

# Economics of Innovation and Management

Lecturer DOSI Giovanni

Semester Spring

ECTS 6

Description The course introduces the economics of information and the economics of technological innovators, together with their implications in terms of theory of production, theory of the firm and industrial dynamics.

Course outline 1. The economic properties of information. Analogies and differences between information and (technological) knowledge. 2. Technologies as bodies of knowledge, as 'recipes' and as input/output relations. 3. The structure of innovative knowledge: technological paradigms and trajectories. 4. Intersectoral differences in the sources of innovative knowledge and in the innovation process. 5. Patterns of innovation diffusion. 6. Firms as repositories of problem-solving knowledge. 7. Innovation, imitation and industrial competition. 8. The features and drivers of industrial evolution.

Textbooks Dosi G. and R.R. Nelson (2010), "Technical Change and Industrial Dynamics as Evolutionary Processes", In B.H. Hall and N. Rosenberg: Handbook of the Economics of Innovation - Vol. I, Burlington: Academic Press, pp. 51-128 . • Dosi G. (1982), "Technological Paradigms and Technological Trajectories. A Suggested Interpretation of the Determinants and Directions of Technical Change", Research Policy. • Pavitt K. (1984), "Patterns of Technical Change: Toward a Taxonomy and a Theory", Research Policy. • Nelson R., Winter S. (1982), An Evolutionary Theory of Economic Change, Harvard Univ. Press, Part I-III (ch. 1-7) • Dosi G., O. Marsili, L. Orsenigo, R. Salvatore (1995), "Learning, Market Selection and The Evolution of Industrial Structures", Small Business Economics, vol. 7, pp. 411-436. • Dosi G. (2007), "Statistical Regularities in the Evolution of Industries. A Guide through some Evidence and Challenges for the Theory", in F. Malerba and S. Brusoni (eds.) Perspectives on Innovation, Cambridge, Cambridge University Press.

Optional reading • Freeman, C. (1982), The economics of industrial innovation, 2nd ed., Pinter:

London • Rosenberg, N. (1982), Inside the Blackbox, Cambridge University Press: Cambridge/New York

Prerequisites Good knowledge of the standard theory of production. Basics of growth theory. Keywords Information, economics of innovation, technological paradigms, industrial evolution Teaching TBA Final valuation Oral exam Course website TBA