Georg-August-Universität Göttingen **Module M.Phy.5401: Advanced Statistical Physics**	6 C 6 WLH

Learning outcome, core skills: After successful completion of the module students will be familiar with the core concepts and mathematical methods of statistical physics both in and out of equilibrium. Students will be able to model and analyse interacting or fluctuation-dominated systems using methods from statistical physics, and be aware of a range of application domains including soft matter, biophysics and network dynamics.	**Workload:** Attendance time: 84 h Self-study time: 96 h

Course: M.Phy.5401.Lec **Advanced Statistical Physics** (Lecture)	4 WLH
Examination: written (120 min.) or oral exam (approx. 30 min.) M.Phy.5401.Mp: Advanced Statistical Physics **Examination prerequisites:** At least 50% of the homework of the excercises have to be solved successfully.	6 C

Course: M.Phy.5401.Ex **Advanced Statistical Physics** (Exercise)	2 WLH

Admission requirements: none	**Recommended previous knowledge:** Basic knowledge of statistical mechanics of equilibrium
Language: English	**Person responsible for module:** Prof. Dr. Matthias Krüger
Course frequency: each winter semester	**Duration:** 1 semester[s]
Number of repeat examinations permitted: three times	**Recommended semester:** 1
Maximum number of students: 80	