# CS 525 - ASD Advanced Software Development

#### **MS.CS Program**

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# CS 525 - ASD Advanced Software Development

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# Domain modeling

Create an OO model of the problem domain

The business logic

Not technical

# **Application layers**

Presentation layer	Service layer	Domain/Business logic layer	Integration layer	Data access layer
		Separate the business logic from the technical code		

- The system should allow users to browse through the course catalog
- The system should allow us to search for courses in the course catalog
- For every course we need to record its name, a description, the goal of the course, one or more prerequisite courses, number of days and the price of the course.
- Courses are given a few times per year
- A course starts at a certain date.
- Students can subscribe to one or more courses.
- The system should record the student name, phone, email and street, city and zip of the student.
- A course takes at least one day, but can take any number of days
- Courses can be given on consecutive days, but courses can also be given on non-consecutive days.
   For example a 4 day course can be given on 4 Mondays in September.
- A course can be given by one instructor, but every single day can also be given by different instructors. For example, the first 2 days of a 4day course is taught by Bob and the last 2 days are taught by Mary.
- The system should record the instructors name, phone, email and street, city and zip of the instructor.
- A course can be given at one location, but every single day can also be given at a different location. For example, the first 2 days of a 4day course is given at a different location as the last 2 days.
- The system should record the locations name and street, city and zip of the location.
- The system should record all important information about a certain course:
  - Dates that this course is given
  - Instructor(s) for the different course dates
  - Location of the different course dates

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#### Domain model

