

INNOVATION PROCESSES - course description

General information

Course name	INNOVATION PROCESSES
Course ID	04.0-WZ-P-IP-S18
Faculty	Faculty of Economics and Management
Field of study	WEiZ - oferta ERASMUS
Education profile	-
Level of studies	Erasmus programme
Beginning semester	winter term 2023/2024

Course information

Semester	1
ECTS credits to win	5
Course type	obligatory
Teaching language	english
Author of syllabus	<ul style="list-style-type: none">dr hab. inż. Piotr Dzikowski, prof. UZ

Classes forms

The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	15	1	-	-	Exam
Class	30	2	-	-	Credit with grade

Aim of the course

An "Innovation Processes" course encompasses a wide array of topics, each focused on cultivating a deep understanding of innovation from both theoretical and practical perspectives.

Prerequisites

Scope

- Definition of Innovation:** The course starts with the basic understanding of what innovation means. Students learn about different types of innovation, like incremental innovation, disruptive innovation, product innovation, process innovation, etc.
- Innovation Theories and Models:** Students learn about various theories and models that explain how innovation happens. This includes theories like diffusion of innovations, disruptive innovation theory, the technology acceptance model, etc.
- Innovation Lifecycle:** This involves understanding the various stages of innovation, from idea generation to market introduction and subsequent evolution or obsolescence.
- Innovation Strategies:** The course covers different strategies for managing and promoting innovation, like open innovation, user-driven innovation, design thinking, lean startup methodology, etc.
- Innovation Systems:** Students learn about national and regional innovation systems, industrial innovation systems, and how they interact.
- Innovation Management:** This includes practical strategies for managing innovation within an organization, such as building an innovative culture, organizing for innovation, leading innovative teams, etc.
- Innovation and Technology:** The role of technology in enabling and driving innovation could be a significant part of the course. This includes discussions on topics like digital innovation, AI and innovation, etc.
- Innovation Policy:** This involves understanding the role of policy in promoting or hindering innovation. This includes discussions on patent law, research and development funding, etc.
- Case Studies:** To connect theory with practice, the course includes detailed case studies of successful and unsuccessful innovations.
- Innovation Metrics and Measurement:** This focuses on how to measure innovation performance, including innovation input, output, impact, and the balance between them.
- Innovation in Different Industries:** The course delves into the specificities of innovation processes in different industries like technology, healthcare, manufacturing, education, etc.
- Ethical and Social Implications of Innovation:** This discusses the potential negative effects of innovation, such as job displacement due to automation, ethical issues in AI, etc.
- Guest Speakers:** Inviting industry leaders, entrepreneurs, and innovators to share their experiences can bring practical insights to the students. These topics can be combined in various ways to suit the specific goals of the course and the interests of the students. In all cases, the goal should be to provide a well-rounded understanding of innovation and how it can be effectively managed and nurtured.

Teaching methods

Lecture: multimedia presentation with conversational elements.

Exercises: case study, multimedia presentation, project method, group work.

Learning outcomes and methods of their verification

Outcome description	Outcome symbols	Methods of verification	The class form
Student ma podstawową wiedzę z zakresu budowy i funkcjonowania krajowego systemu innowacji i jego uwarunkowań.		<ul style="list-style-type: none">• an evaluation test	<ul style="list-style-type: none">• Lecture
Student potrafi ocenić istniejący system innowacyjny regionu.		<ul style="list-style-type: none">• a research paper• an evaluation test	<ul style="list-style-type: none">• Class
Student potrafi zaprojektować kierunki działań niezbędnych do realizacji SI w regionie.		<ul style="list-style-type: none">• a discussion• an evaluation test	<ul style="list-style-type: none">• Class

Assignment conditions

Completion of the course follows the project (50%) and test (50%).

Recommended reading

1. OECD, Oslo Manual Guidelines for Collecting and Interpreting Innovation Data, Paris, 2005
2. Osterwalder, A. , Pigneur, Y., Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, John Wiley and Sons; 2010
3. Maurya, A., Running Lean, Second Edition, O'Reilly, Sebastopol, 2012
4. Rogers, E.M, Diffusion of Innovation, The Free Press, New York, 2003
5. Drucker, P.F., Innovation and Entrepreneurship, Taylor & Francis, 2014
6. Chesbrough, H., W., Open Innovation: The New Imperative for Creating and Profiting from Technology, Harvard Business School Press, 2006
7. Edquist, C., Systems of Innovation. Technologies, Institutions and Organizations, London, 1997
8. Osterwalder, A. , Pigneur, Y., Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers, John Wiley and Sons; 2010

Further reading

1. Malerba, Sectoral Systems of Innovation and Production, 2002
2. Cooke et al., Regional Innovation Systems: Institutional and Organisational Dimensions, 1997
3. Lundvall, B.A., National Systems of Innovation, London, 1992
4. Nelson, R.R., National Innovation Systems, London, 1993
5. Freeman, C., Technology Policy and Economic Performance, London, 1987
6. Edquist, C., Systems of Innovation. Technologies, Institutions and Organizations, London, 1997
7. Christensen, C. M., The Innovator's Dilemma, Ingram Publisher Services, 2016
8. Ries, E., The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, Penguin Books, 2011
9. Kelley, T. & Littman, J., The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm, Profile Books, 2016
10. Radjou, N. & Prabhu, J., Frugal Innovation: How to Do More with Less, Economist Books, 2016
11. Johnson, S., Where Good Ideas Come From: The Natural History of Innovation, Riverhead Books, 2011
12. Juma, C., Innovation and Its Enemies: Why People Resist New Technologies, Oxford University Press, 2016
13. Senge, P.M., The Fifth Discipline: The Art & Practice of The Learning Organization, Random House Books, 2006
14. Perez-Breva, L., Innovating: A Doer's Manifesto for Starting from a Hunch, Prototyping Problems, Scaling Up, and Learning to Be Productively Wrong, The MIT Press, 2017

Notes

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Modified by dr hab. inż. Piotr Dzikowski, prof. UZ (last modification: 30-05-2023 14:22)

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