

## Course description

<b>Course abbreviation:</b>	KPV/MPP	<b>Page:</b>	1 / 3
<b>Course name:</b>	Business Process Modelling		
<b>Academic Year:</b>	2023/2024	<b>Printed:</b>	03.06.2024 08:40

<b>Department/Unit /</b>	KPV / MPP			<b>Academic Year</b>	2023/2024
<b>Title</b>	Business Process Modelling			<b>Type of completion</b>	Exam
<b>Accredited/Credits</b>	Yes, 5 Cred.			<b>Type of completion</b>	Combined
<b>Number of hours</b>	Lecture 2 [Hours/Week] Tutorial 2 [Hours/Week]			<b>Course credit prior to</b>	YES
<b>Occ/max</b>	Status A	Status B	Status C	<b>Counted into average</b>	YES
<b>Summer semester</b>	0 / -	0 / -	0 / -	<b>Min. (B+C) students</b>	10
<b>Winter semester</b>	47 / -	3 / -	11 / -	<b>Repeated registration</b>	NO
<b>Timetable</b>	Yes			<b>Semester taught</b>	Winter semester
<b>Language of instruction</b>	Czech			<b>Internship duration</b>	0
<b>Optional course</b>	Yes			<b>Ev. sc. – cred.</b>	S N
<b>Evaluation scale</b>	1 2 3 4				
<b>No. of hours of on-premise</b>					
<b>Auto acc. of credit</b>	Yes in the case of a previous evaluation 4 nebo nic.				
<b>Periodicity</b>	K				
<b>Substituted course</b>	None				
<b>Preclusive courses</b>	N/A				
<b>Prerequisite courses</b>	N/A				
<b>Informally recommended courses</b>	N/A				
<b>Courses depending on this Course</b>	N/A				

### Course objectives:

Introduce students to the methodology and methods of business process modelling. The focus is on using the ARIS methodology and discrete-event simulation.

### Requirements on student

Credit - elaboration and presentation of the project  
Examination - combined examination

### Content

In this course, the student will learn about process modeling of business processes. The main methodology used here is the ARIS methodology.

1. Enterprise in information society
2. Twelve themes of the new economy - processed according to D. Tapscott
3. Support of business management by IS / ICT tools
4. T. Peters - characteristics that the company must show in order to be able to compete in the long term
5. Development leading to process-oriented organization
6. Process analysis of enterprises - basic terms
7. Basic characteristics of process organization
8. Modeling and optimization of business processes - Innovation process
9. Business Process Improvement (PDCA)
10. Methods and techniques of business process modeling
11. Basic models of ARIS
12. Modeling using discrete simulation
13. How to proceed in implementing process management organization

## Fields of study

## Guarantors and lecturers

- **Guarantors:** Doc. Ing. Zdeněk Ulrych, Ph.D. (100%)
- **Lecturer:** Doc. Ing. Zdeněk Ulrych, Ph.D. (100%)
- **Tutorial lecturer:** Ing. Tomáš Broum, Ph.D. (100%), Doc. Ing. Zdeněk Ulrych, Ph.D. (100%)

## Literature

- **Basic:** PETŘÍČEK, Martin, Štěpán CHALUPA, Zdeněk ULRYCH, Jiřina JENČKOVÁ a Jan HÁN. *Klíčové procesy v hotelnictví a jejich charakteristika*. Praha, 2021. ISBN 978-807676-284-8.
- **Basic:** Řepa, Václav. *Procesně řízená organizace*. 1. vyd. Praha : Grada, 2012. ISBN 978-80-247-4128-4.
- **Basic:** Fišer, Roman. *Procesní řízení pro manažery : jak zařídit, aby lidé věděli, chtěli, uměli i mohli*. 1. vyd. Praha : Grada, 2014. ISBN 978-80-247-5038-5.
- **Basic:** Grasseová, Monika; Dubec, Radek; Horák, Roman. *Procesní řízení ve veřejném sektoru : teoretická východiska a praktické příklady*. Brno : Computer Press, 2008. ISBN 978-80-251-1987-7.
- **Extending:** Basl, Josef; Glasl, Vít; Tůma, Miroslav. *Modelování a optimalizace podnikových procesů*. Plzeň : Západočeská univerzita, 2002. ISBN 80-7082-936-2.
- **Extending:** Klimeš, Cyril. *Modelování podnikových procesů*. <http://www1.osu.cz/~zacek/mopop/mopop.pdf>. Ostrava, 2014.
- **Extending:** Rosing, M, Scheel, H., Scheer, A. W. *The Complete Business Process Handbook: Body of Knowledge from Process Modeling to BPM*. Waltham, MA 02451, USA: Morgan Kaufmann, 2014. ISBN 978-0127999593.
- **Recommended:** Tupa, Jiří; Winkelhöferová, Martina. *Analýza, modelování a optimalizace procesů*. [Plzeň] : SmartMotion, 2013. ISBN 978-80-87539-34-7.
- **Recommended:** Hučka, Miroslav. *Modely podnikových procesů*. Vydání první. 2017. ISBN 978-80-7400-468-1.
- **Recommended:** Řepa, Václav. *Podnikové procesy : procesní řízení a modelování*. 2., aktualiz. a rozš. vyd. Praha : Grada Publishing, 2007. ISBN 978-80-247-2252-8.

## Time requirements

## All forms of study

Activities	Time requirements for activity [h]
Presentation preparation (report) (1-10)	5
Preparation for an examination (30-60)	40
Team project (50/number of students)	25
Contact hours	52
Undergraduate study programme term essay (20-40)	30
<b>Total:</b>	<b>152</b>

## assessment methods

**Knowledge - knowledge achieved by taking this course are verified by the following means:**

Combined exam

**Skills - skills achieved by taking this course are verified by the following means:**

Seminar work

Individual presentation at a seminar

## prerequisite

**Knowledge - students are expected to possess the following knowledge before the course commences to finish it successfully:**

explain the basic concepts of industrial engineering

be able to work independently and be able to further self-study

verbally describe individual business processes and characterize ways of their management

**Skills - students are expected to possess the following skills before the course commences to finish it successfully:**

work with PC

apply their knowledge of theoretical disciplines independently to solve practical problems

**Competences - students are expected to possess the following competences before the course commences to finish it successfully:**

N/A

N/A

N/A

#### teaching methods

**Knowledge - the following training methods are used to achieve the required knowledge:**

Lecture supplemented with a discussion

Discussion

E-learning

**Skills - the following training methods are used to achieve the required skills:**

Individual study

Students' portfolio

E-learning

Project-based instruction

#### learning outcomes

**Knowledge - knowledge resulting from the course:**

to define the basic characteristics of a process organization

describe basic methods of business process modeling

describe steps in business process modeling

describe types of simulation models

describe the steps in creating simulation models

**Skills - skills resulting from the course:**

model the process model according to the ARIS methodology

to verify the basic behavior of the model by simulation

to evaluate results obtained from simulation experiments

**Course is included in study programmes:**

Study Programme	Type of	Form of	Branch	Stage	St. plan	v. Year	Block	Status	R.year	R.
Certifikátové programy	Postgraduate Master	Full-time	Methods and Tools of Business Process Optimization	1	1	2023	Compulsory courses	A		ZS
Project and Process Management	Postgraduate Master	Full-time	Projektové a procesní řízení	1	2020	2023	Blok A: Povinné předměty	A	1	ZS
Systems Engineering and Informatics	Postgraduate Master	Full-time	Project Management Systems	1	2013	2023	Blok A: Povinné předměty	A	2	ZS
Mechanical Engineering	Bachelor	Full-time	Industrial Engineering and Management	1	2020	2023	Core elective courses	B	3	ZS