



Programme of Course "Economics Of Digital Transformation"

- Code: DT0344
- Type of course unit: Compulsory (Master Degree in Applied Data Science curriculum Data for Smart City), Compulsory (Master Degree in Applied Data Science curriculum Data for Life Science)
- Level of course unit: Postgraduate Degrees
- Semester: 2

Number of ects credits: (Master Degree in Applied Data Science) 6 (workload 150 hours)

Teachers: Lelio Iapadre

1	<b>Course objectives</b>	The main objective of this course is to allow students to understand the process of digital transformation of the international economy and its impact on welfare, growth and income distribution. The first section of the course will survey the determinants and the effects of innovation in open economic system. The second section will be devoted to an analysis of the specific features of the digital transformation of the economy, in comparison with previous waves of innovation. The final section of the course will discuss the role of industrial policies in promoting digital innovation. Particular attention will be given to the digital innovation strategies of firms, in the context of recent changes in the organization of world production. The illustration of the theoretical aspects will be based on the presentation of the available evidence, with particular reference to Italian firms.
2	<b>Course content and learning outcomes (dublin descriptors)</b>	<p>Topics of the module include:</p> <ul style="list-style-type: none"> <li>• The economic theory of innovation and growth: an overview</li> <li>• Globalization and the digital transformation of economic systems: an overview</li> <li>• Technical engines of digital innovation</li> <li>• International channels of digital innovation diffusion</li> <li>• Strategies for digital innovation at the firm level</li> <li>• Industrial policies and digital innovation</li> </ul> <p>On successful completion of this module, the student should :</p> <ul style="list-style-type: none"> <li>• The learning outcomes are improvements in the ability to critically analyze, with the help of economic theories, the themes of the course. On successful completion of this module, the student should</li> <li>• have knowledge and understanding of the main economic effects of digital transformation on economic welfare, income distribution and growth</li> <li>• have knowledge and understanding of the main determinants of firms' strategies for digital innovation in an open economic context</li> <li>• have knowledge and understanding of the role of industrial policies for the digital transformation of the economy</li> <li>• demonstrate capacity for reading and understand other texts on related topics.</li> </ul>
3	<b>Course prerequisites</b>	The student must know the basic concepts of micro-economics. Learning activities imply the use of elementary statistics to analyze data on digital innovation in the context of the international economy.
4	<b>Teaching methods and language</b>	Group exercises, class presentations and lectures. Language: English Ref. Textbooks: to be defined Reports on the digital economy will be made available in the e-learning website of the course: <a href="https://www.didattica.univaq.it/moodle/?lang=en">https://www.didattica.univaq.it/moodle/?lang=en</a> <b>Language:</b> English
5	<b>Assessment methods</b>	Project work: country report based on the analysis of statistics on the digital economy Compulsory written exam (three essay questions, 90 minutes) Students may ask to give an additional oral exam: -The oral exam will be only about the weakest parts of the written exam -The written exam grade can be changed up to a maximum of 2 points