Modulbezeichnung: **Organic Chemistry - Lab (CM-OC-Lab)** **10 ECTS**
(Organic Chemistry - Lab)

Modulverantwortliche/r: Henry Dube
Lehrende: Svetlana Tsogoeva

Startsemester: WS 2021/2022	Dauer: 1 Semester	Turnus: jährlich (WS)
Präsenzzeit: 225 Std.	Eigenstudium: 75 Std.	Sprache: Englisch

Lehrveranstaltungen:

- Attendance at the preliminary briefing including 'safety instructions part 1': signature list serves as proof of attendance;
- Attendance at the briefing 'safety instructions part 2' in the lab;
- A valid laboratory insurance is mandatory for participation in the lab course - see: **www.laborversicherung.de**

Organic Chemistry - LAB (WS 2021/2022, Praktikum, 15 SWS, Svetlana Tsogoeva et al.)

Empfohlene Voraussetzungen:

Knowledge of the content of the lecture **Organic Chemistry** (CM-OC) is recommended.

Inhalt:

- Reactions / Synthesis: Oxidation reactions; Synthesis and application of Jacobsen Mn(III)-complex (Jacobsen epoxidation); Reductions; Reactions with lithium organic compounds; Cross-coupling reaction; Synthesis of the Evans-Auxiliary; Natural compounds; Heterocycles.
- Advanced practical lab work in organic chemistry, that includes molecular synthesis and use of state-of-the-art analytical tools.
- Instruction in laboratory safety regulations.

Lernziele und Kompetenzen:

The students are capable

- to use their theoretical and practical background to make an individual contribution to an independent, actual and realistic research project;
- to organize a small research/synthesis project in theory and practise
- to plan experiments io prove or reject a given hypothesis
- to provide a state-of-the-art documentation and discussion of results obtained as a member of a research team
- to present, communicate and discuss scientific results with experts in English.

Literatur:

- L. F. Tietze, Th. Eicher, Reaktionen und Synthesen in organisch-chemischen Praktikum und Forschungslaboratorium
- R. Brückner, et al., Praktikum Präparative Organische Chemie
- Organikum, Wiley-VCH

Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:

Das Modul ist im Kontext der folgenden Studienfächer/Vertiefungsrichtungen verwendbar:

[1] **Chemistry (Master of Science): ab 1. Semester**
(Po-Vers. 2020w | NatFak | Chemistry (Master of Science) | Fachliche Wahlpflichtmodule | Organic Chemistry | Organic Chemistry laboratory)

[2] **Chemistry (Master of Science): ab 1. Semester**
(Po-Vers. 2020w | NatFak | Chemistry (Master of Science) | Ergänzende Wahlpflichtmodule | Organic Chemistry | Organic Chemistry laboratory)

Studien-/Prüfungsleistungen:

Organic Chemistry Laboratory (Prüfungsnummer: 65041)
Prüfungsleistung, Praktikumsleistung
Anteil an der Berechnung der Modulnote: 100%
weitere Erläuterungen:
Graded Lab Protocol of 30 - 50 pages (plus raw data documentation)

Prüfungssprache: Englisch

Erstablegung: WS 2021/2022, 1. Wdh.: WS 2022/2023
1. Prüfer: Svetlana Tsogoeva

Organisatorisches:

Please note:

- Lab course **Organic Chemistry laboratory** (CM-OC-Lab) is held as an in-class-course only in winter term (usually in February/March)!
- Students have to register for the module (check registration periods)!
- Registration/further information via StudOn: https://www.studon.fau.de/cat4182718.html_join.html

Bemerkungen:

Module compatibility:

- Lab module within the **Core module „Organic Chemistry“** in M. Sc. Chemistry
- Lab module within the **Compulsory Elective Module** in M.Sc. Chemistry (if not chosen as Core module) or M. Sc. Molecular Science