Course title	Code No.
Simulation	--

Semester	Course status (mandatory or optional)
III.	Optional

Lecturer(s)	E-Mail
Prof. Dr. Volker Looks	Volker.looks@hs-flensburg.de

Contact hours per week	Credit Points	Workload (hours per semester)		
4	6		Presence	Self-study
		Lecture	60	120
		Seminar	-	-
		Practice	-	-
		Laboratory	-	-
		Other	-	-

Media (equipment)	Teaching aids (literature, group work ...)
- computer - projector - board	- literature - presentations - lecture with integrated application of simulation methods. - Project work (in small groups) on application of simulation methods on practical case.

Enrolment requirements and entry competences required for the course

- proficiency in English

Conditions for permission to take the exam

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Assessment methods and criteria

Written exam & project assignment

Learning outcomes at the program level to which the course contributes

On completing this module, students will have an understanding of

- the different methods of simulation and applicability in various fields of a supply chain;

- the reasonable application of simulation methods to analyze the dynamic behavior of supply chains and test feasible improvements;
- situational adaptation of simulation methods to give due consideration to specific conditions;
- analyzing and interpreting the findings and effects of the simulations and use these for assessment of the real situation in supply chains.

Learning Outcomes

Professional competence	Key skills
The student has the ability to know essential approaches to simulation and the necessary modeling. They understand the treatment of time and problems of discretization. After completing the module, students can independently work on problems for simulations. This includes modeling, the use of simulation environments and the evaluation of the results. Through the practical experience in the module, the independent handling of research questions is tested and simulation is learned as a scientific method.	The student has the ability to work in small working groups and must independently coordinate the cooperative processing of the task. You will further develop your team and social skills. Further on students are able to critically question the use of simulation for scientific questions.

Applicability in other courses/programs

This module is suitable for study programs in economic fields of study.

Content

1. Terms, definitions and principles of simulations.
2. Overview on the fundamental methods of simulation and the applicability in supply chain management.
3. Application of the fundamental methods of simulation and derivation or testing of measures of improvement.
4. Assessment of findings and effects and extrapolation on real systems.

Literature

Will be given at the beginning of the lecture.

Amendment Log			
Version No.:	Date:	Changes:	Name:
1	24/06/2020		Looks