

## Course learning outcomes and learning content

Study programme name: **Digital Entrepreneurship**

Cycle of studies: **studia drugiego stopnia**

Course name: **Training/Internship**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. identifies and defines applied procedures, work organisation methods and task completion controls used by the enterprise or institution where the internship was performed

**in terms of skills:**

1. completes analytical (research) task within the scope of the company's/institution's digital activity;

2. identifies, diagnoses and solves professional problems of institution in digital sphere

3. applies theoretical knowledge in practice

**in terms of social competences:**

1. communicates with employees from various departments as well as social and professional backgrounds using digital tools of organisation

2. works in and leads a team to complete the task of institution in digital sphere

**Course learning content:**

Institution presentation: objectives, structure, team

Procedures in institutions: digital tools using in organization

Challenges and problems of organisation in digital sphere

Course name: **Master seminar**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. identifies important research problems and defines the hypothesis

**in terms of skills:**

1. selects and applies adequate research methods

2. designs research tools and collects data

3. analyses and presents data

4. draws conclusions based on collected data, verifies the hypothesis and implements the results of researches in practice

5. writes scientific thesis in English

**Course learning content:**

Characteristics and aims of scientific thesis

Research problem and research questions

Thesis and hypothesis

Research methods, techniques and tools

Data analyse and presentation

Reasoning methods: deduction and induction

Language and layout of master thesis

Library query

IT tools in master thesis preparations

Discussions and consultations

Course name: **Managing emerging technologies in entrepreneurial contexts**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. understands fundamental concepts, theories and approaches in relation to digital management.

2. describes the relations between actors engaged with entrepreneurial and commercial aspects of digital transformation

3. understands and describes issues related to corporate social responsibility and environmental impacts of digital business practices in relation to problems of sustainability.

4. understands the concepts of digital transformation and its economic consequences.

5. understands the role of soft skills in management in relation to multitude aspect of digital entrepreneurship

**in terms of skills:**

1. recognizes the main challenges faced by private corporations, public institutions, nation states and inter- and supranational organisations as well as individuals in contemporary digital transformation.
2. appreciates diversity of approaches in studying digital management
3. formulates and justifies variety of digital organizational strategies.
4. understands and applies methods of business intelligence and data analysis in entrepreneurial practice.

**Course learning content:**

Basic concepts of digital management  
Emerging technologies: main priorities and risks in contemporary digital reality  
Elements of new approaches to digital economy  
Regulations of emerging technologies in relation to business environment  
Processes and methods of creating and sustaining businesses in digital context  
Entrepreneurial skills in digital reality  
Business intelligence, prognosis, and data analysis in organisation  
Creativity and innovation in digital business culture  
Corporate social responsibility in digital entrepreneurship  
Global environment, sustainability, and digital revolution  
Future of digital transformation in entrepreneurial context

Course name: **Governing and Regulating Emerging Technologies**

**On successful completion of this course, a student  
in terms of knowledge:**

1. understands and differentiates concepts of governance, public policy, and public management.
2. describes different approaches to governance and public management.
3. understands different approaches towards regulation of emerging technologies.
4. presents the main challenges of using digital technologies within public and private governance.
5. understands the role of international organisations, governments and non-governmental actors in shaping the regulations of emerging technologies.
6. understands the correlations between technological change and social, economic and political sphere.
7. understands the role of digital technologies in addressing societal challenges.

**in terms of skills:**

1. shapes the governance of organisations with sound understanding of digital technologies.

**Course learning content:**

The concept of governance  
Approaches to public management  
Public policies of emerging technologies  
Digital technologies as a challenge to governance  
Regulatory approaches towards emerging technologies  
Regulating technology on the international level  
The role of private corporations in governing emerging technologies  
The role of interest groups in governing emerging technologies  
Emerging technologies in public institutions  
Algorithmic governance as a new model of politics

Course name: **Tools and methods of digital entrepreneurship**

**On successful completion of this course, a student  
in terms of knowledge:**

1. understands the differences and relative advantages of variety of e-commerce platforms and online payment systems for the purposes of digital company.
2. understands the challenges of cybersecurity in entrepreneurial context.
3. understands the entrepreneurial challenges related to blockchain-based technologies and cryptocurrencies.

**in terms of skills:**

1. discusses challenges related to digital transformation and innovation in entrepreneurial practice.
2. develops and maintains managerial predispositions and competences appropriate to digital environment.
3. prepares an outline of a business strategy for a company operating within digital environment.
4. uses new media as a tool of communication, marketing and advertising of small and medium-sized company.

5. uses online marketing and advertising tools, such as search engine optimization and different forms of paid advertising platforms.
6. conforms to legal norms regulating digital entrepreneurship, including laws on data protection, consumer rights, and copyrights.
7. uses social media in marketing and advertising campaigns.
8. uses digital tools in the management of various aspects of entrepreneurial practice, including human resource management.
9. applies different techniques of creative thinking to further business goals of a digital company.

**Course learning content:**

Challenges of digital transformations  
Managerial predispositions and competences in digital environment  
Corporate strategies in digital entrepreneurship  
Digital tools for human resource management  
New media in digital entrepreneurship and communication  
Digital marketing and advertising  
Social media in digital marketing and advertising  
E-commerce and payment platforms  
Blockchain and cryptocurrencies  
Data protection standards and regulations  
Cybersecurity in entrepreneurship  
Legal aspects of digital entrepreneurship

Course name: **Digital challenges of politics**

**On successful completion of this course, a student in terms of knowledge:**

1. understands the role of digital technologies in contemporary politics.
2. researches the processes of digitalisation in political communication and campaigning.
3. understands the impact of digitalisation on climate change and environmental policies
4. describes the main social, economic and political challenges of the automation of work.
5. understands the different impact of digitalisation on political sphere in democracies and autocracies.
6. understands the way in which digital tools are being used by local governments.
7. understands the impact of digitalisation on citizenship and political participation.

**in terms of skills:**

1. predicts an impact of digital technologies on international relations.
2. analyses and constructs codes of ethics to for the use artificial intelligence and other digital technologies.

**Course learning content:**

Digital technologies in politics – an introduction  
Datafication and algorithmisation of political processes  
Artificial intelligence ethics in public and private sector  
Digitalisation processes in democracies and autocracies  
Digital technologies in climate and environmental policies  
Digital tools in political communication and campaigns  
Citizenship and political participation in digital environment  
Automation of work as a social, economic, and political challenge  
Influence of digital technologies on human rights  
Digital technologies in international relations  
Digital technologies in local governments

Course name: **Society, entrepreneurship, and technology**

**On successful completion of this course, a student in terms of knowledge:**

1. names and describes the main approaches towards studying society, science, technology and entrepreneurship.
2. understands the way in which technologies are shaping and being shaped by public institutions and private entrepreneurial initiatives.
3. understands and applies critical and feminist theories and concepts of technology.
4. understands and applies post-humanist and non-anthropocentric theories and concepts of technology.
5. discusses different types of societal impacts of digital enterprises

6. understands the environmental consequences of digital entrepreneurship.
7. discusses different paradigms of artificial intelligence and related technologies, including machine learning, artificial neural networks and big data.
8. understands the role of data and data processing algorithms in contemporary society and economy.

**in terms of skills:**

1. applies theories and research methods in studying social and entrepreneurial contexts of technology.
2. applies methods and concepts of digital ethnography in the development of their own research projects.
3. researches the challenges related to impacts of social media algorithms.

**Course learning content:**

Society, science and technology studies – an introduction  
Conceptualisations of science and technology within different theoretical approaches  
Critical and feminist perspectives towards technology  
Post-humanist and non-anthropocentric perspectives towards technology  
Research methods in studying society, entrepreneurship and technology  
Methods and concepts of digital ethnography  
Technological development within entrepreneurial context  
Societal impacts of digital enterprises  
Environmental impacts of technological development  
Impacts of social media algorithms  
Norms and values in digital economy  
Artificial intelligence in contemporary society  
Datafication and algorithmisation in society and economy

Course name: **Society, politics, and technology**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. names and describes the main approaches towards studying society, science, technology and politics.
2. understands the way in which technologies are shaping and being shaped by political ideologies.
3. understands the technological challenges from the perspective of political philosophy.
4. understands the relationship between technology and political power in the institutional context of modern state
5. understands and applies post-humanist and non-anthropocentric theories and concepts of technology.

**in terms of skills:**

1. applies theories and researches methods in studying social and political contexts of technology.
2. applies methods and concepts of digital ethnography in the development of their own research projects
3. understands and applies critical and feminist theories and concepts of technology.
4. researches the challenges related to algorithmisation of social and political processes.

**Course learning content:**

Society, science and technology studies – an introduction  
Conceptualisations of science and technology within different theoretical approaches  
Critical and feminist perspectives towards technology  
Post-humanist and non-anthropocentric perspectives towards technology  
Research methods in studying society, politics and technology  
Researching political contexts of technological development  
Methods and concepts of digital ethnography  
Tracing algorithmisation of social and political processes  
Political philosophy and artificial intelligence  
Digital technologies and political ideologies  
Technology and political power

Course name: **Project Management**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. understands the term and goals of project management

**in terms of skills:**

1. plans a project cycle, including resource management
2. utilises relevant tools such as PMI, PMP, Prince2 Practitioner, IPMA or Agile/SCRUM to manage project cycles and allocate tasks and resources.
3. evaluates methods and approaches of Design Thinking in different organizational contexts and recognizes and analyses their effects.
4. defines, evaluates and selects different types and forms of negotiation strategies
5. considers cultural and psychological processes that influence the perception and reaction of individuals, especially with regard to social, cultural and gender-specific differences, in project management, as well as to recognise the opportunities and advantages of diversity and diversity and use them productively for an organisation or a company.

**in terms of social competences:**

1. deals constructively with conflicts in order to achieve productive results.
2. works in teams and presents the team project

**Course learning content:**

Introduction into the Course

Introduction into project management and entrepreneurship.

Project management and entrepreneurship: Project teams, collaboration and stake-holders.

Project management software.

Project Management and Design Thinking.

Negotiations in project management – negotiation skills.

Challenges in project management – conflict management.

Gender and diversity in project management

Presentations of group or individual project work

Course name: **Research Lab**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. differentiates between quantitative and qualitative research approaches.
2. understands and applies principles of academic writing.
3. understands different traditions of academic work as they apply to different academic disciplines.
4. understands the basics of academic research.
5. understands and applies basic data collection methods.

**in terms of skills:**

1. prepares a systematic literature review.
2. critically engages with academic literature.
3. uses digital tools in research and academic writing.
4. maintains an ethical and professional approach as a student and a researcher.
5. designs their own social research project.
6. evaluates scientific publications with regard to rigor, relevance, and excellency

**Course learning content:**

Academic research: paradigms, theories, and methods

Principles of critical thinking

Quantitative research methods

Qualitative research methods

Methods of research data collection

Fundamentals of research design

Preparing a systematic literature review

Principles of academic writing

Digital tools in academic research

Ethical and professional standards in academia

Transdisciplinary and interdisciplinary work in academia

Course name: **Human Resource Management**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. enumerates and describes advantages and disadvantages of different leadership approaches in the organizational, societal and economic context
2. indicates the role and tasks of HR departments in small, medium and big organisations

**in terms of skills:**

1. understands the importance of organizational culture
2. applies HR theories and concepts to organizational practice
3. analyses and presents data and information about new developments in culture managements
4. identifies and understands reasons of problems in HR management in context of organisation's members diversity

**Course learning content:**

Introduction into Human Resource Management

Organizational culture: What are organisations?

Organisation theories

Corporate culture: Distinctive features of corporations in their societal context

Managerial control: normative control within an organisation

Managerial control: identity regulation and identity building

Different leadership theories and approaches

New developments in culture management, especially in relation to diversity. Challenges and opportunities and specific strategies to advance and manage diversity in the workforce

New developments in culture management, especially in relation to authenticity and authentic leadership.

New developments in culture management, especially in relation to informality, informal rules, responsibilities and communication.

Course name: **Digital Business and Commercial Law**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. compares the legal regulations in the sphere of business founding in Germany and Poland

**in terms of skills:**

1. founds a business in Germany and Poland
2. finds and understands the legal regulations related to labour, corporate and taxation law
3. defines term "Start-up" and recognizes main legal and other obstacles for Start-up
4. applies the knowledge about differences between patents, trademarks and copyrights in practice to protect the unique resource
5. identifies the main obligations of company arising from data protection law and implements the adequate procedures in organisation functioning
6. collects, synthetizes and presents the data and information using digital technologies and appropriate methods

**Course learning content:**

Founding a business in Germany and Poland: Basics in labour law I

Founding a business in Germany and Poland: Basics in labour law II

Founding a business in Germany and Poland: Corporate Law I

Founding a business in Germany and Poland: Corporate Law II

Founding a business in Germany and Poland: Taxation Law

Legal Life Cycle of a Start-up: Specifics and legal structure

Legal Life Cycle of a Start-up: Founder/investor conflicts and relevant legal issues required in connection with the establishment and development of a (technology) start-up

Patents, trademarks and copyrights: Differences, obligations and liabilities

Patents, trademarks and copyrights: fundamental problems of intellectual property in the field of digital technologies

Data Protection Law in Companies: Introduction into relevant legislation

Data Protection Law in Companies: Requirements for Start-Ups

Data Protection Law in Companies: developing effective data protection measures and procedures for companies and organisations.

Presentations of group or individual project work

Presentations of group or individual project work

Course name: **Computer Science in Management**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. has knowledge of the role of information technology in management and freely operates the concepts associated with it.
2. has knowledge of computer systems and software used in management.
3. has basic knowledge of programming, computer networks, technologies used and data security issues

**in terms of skills:**

1. is able to find, interpret and present data from business IT systems and with the use of various tools
2. is able to identify the tools needed for management and find the relevant information in the Internet
3. is able to create and effectively manage business area projects
4. is aware of the responsibility for the decisions taken and the tasks entrusted

**in terms of social competences:**

1. can work together in a group to solve a problem
2. is able to present a developed project and analysed issues

**Course learning content:**

Basic concepts. Types and types of computers. Functions of computer systems.

Computer systems in management: hardware and software. Computer parameters. Integrated information systems.

Basics of programming and introduction to algorithms.

Computer networks, Internet, intranet, extranet.

Internet technologies, databases and content management systems.

Collecting, selecting and organizing data. Ways of presenting data.

Cryptography and data security. Software lawfulness, copyright, personal data protection.

Project management. Methods and standards.

Creating a project and managing a team. Appropriate practices.

Course name: **Entrepreneurship in Action**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. understands the role of entrepreneurship in modern society and economy

**in terms of skills:**

1. creates a businessplan
2. manages enterprise's finances
3. improves competitiveness of firms
4. creates marketing strategy of company
5. find, analyses and uses information about opportunities and threats to business
6. uses digital tools in communication

**in terms of social competences:**

1. cooperates in teamwork and present the results of research

**Course learning content:**

Introduction to Entrepreneurship

Discovering Entrepreneurial Opportunities

Innovation Strategies and Methodologies

Basics of a Businessplan

Financial Management I: Funding of a business idea

Financial Management II: Accounting

Financial Management III: Taxation

Marketing

Online Marketing

Managing Start-Ups

Project Presentations

Course name: **Digital Law and Ethics**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. understands digital phenomena from a jurisprudential perspective.
2. follows the current state of research in law in digital and management sphere

**in terms of skills:**

1. recognizes the most important trends and developments in the context of law and ethic, related to digital problems and challenges.

2. selects suitable scientific methods, including information and communication technologies, for the analysis and presentation of data.
3. applies digital methods of communication and the presentation of scientific knowledge.
4. access and critically analyses scientific sources in an interdisciplinary manner.

**Course learning content:**

Introduction: Law and Ethics of the Digital Society  
Normative standards human-machine interactions  
Normative standards for virtual realities  
Legislation for digital spaces: subnational regulation  
Legislation for digital spaces: national regulation  
Legislation for digital spaces: supranational regulation  
Legislation for digital spaces: international orders  
Legislation for digital spaces: private regimes  
Digital entrepreneurship as a legal problem: corporate law  
Digital entrepreneurship as a legal problem: market regulation and competition law  
Digital entrepreneurship as a legal problem: platform regulation  
Digital entrepreneurship as a legal problem: Data protection law and privacy regimes  
Digital entrepreneurship as a legal problem: intellectual property rights  
Digital entrepreneurship as a legal problem: ethical corporate design

Course name: **Individual/Team project**

**On successful completion of this course, a student in terms of skills:**

1. identifies important needs of modern society
2. creates and proposes the solutions to the problems and needs of modern/digital society
3. builds and leads the team to elaborate the details of solutions
4. creates a business plan based of company/start-up which will solve the problems and responds to identified needs of modern society
5. indicates the sources of company founding
6. registers the company
7. implements project in real world

**in terms of social competences:**

1. gains money for the enterprise

**Course learning content:**

Introduction to Individual project module: aims of the module  
Defining of modern society and its's digital needs/problems  
Ideas of potential solutions, which can generate profit  
Conceptualization of the project  
Determining the composition of the team and team building  
Team work: detailed solutions of the problems (creative thinking)  
Team work: creation/building of solution  
Team work: presentation of prototype of digital tool/digital service/digital platform/hardware/software etc.  
Team work: test of the prototype solution  
Team work: improvement of the prototype  
Team work: test and improvement of the prototype (continuation)  
Creation of business plan based on the solution  
Found gaining  
Registration of company and implementation of solution

Course name: **Management Theories in the Digital World**

**On successful completion of this course, a student in terms of knowledge:**

1. defines the term "Information system", indicates the elements of exemplary system and understands new problems caused by the development of technology
2. understands the impact of management information systems on enterprise strategy and performance
3. enumerates the examples of using new technologies and information system in business practice

**in terms of skills:**

1. creates competitive firms, manages global corporations, adds business value and provides useful products and services to customers using the knowledge about information systems



2. uses new technologies to supply the foundation of business
3. uses appropriate information systems to support decision-making process in organization.
4. indicates the role of Information security systems for modern companies.

**Course learning content:**

Introduction: Information Systems in Global Business Today  
Global E-Business and Collaboration  
Information Systems, Organisations and Strategy  
Ethical and Social Issues in IS  
IT Infrastructure and Emerging Technologies  
Telecommunications, the Internet and Wireless Tech  
Building Information Systems  
Securing Information Systems  
Enterprise Applications  
E-Commerce  
Knowledge Management  
Decision Support Systems  
Managing Global Systems  
Buffer and Wrap Up

Course name: **Digital Society**

**On successful completion of this course, a student in terms of knowledge:**

1. understands the digital phenomena from a social science perspective, knows the discipline-specific phenomena of digitization, relevant theories and methods, and recognizes the most important trends and developments in the context of digital problems and challenges.
2. indicates the examples of digitalisation impact on political and social sphere.

**in terms of skills:**

1. deals with digital data in a discipline-specific manner, process, analyse, and present them.
2. follows the current state of research in political science, opens up and critically analyses scientific sources, selects suitable scientific methods, including information and communication technologies, for the analysis and presentation of data.
3. applies digital methods for the presentation of scientific knowledge, and to process and present complex, subject-specific knowledge for different target groups.

**Course learning content:**

Introduction – The relation between digital technologies and democracy  
The transformation of the public: How did technologies shape the public (discourse) in the past.  
The digital transformation of the public: How do digital technologies impact on the public (discourse)  
Democracy and elections I: Fundamentals of Digital Democracy  
Democracy and elections II: How are democratic elections challenged by digital technologies.  
Internet governance: How is the infrastructure of the internet governed?  
Data and algorithms I: How are democracy and privacy related  
Data and algorithms II: How do automated decision making technologies impact on democratic institutions  
Discrimination and inclusion: How does digitalisation deepen or weaken existing forms of discrimination and inclusion.  
The digital divide, borders and inequalities in the digital age: How is digitalisation impacting in existing inequalities.  
Networks, protests and civil society: Case studies from the Arab Spring  
Free speech and digitalisation: Case studies  
Digital public affairs and policy making: Changing political decision making

Course name: **Sociology of Technology**

**On successful completion of this course, a student in terms of knowledge:**

1. has knowledge of the nature and subject matter of sociology research and relations with other disciplines included in social sciences.
2. knows various forms of organization of society with particular emphasis on information society.
3. knows the types of social bonds and different types of social structures and institutions of public life.

**in terms of skills:**

1. understands the impact of new technologies on changes in political, social, business, regional, national and global life.
2. understands the challenges of digitalisation.
3. explains the phenomena occurring within the framework of the formation and functioning of social groups.

**in terms of social competences:**

1. is able to solve disputes in an organization using different methods and strategies.
2. can work and play different roles in a group.
3. understands the need for self-education.

**Course learning content:**

Sociology as a scientific discipline, relations of sociology with other social sciences  
Biological, geographical and demographic basis of social life  
The process of shaping social bonds  
Formation and essence of social groups, group processes, phenomenon of group thinking.  
The idea of social stratification, theories of social stratification, factors determining the process of social differentiation formation, analysis of concepts: social layer, social class, social elites  
Historical and contemporary forms of organization of society  
Factors determining the establishment and functioning of information society  
Social and economic changes in the era of digital transformation  
Sociological interpretation of digital transformation  
Internet society technology  
Transformations of selected spheres of human life in the era of digital transformation  
Technology control, technology policy  
Cybernetics and management  
Impact of social processes on technological development  
Social acceptance of changes and new technologies  
Managing and presentation of digital data  
Impact of new technologies on the functioning of societies  
Opportunities and risks arising from the implementation of new technologies for social life

Course name: **Technical skills**

**On successful completion of this course, a student**

**in terms of knowledge:**

1. understands the need to develop technical competence in order to improve software handling in company management processes
2. knows the requirements that must be met by security features in ICT systems and the need for their continuous improvement

**in terms of skills:**

1. is able to use IT tools in the process of team management
2. uses IT systems to visualize relevant business data
3. uses IT systems to analyze and make decisions based on business data
4. is able to use modern methods of communication at work in a remote group
5. is able to use information technology to perform professions related to the management of an organisation

**in terms of social competences:**

1. is able to work in a group and understands the importance of working as a professional
2. understands the need to improve knowledge, skills and competences

**Course learning content:**

Introduction to Internet technologies  
Basics of human-oriented design  
Basics of IT system designing  
Introduction to programming  
Block diagrams in IT and management  
Data analysis  
Data visualisation  
Implementation of the project