

Syllabus: BIS2100 – Electronic Markets

Prof. Dr. Thomas Schuster - Hochschule Pforzheim / Pforzheim University

Course	BIS2100 – Electronic Markets
Workload	5 ECTS credits (lectures: 4 SWS, 5 ETCS)
Level	Entry level
Prerequisites	None
Validity	Winter semester 2017/18
Teaching	Prof. Dr. Thomas Schuster
Place and time	see LSF
Information and additional documents	https://lms.hs-pforzheim.de/

Short description of the contents

In today's business, a company's success is typically based on digitally supported business models and the participation in electronic markets. Thus, electronic processing and exchange of data gains more and more importance. In turn, the business value of IT has grown enormously and is expected to grow rapidly further within the next decades. It is therefore increasingly important to understand how to use modern IT components in distributed scenarios as well as how to store and process data provided by third party systems.

This course deals with dynamics of electronic markets and data processed herein. After an introduction into eBusiness, students will learn how market participants interact with each other and towards the customer. In a next step, electronic data exchange will be discussed. This includes different data formats and standards as well as practical exercises how to map and store information between different formats. Since processing is done in large distributed systems, students will also be taught about how distributed systems can be built and analyzed. One essential part of this is enterprise application integration, associated patterns and their application. The latter is again part of a practical exercise

Preliminary outline of the event

Lecture	Content
1	Welcome, overview, organization of the module, dates and groups of exercises
2-4	Information and communication technology in electronic markets
5-8	Competitors behavior in electronic markets
9-12	Standards in data exchange
13-17	Data processing and data mapping (Practical Exercises)
18-23	Enterprise application integration and typical patterns
24-29	Enterprise application integration; pattern implementation (Practical Exercises)

Lecture	Content
30	Summary and exam preparation

Teaching and learning concept

This event focusses students in the third semester of Business Administration / Digital Enterprise Management (bachelor's degree programme at the faculty of economics and law of the Pforzheim University). The lecture is accompanied by exercises (practical cases), which empower the students to utilize and program software for company purposes. It is expected that students spend time in self-studying in addition to the lectures and exercises (about 60 hours in presence), roughly: about 15 hours of exam preparation, 60 hours of project work, pre-and post-processing the lectures (including literature study), and finally, 15 hours of presentation of problem solving.

The lecture will be held in a seminar style to convey the necessary IT knowledge. This means that leading questions, overviews, definitions and examples, and short exercises will be used to present the contents in an application-oriented style. It is expected that each student actively participates in the lecture.

My intention as a lecturer

I am always happy to serve as conversation partner and support you with advice. Please contact me during the lecture or via yammer (or e-mail).

I am willing to contribute to your successful learning and provide an understanding of the practical impacts of the learning content. Comprehension questions should, if possible be equated during the lessons. Your comments, which serve the progress of all others are also welcome. Also, suggestions for improvements, and constructive criticism are very welcome. My goal is that you can successfully pass the exam, however the major part of the work is up to you.

Code of conduct for students

- Read the syllabus!
- Come prepared to class!
- Take advantage of the e-learning platform of the HS Pforzheim to the exchange ideas (between students and with the teacher).
- Form learning groups!
- Be fair to the other students!
- Be punctual and don't leave early!

Learning objectives

The students

- are familiar with categories of information systems, their functions and their application.
- can apply methods to model the organizational, functional, data and control point of view.
- know the basics of management of information system projects.
- know selected technical basics of information and communication systems.
- have a basic understanding of security measures in the operation of information systems.
- can apply spreadsheets to simple business issues.
- can form simple data structures in a database and create reports.

Contribution to overall program objectives

Program objective	Class
1.4 basic knowledge in business economics	IT in the enterprise, eBusiness, data processing, data security, and distributed systems. (Introduction/mediation)
2. basic knowledge of computer applications: office, application software in corporate functions	<ul style="list-style-type: none"> • Overview of structure and function of eBusiness. (Introduction/mediation) • Exercises in programming of data mapping and application integration. (In-depth study/applied)
3. critical thinking	<ul style="list-style-type: none"> • Modeling methods for the analysis of distributed systems (Introduction/mediation) • Research work on the Internet. (Introduction/mediation)
4. ethical awareness	Ethical issues of information systems fundamentals. (Introduction/mediation)
5. communication skills	Application: Examination
6. team ability	Development of application tasks in small groups

Recommended literature

- Hohpe, G., and Woolf, B: Enterprise Integration Patterns: Designing, Building, and Deploying Messaging Solutions. Addison-Wesley Professional; ISBN: 0321200683, 2003.
- Hohpe, G.: 37 Things One Architect Knows About IT Transformation. CreateSpace Independent Publishing Platform, ISBN: 1537082981, 2016.
- Dixit A.K., and Nalebuff, B.: The Art of Strategy: A Game Theorist's Guide to Success in Business and Life. W. W. Norton & Company, ISBN: 0393337170, 2010.
- Additional documents and information:
<https://lms.hs-pforzheim.de/>

Examination

The exam consists of

- a 60 examination at the end of the semester and
- continuously graded exercises throughout the lecture

The following evaluation scheme is used: 'Very good' means exceptional performance that is far above the average. 'Good' means good performance, that is above the average. 'Satisfactory' means average performance, which certainly has shortcomings, but basically complies with the requirements. 'Adequate' means underperformance with conspicuous defects. 'Poor' means not acceptable performance, which no longer complies with the requirements.