

**Promotionskolleg Module 6800: Machine learning in applied economic analysis**  
**September 4 to 8, 2023 (in presence in Bonn, Nussallee 19, seminar room)**

For all material, see [github repository](#)

For assignment upload: Use <https://uni-bonn.sciebo.de/s/blRvhc4gncIpyQI> with PW as sent to you in the original schedule via email.

Assignment submission instructions:

1. Before uploading: Rename your file by appending “first name\_ last name” to the end of the file name. Do keep the rest of the file name (e.g. *6800\_Day1\_FirstName\_LastName.ipynb*).
2. Please upload your assignment (i.e. your jupyter notebook) into the folder in the .ipynb format.
3. Deadline for submission of the assignments is October 15, 2023.

**Monday, Sep 4**

10:00 – 12:00 Welcome, intro, prediction versus estimation, overfitting and regularization

12:30 – 14:00 Lunch Break

14:00 – 15:00 Continuation of the morning and Q&A

15:00 – 17:00 Supervised lab session with assignment

**Tuesday, Sep 5**

9:00 – 12:00 Trees, forests and ML model interpretation (Part 1)

12:00 – 13:30 Lunch Break

13:30 – 14:30 Continuation of the morning and Q&A

14:30 – 17:00 Supervised lab session with assignment

**Wednesday, Sep 6**

9:00 – 12:00 ML model interpretation (Part 2) and Intro Neural Networks

12:00 – 13:30 Lunch Break

13:30 – 14:30 Continuation of the morning and Q&A

14:30 – 17:00 Supervised lab session with assignment

**Thursday, Sep 7**

9:00 – 12:00 Neural Networks continued, ML and causal inference (Part 1)

12:00 – 13:30 Lunch Break

13:30 – 14:30 Continuation of the morning and Q&A

14:30 – 17:00 Supervised lab session with assignment

**Friday, Sep 8**

9:00 – 11:30 ML and causal inference (continued) and Q&A

11:00 – 13:30 Q&A session, brief own (verbal) research pitches related to ML with the possibility to discuss approaches and questions

13:30 – 14:00 Feedback and farewell