Exemplary elective options for different specialization tracks (starting in the winter semester)

Each student must choose (exactly) one specialization. Prior enrollment in a particular specialization is not required. The area of specialization is finally determined by the choice of the corresponding seminar. In particular, it is possible to attend lectures from different modules during the first semester(s) in order to get an overview.

For students starting in the winter semester, this document shows two paths through each specialization track. These paths are examples only and can be easily adapted to individual preferences and interests. Indeed, this is just an informal presentation; only the study and examination regulations are legally binding.

For detailed information on each module, please refer to the module catalog; see also the corresponding course description on Moodle.

Colour code (ECTS points awarded for successful completion of a module are given in brackets)

xxxxx mandatory for all students

xxxxx mandatory when choosing the respective specialisation track

xxxxx potential choice within the respective specialisation track
# Machine Learning

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## Methodology and Modeling

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## Social Statistics and Data Science

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## Biostatistics

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Preclinical and Clinical Studies (6)  
Survival Analysis (6) | Statistical Modelling (12)  
Supervised Learning (6)  
Preclinical and Clinical Studies (6)  
Survival Analysis (6) |
| **2 (summer)** | Statistical Inference (9)  
Diagnostic Accuracy Studies (6)  
Analysis of High-dimensional Biological Data (6)  
Selected Software for Applied Statistics (SAS) (3)  
Design of Experiments (6) | Statistical Inference (9)  
Diagnostic Accuracy Studies (6)  
Analysis of High-dimensional Biological Data (6)  
Selected Software for Applied Statistics (SAS) (3)  
Deep Learning (6) |
| **3 (winter)** | Seminar: Biostatistics (9)  
Consulting (12)  
Selected Topics of Biostatistics (3)  
Statistical Methods in Epidemiology (6) | Seminar: Biostatistics (9)  
Consulting II (12)  
Advanced Methods in Biostatistics (6)  
Selected Topics of Machine Learning (3) |
| **4 (summer)** | Master’s Thesis + Disputation (30) | Master’s Thesis + Disputation (30) |