

## **Syllabus for the course Advanced Organic Synthesis**

The course will focus on a representative collection of the most popular and important reactions used on modern Organic Synthesis and their use in academic research as well as industrial applications. The following reactions (including their mechanism, scope and use in total synthesis) will be discussed: Heck/Suzuki/Stille cross coupling; Sharpless/Noyori asymmetric hydroxylation/dehydrogenation; olefin metathesis; click reactions; Buchwald/Hartwig amination. The grade will be based on a student presentation of a particular reaction and a homework assignment, as well as active participation during the lectures and practice sessions. The course will be taught in English.