



Syllabus

Academic Year	2021/2022
Program	Data Science and Management
course	Internet and Network Economics
Term	I semester
Year	1
SSD	SECS-P/06
Credits	6

INSTRUCTIONAL GOALS

The course provides an understanding of economics of the internet and the digital economy. It will offer students with concepts from economic theory to make sense of the significant transformations brought about by the emergence and diffusion of information and communication technologies (ICTs). Economics is not only a body of knowledge and concepts, but it also relies on a methodological framework to examine social and economic outcomes, largely based on statistical and quantitative concepts. These concepts and methods are often at the centre of both business and policy decisions. Against this backdrop, the course will also provide students with the ability to critically study and interpret economic data.

Students will gain insights on the key changes brought about by the digitalisation of our economy. These include the emergence of new technologies, such as artificial intelligence, new business models such as online platforms and advertising and how these changes impact key economic variables, such as a productivity and employment. As a result, the students will be able to understand the new environment in which businesses and economic activity takes place.

INTENDED LEARNING OUTCOMES

They describe what a learner is expected to know, understand and be able to demonstrate after completion of a learning path.

Knowledge and understanding:

The course will provide students with a vast overview of ideas and theories to understand the process of digitalization and the impact that these have on economic activity. Students will also learn key concepts to better understand and assess technological change brought about by the digital transformation. Moreover, they will also become familiar with economic data and methodologies commonly use in empirical analysis.

Applying knowledge and understanding:

Students will be able to apply the knowledge in the following ways:

- Ability to assess the importance of new emerging digital technologies for businesses.
- Appreciate the importance of standards, platforms and infrastructure in the digital economy and how these impact business decisions.
- Evaluate and understand the implications of the digital transformation for the economy on the labour market and productivity.
- Confidently analyse key economic variables, such as productivity, investment and employment and their relationship with the digital transformation.
- Accurately select variables and data to measure the digital economy.

Making judgements:

Students will be able to analyse the implications of the digital transformation for businesses and key economic variables. They will do so by relying on different understandings of these phenomena, that



will be discussed extensively throughout the course. Finally, throughout the course student will develop the ability to critically assess economic analysis

Communications Skills:

The course will provide students with the accurate and correct terms to understand and discuss issues relating to technological change and its relationship with economic variables. Oral presentations will be a crucial aspect of the course, providing students with the confidence to clearly discuss in public key economic aspects relating to the digital transformation.

Learning skills:

The course will empower students with the confidence and competence to critically discuss economic concepts and empirical facts related to the digital transformation and the economic changes brought about by the internet.

Pre-requisites	Describe potential basic knowledge useful for the course learning Basic knowledge of economic concepts, such as labour, capital, productivity
Course content	The course will be structured around 4 key modules: <ul style="list-style-type: none">- Overview of the digital economy and measurement issues.- Infrastructure, standards and platforms.- Applications of digital transformations, e.g. AI, online advertising, platform business models.- Digitalisation and the future of work.
Reference Books	Lecture slides, research papers and articles will be made available during the course on the e-learning platform. The Oxford Handbook of the Digital Economy. 2012. Oxford University Press, Oxford.
Teaching Methods	The course will blend face-to-face lectures with group presentations and discussions based on readings. Some of the key topics will be discussed with guest lecturers.
Assessment	Proficiency and attainment of the learning outcomes will be assessed through group presentations during the term, which will provide further opportunity for discussion in class, and a written final exam. These two assessments will count for 45% respectively, while 10% will be assessed through attendance and participation in class.
