

**Federal State Educational Government-financed Institution of Higher Professional
Education
“Lomonosov Moscow State University”**

Moscow School of Economics
Department of International Programs

Chair of General Economic Theory

“CONFIRM”
Director of MSE
Nekipelov A.D.

«____» _____ 2019

SYLLABUS OF THE COURSE

**Economics of Information and the knowledge economy:
on the edge of the future?**

Specialization
38.04.01 “Economics”
(code and name of direction of preparation)

Qualification (degree) of the graduate student
Master of Science in

General Economic Theory
Tuition
Full-time

The syllabus is confirmed by the decision of the
Chair of Economic Theory of the MSE MSU
_____, 2019

The author of the program is Jacques Sapir

Moscow
2019

TITLE: ECONOMICS OF INFORMATION AND THE KNOWLEDGE ECONOMY: ON THE EDGE OF THE FUTURE?

**Professor
Administrative Assistant**

**Jacques Sapir
Varvara Mnatsakanova**

Course Description

The course aims to expose students to the fundamental concepts of Knowledge Economy and Economics of Information. This will include an introduction to Economics of Information theories, precursors, main definitions, assumptions and consequences on the one hand and to the Knowledge Economy: its appearance, relation to the classical theories, limitations and etc.

Prerequisite: international macroeconomics, macroeconomics III.

General Course Objectives and Learning Outcomes (LOS)

During the process of education students will develop the following professional competences:

M-IC-1- command of a foreign language in the oral and written form to enable communication in the scientific, professional and socio-cultural intercourse, knowledge of professional terminology in the foreign language: a capacity to prepare publications, conduct presentations, to have discussions and defend the submitted work in the foreign language;

M-IC-2-knowledge of modern methods and instruments of research into socio-economic processes, a comparative analysis of the national models of the economy;

M-SC-4- a capacity to analyze economic processes within the country and in the contemporary world;

M-SC-5- a capacity for evaluating institutional changes, the dynamics of socio-economic indicators and indices of society's development.

Upon successful completion of the course, the students

Will know and demonstrate:

- their understanding the main concepts of Economics of Information and the Knowledge Economy
- to answer the question: what is the best paradigm for a “learning economy”, how social interactions could influence economics.

Will be able to:

- identify the elements of Economics of Information and the Knowledge Economy
- construct the economic policies taking into account all the assumptions, limitations and consequences of this type of economies.

Will possess skills to:

- demonstrate the ability to clearly discuss the changes in the economy, related to the information and knowledge increasing role
- demonstrate the appropriate level of competence in written expression as demanded by the discipline.

Teaching and Learning Strategy

Teaching and instruction methods include lectures, interactive teaching methods in the forms of question discussions. Time allocation between teaching methods is outlined in the table below.

Type of study		Total hours				
		Total	Semester			
			1	2	3	4
Classes		20		20		
Including	Lectures	10		10		
	Practical training	10		10		
Self-study		52		52		
In Total	Hours	72		72		
	Credits	2		2		
Type of control: Exam				pass/non pass		

This is highly interactive course and most part of it students are working on the proposed questions. The theoretical basics are delivered through lectures prepared with modern multimedia tools such as power point presentations.

Curriculum content

Section: Economics of Information: the state of the art.

(i) Precursors

- a. Condorcet, the birth of probabilities and the probabilistic view of the society.
- b. Sismondy and the notion of local accumulation of collective knowledge.
- c. Marshall and the industrial district

(ii) The beginnings: Jacob Marschak, Roy Radner and George Stigler

- a. Why “teams” matters.
- b. What is a “team”. The development of information and its transmission in teams.
- c. Contribution and limits
- d. The “information-search” theory.

(iii) The asymmetric information assumption and the contribution of Joseph E. Stiglitz

- a. Diamond and the P. Diamond contribution
- b. Stiglitz contribution.
- c. Akerlof and the “market of lemons”
- d. Macroeconomic implications: from the Grossman-Stiglitz paradox to a general critic of market efficiency.

(iv) Blurred definitions

- a. What is information and what is “signal”
- b. Information and knowledge: from quantity to quality?
- c. Herbert Simon and the hypothesis of information saturation.
- d. What has military strategy to teach us?

(v) What are consequences of information economics?

- a. What is left of microeconomics
- b. What is left of the theory of the firm?
- c. What is innovation?

Section: II. Promises of the knowledge economy

(i) Why the knowledge society.

- a. The historical approach.
- b. The seminal Hayekian work “the use of knowledge in society”.
- c. Internet and the centrality of knowledge.
- d. Evolution or radical turn?

(ii) Is learning central to growth?

- a. The Solow paradigm
- b. Link between investment and the diffusion of knowledge.
- c. The specificity of learning and Arrow contribution (Learning by Doing)

(iii) A general critic of Walrasian competition and of the Schumpeterian vision.

- a. Are markets efficient to diffuse knowledge? The Grossman-Stiglitz paradox.
- b. The Hayekian view of knowledge, his contribution and critiques.

- c. Is the Schumpeterian competition efficient to diffuse knowledge?
 - d. How far are economics of knowledge creating a new paradigm?
- (iv) How to rethink trade, industrial and macroeconomic policies under the frame of the knowledge economy
- a. The implication on trade and a possible justification to protectionism.
 - b. The quest for an industrial policy.
 - c. Macroeconomic consequences

Section: III. A critic of mainstream and neo-mainstream view of knowledge

- (i) Redefining knowledge, preferences and learning
 - a. Knowledge, explicit knowledge, tacit knowledge (Michal Polanyi: The Tacit Dimension, Routledge & Kegan Paul, Londres, 1967)
 - b. The impact of individual preferences
 - c. How to learn to learn
 - d. Back to the economics of knowledge: the different kind of knowledge
- (ii) The limits of individualism
 - a. The individual basis of knowledge
 - b. Why individualism (in a theoretical meaning) is impossible.
 - c. The limit of Holism
 - d. Is a synthesis possible?
- (iii) From “objective” to “subjective” point of view
 - a. The limits of objectivity
 - b. What is subjective knowledge
 - c. Opposition on combination?
 - d. Taking interactions seriously
- (iv) How learning is embedded in a society
 - a. Representation, ideology, and the ability to learn

- b. Power and Gender and their relevance for learning
- c. Intellectual property rights (IPR): an incitation or a constraint?
- d. Why learning is a public good

Conclusion

- a. Is flexibility or stability the best paradigm for a “learning economy”?
- b. Why competition could be destructive
- c. Could social interactions be a substitute for incitation?

Bibliography

Section I.

- 1.1. Akerlof G.A., "The Market of 'Lemons': Quality, Uncertainty and the Market Mechanism" in Quarterly Journal of Economics, vol. 84, n°3, 1970, August, pp. 488-500.
- 1.2. Grossman S.J. and J.E. Stiglitz, "On the Impossibility of Informationally Efficient Markets" in American Economic Review, vol. 70, n°3/1980, pp. 393-408.
- 1.3. Simon H., "Organization and Markets" in Journal of Economic Perspective, vol. 5, n°2/1991, pp.25-44.
- 1.4. Stigler G.J., "The Economics of Information" in Journal of Political Economy, vol. 69, n°3, June 1961, pp. 213-225
- 1.5. Stiglitz J.E., "Information and the Change in the Paradigm in Economics", in American Economic Review, vol. 92, n°3, June 2002, pp. 460-501.

Additional literature

- 1.6. Akerlof G.A., "The Market of 'Lemons': Quality, Uncertainty and the Market Mechanism" in Quarterly Journal of Economics, vol. 84, n°3, 1970, August, pp. 488-500.
- 1.7. Arnott R.J. and J.E. Stiglitz, "Labor Turnover, Wage Structures and Moral Hazard : The Inefficiency of Competitive Markets" in Journal of Labor Economics, vol. 3, n°4/1985, October, pp. 434-462.
- 1.8. Davis and C.H. Coombs, (eds.), Decision Processes, John Wiley, New York, 2012, Chap. XIV, pp. 187-220.
- 1.9. Diamond P.A., "A Model of Price Adjustment" in Journal of Economic Theory, vol. 3, n°2, June 1971, pp. 156-168.
- 1.10. Grossman S.J. and J.E. Stiglitz, "Information and Competitive Systems" in American Economic Review, vol. 66, n°2/1976, Papers and Proceedings, pp. 246-253.
- 1.11. Simon H., "Rationality as Process and as Product of Thought", in American Economic Review , vol. 68, n°2, 1978, pp. 1-16.
- 1.12. Guerrien B., "Is there anything worth keeping in standard microeconomics" in E. Fullbrook, (ed.), The Crisis in economics, Routledge, Londres et New York, 2003, pp. 104-107.
- 1.13. Greenwald B.C. et J.E. Stiglitz, "Asymmetric Information and the New Theory of the Firm : Constraints and Risk Behavior" in American Economic Review, vol. 80, n°2/1990, Papers and Proceedings, pp. 160-165.
- 1.14. Heiner R., "Uncertainty, Signal-Detection, Experiments and Modelling Behavior", in R.N.Langlois, (ed), Economics as a Process: Essays in the New Institutional Economics , Cambridge University Press, Cambridge, 1986
- 1.15. Marschak J., "Toward an Economic Theory of Organization and Information" in D. Thrall, R.L.

- 1.16. Marschak J., "Remark on the Economics of Information" in Coll., Contribution to scientific Research in management, University of California Printing, Berkeley Ca., 1960, pp. 79-98.
- 1.17. Stiglitz J.E. and S. Salop, "Information, Welfare and Product Diversity" in G. Feiwel (ed.), Arrow and the Foundation of the Theory of Economic Policy, New York University Press, New York, 1987, pp. 328-340.

Section II.

- 2.1. Arrow K.J., "The Economic Implication of Learning by Doing", in Review of Economic Studies, Vol. 29, 1962, n°3, pp. 155-173.
- 2.2. Chang H-J., et Cheema A., Conditions for Successful Technology Policy in Developing Countries – Learning Rents, State Structures, and Institutions, INTECH Discussion Paper Series n°2001#8, Maastricht, 2001. <http://www.intech.unu.edu/publications/discussion-papers/2001-8.pdf>
- 2.3. Charlton A. and Stiglitz J.E., The Right to Trade, UNCTAD, 2012, <http://unctad.org/meetings/en/Miscellaneous%20Documents/Right-to-Trade-Report.pdf>
- 2.4. Greenwald B.C. and J.E. Stiglitz, Creating a Learning Society – A New Paradigm for
- 2.5. Development and Socials Progress, New York, Columbia University Press, 2014.
- 2.6. Hayek F.A. (1945), « The use of knowledge in society », in American Economic Review, vol. 34, n°4, pp. 519-530.

Additional literature

- 2.7. Chang H-J., "Kicking Away the Ladder. Infant Industry Promotion in Historical Perspective" in Oxford Development Studies, Vol. 31, 2003, n° 1, pp. 21-32.
- 2.8. Greenwald B.C., "Financial Markets Imperfection and Business Cycles", in Quarterly Journal of Economics, Vol. 108, 1993, n°1, pp. 77-114.
- 2.9. Grossman S.J. and J.E. Stiglitz, "On the Impossibility of Informationally Efficient Markets" in American Economic Review, vol. 70, n°3/1980, pp. 393-408.
- 2.10. Gerschenkron A., Economic Backwardness in Historical Perspective, Cambridge, Mass., Harvard University Press, 1962
- 2.11. Gilbert R.J., "Looking for Mr. Schumpeter: Where are We in the Competition-Innovation Debate", in Jaffe A.B, Lerner J. and Stern S., (eds), Innovation Policy and the Economy, Cambridge, Mass., MIT Press, 2006.
- 2.12. Harcourt G.C. and N.F. Laing, Capital and Growth, Harmondsworth, UK: Penguin, 1971.
- 2.13. Khalil E.L., (2002), "Information, Knowledge and the Close of Friederich Hayek's system" in Eastern Economic Journal, Vol.28, n°3, pp. 319-341.
- 2.14. Newbery, D. and J. E. Stiglitz, "Pareto Inferior Trade," in Review of Economic Studies, Vol. 51, (1982), n°1, January, pp. 1-12.

- 2.15. Robinson, J., "The production function and the theory of capital", *Review of Economic Studies*, Vol. 21, 1953-4, n°2, 81-106
- 2.16. Solow R., "Technical Change and the Aggregate Production Function" in *Review of Economics and Statistics*, Vol. 39, 1957, n°3, pp. 312-320.
- 2.17. Solow R., "A Contribution to the Theory of Economic Growth" in *Quarterly Journal of Economics*, Vol. 70, 1956, n°1, pp. 65-94.

Selection III.

- 3.1. Foray, D., Lundvall, B.A., "From the economics of knowledge to the learning economy", in Foray, D., Lundvall, B.A. (eds.) *Employment and Growth in the knowledge-based economy*, Paris, OECD, 1996, http://www.globelicsacademy.org/2011_pdf/Lundvall%20-%20From%20the%20Economics%20of%20Knowledge%20to%20the%20Learning%20Economy.pdf
- 3.2. Cantillo A.F., "Shackle: Time and Uncertainties in Economics", Cambridge, University of Cambridge, 2010, http://www.peri.umass.edu/fileadmin/pdf/conference_papers/newschool/Papaer_GLS_Shackle_Studentship.pdf
- 3.3. Kogut B. and O. Zander, "Knowledge of the Firm, Combinative Capabilities and the Replication of Technology", in *Organizational Science*, vol. 3, 1992, pp. 383-397.
- 3.4. Ramstad Y., "A Pragmatist's Quest for Holistic Knowledge: The Scientific Methodology of John R. Commons", *Journal of Economic Issues*, Vol. 20, n°4, December 1986, p. 1067-1105
- 3.5. Sapir J., "Novye podhody teorii individual'nyh predpotchenij i ee sledstvija" in *Ekonomitcheskij Zhurnal*, Vol. 9, n°3/2005, pp. 325-360.
- 3.6. Sapir J., "Ekonomika Informatsii : novaja paradigma i ee granitsy" in *Voprosy Ekonomiki*, n°10/2005.

Additional literature

- 3.7. David, P. A. et Foray, D., 1996. "Information Distribution and the Growth of Economically Valuable Knowledge: A Rationale for Technological Infrastructure Policies," in *Technological Infrastructure Policy*, M. Teubal et al., eds., Dordrecht et Londres, Kluwer Academic Publishers.
- 3.8. Currie G., "Individualism and global supervenience", *British Journal of the Philosophy of Science*, vol. 35, 1984, December, p. 345-358.
- 3.9. O'Driscoll G.P. and M.J. Rizzo, *The Economics of Time and Ignorance*, Basil Blackwell, Oxford, 1985
- 3.10. Hands D.W., "Popper and Lakatos in Economic Methodology", in U. Mäki, B. Gustafsson et C. Knudsen, (eds), *Rationality, Institutions and Economic Methodology*, op.cit., pp. 61-75.
- 3.11. Koertge N., "The methodological status of Popper's rationality principle", *Theory and Decision*, vol. 10, n°1, 1978, p. 83-95.

- 3.12. Loasby B.J., Choice, complexity and ignorance. An inquiry into economic theory and the practice of decision-making, Cambridge University press, Cambridge, 1976.
- 3.13. Penrose E. , The Growth of the Firm, Basil Blackwell, Oxford,1968;
- 3.14. Richardson G.,"The Organization of the Industry", in Economic Journal, n°3/1972,pp.883-896.
- Shackle G.L.S., Anticipations in Economics, Cambridge, Cambridge University Press, 1949.

Assessment Strategy

Final essay: 90 points, class participation (discussions & team work): 10 points. **Total: 100 points.**

The student will pass the course if he accumulates 50 points and more. Students, who gained below 50 points will fail the course.

- The exam retake policy is: A student will retake the exam if her/his total score was below 50 points.
- Only a justified absence entitles to an additional quiz (no retakes are allowed).

Academic Integrity

Academic honesty is non-negotiable All assignments submitted in fulfillment of course requirements must be the student's own work Plagiarism and/or any other form of academic dishonesty will not be tolerated and will result in a grade of zero on the assignment

Questions and Topics for Exams and Other Assignments

The lecture will end with an examination of 2h 00min where students will have to answer four (4) questions on a list of five (5).