

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 | 2 |
| 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 could start with the basic understanding of what innovation means. Students might learn about different types of innovation, like incremental innovation, disruptive innovation, product innovation, process innovation, etc.
- Innovation Theories and Models:** Students could learn about various theories and models that explain how innovation happens. This might include 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 might cover different strategies for managing and promoting innovation, like open innovation, user-driven innovation, design thinking, lean startup methodology, etc.
- Innovation Systems:** Students could 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 might include 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 might include discussions on patent law, research and development funding, etc.
- Case Studies:** To connect theory with practice, the course might include detailed case studies of successful and unsuccessful innovations.
- Innovation Metrics and Measurement:** This would focus on how to measure innovation performance, including innovation input, output, impact, and the balance between them.
- Innovation in Different Industries:** The course might delve into the specificities of innovation processes in different industries like technology, healthcare, manufacturing, education, etc.
- Ethical and Social Implications of Innovation:** This could discuss 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 theirs 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• an ongoing monitoring during classes | <ul style="list-style-type: none">• Class |
| 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 (100%).

Recommended reading

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

Further reading

1. Christensen, C. M., The Innovator's Dilemma, Ingram Publisher Services, 2016
2. Ries, E., The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses, Penguin Books, 2011
3. Kelley, T. & Littman, J., The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm, Profile Books, 2016
4. Radjou, N. & Prabhu, J., Frugal Innovation: How to Do More with Less, Economist Books, 2016
5. Johnson, S., Where Good Ideas Come From: The Natural History of Innovation, Riverhead Books, 2011
6. Juma, C., Innovation and Its Enemies: Why People Resist New Technologies, Oxford University Press, 2016
7. Senge, P.M., The Fifth Discipline: The Art & Practice of The Learning Organization, Random House Books, 2006
8. 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 13:55)

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