**Assessment criteria**

**Presence & Collaboration** (30%)

In this practical course you are guided through a step by step process from extracting proteins of plant material to data acquisition and statistical analysis. From the beginning on you will develop skills and knowledge which is required in further steps. Absence will crucially lower your benefits of this course. Therefore, your presence is demanded to 100%. However, as every one’s purpose in life is not only restricted to a single university course, we are happy to be informed if you require absence for other matters. Ultimately, you gain the most by connecting your current knowledge to issues covered by the course. Bear in mind that this is your chance to achieve insights to an exciting field of science. Take that chance and do not hesitate to ask all that questions keeping your mind busy. Due to the number of participants you will not get the hands on at all the working steps. However, try to take it in turns as much as possible.

**Presentation** (30%)

Scientific questions arise during conversations. Thus communication is the basis of research and a presentation is your opportunity to show what you spend your precious time on and what you found. Structure your presentation and lead the audience from the first working step to the results and the discussion. Show the audience the knowledge you gained: explain the methods you used (e.g. understanding of the method, statistical processing) and discuss the biological results you found. Do not be afraid to repeat things another group mentioned already in their presentation. It just shows that you understood what you did.   
Some might think that rehearsing a presentation is overdoing it. Nevertheless, presentations usually improve enormously just by one rehearsal.

**Protocol** (40%)

The structure of the protocol shall be similar to a usual publication with the focus on the methods, which should be explained to your deepest understanding. All you showed in your presentation can be explained here in more detail. Elaborate the methods and discuss data in a way that you will be able to follow it if you would read your protocol half a year later. This shows us how much you understood your work. Any thoughts referring to other publications need to be cited accordingly.

A proposed structure for your protocol:

        Title, authors

        Abstract

o   Background (why)

o   Results (what)

o   Discussion (impact)

        Introduction

o   Background (with references!)

o   Scientific problem

o   Ideas and hypotheses

o   Approach

        Methods and data

o   Brief description of everything needed to reproduce (refer to supplement)

        Results

o   Brief summary of all results relevant for discussion (refer to supplement)

        Discussion

o   What can you conclude with respect to the initial ideas and hypotheses?

o   Any relevant limitations of your approach, limiting the conclusions?

o   Ideas or concepts, suggested for improvement of the approach?

        References

Maximum points to reach: 100  
**1**: 87 – 100  
**2**: 74 – 86  
**3**: 60 – 73  
**4**: 50 – 59  
**5**: <50

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|  | **presence & collaboration** | | | **presentation** | | | **protocol** | |
| **Name** | presence (5) | hands on  (15) | interaction (20) | structure  (10) | visualization (10) | understanding  (10) | structure (20) | comprehensibility (20) |
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