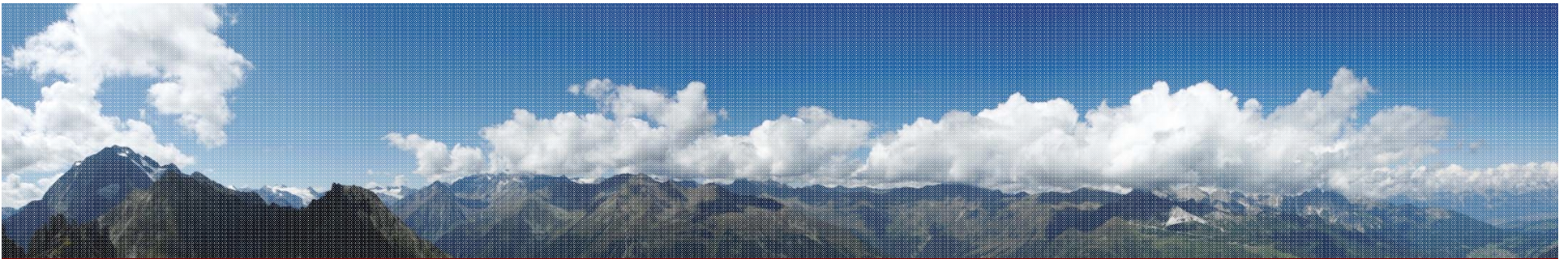


# Introduction to modeling


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## Introduction

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# Where are we?



#	Title	Date
1	<b>Introduction</b>	<b>07.10.2015</b>
2	General concepts	21.10.2015
3	ORM modeling	04.11.2015
4	Relational modeling	18.11.2015
5	ER modeling	02.12.2015
6	OO modeling	16.12.2015
7	Services and process modeling	13.01.2016
10	Exam	27.01.2016

- Introduces modeling as a discipline within Computer Science and Engineering, and some of the the most important modeling paradigms of the last decades
  - Core primitives and principles
  - Relational Modeling
  - Object-Role Modeling (ORM)
  - Entity Relationship Modeling (ER)
  - Object Oriented Modeling (OO)

- **Ontologies**
  - Formal representation of a shared conceptualization of a domain
  - Concepts and relationships, axioms
  - Reasoning
  - Semantic Web
- **Services and process modeling**
  - Descriptions of processes and services
  - Representation of processes within an enterprise
- **Modeling best practices**

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- Get an overview on the most important principles of (domain) modeling
  - Learn how to model correctly and usefully
  - Learn some well-known modeling paradigms, their commonalities and differences

- Course home page: <http://sti-innsbruck.at/teaching/course-schedule/ws-201516/einf%C3%BChrung-die-modellierung-ws-201516>
  - with schedule, lecture notes, exercise sheets, etc.
- Lecturer & Tutor: Ass.-Prof. Dr. Anna Fensel
- Contact email: [anna.fensel@sti2.at](mailto:anna.fensel@sti2.at)
- Lectures and Tutorials every week on Wednesdays, 16:15-18:00, SR 12
  - one week is lecture, the other is a tutorial, intermitting
- Attendance of the tutorials is obligatory!
- This is a graduate course, assignments require material discussed in class in addition to slides, textbooks and additional reading.
- Textbooks (selected chapters) and additional reading available for each topic.

- Written exam at the end, without literature
- Exam grade:

Score in % of the total	Grade
89-100	1
76-88	2
63-75	3
50-62	4
0-49	5




- **General concepts.** Definitions, principles, properties and characteristics. Typical usage scenarios. Model engineering.
- **ORM modeling.** Basic modeling elements. Constraints. Methodology.
- **Relational modeling.** Basic elements. Mapping from ORM.
- **ER modeling.** Basic modeling elements. Relationship to ORM.
- **OO modeling.** Basic modeling elements, UML. Relationship to ORM.
- **Ontologies.** Basic modeling elements. Methodologies.
- **Services and process modeling.** Modeling elements, BPMN, SoaML.



## Next lecture



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#	Title	Date
1	Introduction	07.10.2015
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# Questions?

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