# 1. Schedule: Basic and Offline Programming (OLP)

*Day 1: Introduction to the software Process Simulate*

We look at a finished project. Using an example, we learn about the basic functions of Process Simulate.
At the end of the day...
- ... you will know how to start Process Simulate.
- ... you can customize the interface to your needs and use different layouts.
- ... you know how to load studies.
- ... you are able to navigate in the graphics window and in the different navigation trees.
- ... you know the important basic functions of the software.
- ... you can move robots and jump to locations.

*Day 2: Data structure in Process Simulate*

We learn how to set up a new project in Process Simulate.
At the end of the day...
- ... you know how to create a new project.
- ... you will be able to import data or create new data.
- ... you can create new studies.
- ... you are familiar with the functions for positioning elements in the structures and in the graphics window.
- ... you can measure and dimension.
- ... you know what options are available to extract information from Process Simulate.

*Day 3: Offline programming (OLP) and necessary preparations*

We link the data and start the offline programming.
At the end of the day...
- ... you know how to attach tools to robots.
- ... you can connect (attach) resources to each other.
- ... you will be able to link predefined machining points with the corresponding component.
- ... you know how to project machining points onto a sheet metal.
- ... you are familiar with the functions for checking reachability and optimising reachability.
- ... you can insert bypass points between the working points.

*Day 4: Continuation OLP, modelling 3D geometries and setting up robots*

We continue with the creation of a first robot operation and set up a robot regarding RCS module. An additional robot will be added to the study and further robot operations will be created. During the course of the day we will get into the modelling and kinematisation functions of Process Simulate.
At the end of the day...
- ... you will know how to set up a robot in Process Simulate.
- ... you will be able to perform a collision check.
- ... you know how to set up and program a robot with external axes.
- ... you can create and kinematize 3D geometries.

*Day 5: Creation of an overall simulation and documentation as video*

We finish the creation of the robot operations and combine our operations into an overall process.
At the end of the day...
- ... you can create and run an overall simulation in standard mode.
- ... you know how to create videos in Process Simulate.
- ... you are able to export robot operations from Process Simulate to run them on a real robot (Download).
- ... you know how to integrate robot programs of a real robot into Process Simulate (Upload).