Syllabus course

Modeling conflicts in theories rational of choice

The degree of higher education is a master's degree
Field of knowledge - 29 International relations
Specialty - 293 International Law
Educational and professional program - " International Law "

Year of study: 1
Semester: 2

Number credits: 5
Language teaching: English

Head of the course

to is. N., docent **BASHUTSKA Oksana Stepanivna**

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Description of the discipline

Subject of study educational discipline is the modeling of conflict situations with the help of theories of rational choice and game theory. The goal of teaching an academic discipline is mastery students tools theories rational of choice what are applied for solution conflicts, namely, by modeling conflict situations in order to find positive and synergistic results. The main tasks of studying the discipline are familiarizing students with general provisions theories rational of choice and prospects her application at research socio-economic processes and in international theories relations

Course structure

hours (lek. / sem.)	Topic	The results teaching	Task
2 / 1	1. General provisions and components of the theoryrationalof choice	to form idea students about theory rational of choice and her components. Find out prospects application theories rational of choice	Tests, questions
4 / 2	2. Theory of games as the main - instrumentmodeling strategic relations for theories rational of choice	Acquaintance of students with game theory as the main tool for modeling conflict situations within the framework of the theory of rational choice. Find out: basic concepts of game theory; game definition; classification of games. Formal presentation of games. Principles of solving matrix antagonistic games. Solving matrix antagonistic games.	tests, question
2 / 1	3. Theory metagame	To have the theory of conflict analysis and resolution (TAVC) N. Fraser and K. Hypel. Be able to build a graphical solution modelconflicts (HMVK)	tests, question
4 / 2	4. Classic models	Acquaintance of students with the principles of -	tests,

	conflicts in theory games and features application different search criteria points equilibrium	modeling conflicts and different ways of finding the "point equilibrium"; analysis typical conflicting models, suchas "Dilemma prisoners", "Game garan tii " "Roosters", "Sea Hunt", "Cookies", "Family dispute" and others	question
2 / 1	5. Algorithms management conflict	Justify heuristic value and capabilities application data models for solution conflictingeconomic, political, legal and other situations spheres	tests, question
4 / 2	6. Methods finding solutionsfor games in normal form	to form skill find decision for games innormal form (maximum balance; equal weight in dominant strategies; method finding balance Nesha; method finding the Pareto optimum; method of findingStackel berg equilibrium ; method of finding mixed strategies.)	tests, question
4 / 2	7. Game in dynamic form	To know the basics of dynamic games. Distinguish the concepts: perfect and imperfect information; incomplete information. Know the definition games in dyna is strong formand examples. To be able to solve the game in a dynamic form. Know the predator-prey model	tests, question
4 / 2	8. Models duopoly andtheories games	To know the concepts of oligopoly, equilibrium in an oligopolistic market, Cournot's monopoly ; weight of the initiator (model Stackelberg). Price competition - Bertrand's model. Be able to model interactions using game theory	tests, question
4 / 2	9. Game theory models economic processes	to form knowledge about game theory models economic processes To be able to interpret and manipulate information in economy. (Market "lemons": uncertainty quality and market mechanism in the economy (Akerlof's model). Know: long-term games accumulation of capital, model Spence, cooperative games and modeling of international economic relations, strategic behavior of the firm on the market. Use game theory and competing strategies in economy	tests, question

Literary sources

1. V. V. Kulyk Conceptual approaches to managing socio-economic systems in conditions of uncertainty and risk / V. V. Kulyk // Problems of economics. 2016. No. 1. P. 100-107.

2. Petrushenko M.M. Necessity and features of the application of game theory in modeling natural resource conflicts / M.M. Petrushenko // Bulletin of the Sumy State University. Economy series. 2011. No. 3. P. 42-48.

3. Petrushenko M. M. Regarding the issue of the economics of conflicts: general theoretical and pro-ecological aspects / M. M. Petrushenko // Theory and practice of security management: materials International. science and practice conf. Lutsk: Lesya Ukrainka SNU, 2017.

4. Social potential of sustainable development: innovative mechanisms of formation and use: monograph / O. I. Amosha, O. F. Novikova, V. P. Antonyuk [and others]. Donetsk: Institute of Industrial Economics of the National Academy of Sciences of Ukraine, 2014. 477 p.

5. Anderton CH Principles of conflict economics. A primer for social scientists / C. H. Anderton,

JR Carter. Cambridge. Cambridge University Press, 2009. 321 p.
6. Dixit A., Nalebuff B. The Art of Strategy. New York: WW Norton and Company. 2008.
7. From conflict to peacebuilding: the role of natural resources and the environment / United Nations Environment Programme, 2009. Nairobi: UNEP. 44 p. URL : http://www.unep.org .
8. McConnell, Campbell R. Economics: principles, problems and policies / Campbell R. McConnell, Stanley L. Brue. 16 th ed. New York , 2005. 757 p.
9. Mankiw, NG Principles of Economics.– 6th edition. Cengage Learning, 2011. 890 p.
10. Hrytsenko L. The necessity of socio-ecological modification of two-tier economic model of secondary resources management in Ukraine / L. Hrytsenko, M. Petrushenko, K. Daher // SocioEconomic Challenges. 2017. No. 1.pp. 68-76, doi: 10.21272/sec.2017.1-08.
11. Osborne MJ An introduction to the game theory. Ney York, Oxford: Oxford University Press, 2004.
12. Prisner, Erich. Game Theory Through Examples / Franklin University Switzerland, 2014. 284 p.
13. Shevchenko HM Regulatory policy and optimization of investment resource allocation in model of functioning recreation industry / HM Shevchenko // Baltic journal of economic science. 2017. Vol. 3, No. 1. pp. 109-115.
14. Shevchenko HM Economic-mathematical basis for forming complex programs of recreation balanced development / HM Shevchenko // Scientific bulletin of Poltava university of economics and trade. A series of "Economic sciences". 2016. No. 5. pp. 188-193.

Evaluation policy

- **Deadlines and Rescheduling Policy** : Works submitted in violation of deadlines without good reasons, are evaluated at a lower grade (-20 points). Reassembly of modules takes place with permission dean's office by availability respectable reasons (for example, sick leave).
- **Academic Integrity Policy** : All of them written works are checked upon availability plagiarism is allowed to protection from correct textual not by borrowing more 20% Write-offs during control work are prohibited (including with the use of mobile phones devices). Mobile devices is allowed use only under time online testing (example, program Kahoot).
- **Policy of visit** : Visiting classes is mandatory component assessment, by which one are accrued points By objective reasons (example, disease, international internship) teaching maybe to happen in online form by consent with the manager course

Assessment

final rating by course is calculated next as follows:

Credit module 1	Credit module 2	Credit module 3
30%	**4 0%**	**30 %**
Oral survey during classes (1-4 topics) - 10 points per topic - max. 40 points Modular control work (topics 1-4) - max. 60 points	Oral survey during classes (5-9 topics) 6 points per topic - max. 30 points Modular control work (topics 5-9) - max. 70 points	Preparation of KPIZ - max. 40 points Protection of KPIZ - max. 40 points Participation in trainings - max. 20 points

Scale assessment students:

ECTS	Points	Content
A	90-100	perfectly
B	85-89	fine
C	75-84	fine
D	65-74	satisfactorily
E	60-64	enough
FX	35-59	unsatisfactorily with possibility repeated drafting
F	1-34	unsatisfactorily with mandatory repeated course