

## Applied econometric analysis of stated choice data (virtual MA and MAGKS course via Zoom)

### Lecturer:

Prof. Dr. Andreas Ziegler  
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### Planned schedule:

#### ***First part (March 31 - April 01, 2021, April 06 - April 08, 2021)***

##### *March 31*

Introduction to Stata (Engler)	10.00-12.00 h
Lecture (Ziegler):	13.00-15.30 h
Lecture and applications with Stata (Ziegler):	16.00-18.00 h

##### *April 01*

Tutorial with Stata (Engler)	10.00-13.00 h
Lecture (Ziegler):	14.00-16.00 h
Lecture and applications with Stata (Ziegler):	16.30-18.00 h

##### *April 06*

Tutorial with Stata (Engler):	10.00-13.00 h
Lecture (Ziegler):	14.00-16.00 h
Lecture and applications with Stata (Ziegler):	16.30-18.00 h

##### *April 07*

Lecture and applications with Stata (Ziegler):	11.00-13.00 h
Tutorial with Stata (Engler):	14.00-16.00 h
Lecture (Ziegler):	16.30-18.00 h

##### *April 08*

Lecture and applications with Stata (Ziegler):	11.00-13.00 h
Tutorial with Stata (Engler):	14.00-17.00 h

#### ***Second part (July 08 - July 09 2021)***

##### *July 08*

Presentations:	10.00-18.00 h
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##### *July 09*

Presentations:	10.00-18.00 h
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## **Lecture slides:**

On the website and in the moodle course “Applied econometric analysis of stated choice data”

## **Prerequisite for attending the course:**

Deep knowledge of microeconomic models and methods

## **Requirements for earning 6 ECTS credits:**

- For master students in Kassel: Successful attendance of an econometric master course
- Attendance and active participation throughout both parts of the course
- Writing of a seminar paper (about ten pages plus tables) and oral presentation in the second part of the course

## **Outline:**

1. Introduction to multinomial discrete choice models
  - 1.1 Background
  - 1.2 General model structure
  - 1.3 Maximum Likelihood estimation
  - 1.4 Statistical testing
  - 1.5 Multinomial logit models
  - 1.6 Applications
2. Flexible multinomial discrete choice models
  - 2.1 Background
  - 2.2 Multinomial probit models
  - 2.3 Mixed logit models
  - 2.4 Latent class logit models
  - 2.5 Applications
3. Stated choice analyses
  - 3.1 Stated and revealed preferences
  - 3.2 Design of stated choice experiments
  - 3.3 Examples
  - 3.4 Econometric analysis
  - 3.5 Applications

## Literature:

- Greene, W.H. (2012), *Econometric analysis*, 7<sup>th</sup> Edition, Pearson Education.
- Greene, W.H. and D.A. Hensher (2003), A latent class model for discrete choice analysis: Contrasts with mixed logit, *Transportation Research Part B* 37, 681-698.
- Gutsche, G. and A. Ziegler (2016), *Are private investors willing to pay for sustainable investments? A stated choice experiment*, MAGKS Discussion Paper No. 40-2016.
- Hensher, D.A. and W.H. Greene (2003), The mixed logit model: The state of praxis, *Transportation* 30 (2), 133-176.
- Hensher, D.A., J.M. Rose, and W.H. Greene (2005), *Applied choice analysis: A primer*, Cambridge.
- Hole, A.R. (2007), Estimating mixed logit models using maximum simulated likelihood, *The Stata Journal* 7, 388-401.
- Hoyos, D. (2010), The state of the art of environmental valuation with discrete choice experiments, *Ecological Economics* 69 (8), 1595-1603.
- Johnston, R.J. et al. (2017), Contemporary guidance for stated preference studies, *Journal of the Association of Environmental and Resource Economists* 4 (2), 319-405.
- Louviere, J.J., D.A. Hensher, and J.D. Swait (2010), *Stated choice methods – Analysis and application*, 7<sup>th</sup> printing, Cambridge
- Pacifico, D. and H. Yoo, H. (2013), Icllogit: A Stata command for fitting latent-class conditional logit models via the expectation-maximization algorithm, *The Stata Journal* 13 (3), 625-639.
- Train, K.E. (2009), *Discrete choice methods with simulation*, 2<sup>nd</sup> edition, Cambridge University Press, Cambridge, New York.
- Winkelmann, R. and S. Boes (2009), *Analysis of microdata*, 2<sup>nd</sup> Edition, Springer, Berlin, Heidelberg.
- Ziegler, A. (2012), Individual characteristics and stated preferences for alternative energy sources and propulsion technologies in vehicles: A discrete choice analysis for Germany, *Transportation Research Part A* 46 (8), 1372-1385