

# MACROECONOMICS

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Course Material Developed by Department of Economics,  
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# MACROECONOMICS

## Syllabus

The course is a modern introduction to macroeconomic theory with an empirical focus on business cycle facts. During the course microeconomic foundation of macroeconomics is introduced. Measurement issues and the stylized facts of business cycles introduces students into macroeconomics. The concept of economic growth is discussed in the Solow growth model framework and the debate over economic convergence just as the issues concerning endogenous growth are also covered. The course builds up a two period flexible price RBC model that is followed by classic Keynesian IS-LM framework. The effects of monetary and fiscal policy are analyzed in both framework.

### **Compulsory book:**

Stephen D. Williamson: *Macroeconomics* (Chapter 1-12.). Pearson

### **Weekly program:**

#### **Week 1**

*Introduction: facts and measurement*

Most important macroeconomic indicators. Micro based macroeconomics. Macro statistics and databases. GDP measurement. Stylized facts of growth and business cycles. What is a macroeconomic model for?

(Williamson Ch. 1-2.)

#### **Week 2**

*Business cycle measurement*

Business cycles: concept and characteristics. Volatility, persistence, procyclicality. Similarities and differences of the cycles in developed and developing countries. Descriptive and normative approach.

(Williamson Ch. 3.)

#### **Week 3**

*Consumer and Firm Behavior: The Work-Leisure Decision and Profit Maximization*

Microfoundations of macroeconomics. Model of consumer and firm behaviour. Equilibrium models, competitive equilibrium. The representative consumer's budget constraint, consumption and labour supply decisions. The representative firm's production function, profit maximizing and labour demand behaviour.

(Williamson Ch. 4.)

#### **Week 4**

##### *A Closed-Economy One-Period Macroeconomic Model*

Equilibrium and optimum in the model of a one-period economy: Robinson economy. The government in the model. Effects of an increase in the total factor productivity and fiscal shocks. Model implications and stylized facts.

(Williamson Ch. 5.)

#### **Week 5**

##### *Economic Growth I.: the Solow-model*

Growth facts. Savings, investment, capital accumulations and population growths. Equilibrium in the long run: steady state. Parametrical changes in the model: saving's rate, TFP, population growth. How these affect the steady state and the growth rate of income and consumption. The golden rule. Solow-residual and the TFP.

(Williamson Ch. 6.)

#### **Week 6**

##### *Economic growth II.: Endogenous growth*

Convergence and stylized facts. Permanent differences in productivity. Human capital, investment in human capital. Endogenous growth model with human capital. Policy implications for education.

(Williamson Ch. 7.)

#### **Week 7**

##### *A Two-Period Model: The Consumption–Savings Decision and Credit Markets*

Intertemporal problem of the consumer: intertemporal utility function, budget constraint. Income and substitution effects in two periods, consumption smoothing. Ricardian equivalence and its limits. Social security.

(Williamson Ch.8.)

#### **Week 8**

##### *A Real Intertemporal Model with Investment I.*

The two period equilibrium model with investment. Incorporating investment in the model. Competitive equilibrium analysis and graphical approach.

(Williamson Ch.9.)

#### **Week 9**

##### *A Real Intertemporal Model with Investment II. - RBC*

Application of the two period equilibrium model. Effects of shocks on the markets and on the endogenous variables. The model as a real business cycle model. Temporary and permanent effects. Contemporary and expected shocks. Empirical fit and business cycle explanations.

(Williamson Ch.9., 11.)

**Week 10***A Monetary Intertemporal Model: Money, Prices, and Monetary Policy*

What is the money? Measurement of the quantity of money. Nominal and real assets. The financial system. Classical dichotomy and monetary policy rules.

(Williamson Ch.10.)

**Week 11***Micro Foundations of Money Demand*

Microeconomic foundations of money demand. Money-in-the-utility approach and cash-in-advance approach. A simple cash-in-advance model. The two period model with money: effects of real and nominal shocks.

(Williamson Ch.10.)

**Week 12***Keynesian Business Cycle Theory I.: Sticky Prices*

Sticky prices and the Keynesian model. The multiplier and the IS-LM. Comparative statics in the IS-LM. Long run and short run equilibrium when prices are sticky. Policy applications of the IS-LM.

(Williamson Ch.12.)

**Week 13***Keynesian Business Cycle Theory II.*

Sticky wages in the model. Aggregate supply when wages are sticky. The AS-AD system and reaction to shocks. Long run and short run in the sticky wage model.

Stylized business cycle facts and the Keynesian theory.

(Williamson Ch.12.)