<table>
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<tr>
<th><strong>Specific educational objectives</strong></th>
<th>The course belongs to the type “affine o integrative” and is part of Advanced Topics in Software / Systems Engineering.</th>
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<td></td>
<td>The course belongs to the scientific area of Management Engineering and is focused on Business Intelligence and Enterprise Resource Planning Systems. It represents one of the related topics (affine/verwandt) for the study programme on Software Engineering for Information Systems.</td>
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<td>The course gives a general overview of the scientific basics of business and its objectives as well as the role software can play in it. During the course, the industrial application of the presented theoretical topics will be integrated by means of targeted application-oriented exercises and cases concerning the business environment, especially the manufacturing sector.</td>
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<td>The learning objectives are to introduce informatic students in the fundamentals of business and business software. Based on this, decision making and operational tools such as Business Intelligence and Enterprise Resource Planning Systems are discussed in detail alongside presentations of their real-world application in business. Starting from this knowledge, the students will outline an exemplary design of a business software to apply their knowledge and combine it to the other contents of the study program. In the end, the students should acquire the competence to understand and evaluate business problems and outline an appropriate design for a business software to address the problem in terms of decision support or operational improvements in the manufacturing sector.</td>
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Teaching language: English

Office hours: During the lecture time span, Wednesday 12:00 - 14:00, arranged beforehand by email.

Lecturing Assistant:

Contact LA:

Office hours LA:

List of topics:

- Introduction to Business Software
- Modelling business process
- Systems for small/medium business
- Enterprise systems
- Business intelligence dashboards and online analytic processing

Teaching format: Frontal lectures, exercises, project

Learning outcomes

Knowledge and understanding:

D1.2 To be able to analyze and solve even complex problems in the area of Software Engineering for Information Systems with particular emphasis on the use of studies, methods, techniques and technologies of empirical evaluation;

D1.4 To know in depth the principles, structures and use of computer systems for the automation of information systems;

D1.8 To be able to read and understand specialist scientific documentation, such as conference proceedings, articles in scientific journals, technical manuals.

Applying knowledge and understanding:

D2.3 To know how to apply the principles of software engineering to domains of different complexity, both IT and non-IT, in which software technology is of great importance, such as, for example, in the transport sector or in the medical field;

Making judgments:

D3.1 To be able to autonomously select documentation from a variety of sources, including technical books, digital libraries, technical scientific journals, web portals or open source software and hardware tools;

Communication skills:

D4.6 To be able to interact and collaborate during the implementation of a project or research with peers and experts;

Learning skills:

D5.3 In the context of a problem solving activity, to be able to extend knowledge, even if incomplete, taking into account the final objective of the project;

Assessment:

The assessment is based on two components:

1) A written exam consisting of exercises and open questions;
2) A project work (done in groups) in which students should outline the design of a business intelligence tool for addressing a business problem and present it.

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<th>Assessment language</th>
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<td>Assessment typology</td>
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**Evaluation criteria and criteria for awarding marks**

The final mark is the sum of the scores of the different parts of the summative assessment (presentation and exam)

The assessment is based on

1) Laboratory exercise and presentation (40%)
   - Ability of the outlined tool to solve the business problem
   - Quality of the drafted scorecard
   - Quality of the drafted business process
   - Quality of the presentation

2) Exam (60%)
   - Ability to solve simple exercises about the topics of the course,
   - Clarity of answers,
   - Mastery of language (also with respect to teaching language),
   - Ability to summarize and establish relationships between topics.

**Required readings**

Subject Librarian: David Gebhardi, David.Gebhardi@unibz.it
- Lecture slides and notes
- Lab exercise slides and notes

**Supplementary readings**


**Software used**

TBD