policy; the implications of global capital flows and corporate tax avoidance for tax policy; tax holidays and other special tax incentives for investment; empirical evidence on the influence of taxes on foreign direct investment, labor supply, and tax evasion; tax policy towards natural resources such as minerals and oil; case studies of efforts to reform tax administration and reduce tax evasion and corruption; taxes on land and property; taxes on imports and exports; presumptive taxation; and the informal economy and its implications for tax policy. (Prof. Bakija)

**515: DEVELOPING COUNTRY MACRO-ECONOMICS II:** This course examines the types of macroeconomic institutions and policy regimes that can help developing countries withstand shocks and sustain economic growth. We will examine central bank independence, the design of monetary and exchange rate regimes, capital account regimes, and various types of fiscal policy institutions and policy regimes, including fiscal rules. (Prof. Kim)

**516: INTERNATIONAL TRADE AND DEVELOPMENT:** This course will examine the causes and consequences of international trade and its implications for less developed countries. We will discuss various models of international trade and the empirical relevance of these theories. The course will provide analytical tools that will be useful in answering important questions such as: Why do countries trade? Who benefits from trade? How does trade affect economic growth and development? (Prof. Olney)

**523: PROGRAM EVALUATION FOR INTERNATIONAL DEVELOPMENT:** Development organizations face competition for scarce resources. Both public and private organizations use program evaluation to justify funding and to design more effective programs. This course will cover a wide range of evaluation techniques, including the methodology and tools available to development practitioners. We will use a mix of applied econometrics and practical applications covering implementation, analysis, and interpretation. Students will learn to be a critical reader of evaluations, and to develop their own plan to evaluate an existing program. (Prof. Jakiela)

**524: ADVANCED METHODS FOR CAUSAL INFERENCE:** Building on a basic understanding of econometrics and statistics, this methodology course will take students through several applied microeconomic techniques for estimating the causal effect of a policy on an outcome. Using statistical software, we will explore the inner workings of these methods and the assumptions required for them to deliver credible estimates. (Prof. Ozier)

**545: GROWTH DIAGNOSTICS:** This course will serve as a primer on "growth diagnostics," an empirically driven analytical framework for identifying the most binding constraints to growth in a given country at a specific point in time, thereby allowing policymakers to develop well-targeted reforms for relaxing these constraints while being cognizant of

the country's prevailing economic, political, and social context. The course will employ a range of country-specific case studies. (Prof. Ashraf)

**571: GLOBAL HEALTH POLICY CHALLENGES:** Poor health is both a cause and a consequence of poverty. It can trap individuals in poverty and reduce aggregate economic growth. This course will be structured around major global health challenges, including maternal health, infectious diseases (e.g. HIV/AIDS, tuberculosis, COVID), neglected tropical diseases (e.g. malaria, dengue, Ebola), nutritional deficiencies, and mental health. We will focus primarily, but not exclusively, on health in low-income countries in this course. Students will read papers and conduct empirical assignments related to the various topics, as well as develop their own research idea during the semester related to one of the topics covered. (Prof. Godlonton)

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