BAE4192 – Business Process Modeling for International Engineering and Management, 6th semester, 2 SWS (semester weekly hours), 2 Credits
Language: English
Level: Advanced Level
Schedule: See online schedule (LSF) (Further details to be announced via Moodle => sign in and check regularly)
Room: online lecture => see also online schedule (LSF) and Moodle

Lecturer:
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Colloquium: upon appointment
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My aim is to ensure that you succeed in your training. Therefore, I want to provide support. In the case of occurring problems or questions, feel free to contact me, for instance by e-mail. I will answer promptly and if required schedule an appointment.

Brief course description:
Business Process Management is the set of concepts, methods, and tools that help organizations define, implement, measure and improve their end-to-end processes. The course addresses the methods and techniques required to analyse, design, implement, automate, and evaluate business processes. The main goal of the course is an introduction to essential principles of Business Process Management. The most important concept of BPM will be explained including the business rules and human interaction with processes. The course aims to the modelling of processes with graphical notation BPMN. We will explore tools and solutions supporting the modelling. The course includes a term project where students practice their theoretical knowledge. Blended Learning is an essential component of this course.

Requirements:

Learning outcome:
Students will be able to assess the efficiency and effectiveness of an organization from a process perspective, conduct process improvement projects, and determine the role of technology in supporting corporate processes.

1. Knowledge: Students will be conversant in the terms used to describe, analyse, and improve Business Processes in organizations.
2. Comprehension: Students will be able to understand BPMN process models.
3. Application: Students will be able to model processes in BPMN for subsequent implementation in Business Process Management Systems.
4. Analysis: Students will be able to identify weaknesses in a given process design and suggest improvements that will benefit organizational performance.
5. Synthesis: Students will be able to redesign a given process using improvement patterns and outside best practices.

6. Evaluation: Students will be able to develop an implementation and integration strategy for processes that leverages organizational and technical capabilities of an organization.

Content (extract):

- Business Processes
- BPMN process models
- Process design

Course contributions to degree program target:

	Lernergebnis	Contribution
1.1	Students demonstrate key knowledge in Technical Basics.	Introduction to and communication of interdependencies between technical and business requirements
1.2	Students demonstrate key knowledge in Mechanical Engineering.	
1.3	Students demonstrate key knowledge in Business Administration.	Introduction to Business Process Management
1.4	Students demonstrate key knowledge in Economics.	Introduction to Business Process Management and its application within economic environments
1.5	Students demonstrate key knowledge in Mathematics.	
1.6	Students demonstrate key knowledge in Quantitative Methods.	
1.7	Students demonstrate key knowledge in Computer Science.	Introduction to Business Process Management Tools
2.1	Students demonstrate proficiency in using current computer programs to solve business and technical problems.	
2.2	Students demonstrate the ability to use information systems effectively in real world business settings.	
3.	Students are able to apply analytical and critical thinking skills to complex problems.	Students will be able to identify weaknesses in a given process design and suggest improvements that will benefit organizational performance.
4.	Students are able to develop business ethics-based strategies and are able to apply them to typical business decision-making problems.	
5.1	Students demonstrate their ability to express complex issues in writing.	
5.2	Students demonstrate their oral communication skills in presentations and lectures.	
6.	Students show that they are able to work successfully in a team by performing practical tasks.	
7.	Students demonstrate their ability to develop and present complex interdisciplinary solutions by means of an application oriented assignment.(GM)	Students will be able to redesign a given process using improvement patterns and outside best practices.
7.	For specific cases students demonstrate their ability to understand and design cross-functional as well as cross-company business processes in a global context. (GPM)	Students will be able to develop an implementation and integration strategy for processes that leverages organizational and technical capabilities of an organization.
7.	Students show that they are able to apply their cross-cultural skills in specific situations.(IM)	
7.1	Students are able to explain interdisciplinary terms on the basis of complex problems safely and competently. (WI)	

7.2	To solve strategic and operational problems, the students are able to use the necessary methods combined and apply them to the problem.(WI)	
7.3	Students demonstrate their ability to develop and present complex interdisciplinary solutions by means of an application oriented assignment. (WI)	
7.1	Students demonstrate key knowledge and methodological know-how in international management and engineering. (WI Int.)	
7.2	Students demonstrate their ability of analytical and critical reflection and their capacity to work out viable solutions for challenges in international managment and engineering. (WI Int.)	
7.3	Students show that they are able to apply their international management and engineering competencies in specific situations.(WI Int.)	

Teaching and learning concept:
Business Process Modeling is an interactive lecture how to model business processes. Therefore, we use examples from real life. To participate fully in class, students are expected to attend classes, read the assigned literature / cases and engage in the practical usage.

Performance record regulations:
After the end of the semester, you will write an exam on Business Process Modeling (English language). You will be prepared for the exam during the lectures.

Grading:
Exam at the end of the semester.

- 'Very good' (A grade) signifies that the performance is above and beyond expectations.
- 'Good' (B grade) means that the performance is good and above average.
- 'Satisfactory' (C grade) means that it is an average performance containing insufficiencies but principally appropriate to the expectations.
- 'Adequate' (D grade) describes a below-average performance with obvious deficiencies.
- 'Inadequate' (E grade) is an unacceptable performance that is not sufficient to any expectations.

Course literature:

- Jeston, John; Nelis, Johan (2008): Business Process Management: Practical Guidelines to Successful Implementations. 2dn edition, Butterworth-Heinemann.
- Allweyer, T. (2014): Geschäftsprozessmanagement, W3I-Verlag, Witten
- Allweyer, T. (2015): BPMN 2.0, 3. Aktualisierte Auflage, Books on Demand, Norderstedt
- Fischermanns, G. (2013): Praxishandbuch Prozessmanagement, Verlag Dr. Götz Schmidt, 11. Auflage, Gießen
- Gadatsch, A. (2012): Grundkurs Geschäftsprozess-Management, 7. Auflage, Vieweg+Teubner, GWV Fachverlage GmbH, Wiesbaden
- Schmelzer, H., Sesselmann, W. (2008): Geschäftsprozess-Management in der Praxis, 6. Auflage, Carl Hanser Verlag, München

Temporary time schedule:

Session 1 - 2	Theory - Business Process Management
Session 2 - 3	Theory - Basic Business Process Management and Notation (BPMN) Elements, Advanced BPMN Elements Part 1
Session 4 - 6	Labor (PC) - Exercises Basic BPMN Elements and Advanced BPMN Elements Part 1
Session 6 - 7	Theory - Advanced BPMN Elements Part 2
Session 7 - 9	Theory - Advanced BPMN Elements Part 3 - 4
Session 10 - 12	Labor (PC) - Exercises Advanced BPMN Elements Part 2 - 3
Session 13 - 14	Theory - BPMN Style, Process Optimization, Labor (PC) - Process Optimization

Rules for proper academic work:

The lecturer appreciates a substantial exchange between the students, because the fellow students may have valuable contributions to the comprehension of occurring problems or questions.

Following the arguments, collaboration and also an autonomous exercise solving or the discussions on upcoming questions within the lectures are fundamental for a clearer understanding of the subject matter.

Especially large class sizes and foreign languages imply a risk of a high noise level, which has a strong negative influence on the work climate, knowledge acquisition and collaboration. Predominantly a high noise level is caused by a few group members. These ‘troublemakers’ hinder the other ones from being able to concentrate and therefore won’t be tolerated and will be ejected from the class.