

## Modern Methods in Organic Synthesis

PhD Course, 10 credits

Department of Chemistry – BMC

**Time: second half of autumn semester, parallel to Master course “Modern methods in organic synthesis” 1KB443.**

**Please note: if the Masters course was included in your Masteres degree, the PhD version cannot be included among the courses contributing to the minimum of course credits.**

### Learning Outcomes

After successful completion of the course, the participant should have the ability to:

- Identify and compare the relative merits of various modern synthetic methods
- Present and critically evaluate recent literature reports relating to synthetic methods in organic synthesis
- Find relevant literature information by database searching
- Discuss mechanistic aspects relevant to reaction outcomes
- Author a succinct draft manuscript reviewing aspects of modern organic synthesis

### Content

Methods for the synthesis of organic compounds, including modern approaches to the construction of C-C, C-N and other C-heteroatom bonds.

Catalytic and stoichiometric approaches to various functional group interconversions. Presentation of literature reports relating to advances in organic synthetic methodology.

Training in scientific communication skills, including feedback and writing

### Instruction

Lectures, problem solving, literature presentation and/or manuscript preparation practice with feedback.

### Assessment

A written examination (7 credits) is organized at the end of the course. The presentation of a draft manuscript and/or presentation on aspects of modern organic synthesis (3 points).

Both parts must be passed at >50% level to get a pass for the course.

### Reading List

The course is not based on any one textbook. Various literature will be recommended throughout, relating to specific topics. A key component will be the students' ability to find and digest relevant scientific information from peer-reviewed journals.