Modulbezeichnung:	Medicinal chemistry A (Pharmaceutical chemistry) (MSM-ME5A) (Medicinal chemistry A (Pharmaceutical chemistry))	15 ECTS
Modulverantwortliche/r:	Monika Pischetsrieder	
Lehrende:	Jutta Eichler, Peter Gmeiner	

Startsemester: WS 2016/2017	Dauer: 2 Semester	Turnus: jährlich (WS)
Präsenzzeit: 210 Std.	Eigenstudium: 240 Std.	Sprache: Deutsch

Lehrveranstaltungen:

A1: Pharmacopoeia-based analysis of bioactive compounds (1L + 1L)

Pharmazeutisch-medizinische Analytik II/Pharmacopeia based analysis (WS 2016/2017, Vorlesung, 1 SWS, Jutta Eichler)

Pharmazeutisch-medizinische Analytik III (SS 2017, Vorlesung, 1 SWS, Jutta Eichler)

A2: Pharmaceutical/Medicinal Chemistry (3 L + 3L)

Medizinische Chemie B1 (5.+7. Semester) / Medical Chemistry (WS 2016/2017, Vorlesung, 3 SWS, Peter Gmeiner)

Medizinische Chemie B2 (6.+8. Semester) (SS 2017, Vorlesung, 3 SWS, Peter Gmeiner)

A3: Pharmacopoeia-based analysis of bioactive compounds (7 Lab)

Attendance in lab courses is compulsory!

Praktikum Arzneibuchanalytik / Practical Pharmacopeia based Analysis (WS 2016/2017, Praktikum, 7 SWS, Jutta Eichler et al.)

Inhalt:

A1: General, as well as substance-specific methods for the qualitative and quantitative analysis (identity, purity, concentration) of drug substances according to the European Pharmacopeia; assessment of physico-chemical properties and reactivities of drug substances, based on their structures; evaluation of the informational value (selectivity, specificity) of individual analysis methods/reactions; special focus: color reactions.

A2: Theoretical knowledge and understanding for the mechanism of action, chemical synthesis, biotransformation, physikochemical properties and SAR studies of the most important drugs and bioactive compound families including: Agents affecting the nervous system, agents with cardiovascular effects, antiallergics, analgesics, antidiabetics, antibiotics, chemotherapeutics and vitamins.

A3: lab course on the pharmaceutical analysis of drugs; determination of identity, purity and quantification

Lernziele und Kompetenzen:

The students

- gain insight into the design, synthesis & development of new drug products in the medicinal/pharmaceutical area
- acquire expertise for the theoretical evaluation and practical application of the most important techniques for the instrumental and bioanalysis of drugs
- are able to reflect crucial theories of the specialty in order to challenge problems in analytical practice.

Literatur:

Scripts available on StudOn

Verwendbarkeit des Moduls / Einpassung in den Musterstudienplan:

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

[1] **Molecular Science (Master of Science): 1-3. Semester**

(Po-Vers. 2013 | NatFak | Molecular Science (Master of Science) | Wahlpflichtmodul Molecular Science)

Studien-/Prüfungsleistungen:

Medizinische Chemie - Ausrichtung Pharmazeutische Chemie (Prüfungsnummer: 30808)
(englische Bezeichnung: Medicinal Chemistry - Focus: Pharmaceutical Chemistry)
Prüfungsleistung, mündliche Prüfung, Dauer (in Minuten): 45
Anteil an der Berechnung der Modulnote: 100%
weitere Erläuterungen:
Assessment and examinations: O45 (PL)+ LAB (SL): oral examination (45 min, 2 examiners)+ lab course protocol(s), ungraded, presentation
Calculation of the grade for the module: 100% from oral examination
Prüfungssprache: Deutsch

Erstablegung: SS 2017, 1. Wdh.: WS 2017/2018
1. Prüfer: Monika Pischetsrieder

Organisatorisches:
Frequency of offer: annually **(starts only in winter term!)**
A3: winter term, **A1/A2:** winter & summer term,
Language:
English: **A3**; German: **A1, A2**

Bemerkungen:
Intended stage in the degree course: Mandatory elective module (Wahlpflichtmodul) or Elective module (Wahlmodul)
Courses of study for which the module is acceptable: **M.Sc. Molecular Life Science**