For the midterm exam you should study the following patterns:

- command
- chain of responsibility
- composite
- iterator
- mediator
- observer
- state
- strategy
- façade
- template method
- Proxy, Dynamic Proxy,
- Bridge pattern

For all patterns you should know (when applicable):

- What problem does this pattern solve?
- Advantages and disadvantages
- What are the issues when you apply this pattern?
- What the different ways you can apply the pattern?

You should be able to apply the pattern to a certain design problem
- With an UML class diagram (like in the homework and labs)
- With a UML sequence diagram (like in the homework and labs)
- In code (like in the labs)

For some questions a UML class diagram is given, and you have to create a new **class diagram** where you apply the pattern. You also have to draw a **sequence diagram** that shows that you understood the pattern.

You should also know the different design principles we studied.

You should be able to create an OO domain model for a certain domain that shows the correct classes, attributes and relationships with multiplicity.

There will also be a SCI question.