

**Course:**

BAE2035 - IT-Applications (3. Semester WI-International)

2 semester periods per week, 2 credits, Language: English, Level: Intermediate

Thursday 8:00 am - 09:30 am (subject to change)

Class room: please refer to [LSF](#)

**Instructor:**

Prof. Dr.-Ing. Heiko Thimm

Office: T1.3.29, office hour: Thursday, 11:30-13:00 pm

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I care about your learning, helping you is important to me. If you are having a problem/question with some aspect of the course, do not hesitate to send an email. I will respond quickly and if it is necessary we will make an appointment.

**Overview (catalog description):**

This course covers major aspects of IT applications and their use in businesses. This includes a motivation for such applications from a business point of view, the prominent IS pyramid model to classify different kinds of such systems, and also a study of the major principles of the most widely used types of IT applications.

Important Hint: Throughout the semester some classes are announced to be mandatory which means that you have to attend the class. Please note, that you are not permitted to take the final exam if you fail to comply with this obligation. Under certain circumstances exceptions will be made. Please, contact me as soon as possible in corresponding situations.

**Prerequisites:**

You should have a good understanding of basic information system principles as they are studied in the various programming courses during the first semesters (BAE1032, BAE1038, BAE1034). Furthermore, students should have knowledge about basic business functions of today's companies. This topic area is typically addressed in the business administration courses of the first semesters (BAE1011, BAE1012).

**Learning Objectives:**

By the end of the course students can

- explain how information processing supports the management of a business
- describe several basic information processing activities of businesses
- explain how information systems support information needs in all functions of the various types of businesses and organizations
- describe the concept of data quality
- explain the basic principles of business information systems
- explain how information systems can improve management decision-making effectiveness
- explain central concepts and abstractions described in the information systems research literature including the information system pyramid
- explain the business-IT alignment task

- explain the differences between custom software and pre-packaged software
- describe the principles of enterprise software
- explain what an enterprise resource planning system (ERP) is

### Course Topics:

- Principles of Business Information Systems
- Information Systems in Business
- Role of Information for Business Management
- Types of Business Information Systems – The IS Pyramid
- Enterprise Applications, Business Processes, ERP Systems

### Contribution to program goals:

Goals	Contribution
Business knowledge	Investigation of major business functions from a business process perspective
Usage of information technology	awareness of importance of IT based application systems for businesses; complementary assets required for generating value from such systems; classification schemes for different types of IT applications; relation between business processes and IT applications; major types of application systems at all levels of companies; general components of application systems; basic architectural principles of predominant kinds of application systems in today's companies
Critical thinking and analytical capabilities	Case Studies in IS deployment by companies
Ethical thinking	Coverage of ethical usage of application systems in businesses
Communication skills	Communicate IS knowledge
Ability to work in teams	-
Intercultural competency	Awareness for intercultural issues for global information systems in global companies
Interdisciplinarity	class provides link between business functions and IT based application systems; discussion of business processes serves as central aspect for this link

### Teaching and learning approach:

For this course a classical interactive lecture style has been chosen. That is students are called to follow and actively participate in teaching sessions in which the lecturer presents and discusses the course material. The students' active participation is encouraged through a permanent questioning by the lecturer. The slides used for the presentation contain a lot of gaps that will be developed and discussed in the lecture. Some of the aspects will be illustrated by the investigation of corresponding case studies. Furthermore, concrete examples of application systems will be shown through video and other electronic media. Besides the work in class students practice in the associated lab (BAE2034) the use of a widely used ERP system. For a pre- and post-preparation of the teaching sessions two widely used standard text books are available (Nickerson 2001; Laudon & Laudon 2014). Note that the learning material used in the teaching sessions are well synchronized with these books. Corresponding references to these sources are stated within the material presented so that students can relate the lecture to corresponding book chapters at all time.

Students who are interested in more details of the topics are also advised to consider these books for further reading.

**Grading:**

At the end of the semester the students have to take a final written exam (60 minutes) that covers the entire material discussed throughout the semester. The final mark will be based on the results achieved in this final exam.

**Course Material:**

All class slides are available in the E-Learning system.

Recommended reading material:

- Nickerson, R.C.: Business & Information Systems, 2nd Edition, 2001, Prentice Hall
- Laudon, K., Laudon, J.: Management Information Systems: Managing the Digital Firm, Edition 16e, 2019, Prentice Hall
- Laudon, K., Laudon, J., Schoder, D.: Wirtschaftsinformatik – Eine Einführung, 2015, Pearson Studium, German (translation of text book)
- Turban, E., Sharda, R., Delen, D.: Decision Support and Business Intelligence Systems: International Edition, 2013, Prentice Hall
- Bocij, P., Greasley, A., Hickle, S.: Business Information Systems: Technology, Development & Management, Fourth Edition, 2008, Reason Education

**My teaching philosophy**

I will do anything to help you learn the subject as well as its real world implications. If you have problems or questions, please speak up in class. If you do not want to ask in class, please e-mail or see me at my office. If you have problems with your progress in the course or with a teammate or your group please see me as early as possible. The longer you wait the fewer options I will have to help you. I really want you to graduate, but you must earn it!

I do anything I can to help you as long as I can extend the same treatment to other students in the class. Please do not ask for unfair treatment. I really care about you as students and as human beings, but I do not give grades away.

**My expectation for students:**

- Register for the class in the eLearning system within the first week
- Read the Syllabus
- If you are asked to complete some preparation for the class, please do so.
- Arrive on time to the lecture and do not leave earlier.
- Do not disturb the lecture.
- Pay attention and involve yourself in the discussion.
- Fill in the gaps of the lecture slides and make notes. Slides primarily contain keywords only! What ultimately counts is the lecturer's spoken word!
- Ask questions.
- Give feedback to the lecturer: Too slow, too fast, too trivial, too difficult, too loud, ...

- **Tentative Schedule (changes may be necessary)**

<b>Class</b>	<b>Topic</b>
1	Introduction to course and lab organization, teaching approach, literature
2	Chapter 1: Foundations of Business Information Systems
3	Chapter 1: Foundations of Business Information Systems
4	Chapter 1: Foundations of Business Information Systems
5	Chapter 2: Organizational Perspective of Business Information Systems
6	Chapter 2: Organizational Perspective of Business Information Systems
7	Chapter 2: Organizational Perspective of Business Information Systems
8	Chapter 3: Business Information Processing Activities
9	Chapter 4: Business Information Processing Activities
10	Chapter 4: Information Systems in the Enterprise
11	Chapter 4: Information Systems in the Enterprise
12	Chapter 5: Business Processes, Enterprise Applications, and ERP
13	Chapter 5: Business Processes, Enterprise Applications, and ERP
14	Chapter 5: Business Processes, Enterprise Applications, and ERP
15	Summary, recapitulation, preparation of final exam

Important hint: Usually, the final exam is scheduled for the last reading week!