Planning Mathematical Statistics and Statistics project M5-2020

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Materials:

- Reader "Mathematical Statistics with Applications", Union shop no. **066.**
- Book "Introduction to Mathematical Statistics" by Victor Panaretos, available online via the library.
- R - download the program R from http://cran.r-project.org (also for packages and manuals)
- Install R-studio
- Slides/Lecture notes, full solutions of exercises (answers in reader), tests, etc. on Canvas.
- A (simple) scientific calculator is allowed and necessary, **not** a graphical one (GR)

Note that in the schedule **(**always check *My timetable*!) of meetings below:

- In the meetings on Tuesday and Thursdays the indicated chapters/sections from the reader are to be discussed (see table below, also concerning exercises), alongside with complementary material from Panareto's book.
- The meetings on Friday (plus two on Wednesday) are tutorials.
- The meetings on Thursdays consist of a lecture-part and a **training in the use of R** (necessary for the project). Therefore these meetings are **obligatory.**
- Lectures and training in the use of R are both online, whereas tutorials are in the classroom.
- On Mondays 6+7 two information sessions for the project are planned.

Wk	Reader	Time/place	Preparation	Activities and submission of HWA's ↓	
36	Ch 1 Ch 2.1	1. Tue 1/9, 13:45	Read Ch 0.2	Lecture	
		2. Thu 3/9, 11:00	Solve 1.1+4	Lecture + Instruction **R** + solving exercises	
		3. Fri 4/9,11:00	Solve 1.7, 2.1	Tutorial: exercises Ch 1 and Ch 2: 1-4, 6	
37	Ch 2	4. Tue 8/9, 13:45		Lecture	
		5. Thu 10/9, 11:00	Solve 2.7	Lecture + Instruction **R** + exercises	
		6. Fri 11/9, 11:00		Tutorial: exercises Ch 2: 5, 7-13	**HWA1**
38	Ch 3 Ch 4.1-4	7. Tue 15/9, 13:45		Lecture	
		8. Wed 16/9, 15:45	Solve 3.1	Tutorial: exercises Ch 3	
		9. Thu 17/9, 11:00		Lecture + Instruction **R** + exercises	
		10. Fri 28/9, 11:00	Solve 4.1	Tutorial: exercises Ch 4: 1-6	**HWA2**
39	Ch 4.5-6 Ch 5	11. Tue 22/9,13:45		Lecture	
		12. Wed 23/9,15:45	Solve 4.7	Tutorial: exercises Ch 4: 7-11	
		13. Thu 24/9,11:00		Lecture + Instruction **R** + exercises	
		14. Fri 25/9,11:00	Solve 5.1	Tutorial: Ch 4: 12-13, Ch 5: 1-4	**HWA3**
40	---	*Mon 28/9,13:45*	***Project information session***		
	Ch 8 Ch 9	15. Tue 29/9,13:45		Lecture	
		16. Thu 1/10,11:00	Solve 8.1	Lecture + Instruction **R** + exercises Ch 8	
		17. Fri 2/10, 11:00	Solve 9.1	Tutorial: exercises Ch 5, Ch 9	**HWA4**
	Ch 10 Ch 6	18. Tue 6/10,13:45		Lecture	
		19. Thu 8/10,11:00	Solve 10.2	Lecture + Instruction **R** + exercises	
		20. Fri 9/10, 11:00	Solve 6.4	Tutorial: exercises Ch 10, Ch 6.1-5	
42	Ch 7	21.Tue 13/10,13:45		Lecture	
		22.Thu 15/10,11:00	Solve 7.1	Lecture + Instruction **R** + exercises	
		23. Fri 16/10,11:00	Solve 7.2	Tutorial: exercises Ch 6 + Ch 7	**HWA5**
43	-	Thu 22/10, 11:00	Questions and Answers – preparation test / sample test		
	-	Fri 23/10	9.00-12.00: **Test Mathematical Statistics** (resit Fri 6/11, 9:00-12.00)		

Rules for the Homework Assignments (HWA): Depending on the Covid situation, up to five non-mandatory homework assignments will be available. Participation is strongly advised: it increases the probability of completing the course successfully. You can hand in (no e-mail!) your solutions **at the start of the meeting,** according to the schedule above: each Friday in weeks 2-6 of module 5. The grades for the HWA`s will count to a maximum of 20% in the final result of mathematical statistics: each of the HWA's will be counted with a weighing factor 20/5 = 4% in the

end result, **if this is favourable for the student**. No need to emphasize that collaboration in solving problems is allowed, but your hand written solutions should be your own work (plain copies are not acceptable).

Project: see Canvas and the information sessions. Office hours in the weeks 41-45 are on Monday 13:45 as well (online or in Zilverling 4058). The deadline for submission of the project report is Tuesday 5/11, 17.00 hours.