Module 8: Specialization and final project

- Subject 8.1: Exponential technologies and their applications in business and industry: Artificial Intelligence, BlockChain and Digital Fabrication I (15 ECTS) COMPULSORY

Duration and temporal location within the curriculum

This module is taught throughout the second year of the degree.

Learning Outcomes

RA1: The entrepreneur knows the reality of exponential technologies in the world of start-ups and emerging industries, and is capable of analyzing the success factors and keys used in existing companies and start-ups at local and international level.

RA2: The entrepreneur knows and is able to use the main tools of specific exponential technologies (Blockchain, artificial intelligence, digital fabrication, etc.) and their specific application to emerging industries and sectors (Finntech, creative industries, emobility,...).

Brief summary of contents

General introduction to the keys to exponential technologies and the different existing tools, as well as the necessary competences to develop software with the most requested technologies and the programming languages applicable to these technologies.

There will be specific content and practice modules on the different technologies:

- Block Chain
- Internet of Things
- Artificial Intelligence
- Digital Manufacturing
- Robotics

Introduction to the use and application of exponential technologies in companies and industries.

- Finntech
- Industry 4.0
- Creative industries
- E-mobility
- International and digital platforms
- ...

Introduction and training through different training pills to select from the different specific tools needed in each industry:

- Programacion Python
- Desarrollo web Front end
- Full stack developer

- Diseño UX/UI
- Data analytics
- Blockchain
- Art and design in the digital age
- Inspiring & motivating arts & culture teams
- Applied AI
- Digital Design
- Make your own app

Associated Competences

Basic Competences:
(CB4) Students will be able to transmit information, ideas, problems and solutions to both specialized and non-specialized audiences.

(CB5) That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy.

Transversal Competences:
CT2: Creative and transformative
CT4: Lifelong Learner
CT6: Resilient

General / Personal Competences:
GC3: Courageous and persevering
GC4: Conscientious and forward-looking

Specific/Professional Competences:
CE2: Digital
CE6: Visionary
CE7: Results-oriented

Training activities and learning tools

- Team dialogue sessions for personal growth, cooperative learning and project design (0.5 ECTS, 12.5 hours).
- Reading books and other sources of information for the generation of new knowledge through essay writing (1.5 ECTS, 37.5 hours)
- Creating a real team and assuming leadership position in the team and in the projects (1 ECTS, 25 hours)

- Creation of entrepreneurial projects within the team company by establishing long-term valuable with customers (1 ECTS, 25 hours)
- Participation in courses, events and thematic presentations (2 ECTS, 50 hours)
- Immersion and prototyping workshops (3 ECTS, 75 hours)
- Individual and group follow-up meetings and evaluation process (0.5 ECTS, 12.5 hours)
- Application of ICTs and digital platforms for networked learning (5 ECTS, 125 hours).
- Research: search for information, elaboration of hypotheses and validation with empirical evidence (0.5 ECTS, 12.5 hours).

Bibliography

Ross, A., (2016) Industries of the future. Simon And Sch UK

Tascott, A., Tapscott, D 2016: Blockchain Revolution: How the Technology Behind Bitcoin Is Changing Money, Business, and the World. Penguin Publishing Group

Drescher, D., 2017: Blockchain Basics: A Non-Technical Introduction in 25 Steps, Apress

Needham, J, 2013 Disruptive Possibilities: How Big Data Changes Everything. Apress

Pedro Enrique Minaya Barrera, Estrategia de servitización y desarrollo de la industria 4.0.

Lazzeretti, L., Vecco M., 2018 Creative Industries and Entrepreneurship, Edward Elgar, France

Congdon, L. 2014. Art, Inc.: The Essential Guide for Building Your Career as an

Artist (Art Books, Gifts for 203 Artists, Learn The Artist's Way of Thinking).

Catmull, E., & Wallace, A. 2014. Creativity, Inc.: Overcoming the Unseen Forces That Stand in the Way of True Inspiration. Random House.

Bourdieu, p. (1994), The field of cultural production: essays on art and literature, Columbia University Press

Web
https://fab.city/
http://designingreality.org/
http://www.atalayagestioncultural.es