# Module descriptions: M.Sc. Economics (2022) & M.Sc. Public Economics (2022)

## Module: Microeconomic Analysis

**Qualification goals:** Students possess in-depth methodological and content-related knowledge of the fundamentals of microeconomics. They know complex and new approaches and are familiar with their application. They have an intuitive understanding of microeconomic relationships and can recognize and make limitations and extensions of the approaches presented.

**Contents:** Complex approaches to microeconomics, such as decision theory of the household and the firm, general equilibrium analysis, main theorems of welfare theory, partial equilibrium analysis, incomplete competition, game theory.

Language	English	
ECTS	6	
Frequency	every other semester	

### Module: Macroeconomic Analysis

**Qualification goals:** Students have in-depth methodological and content knowledge of basic macroeconomics. They know advanced approaches and are familiar with their application. They are able to differentiate between quantitative models. They are able to interpret results and master formal derivations. They have an intuitive understanding of macroeconomic relationships and can recognize and make limitations and extensions to the approaches presented.

**Contents:** Basics of macroeconomics in the field of growth theory (e.g. Solow model, Ramsey model) and in the field of business cycle theory (e.g. real business cycle approach, New Keynesian model) as well as modern methods of macroeconomics (e.g. dynamic optimization).

Language	English	
ECTS	6	
Frequency	every other semester	

#### Module: Econometric Analysis

**Qualification goals:** Students will know and master basic econometric methods required for the empirical analysis of economic data. They are able to critically evaluate and appropriately apply these methods. They are able to conduct empirical studies independently, as far as they are based on econometric methods, and to evaluate the results..

**Contents:** Modern econometric methods, such as simple and multiple regression, nonlinear methods, diagnostic tests, dynamic models.

Language	English	
ECTS	6	
Frequency	every other semester	

### Module: Academic Practice

**Qualification goals**: Students will be enabled to present their own research results in a scientific manner and to represent them to a critical professional audience. They will become familiar with common presentation and discussion practices in economics research work. They will be able to present their own methodological approaches for discussion and critically question conclusions derived from their own research. The aim here is the subsequent processing of critical-constructive contributions in their own research work.

Contents: Current research questions in topics of theoretical and empirical economics.

Language	English or German	
ECTS	6	
Frequency	every other semester	

## Module: Methods in Economic Theory

**Qualification goals:** Students are familiar with modern methods of economic theory at the current state of international research. On the basis of current literature, they are able to select theoretical models and methods and apply them to answer self-selected questions independently. In doing so, they are able to critically reflect on the assumptions and limitations of their theoretical analysis. They can reflect the state of scientific discussion and their own results in writing and present them orally.

**Contents**: The course includes Theoretical Microeconomics, e.g. environmental economics, health economics, contract and information theory, game theory, competition economics, industrial economics, behavioral economics, labor economics, Theoretical Macroeconomics, e.g. fiscal policy, business cycle theory, growth theory, monetary theory, and Theoretical Finance, e.g. tax theory, allocation theory.

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Language	English or German	
ECTS	12	
Duration	One semester	
Frequency	every other semester	

## Module: Applied Economic Theory

**Qualification goals:** Students will be familiar with areas of application of theoretical economic research. They will be able to identify relevant economic problems and to work on them independently or in groups with the help of theoretical models. They are able to critically reflect on their own approach and to present their own results in writing and orally. In doing so, you will be able to include institutional, legal and social framework conditions as well as gender- and diversity-specific aspects of economic theory formation in the analysis and evaluate concrete policy proposals on the basis of theoretical arguments and submit alternative proposals.

**Contents:** Application areas of theoretical microeconomics, macroeconomics, and finance, e.g., environmental economics, health economics, mechanism design, competition economics, industrial economics, behavioral economics, fiscal policy, business cycle policy, growth policy, monetary policy.

Language	English or German	
ECTS	12	
Duration	One semester	
Frequency	every other semester	

## Module: Area Studies in Economic Theory

**Qualification goals:** The students know selected theoretical methods and models of economics as well as their fields of application. They will be able to select and apply methods and models in a context-specific manner in order to independently answer current questions in these fields of application. They will become familiar with interdisciplinary approaches to theoretical problems and will be able to incorporate these into their own analysis. In particular, they know about regionally specific institutional, historical and social aspects of the application areas.

**Contents:** Normative and positive models, methods and application areas of modern theoretical economics, e.g. economic history, development economics, as well as their application in thematic specializations such as economic system comparison in connection with economic regional studies (area studies) with a focus on Latin America, Eastern Europe or North America.

Language	English or German	
ECTS	12	
Duration	One semester	
Frequency	every other semester	

#### **Module:** Methods in Empirical Economics

**Qualification goals:** Students are familiar with modern methods of empirical economic analysis based on the current state of international research. On the basis of current literature, they are able to select econometric models and methods and apply them to independently answer self-selected questions. In doing so, they are able to critically reflect on the assumptions and limitations of the applied models and methods. They are able to reflect the state of the scientific discussion and their own results in writing, to present them orally and to evaluate them critically.

**Contents:** Methods of modern econometric analysis, e.g. microeconometrics, time series econometrics, panel data analysis, ex-post policy evaluation.

Language	English or German
ECTS	12
Duration	One semester
Frequency	every other semester

## **Module:** Applied Empirical Economics

**Qualification goals:** Students will be familiar with application areas of empirical economic research. They are enabled to identify relevant economic problems and to work on them independently or in groups with the help of econometric models and statistical methods. You will be able to critically reflect on your own empirical approach and to write down and orally present your results. They are able to include institutional, legal and social framework conditions in the analysis, evaluate concrete policy proposals on the basis of empirical evidence and derive alternative proposals. In particular, they are aware of gender- and diversity-specific aspects of the research field.

**Contents:** Application areas of modern econometric analysis, e.g. labor market policy, tax policy, inequality research, education and family policy, demography and migration research, gender economics, development research, environmental economics, health economics, social policy, fiscal policy, monetary policy, business cycle policy, growth policy.

Language	English or German	
ECTS	12	
Duration	One semester	
Frequency	every other semester	

## Module: Area Studies in Empirical Economics

**Qualification goals:** The students know selected empirical methods and models of economics as well as their fields of application. They will be able to select and apply methods and models in order to independently answer current questions in these fields of application. They will become familiar with interdisciplinary approaches to economic problems and will be able to incorporate these into their own analysis. In particular, they will know about regionally specific institutional, historical and social aspects of the application areas.

**Contents:** Quantitative and qualitative methods and application areas of modern empirical analysis, e.g. economic history, development economics in combination with economic regional studies (area studies) with a focus on Latin America, Eastern Europe and North America.

Language	English or German
ECTS	12
Duration	One semester
Frequency	every other semester

## Module: Methods in Economic Policy Analysis

**Qualification goals:** The students know the current state of international research in economic policy analysis. Based on this, they will be able to select existing methods in order to answer given or self-selected questions with economic policy relevance independently or in groups. In doing so, students are able to critically reflect on the assumptions and limitations of the applied methods and to derive recommendations for economic policy analysis. They are able to reflect the state of the scientific discussion and their own results in writing, to present them orally and to evaluate them critically..

**Contents:** Modern theoretical and empirical methods (e.g. difference-in-differences, regression discontinuity, randomized control trials) of economic policy analysis e.g. in financial and economic policy, family economics, education economics, competition economics, development economics, innovation economics, labor economics, social policy, tax policy, environmental economics, health economics, fiscal policy, monetary policy, business cycle policy, growth policy.

Language	English or German
ECTS	12
Duration	One semester
Frequency	every other semester

# Module: Applied Economic Policy Analysis

**Qualification goals:** Students will be familiar with areas of application of economic policy analysis. They are enabled to name concrete economic policy questions and to plan a scientific approach to answer these questions. In doing so, they learn to draw on basic theoretical and empirical knowledge. Taking into account institutional and legal frameworks as well as gender- and diversity-specific aspects of the research field, they are able to apply their knowledge to evaluate and compare existing policy proposals and to derive their own alternative proposals. In doing so, they are able to critically reflect on their own approach as well as to reproduce their results in writing and present them orally.

**Contents:** Application areas of economic policy analysis, e.g. financial and economic policy, family policy, education policy, competition policy, development policy, innovation policy, labor market policy, social policy, tax policy, environmental policy, health policy, fiscal policy, monetary policy, business cycle policy, growth policy, European integration policy.

Language	English or German
ECTS	12
Duration	One semester
Frequency	every other semester

## Module: Area Studies in Economic Policy Analysis

**Qualification goals:** Students will be familiar with selected research fields of economic policy analysis. They will be able to apply modern empirical and theoretical methods in order to independently answer current questions in these research fields. They will become familiar with interdisciplinary approaches to economic problems and will be able to incorporate them into their own analysis. In particular, they will be aware of regionally specific institutional and social as well as gender- and diversity-specific aspects of the research field.

**Contents**: Methods and application areas of economic policy analysis, e.g. trade or financial policy, migration or health economics, inequality and distribution including a gender and diversity perspective in combination with economic regional studies (area studies) with a focus on Latin America, Eastern Europe or North America.

Language	English or German	
ECTS	12	
Duration	One semester	
Frequency	every other semester	

#### Module: Economic Area Studies

**Qualification goals:** Students will be familiar with selected methods and application areas of economic regional studies (area studies). They will be able to apply modern empirical and theoretical methods of economic analysis in different regional contexts. They will be able to identify the historical, institutional and societal problems typical for the different regions and to include them in their analysis. They are able to transfer their region-specific findings for the economic analysis of other regions.

**Contents:** Methods and application areas of economic regional studies (area studies) with a focus on Latin America, Eastern Europe or North America.

Language	English or German
ECTS	12
Duration	One semester
Frequency	irregular

## Module: Topics in Economic Theory

**Qualification goals:** Students possess methodological knowledge of selected topics in the field of theoretical economics. They are able to work independently on selected issues using different approaches, understand corresponding models and are able to critically evaluate them..

**Content:** Topics in theoretical microeconomics, macroeconomics, and finance, e.g., environmental economics, health economics, economic systems design, public enterprise and regulation, public debt theory, national accounting.

Language	English or German	
ECTS	6	
Frequency	once in every two academic years	•

## Module: Topics in Applied Economic Theory

**Qualification goals:** Students are familiar with selected application areas of theoretical economics. They understand relevant models and modeling approaches of current international research. They are able to work independently on selected issues using different approaches and reflect on and discuss underlying assumptions. In doing so, they can include institutional, legal and social framework conditions as well as gender- and diversity-specific aspects of economic theory formation in the analysis.

**Contents**: Application areas of theoretical microeconomics, macroeconomics, and finance, e.g., environmental economics, health economics, mechanism design, competition economics, industrial economics, behavioral economics, fiscal policy, business cycle policy, growth policy, monetary policy.

Language	English or German	
ECTS	6	
Frequency	once in every two academic years	

#### Module: Topics in Empirical Economics

**Qualification goals:** Students possess knowledge of selected econometric methods or statistical procedures. They are able to empirically analyze economic issues with different current empirical approaches, to conduct policy analyses, to develop economic policy proposals and to communicate them. In doing so, they are able to reflect on and discuss the assumptions and limitations of the methods used.

**Contents:** Methods of modern econometric analysis, e.g. microeconometrics, time series econometrics, panel data analysis, ex-post policy evaluation.

Language	English or German	
ECTS	6	
Frequency	once in every two academic years	

## Module: Topics in Applied Empirical Economics

**Qualification goals:** Students will be familiar with selected application areas of empirical economics. They understand relevant methods, models and identification strategies of current international research. They are able to independently empirically address selected issues using different approaches and reflect on and discuss underlying assumptions. In doing so, they can include institutional, legal and social framework conditions as well as gender- and diversity-specific aspects of the research area in their analysis.

**Contents:** Application areas of modern econometric analysis, e.g. labor market policy, tax policy, inequality research, education and family policy, demography and migration research, gender economics, development research, environmental economics, health economics, social policy, fiscal policy, monetary policy, business cycle policy, growth policy.

Language	English or German
ECTS	6
Frequency	once in every two academic years

#### Module: Topics in Economic Policy Analysis

**Qualification goals:** Students possess methodological knowledge of selected topics in the field of economic policy analysis. They are able to work independently on selected issues using different approaches, understand corresponding economic policy developments and policy proposals, and are able to analyze and critically evaluate them..

**Contents:** Modern theoretical and empirical methods (e.g. difference-in-differences, regression discontinuity, randomized controlled trials) of economic policy analysis e.g. in financial and economic policy, family economics, education economics, competition economics, development economics, innovation economics, labor economics, social policy, tax policy, environmental economics, health economics, fiscal policy, monetary policy, business cycle policy, growth policy.

Language	English or German	
ECTS	6	
Frequency	once in every two academic years	

## **Module:** Topics in Applied Economic Policy Analysis

**Qualification goals:** The students know selected fields of application of economic policy analysis. They understand the selection of common empirical and theoretical methods in the scientific examination of concrete economic policy issues. They are enabled to reflect critically on this selection and to consider institutional, legal and social framework conditions as well as gender- and diversity-specific aspects of the research area. They are able to analyze and evaluate economic policy proposals and to develop and communicate alternative proposals.

**Contents:** Application areas and selected issues of economic policy analysis, e.g. financial and economic policy, family policy, education policy, competition policy, development policy, innovation policy, labor market policy, social policy, tax policy, environmental policy, health policy, fiscal policy, monetary policy, business cycle policy, growth policy, policy of European integration.

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Language	English or German
ECTS	6
Frequency	once in every two academic years

#### Module: Topics in Statistical Methods

**Qualification goals:** Students possess methodological knowledge of selected topics in current statistical research. They are able to work independently on selected issues using different approaches, understand corresponding statistical methods and models and are able to mathematically record, analyze and apply them to economic issues.

**Contents:** Modern methods of statistics, e.g., survey statistics, statistical inference, machine learning, multivariate statistics, non- and semi-parametric modeling, Bayesian statistics.

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Language	English or German	
ECTS	6	
Frequency	once in every two academic years	

Module: Topics in Public Economics		
<b>Qualification goals:</b> Students possess knowledge of methods and application areas of modern theoretical and empirical finance		
<b>Contents:</b> The course covers methods of modern finance, e.g., financial modeling, micro- and macroeconometric analysis, and topics in modern finance, e.g., optimal tax theory, welfare economics, international financial policy.		
Language	English or German	
ECTS	6	
Frequency	once in every two academic years	

Module: Advanced Economic Theory			
Qualification goals: Students will be familiar with advanced, complex theoretical models and modeling			
approaches in current economic research. They will be able to identify application scenarios for these models			
and analyze them theoretically. In doing so, they will be able to critically reflect on the underlying assumptions			
and make judgments about context-specific model adaptations. They can use the modeling approaches to			
answer independently formulated research questions and present the results in writing or orally.			
<b>Contents:</b> Current research areas in theoretical microeconomics, macroeconomics and finance.			
Language	English or German		
ECTS	6	•	
Frequency	once in every two academic years		

# **Module:** Advanced Empirical Economics

**Qualification Objectives:** Students will be familiar with advanced econometric methods and models. They will be able to select and apply them to answer economic questions. Students will understand complex identification strategies of empirical research and be able to explain them in writing or orally to a professional audience. They will be enabled to reflect critically on underlying assumptions in order to judge the quality of an empirical analysis at hand.

**Contents:** Advanced methods, models and research questions of modern econometric analysis and their fields of application, especially empirical microeconomics, empirical macroeconomics and empirical finance.

Language	English or German	
ECTS	6	
Frequency	irregular	

#### Module: Advanced Economic Policy Analysis

Qualification goals: Students will be familiar with advanced methods and application areas of modern economic policy analysis at the current state of international research. They are enabled to select basic and advanced empirical and theoretical knowledge for answering concrete economic policy questions and to apply it independently or in groups. They will be able to communicate the results of their analysis to an expert audience, as well as to people outside the field. In doing so, they are able to reflect on the assumptions and limitations of their own analysis. Students are thus able to evaluate current economic policy proposals, compare them with each other and independently develop alternative proposals.

**Content:** Advanced research questions in economic policy analysis, especially on topics in applied macroeconomics, applied microeconomics, and applied fiscal and economic policy.

Language	English or German	
ECTS	6	
Frequency	irregular	

#### Module: Advanced Quantitative Economics

**Qualification goals:** Students will be familiar with advanced statistical and numerical methods and models at the cutting edge of international research. They will be able to accurately capture and analyze these methods and models mathematically. In doing so, they will understand the underlying assumptions and be able to reflect critically on them. They will be able to apply these methods and models to complex data structures.

**Contents:** Advanced methods and research issues in statistics and econometrics, e.g., advanced survey statistics, high-dimensional statistical methods, structural microeconometrics, stochastic optimization, Monte Carlo-based methods, Big Data.

Language	English or German	
ECTS	6	
Frequency	irregular	

#### Module: Advanced Statistical Methods

**Qualification Objectives:** Students will be familiar with modern advanced methods of statistical data analysis. They are enabled to independently develop new statistical methods in order to apply them in data analysis. In doing so, they will be able to critically reflect on the underlying assumptions of the methods and consider the limitations of the methods in their own context of application.

**Contents:** Advanced methods of statistics, e.g. Bayesian estimation methods, variance estimation methods, multiple imputation, small area estimation.

Language	English or German	
ECTS	6	
Frequency	irregular	

#### Module: Economics of the Welfare State

**Qualification goals:** Students will be familiar with advanced approaches to modern public economics and economics of the "second-best". They are able to apply formal models in these fields. Thus, they are able to independently analyze current fundamental problems of the welfare state and can assess the economic role of the central institutions of the welfare state.

**Contents:** Methodological and substantive foundations of the economics of the welfare state, such as the insurance function of the welfare state, market failure in insurance, state protection of work income, redistribution through income taxation, public provision of private goods, poverty reduction.

Language	English or German	
ECTS	6	
Frequency	every other semester	

### **Module:** Applied Microeconometrics

**Qualification goals:** Students are familiar with approaches and methods for analyzing the individual behavior of individuals, private households and firms using microdata (cross-sectional and panel data), as used in empirical finance, labor market and industrial economics and quantitative business administration, among others, and are able to apply them. They are able to analyze and critically discuss these approaches and methods and to interpret estimation results in a well-founded manner. Likewise, relevant methods can be applied in independent investigations.

**Contents:** Modern, advanced methods of microeconometrics with a focus on application-related problems and independent application of corresponding procedures.

Language	English
ECTS	6
Frequency	every other semester

**Module:** Optimal Taxation

**Qualification goals:** Students will have a deeper understanding of how taxes work and of the conflicting objectives of taxation within which national and international tax policy takes place. They are in possession of the tax-theoretical methodological tools to be able to participate in tax-theoretical and tax-policy discourses in a qualified manner, to assess tax-policy proposals or to develop such proposals.

**Contents:** Economic foundations of taxation, such as optimal tax theory, tax incidence analysis, additional burden of taxation, tax design and tax reform, trade-off between efficiency and distribution, theory of taxation of externalities.

Language	English or German	
ECTS	6	
Frequency	every other semester	

**Module:** International Public Economics

**Qualification goals:** Students are familiar with the economic analysis of tax policy decisions in the context of open economies, national and international institutions, internationally operating firms and internationally mobile factors of production. They are able to apply different economic methods and models to various fiscal policy issues, in particular with regard to European integration, globalization issues, strategic aspects of tax competition and trade policy, and to derive fiscal policy recommendations from them. They can identify international tax conflicts, analyze their impact and develop reform options.

**Contents:** Fiscal models of international interdependence of economies, including federalism, strategic aspects of taxation with respect to tax competition, tax coordination and tax harmonization, economics of international negotiations, international aspects of consumption and factor income taxation, customs and trade policy issues, international aspects of resource taxation, international public goods.

Language	English or German	
ECTS	6	
Frequency	every other semester	

Module: Law for Public Economists

**Qualification goals:** Students will be familiar with basic legal principles relevant to issues in public economics. They will be able to orient themselves in legal systems relevant for economic analyses. They will be able to recognize legal problems and to consider the institutional framework defined by legal systems in their analysis.

Contents: Legal foundations of economics, e.g. income tax law, collective labor law, social security law.

Language	German	
ECTS	6	
Frequency	every other semester	

**Module:** Practical Methods for Public Economists

**Qualification goals:** Students are familiar with modern methods and analytical tools that are used in economic practice. They are able to apply these methods and instruments to deal with economic problems and research questions and to answer them independently or in groups. They understand the assumptions and limitations of these methods and instruments in different application scenarios and can make appropriate methodological adjustments if necessary.

**Contents:** Modern methods of economic practice, e.g. cost-benefit analysis, input-output tables, simulation models.

Language	English or German	
ECTS	6	
Frequency	irregular	

Module: Knowledge Transfer

**Qualification goals:** Students are able to communicate and convey complex public economics or economic policy content to various actors, especially to an audience outside the field. Thus, they are able to communicate or apply theoretical and empirical findings of public finance or economic policy research to concrete issues in practice (policy advice, in the media). Students are able to independently write articles and expert reports on various topics and present them in a lecture using modern, digital technology.

**Contents:** e.g. training in the non-formal, general presentation of complex public finance or economic policy issues and in the comprehensible communication of results to a broad audience, generally comprehensible, non-technical writing as well as non-technical presentation based on current economic policy topics, use of modern digital communication channels (blogs, podcasts), leading groups in the context of student tutorials and exercises.

Language	English or German	
ECTS	6	
Frequency	every other semester	

Module: Research Project

**Qualification Goals:** Students are familiar with the requirements of research practice and are able to independently answer research questions and conduct research projects. They are able to communicate research in the field of public economics, including public finance and economic policy in a scientific manner.

**Contents:** The Research Project includes the independent execution of a research project at Freie Universität Berlin with a focus on finance or economic policy.

Language	English or German
ECTS	18
Duration	one Semester
Frequency	every Semester