# Syllabus Digital Transformation – Challenges and Impacts on Economy and Society

<table>
<thead>
<tr>
<th>Persons in Charge</th>
<th>Prof. Dr. Lars Baumann, Prof. Dr. Andreas Hausotter, Prof. Dr. Dagmar Mack, Dr. Dagmar Ridder (GISMA), Prof. Dr. Maylin Wartenberg</th>
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<tbody>
<tr>
<td>Language of Instruction</td>
<td>English</td>
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<tr>
<td>Course Type</td>
<td>Lectures with exercises</td>
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<tr>
<td>ECTS Credits</td>
<td>6</td>
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<tr>
<td>Contact Hours</td>
<td>60 hrs</td>
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<tr>
<td>Duration of Course</td>
<td>2 weeks, 10-Aug-2019 to 24-Aug-2019</td>
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<tr>
<td>Recommended Prerequisites</td>
<td>First phase of study program</td>
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| Suggestions for Independent Study | - Preparation and follow-up based on lectures  
- Organization in groups for work on case studies in workshops  
- Preparation for the exam |
| Examination | Group Presentation (= results of workshops), 20 min |

## Learning Outcomes

Students understand the different aspects of digitalization, its impacts on economy, society and know different methods of digital transformation. They know the different dimensions of digitalization, such as transforming business models, process organizations, organizational structures, IT. Students know main IT Architectures for digitalization. They also know main enablers of digitalization like Big Data, Data Mining, Artificial Intelligence, collaboration. They are able to apply learned methods of digital transformation, e.g. design thinking, working out loud, group model building, build-measure-learn-loop. Managing big data and analytics are the key enablers of digitalization. Therefore, students also learn different Business Intelligence applications and Data Mining methods. They are able to apply these methods to real problems by using appropriate tools. Group exercises and workshops during several case studies support the enhancement of social competencies.

## Content

1. **Digitalization & Digital Transformation**  
   - Introduction / Dimensions / Enablers / Methods  
   - Opportunities / Risks / Challenges  
   - Impacts on Economy and Society  
   - Focus: Transforming Sales Processes  
   - Case Studies / Exercises

2. **IT Architectures for Digitalization**  
   - Overview / Methods  
   - Focus: Domain Driven Design  
   - Case Studies / Exercises

3. **Business Intelligence & Data Mining**  
   - Overview BI Applications / Reporting / Dashboards / OLAP  
   - Introduction to Data Mining  
   - Case Studies / Exercises

4. **Workshops (Parallel to 1. – 3.)**

5. **Excursions / Socializing & Intercultural Activities (Visiting Berlin / Hanover / …)**
### Requirements for Contact Hours
- Regular attendance of all classes
- Active participation in lectures
- Collaboration during practical case study exercises (group work)
- Participation in discussions of publications and webinars

### Requirements for Independent Study Hours
- Follow-up work after lectures and workshops
- Completion of knowledge reinforcement assignments through case studies
- Independent work using supplied class materials

### Bibliography


