

# POLITECHNIKA KRAKOWSKA IM. TADEUSZA KOŚCIUSZKI

## KARTA PRZEDMIOTU

obowiązuje studentów rozpoczynających studia w roku akademickim 2016/2017

Wydział Inżynierii Lądowej

Kierunek studiów: Budownictwo

Profil: Ogólnoakademicki

Forma studiów: stacjonarne

Kod kierunku: BUD

Stopień studiów: I

Specjalności: Bez specjalności - studia w języku angielskim

### 1 INFORMACJE O PRZEDMIOCIE

|                                         |                                                                   |
|-----------------------------------------|-------------------------------------------------------------------|
| NAZWA PRZEDMIOTU                        | Macroeconomics Foundations of Economic Policy (Modern Challenges) |
| NAZWA PRZEDMIOTU<br>W JĘZYKU ANGIELSKIM |                                                                   |
| KOD PRZEDMIOTU                          | WIL BUD oIS A6 16/17                                              |
| KATEGORIA PRZEDMIOTU                    | Przedmioty ogólne                                                 |
| LICZBA PUNKTÓW ECTS                     | 2.00                                                              |
| SEMESTRY                                | 1                                                                 |

### 2 RODZAJ ZAJĘĆ, LICZBA GODZIN W PLANIE STUDIÓW

| SEMESTR | WYKŁAD | ĆWICZENIA<br>AUDYTORYJNE | LABORATORIA | LABORATORIA<br>KOMPUTERO-<br>WE | PROJEKTY | SEMINARIUM |
|---------|--------|--------------------------|-------------|---------------------------------|----------|------------|
| 1       | 30     | 0                        | 0           | 0                               | 0        | 0          |

### 3 CELE PRZEDMIOTU

**Cel 1** Provide students with ability to analyze statistical data on GDP, balance-of-payments (BOP), unemployment and inflation as a prerequisite for understanding and theoretically-consistent interpretation of the most important developments on the national and international scale.

**Cel 2** Provide sufficient coverage of the most popular macroeconomic models and theoretical concepts, as the

saving-investment balance, the IS-LM-BP, AD-AS, the Phillips curve, which is necessary for independent analysis of present economic policy issues and future challenges.

**Cel 3** Provide with a student-friendly way of acquiring analytical skills on the basis of formal macroeconomic models in respect to fiscal and monetary policies, determinants of inflation, unemployment and migration, as well as BOP adjustment.

**Cel 4** Explain underlying differences between major schools of economic thought, with a focus on their policy implications for major economic policy debates of the modern world, as the viability of global imbalances, approaches for an increase in the saving rate in industrial countries, recipes for the balanced growth path, tackling with the high unemployment problems, feasibility of the fiscal and monetary stimuli during a recession, the pattern of anti-deflationary and anti-inflationary policies

## 4 WYMAGANIA WSTĘPNE W ZAKRESIE WIEDZY, UMIEJĘTNOŚCI I INNYCH KOMPETENCJI

1 Minimal mathematical skills

## 5 EFEKTY KSZTAŁCENIA

**EK1 Wiedza** Student demonstrates general knowledge of the income accounting, with a detailed analysis of the GDP components, as consumption, investment, government expenditure, exports and imports, as well as the BOP relationships. Student is able to interpret the law of one price and provide assessment of the national models of economic growth, with a focus on important differences between consumption-led and export-led growth

**EK2 Umiejętności** Student possesses applied skills in the interpretation of the saving-investment balance relationships, including current policy debate on the merits of fiscal austerity measures at the national and international levels, international spillovers within the framework of global imbalances, explanation of the underlying mechanisms of the twin deficit and the Ricardo Equivalence.

**EK3 Wiedza** Student is able to explain basic policy implications of the Solow growth model, such as changes in the saving rate, population growth and amortisation rates, the golden rule of capital accumulation. It is necessary to distinguish between the determinants of growth in traditional and endogenous growth models, in relation to present discussion of the Polands convergence to the average productivity level of the EU countries

**EK4 Umiejętności** Student has analytical skills to analyze fiscal and monetary policy effects within the theoretical framework of the AD-AS model, with an ability to explain the effects of demand and supply shocks.

**EK5 Wiedza** Student understands important differences between New Classical Macro and New Keynesian explanations of the business cycle and relevant stabilisation policy proposals, with a focus on macroeconomic developments and stabilisation policies in the wake of the 2008-2009 financial crisis regarding major industrial countries and Poland

**EK6 Umiejętności** Student analyzes the interplay between demand and supply factors on the labor market, being able to explain the phenomena of jobless growth and the concept of natural rate of unemployment. Based on the Okuns law, student calculates the natural GDP growth rate

**EK7 Wiedza** Student understands inflationary developments in general and the Phillips curve relationships in particular, being able to explain determinants of inflationary pressure and the course of anti-inflationary policies.

**EK8 Wiedza** Student is able to expound on multiple facets of the current discussion on the euro adoption in Poland and important static and dynamic features of the public debt, with a focus on policy challenges for highly-indebted eurozone countries as Greece, Italy, Ireland, Portugal and Spain.

**EK9 Kompetencje społeczne** Student explains selection problems in international migration and potential benefits and costs of labor migration for donor and acceptor countries

**EK10 Kompetencje społeczne** Student compares different explanatory hypothesis behind the 2008 world financial crisis and competing views on the role of government in a modern economy within the framework of conventional economic concepts.

## 6 TREŚCI PROGRAMOWE

| WYKŁAD    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| LP        | TEMATYKA ZAJĘĆ<br>OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LICZBA<br>GODZIN |
| <b>W1</b> | Income Accounting. Concepts of aggregate supply and aggregate demand. Instruments of economic policy. Stabilization policy. Schools of Thought. Classical versus Keynesian assumptions. Neoclassical synthesis. Nominal versus real GDP. Price indexes. Quality of economic growth. Purchasing Power Parity. The Law of One Price. Big Mac Index. Components of GDP: consumption, investment, government expenditure, exports, imports. The Balance-of-Payments. Open and closed economies. Consumption-led and export-led growth. Import substitution. National models of economic growth. | 2                |
| <b>W2</b> | Consumption, Saving Behavior and Credit Markets. Theories of consumption. The saving-investment balance. The wealth effect. The real exchange rate. The Feldstein-Horioka puzzle. The permanent income hypothesis. Incentives for savings. The twin deficit. The Ricardo Equivalence. Global imbalances. External debt                                                                                                                                                                                                                                                                      | 4                |
| <b>W3</b> | Growth models. Determinants of growth in the short- and long-run. Economic growth and economic development. The Harrod-Domar model. Neoclassical model. The Solow model. Convergence. Endogenous growth models.                                                                                                                                                                                                                                                                                                                                                                             | 2                |
| <b>W4</b> | IS-LM-BP Model. The Mundell-Fleming model as an open economy extension of the IS-LM model. Capital mobility. Fiscal-monetary policy mix. Crowding out. Domestic and external equilibrium. Policy assignments. The Samuelson-Tobin synthesis.                                                                                                                                                                                                                                                                                                                                                | 2                |
| <b>W5</b> | AD-AS Model and Potential Output. Structure of the AD-AS model. Price flexibility. Devaluation effects. Supply-side economics. Keynesian demand policies. Natural level of income. Potential output. Overheating.                                                                                                                                                                                                                                                                                                                                                                           | 2                |
| <b>W6</b> | New Classical Macro and New Keynesian Explanations of the Business Cycle. Regularities of business cycles. Theories of output fluctuations: monetary, psychological, political etc. Imperfect information and the Real Business Cycle Model. Assessment of RBC model. New Keynesian explanations of the business cycle: markup pricing, sticky wages, monopolistic price setting, efficiency wages. Deterministic and stochastic cycles                                                                                                                                                     | 2                |
| <b>W7</b> | Stabilization policies. Demand and supply disturbances. Stabilization targets and instruments. Policy rules. Assessment of alternative rules: money supply, interest rate, and GDP. Policy pitfalls: lags, multiplier uncertainty, forecasting errors. Time inconsistency, credibility, and reputation. Rules vs. discretion. Policy dilemmas.                                                                                                                                                                                                                                              | 2                |

| WYKŁAD     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| LP         | TEMATYKA ZAJĘĆ<br>OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LICZBA<br>GODZIN |
| <b>W8</b>  | Labor markets. Types of unemployment. The employment and unemployment rates. Voluntary and involuntary unemployment. The natural rate of unemployment. Structural unemployment. The output gap. The Okuns law. Policies to tackle unemployment problems. The phenomenon of jobless growth. National models of labor market.                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2                |
| <b>W9</b>  | Money, Interest and Inflation. The Phillips Curve. Money and inflation. Effects of inflation. Costs of inflation. Unpleasant consequences of deflation. Nominal and real interest rates. The Fisher rule. Expectations and the inflation cycle. Anticipated and unanticipated inflation. Hyperinflation. Stagflation. Cures for inflation. Modern variants of the Phillips Curve. Income policies.                                                                                                                                                                                                                                                                                                                                                                   | 2                |
| <b>W10</b> | Monetarism and Expectations. The quantity theory and the neutrality of money. The modern quantity theory: monetarism. The money multiplier and the monetary base. Policy implications of monetarism. Rational expectations revolution. The Lucas supply curve. Different effects of anticipated and unanticipated money supply. The rational expectations equilibrium approach to policy                                                                                                                                                                                                                                                                                                                                                                             | 2                |
| <b>W11</b> | Benefits and Risks of Common Currency. Pros and cons for fixed exchange rates. Arguments in favor of eurozone accession. Potential challenges for eurozone members among the Central and East European countries. Discussion on the euro adoption issues in Poland.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2                |
| <b>W12</b> | Modern Problems of Public Debt. The government budget constraint, seignorage, and the inflation tax. Determinants of rapid debt accumulation in industrial countries. Public debt macroeconomic effects. Dynamic features of public debt. Domestic vs. foreign financing of budget deficit. European Pact of Stability and Growth. Non-Keynesian effects in fiscal policy. Public debt challenges in Poland.                                                                                                                                                                                                                                                                                                                                                         | 2                |
| <b>W13</b> | Costs and Benefits of Migration. Models of migration behavior. Return and repeat migration flows. The Roy model of migrants selection. Static and dynamic costs of migration for donor- and acceptor countries. The labor migration trap in donor countries. Brain drain. Challenges for labor market liberalization in the European Union.                                                                                                                                                                                                                                                                                                                                                                                                                          | 2                |
| <b>W14</b> | The Role of Government in a Modern Economy (the lessons of the 2008 World Economic Crisis). Sources of instability in the private economy: consumption, investment, regulation of financial markets. Business confidence, speculation, and overbuilding. Competing explanations of the 2008 World Economic Crisis real estate bubble, easy credit conditions, sub-prime lending, deregulation, over-leveraging, incorrect pricing of risk, commodities boom). Main lessons of the world economic crisis (money supply non-neutrality, control of asset prices, prudent fiscal policy during good times, focus upon non-price competitiveness, the current account adjustment, better management of risk in the financial sector, the danger of deindustrialization). | 2                |

## 7 NARZĘDZIA DYDAKTYCZNE

### N1 Wykłady

**N2** Inne

**N3** Prezentacje multimedialne

## 8 OBCIĄŻENIE PRACĄ STUDENTA

| FORMA AKTYWNOŚCI                                                                                 | ŚREDNIA LICZBA GODZIN<br>NA ZREALIZOWANIE<br>AKTYWNOŚCI |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>Godziny kontaktowe z nauczycielem akademickim, w tym:</b>                                     |                                                         |
| Godziny wynikające z planu studiów                                                               | 30                                                      |
| Konsultacje przedmiotowe                                                                         | 0                                                       |
| Egzaminy i zaliczenia w sesji                                                                    | 0                                                       |
| <b>Godziny bez udziału nauczyciela akademickiego wynikające z nakładu pracy studenta, w tym:</b> |                                                         |
| Przygotowanie się do zajęć, w tym studiowanie zalecanej literatury                               | 0                                                       |
| Opracowanie wyników                                                                              | 0                                                       |
| Przygotowanie raportu, projektu, prezentacji, dyskusji                                           | 0                                                       |
| <b>SUMARYCZNA LICZBA GODZIN DLA PRZEDMIOTU WYNIKAJĄCA Z<br/>CAŁEGO NAKŁADU PRACY STUDENTA</b>    | <b>30</b>                                               |
| SUMARYCZNA LICZBA PUNKTÓW ECTS DLA PRZEDMIOTU                                                    | 2.00                                                    |

## 9 SPOSOBY OCENY

### OCENA FORMUJĄCA

**F1** Test

**F2** Ćwiczenie praktyczne

### OCENA PODSUMOWUJĄCA

**P1** Test

**P2** Zaliczenie pisemne

### KRYTERIA OCENY

| EFEKT KSZTAŁCENIA 1 |                                                                                                                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NA OCENĘ 2.0        | Student has no general knowledge of the income accounting and the BOP relationships, being not able to interpret the law of one price and provide assessment of the national models of economic growth. |

|                     |                                                                                                                                                                       |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NA OCENĘ 3.0        | Student has general knowledge of the income accounting and the BOP relationships                                                                                      |
| NA OCENĘ 3.5        | Student is able to interpret the law of one price and explain changes in the structure of Polands GDP                                                                 |
| NA OCENĘ 4.0        | Student is able to provide assessment of the national models of economic growth.                                                                                      |
| NA OCENĘ 4.5        | Student explains important differences between consumption-led and export-led growth.                                                                                 |
| NA OCENĘ 5.0        | Student is able to make use of his knowledge in order to explain current trends in economic growth and discuss relevant policy issues.                                |
| EFEKT KSZTAŁCENIA 2 |                                                                                                                                                                       |
| NA OCENĘ 2.0        | Student is not able to provide with an interpretation of the saving-investment balance relationships.                                                                 |
| NA OCENĘ 3.0        | Student is able to provide with analytical and graphical interpretation of policy shifts within the saving-investment balance theoretical framework.                  |
| NA OCENĘ 3.5        | Student is able to provide with analytical and graphical interpretation of policy shifts within the saving-investment balance for a two-country theoretical framework |
| NA OCENĘ 4.0        | Student explains underlying mechanisms of the twin deficit and the Ricardo Equivalence                                                                                |
| NA OCENĘ 4.5        | Student understands the logic of international current account adjustment                                                                                             |
| NA OCENĘ 5.0        | Student is able to discuss important differences and similarities between several theoretical concepts of private consumption and savings                             |
| EFEKT KSZTAŁCENIA 3 |                                                                                                                                                                       |
| NA OCENĘ 2.0        | Student is not able to explain basic feature of different growth models                                                                                               |
| NA OCENĘ 3.0        | Student explains basic feature of different growth models                                                                                                             |
| NA OCENĘ 3.5        | Student distinguishes between the structure and policy implications of different growth models                                                                        |
| NA OCENĘ 4.0        | Student is able to explain basic policy implications of the Solow growth model                                                                                        |
| NA OCENĘ 4.5        | Student explains the assumptions of the endogenous growth models                                                                                                      |
| NA OCENĘ 5.0        | Student explains on heterogeneous approaches for the Polands convergence to the average productivity level of the EU countries                                        |
| EFEKT KSZTAŁCENIA 4 |                                                                                                                                                                       |
| NA OCENĘ 2.0        | Student is not able to explain fiscal and monetary policy effects within the theoretical framework of the AD-AS model                                                 |
| NA OCENĘ 3.0        | Student explains fiscal and monetary policy effects within the theoretical framework of the AD-AS model                                                               |

|                     |                                                                                                                                                                                                      |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NA OCENĘ 3.5        | Student explains the effects of demand and supply shocks.                                                                                                                                            |
| NA OCENĘ 4.0        | Student has analytical skills to analyze fiscal and monetary policy effects within the theoretical framework of the AD-AS model, with an ability to explain the effects of demand and supply shocks. |
| NA OCENĘ 4.5        | Student explains the logic of supply-side economics                                                                                                                                                  |
| NA OCENĘ 5.0        | Student understands the relationship between the IS-LM-BP model and the AD-AS model                                                                                                                  |
| EFEKT KSZTAŁCENIA 5 |                                                                                                                                                                                                      |
| NA OCENĘ 2.0        | Student does not understand important differences between New Classical Macro and New Keynesian explanations of the business cycle                                                                   |
| NA OCENĘ 3.0        | Student understands important differences between New Classical Macro and New Keynesian explanations of the business cycle                                                                           |
| NA OCENĘ 3.5        | Student is aware of major regularities of business cycles                                                                                                                                            |
| NA OCENĘ 4.0        | Student explains on alternative explanations of recessions                                                                                                                                           |
| NA OCENĘ 4.5        | Student is able to present the logic of business cycle within the AD-AS theoretical framework                                                                                                        |
| NA OCENĘ 5.0        | Student interprets stabilisation policies in the wake of the 2008-2009 financial crisis                                                                                                              |
| EFEKT KSZTAŁCENIA 6 |                                                                                                                                                                                                      |
| NA OCENĘ 2.0        | Student does not understand the interplay between demand and supply factors on the labor market.                                                                                                     |
| NA OCENĘ 3.0        | Student is able to explain determinants of the labor market equilibrium                                                                                                                              |
| NA OCENĘ 3.5        | Student explains the phenomena of jobless growth and the concept of natural rate of unemployment.                                                                                                    |
| NA OCENĘ 4.0        | Based on the Okuns law, student calculates the natural GDP growth rate.                                                                                                                              |
| NA OCENĘ 4.5        | Student analyzes important differences between recent theories of the European unemployment, as the structuralist and hysteresis models                                                              |
| NA OCENĘ 5.0        | Student interprets developments in the unemployment rate in Poland                                                                                                                                   |
| EFEKT KSZTAŁCENIA 7 |                                                                                                                                                                                                      |
| NA OCENĘ 2.0        | Student does not understand inflationary developments                                                                                                                                                |
| NA OCENĘ 3.0        | Student explains inflationary developments, with a distinction between demand-led and supply-pushed inflation                                                                                        |
| NA OCENĘ 3.5        | Student distinguishes between negative effects of inflation and deflation                                                                                                                            |
| NA OCENĘ 4.0        | Student explains the Phillips curve relationships                                                                                                                                                    |

|                      |                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| NA OCENĘ 4.5         | Student analyzes various anti-inflationary policies                                                                                    |
| NA OCENĘ 5.0         | Student recognizes difference in the interpretation of inflation across different schools of economic thought                          |
| EFEKT KSZTAŁCENIA 8  |                                                                                                                                        |
| NA OCENĘ 2.0         | Student does not understand the current challenges to the eurozone                                                                     |
| NA OCENĘ 3.0         | Student understands the nature of economic problems of the eurozone                                                                    |
| NA OCENĘ 3.5         | Student explains important static and dynamic features of the public debt                                                              |
| NA OCENĘ 4.0         | Student explains policy challenges for the highly-indebted eurozone countries as Greece, Italy, Ireland, Portugal and Spain            |
| NA OCENĘ 4.5         | Student discusses pros and cons of the euro adoption for the Central and east European countries                                       |
| NA OCENĘ 5.0         | Student is able to expound on multiple facets of the current discussion on the euro adoption in Poland                                 |
| EFEKT KSZTAŁCENIA 9  |                                                                                                                                        |
| NA OCENĘ 2.0         | Student does not understand potential benefits and costs of labor migration for donor and acceptor countries                           |
| NA OCENĘ 3.0         | Student explains potential benefits and costs of labor migration for donor and acceptor countries                                      |
| NA OCENĘ 3.5         | Student recognizes migration effects on the labor market equilibrium                                                                   |
| NA OCENĘ 4.0         | Student analyzes patterns of international migration                                                                                   |
| NA OCENĘ 4.5         | Student explains potential conflicts on the labor market caused by international migration                                             |
| NA OCENĘ 5.0         | Student explains selection problem in international migration                                                                          |
| EFEKT KSZTAŁCENIA 10 |                                                                                                                                        |
| NA OCENĘ 2.0         | Student does not recognize different explanatory hypothesis behind the 2008 world financial crisis                                     |
| NA OCENĘ 3.0         | Student discusses different explanatory hypothesis behind the 2008 world financial crisis                                              |
| NA OCENĘ 3.5         | Student compares competing views on the role of government in a modern economy within the framework of conventional economic concepts. |
| NA OCENĘ 4.0         | Student is able to interpret main relationships with the saving-investment balance                                                     |
| NA OCENĘ 4.5         | Student makes use of the AD-AS model to explain the economic developments during the 2008 world financial crisis                       |

|              |                                                                                              |
|--------------|----------------------------------------------------------------------------------------------|
| NA OCENĘ 5.0 | Student is able to outline the stabilisation policies within the AD-AS theoretical framework |
|--------------|----------------------------------------------------------------------------------------------|

## 10 MACIERZ REALIZACJI PRZEDMIOTU

| EFEKT KSZTAŁCENIA | ODNIESIENIE DANEGO EFEKTU DO SZCZEGÓŁOWYCH EFEKTÓW ZDEFINIOWANYCH DLA PROGRAMU | CELE PRZEDMIOTU | TREŚCI PROGRAMOWE | NARZĘDZIA DYDAKTYCZNE | SPOSOBY OCENY |
|-------------------|--------------------------------------------------------------------------------|-----------------|-------------------|-----------------------|---------------|
| EK1               | K_U18 K_K03 K_K08                                                              | Cel 1           | w1                | N1 N3                 | F1 F2 P1 P2   |
| EK2               | K_W16 K_U18 K_K03 K_K08                                                        | Cel 2           | w2 w12            | N1 N2 N3              | F1 F2 P1 P2   |
| EK3               | K_U18 K_K03 K_K08                                                              | Cel 2           | w3                | N1 N3                 | F1 F2 P1 P2   |
| EK4               | K_U18                                                                          | Cel 2           | w4 w5             | N1 N2 N3              | F1 F2 P1 P2   |
| EK5               | K_W16 K_U18 K_K03 K_K08                                                        | Cel 2           | w6 w7             | N1 N3                 | F1 F2 P1 P2   |
| EK6               | K_W16 K_U18 K_K03 K_K08                                                        | Cel 3           | w8                | N1 N2 N3              | F1 F2 P1 P2   |
| EK7               | K_W16 K_U18 K_K03 K_K08                                                        | Cel 3           | w9 w10            | N1 N2 N3              | F1 F2 P1 P2   |
| EK8               | K_U18 K_K03 K_K08                                                              | Cel 3           | w11               | N1 N2 N3              | F1 F2 P1 P2   |
| EK9               | K_U18 K_K03 K_K08                                                              | Cel 3           | w13               | N1 N3                 | F1 F2 P1 P2   |
| EK10              | K_W16 K_U18 K_K03 K_K08                                                        | Cel 4           | w14               | N1 N2 N3              | F1 F2 P1 P2   |

## 11 WYKAZ LITERATURY

### LITERATURA PODSTAWOWA

[1 | Dornbusch, R., and Fischer, S. — *Macroeconomics*, New York, 1993, McGraw-Hill

[2] | Bradford DeLong, J. — *Macroeconomics*, New York, 2002, McGraw-Hill

#### LITERATURA UZUPEŁNIAJĄCA

[1] | Auerbach, A., and Kotlikoff, L. — *Macroeconomics: An Integrated Approach*, Cambridge, Mass.; London, 1998, MIT Press

#### LITERATURA DODATKOWA

[1] | Lecture notes

[2] | Articles from The Economist

## 12 INFORMACJE O NAUCZYCIELACH AKADEMICKICH

### OSOBA ODPOWIEDZIALNA ZA KARTĘ

dr hab. Viktor Shevchuk (kontakt: [victorshevchuk@netscape.net](mailto:victorshevchuk@netscape.net))

### OSOBY PROWADZĄCE PRZEDMIOT

1 dr hab. Viktor Viktor Shevchuk (kontakt: [vshevchuk@pk.edu.pl](mailto:vshevchuk@pk.edu.pl))

## 13 ZATWIERDZENIE KARTY PRZEDMIOTU DO REALIZACJI

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(miejscowość, data)

(odpowiedzialny za przedmiot)

(dziekan)

PRZYJMUJĘ DO REALIZACJI (data i podpisy osób prowadzących przedmiot)

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