

<b>Georg-August-Universität Göttingen</b> <b>Module B.WIWI-QMW.0004: Meta-Research in Economics</b>	6 C 4 WLH
<b>Learning outcome, core skills:</b> This course enables students to: <ul style="list-style-type: none"> <li>• critically reflect the incentive system of academic publishing and how researchers' degrees of freedom in data analysis may distort published empirical findings,</li> <li>• replicate published empirical findings using the statistical software R.</li> </ul>	<b>Workload:</b> Attendance time: 56 h Self-study time: 124 h
<b>Course:</b> B.WIWI-QMW.0004.Lec <b>Meta-Research in Economics</b> (Lecture) <i>Contents:</i> The lecture discusses the incentive system of academic publishing that favors statistically significant and hypothesis-confirming estimates. Various types of $p$ -hacking are analyzed for both experimental and observational research. Moreover, empirical evidence of biases in published findings is presented and discussed. Finally, an overview of replications in economics is given and the students learn why replications are essential to ensure the reliability of published empirical findings. <i>Topics:</i> <ol style="list-style-type: none"> <li>1. Incentives in academic publishing</li> <li>2. <math>p</math>-hacking and publication bias             <ol style="list-style-type: none"> <li>2.1 Experimental research</li> <li>2.2 Observational research</li> </ol> </li> <li>3. Empirical evidence of biases             <ol style="list-style-type: none"> <li>3.1 Discontinuities in published <math>p</math>-values</li> <li>3.2 Low power and exaggerated effect sizes</li> </ol> </li> <li>4. Models of empirical research</li> <li>5. Replications in economics</li> </ol>	2 WLH
<b>Course:</b> B.WIWI-QMW.0004.Ex <b>Meta-Research in Economics</b> (Exercise) <i>Contents:</i> The exercise starts with an introduction to the statistical software R. The exercise follows the topics discussed in the lecture and deepens the understanding of these topics by providing and discussing tasks to be solved in R. At the end of the exercise, students replicate published findings of important articles that use quasi-experimental designs.	2 WLH
<b>Examination: Written examination (90 minutes)</b> B.WIWI-QMW.0004.Mp: Meta-Research in Economics	6 C
<b>Examination requirements:</b> The students show that they understand the incentive system of academic publishing resulting in $p$ -hacking and publication bias. They demonstrate that they understand the econometric background of $p$ -hacking and they show that they have deep knowledge of the empirical evidence of biases in published findings in economics. Moreover, they	

show knowledge of characteristics of replications in economics and how replications are conducted.	
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<b>Admission requirements:</b> none	<b>Recommended previous knowledge:</b> B.WIWI-VWL.0007 Introduction to Econometrics
<b>Language:</b> English	<b>Person responsible for module:</b> Prof. Dr. Helmut Herwartz Dr. Stephan Bruns
<b>Course frequency:</b> each winter semester	<b>Duration:</b> 1 semester[s]
<b>Number of repeat examinations permitted:</b> twice	<b>Recommended semester:</b> 4 - 5