## AcademicTerm

Description

All Programs happen in a Period. A Period is has a start and end date. No start date of a Program may be set before the periods start Program and no end date of Program may be set after the Periods end date. One can say: A period is the program of the university, where the university consists of all departments.

## Attribute

Description

The Attribute represents user-created Attributes for Persons which can be used to construct constraints.

## Building

Description

A Building> has a unique street address and belongs to a Department. Some Buildings have a special name (“Henry-Ford-Building”) which is unique across the whole university.

## Configuration

## Course

Description

A Course is a well-defined set of CourseElements. For example there may be a Course which consists of two CourseElements of which one is a mandatory lecture and the other one is an optional seminar.

## CourseAttribute

Description

CourseAttribute represents user-created Attributes for Courses which can be used to construct constraints.

## CourseElement

Description

A CourseElement is a type of event at a school or university, like a lecture or a seminar. A CourseElement has a duration and it may take place several times in a week (of which each occurrence has a certain duration). A CourseElement may have some dependencies regarding the Features the Room it is held in has. A CourseElement is part of a Course. It is of a certain type (e.g. lecture, seminar, discussion, meeting, ...).

## CourseElementInstance

Description

A CourseElementInstance is created within a Program belonging to a CourseInstance. It is a CourseElement actually taking place.

## CourseElementType

Description

A CourseElementType describes a type of event, like a lecture or a seminar.

## CourseInstance

Description

A CourseInstance is created within a Program. It is a Course actually taking place. There can be several CourseInstances of the same Course within a program. There is a main lecturer being primary responsible for any CourseInstance.

## Day

Description

A Day holds a set of Timeslots.

## Department

Description

A logical group of several entities. Persons, Buildings and Courses belong to a Department. Buildings may belong to several Departments.

## Feature

Description

Rooms do have certain Features which may have a certain quantity. A Feature is identified by a name (“seats”, “beamers”, ...). For example any Room which is suitable to hold a lecture or a seminar in it will have a certain amount of seats, a lab has a certain amount of workplaces. While an auditorium may have 300 seats suitable for doing a lecture it might have only 75 seats suitable for doing an examination.

## Person

Description

A Person is a natural person who is able to login to myCourses. Therefore she is having login credentials (e.g. username and password or mail address and password). Every Person has a first name and a last name. There are many different roles at a university and there are persons who act in more than one role (e.g. there are students doing lectures, while not being professors). Every person needs to have a unique identifier regardless of the roles they belong to for administration reasons.

## Privilege

Description

A privilege represents the permission to do specific tasks, such as logging in, changing data of courses or publishing the shedule.

## Program

Description

A Program is a set of CourseInstances. It has a running period (start and end date). A program manager is responsible for a Program. A Program belongs to a Department and to one Department only.

## ProposedScheduling

## Role

Description

A role bundles a set of privileges i.e. permissions a user gains when having one or more roles. The right managment is not hierarchal, it is plain.

## Room

Description

A Room is a physical location where CourseElementInstances take place. A Room has an identifier which uniquely identifies it across the whole university. A Room is located inside a Building. Every Room has a number which is unique in the Building. A Room has Features and it may have a certain quantity of any Feature (e.g. 300 seats, a beamer, 20 workstations). Some Rooms do have a special name (“Audimax”) which is unique in the building. A Room may be of a certain type (auditorium, lab, ...). Not all rooms are always available.

## Timeslot

Description

A Timeslot represents a duration in time in which a CourseElementInstance can take place.

## Year

Title

year

Description
Typically Students start studying sometime and end studying sometime later and their course of studies has a regular length. Of course Courses a Student has to enroll in in the same year must not overlap. That is what Year is for. Courses may be assigned to a certain Year (e.g. first year, second year), but they do not necessarily have to.

### **courseHasCourseAttribute (**Course → CourseAttribute**)**

Description
This relation tells us that the given Course has the given Attribute.

### **courseRecommendedForYear (**Course → Year**)**

Description
This relation gives the Person(students) a hint in which Course they should enroll in order to maintain their studies in order.

### **courseRequiresCourse (**Course → Course**)**

Description
This relation tells us that it is neccessary to take part in the first Course in order to take part in the second Course.

### **elementInstancePrefersRoom (**CourseElementInstance → Room**)**

Description
This relation describes that the given CourseElementInstance is better to be placed in the given Room.

### **elementInstancePrefersTimeslot (**CourseElementInstance → Timeslot**)**

Description
This relation describes that the given CourseElementInstance is better to be placed in the given Timeslot.

### **elementInstanceRequiresFeature (**CourseElementInstance → Feature**)**

Description
This relation tells us what kind of Feature is needed or whished by the Person which holds this particular CourseElementInstance.

### **elementInstanceTakesPlaceInRoom (**CourseElementInstance → Room**)**

Description
This relation tells us that the mentioned CourseElementInstance is taking place in the given Room.

### **elementRequiresFeature (**CourseElement → Feature**)**

Description
This relation tells us what kind and amount of Feature is required in order to be held.

### **personEnrolledInCourseInstance (**Person → CourseInstance**)**

Description
This relation gives us the Persons that are enrolled to a specific CourseInstance.

### **personGivesCourse (**Person → Course**)**

Description
This relation tells us which Persons are holding which Courses.

### **personHasAttribute (**Person → Attribute**)**

Description
This relation tells us that the Person mentioned has the Attribute given.

### **personHasPrivilege (**Person → Privilege**)**

Description
This relation tells us that the given Person has the given Privilege.

**personHasRole (**Person → Role**)**
Description
This relation tells us that the given Person has the given Role.
**personPrefersTimeslot (**Person → Timeslot**)**
Description
This relation describes that the given person wants this Timeslot more than other timeslots.
**personSuccessfullyPassedCourse (**Person → Course**)**
Description
This relation tells us that a Person has passed a specific Course.
**personTakesPartInElementInstance (**Person → CourseElementInstance**)**
Description
This relation tells us that the given Person takes part in the mentioned CourseElementInstance.
**roleImpliesAttribute (**Role → Attribute**)**
Description
This relation keeps track of user-defined Attributes that are implied by a role.
**roleImpliesPrivilege (**Role → Privilege**)**
Description
This relation tells us what Privileges are implied by a given Role.
**roomPrefersTimeslot (**Room → Timeslot**)**
Description
This relation describes that the given Room should be booked at the given Timeslot.
**roomProvidesFeature (**Room → Feature**)**
Description
This relation tells us which Feature is provided by this room.