



# Introduction to Structural Equation Modelling using Mplus (S20) 11 - 15 August 2025

Course Director: *Dr. Rebecca Kuiper* E-mail: *ms.summerschool@uu.nl* 

Day	Time	Туре	Description	Location
Monday	09:00 -12:15	Lecture Dr. Beth Grandfield	Introduction to Mplus; how to get your data into Mplus; regression analysis; and factor analysis.	
	12:15 -13.15	Lunch		Utrecht Science Park,
	13:15 -16:30	Computer lab*		exact location to be announced
Tuesday	09:00 -12:15	Lecture Dr. Beth Grandfield & Computer lab*	How to conduct CFA/EFA in Mplus; discussion of measurement invariance and its recent advances; introduction to bootstrap.	
	12:15 -13.15	Lunch		
	13:15 -16:30	Lecture Dr. Beth Grandfield & Computer lab*		
Wednesday	09:00 -12:15	Lecture Dr. Jeroen Mulder & Computer lab*	How to combine path analysis and factor analysis; and additional key SEM topics (e.g., nesting of models, mediation and moderation, and path tracing rules).	
	12:15 -13.15	Lunch		
	13:15 -16:30	Lecture Dr. Jeroen Mulder & Computer lab*		
Thursday	09:00 -12:15	Lecture Dr. Jeroen Mulder & Computer lab*	Introducing longitudinal data analysis and thinking about causality using mediation analysis and the cross-lagged panel design; discussion of issues such as stable between-person differences, measurement error, and the lagproblem.	
	12:15 -13.15	Lunch		
	13:15 -16:30	Lecture Dr. Jeroen Mulder & Computer lab*		
Friday	09:00 -16:30	*	Room for individual consultation and to work on own data.**	





## \* Remarks Computer lab

During the computer lab meetings, we will make use of software including Mplus 8.8. In case you do not have Mplus (8.8) on your own laptop, it will be available via SolisWorkspace (SWS). You can access this via your SolisID (for more information regarding the SolisID, see the pre-departure e-mail).

Manuals for using SWS are available via the following links.

General (brief): <a href="https://students.uu.nl/en/myworkplace">https://students.uu.nl/en/myworkplace</a>

Windows (more details): https://manuals.uu.nl/en/handleiding/myworkplace-windows-10/

MacOS (more details): <a href="https://manuals.uu.nl/en/handleiding/myworkplace-macos/">https://manuals.uu.nl/en/handleiding/myworkplace-macos/</a>
Please check before the start of the course whether you can access Mplus in this way.

### \*\* Remarks Day 5 (consultation day)

On Day 5, there is a consultation day. On this day, you can apply the techniques you learned on this course to your own data.

In case you need assistance with more advanced techniques, you can also ask for help with this, but priority will be given to questions regarding the topics discussed during the lectures. In case you want to learn more about advanced SEM techniques, you can

- Depending on the techniques you like to apply, sign up for our Utrecht Summer School course 'Advance course on using Mplus' (course code S23).
- Ask for (paid) consultation from someone from the M&S department. In that case, please contact
  Mirjam Moerboek (M.Moerbeek@uu.nl). Note that we cannot guarantee that someone will be
  available.

#### **Breaks**

- √ 8.30 coffee & tea
- √ 10.30 coffee & tea
- √ 12.15-13.15 (or an hour around 12.45 13.15) lunch
  On Monday take a break from 12.15-13.15, because ICT people will be available at 13.15!
- √ 14.30 soda drinks (Dutch: fris) and fruit

#### Questions

- If you have any course-related questions, please let us know (MS.SummerSchool@uu.nl).
- In case of other questions (e.g., related to housing), contact **Utrecht Summer School Organization** (<u>info@utrechtsummerschool.nl</u> or +31 (0) 30 253 4400).