

# Williams College - MA Program in Policy Economics: Curriculum 2019-2020

## **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.

### **DEVELOPMENT ECONOMICS I (required course)**

This course examines concepts, tools, and models in contemporary economic theory that are 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; policymaking and negotiation in governments; and policies for reducing poverty and inequality. (Prof. Ashraf)

### **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. Swamy & Shore-Sheppard)

### **TIMES SERIES ECONOMETRICS AND EMPIRICAL METHODS FOR MACRO (with instructor permission only and only as replacement for Econometrics above)**

Econometric methods in many fields including macro and monetary economics, finance and international growth and development, as well as numerous fields beyond economics, have evolved a distinct set of techniques which are designed to meet the practical challenges posed by the typical empirical questions and available time series data of these fields. The course will begin with an introductory review of 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 such as cointegration techniques. Students will be introduced to concepts and techniques analytically, but also by intuition, learning by doing, and by computer simulation and illustration. The course is particularly well suited for economics majors wishing to explore advanced empirical methods, or for statistics, mathematics or computer science majors wishing to learn more about the ways in which the subject of their majors interacts with the fields of economics. The method of evaluation will include a term paper. (Prof. Pedroni)

### **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)

**DEVELOPING COUNTRY MACROECONOMICS I (required course - two sections)** These courses examine the relationship between macro-economic policies and economic growth in developing countries.

The first 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. (Prof. Montiel)

The second section covers the core principles of macro-economics, with an emphasis on the issues facing developing, transition, and emerging market economies. An overview of core macro concepts and definitions is followed by a look at sectors and institutions that play major roles in the economy: households, businesses, the external sector, the fiscal authority, and the central bank. (Prof. Kuttner)

**JANUARY TERM:** One course required.

**MICRO-SIMULATION FOR EX ANTE POLICY ANALYSIS**

Micro-simulation modeling provides one of the most powerful tools for ex ante evidence-based analysis of economic and social policy interventions. Students 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. The course also links the outcomes of analysis with the challenges of policy implementation. (Prof. Samson)

**MONETARY POLICY IN EMERGING AND DEVELOPING ECONOMIES**

This is an introduction to the empirical analysis of macro and monetary policy issues, building on the material covered in Econ 505/506 and 502/503. The goals are threefold: (1) to become familiar with some of the econometric tools used in macroeconomics, (2) to be able to understand and critique empirical macro research, and (3) to practice the writing and presentation skills used in economic research. The emphasis will be on practical issues, such as working with macro data, rather than on formal econometric methods. (Prof Kuttner)

**MACROECONOMIC DATA ASSESSMENT**

This course complements the different macroeconomics courses students have already taken. It is designed to provide hands-on experience using macroeconomic data to assess the state of the economy. The course will augment students' skills relating to finding, downloading, displaying, graphing, and analyzing economic data. The course will focus on three aspects of the economy: the real sector, the government sector, and the external sector. Students will learn to measure and compute output gaps, expenditure contributions to growth, Taylor and inflation-targeting rules, cyclically-adjusted fiscal balances, and reserve adequacy. They will also learn how to assess the sustainability of public and external debt and identify the key economic risks. The main format of the course will be hands-on workshops, interspersed with some lectures and readings. Requirements include a short research project and a presentation to the class. (Prof Edison)

**INDEPENDENT RESEARCH**

For those pursuing a second semester independent research project, it is required to begin that work during Winter Study (see 2nd semester for complete description). 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.

Each student must complete one writing-intensive course from the choices below and three elective courses.

**Writing – Intensive Tutorial 1: ROLE OF SOCIAL SAFETY NETS**

This tutorial will offer students the opportunity 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)

**Writing – Intensive Tutorial 2: LONG TERM FISCAL CHALLENGES**

This course addresses conceptual and theoretical issues that are likely to emerge over the coming years with important budgetary implications. Students will be exposed to long-term challenges that have important budgetary implications and the ways in which they are addressed by different industrial and emerging market countries. Topics include aging populations, health care, climate change, energy and infrastructure, and water. (Prof. Heller)

**Writing – Intensive Tutorial 3: RESILIENCE & MACROECONOMIC POLICY**

Despite tremendous improvements in combating global hunger and child mortality, an increasing number of the world's population continue to live in fragile conditions, buffeted by conflict, forced migration, weak governance, and state inability to deliver basic services to its citizens. Setting macroeconomic policy is difficult in such countries. Not only are decisions affected by policymakers' distorted incentives and governments' internal conflicts, fragility also deteriorates policy transmission mechanisms and constrains policy spaces. This course aims at identifying the causes and consequences of fragility and at discussing how policies should be changed to enhance resilience in such countries. The course will, first, look into the definition and characteristics of Fragility, its numerical representation, and its causes and main consequences. The course will also highlight how policy is made in states of fragility, in particular, fiscal policy, monetary policy, exchange rate policy, export promotion policy, etc.), 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)

**Writing – Intensive Option 4 : INDEPENDENT RESEARCH**

**(Continuation of January Independent Research)**

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 ELECTIVE COURSES - *Three elective courses are chosen from the following offerings:***

**FINANCIAL DEVELOPMENT AND REGULATION**

This course focuses on the financial system and its role in economic development. We explore the functions of finance, how it contributes to growth, and review different models of financial sector development and their influence on how governments viewed the sector. We will examine experiences with financial sector repression and subsequent liberalization, and investigate the causes and impact of financial crises. Then we will study how to make finance effective and how to prevent or minimize crises, analyzing government's role as regulator, supervisor, standard setter, contract enforcer, and owner. We will also address the role of institutions (laws, norms, culture) and incentives in financial sector development. (Prof. Caprio)

**TAX POLICY IN EMERGING MARKETS**

This class provides an in-depth exploration of tax policy, with an emphasis on the challenges and issues most relevant in emerging markets. Topics addressed include how economic principles can be applied to help think about 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; implications of global capital flows and corporate tax avoidance for the design of tax policy; tax holidays and other special tax incentives for investment; case studies of efforts to reform tax administration and reduce tax evasion and corruption; the “unofficial” economy and its implications for tax policy; and tax policy towards natural resources. (Prof. Gentry)

### **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. Kuttner)

### **INCENTIVES AND DEVELOPMENT POLICY**

This course studies how limited enforcement and asymmetric information constrain development, and about innovative development designs that attempt to overcome these constraints. Course readings will be mixed of field studies, empirical evidence and theoretical tools from game theory. Incentive and corruption problems in health, education, the regulation of banks and natural monopolies, privatization, budgeting, debt forgiveness, foreign aid, microfinance, climate treaties and ethnic violence will be studied using a unified framework. (Prof. Rai)

### **PROGRAM EVALUATION FOR INTERNATIONAL DEVELOPMENT**

Development organizations face strict competition for scarce resources. Both public and private organizations are under increasing pressure to use rigorous program evaluation in order to justify funding for their programs and to design more effective programs. This course is an introduction to evaluation methodology and the tools available to development practitioners, drawing on examples from developing countries. It will cover a wide range of evaluation techniques and discuss the advantages and disadvantages of each. The course is a mix of applied econometrics and practical applications covering implementation, analysis, and interpretation. You will learn to be a critical reader of evaluations, and to develop your own plan to evaluate an existing program of your choice. (Prof. Godlonton)

### **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)

### **ADVANCED ECONOMETRICS (with instructor permission only, normally a continuation of Time Series Econometrics in first semester)**

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)

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