

<b>Module title</b>		<b>Abbreviation</b>
Advanced Physical Chemistry		o8-PCM1-102-m01
<b>Module coordinator</b>		<b>Module offered by</b>
lecturer of seminar "Laserspektroskopie" (Laser Spectroscopy)		Institute of Physical and Theoretical Chemistry
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
10	numerical grade	--
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	graduate	--
<b>Contents</b>		
German contents available but not translated yet.		
<p>Das Modul führt in die Grundlagen der Laserspektroskopie ein. Als experimentelle Methoden werden die Absorptions- und Emissionsspektroskopie behandelt. Das Modul bietet zudem die Möglichkeit, moderne experimentelle Methoden der Physikalischen Chemie im Labor durchzuführen. Die Studierenden arbeiten nach einer Sicherheitseinweisung selbstständig im Labor. Durch Vor-, Nachtstate und Protokolle wird das Wissen der Studierenden geprüft.</p>		
<b>Intended learning outcomes</b>		
German intended learning outcomes available but not translated yet.		
<p>Die Studierenden sind in der Lage, Aufbau und Funktionsweise eines Lasers sowie die optischen Grundlagen zu erklären. Er/Sie kann das Prinzip der Absorptions- und Emissionsspektroskopie darstellen. Die Studierenden können moderne experimentelle Methoden der Physikalischen Chemie sicher praktisch durchführen. Er/Sie kann erhaltene Messwerte inhaltlich und graphisch mit geeigneten Computerprogrammen sowie rechnerisch analysieren und in einem wissenschaftlichen Protokoll formulieren.</p>		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
<p>This module comprises 2 module components. Information on courses will be listed separately for each module component.</p> <ul style="list-style-type: none"> <li>• o8-PCM1-1-102: S + Ü (no information on SWS (weekly contact hours) and course language available)</li> <li>• o8-PCM1-2-102: P (no information on SWS (weekly contact hours) and course language available)</li> </ul>		
<b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
<p>Assessment in this module comprises the assessments in the individual module components as specified below. Unless stated otherwise, successful completion of the module will require successful completion of all individual assessments.</p> <p><b>Assessment in module component o8-PCM1-1-102:</b> Laser Spectroscopy Laser Spectroscopy</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: numerical grade</li> <li>• written examination (90 minutes) or oral examination (20 minutes)</li> <li>• Language of assessment: German or English</li> </ul> <p><b>Assessment in module component o8-PCM1-2-102:</b> Advanced Physical Chemistry (Lab)</p> <ul style="list-style-type: none"> <li>• 5 ECTS, Method of grading: (not) successfully completed</li> <li>• Vortestate (pre-experiment exams) and Nachtstate (post-experiment exams) (approx. 15 minutes), log (approx. 15 pages)</li> <li>• Language of assessment: German or English</li> </ul>		
<b>Allocation of places</b>		
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<b>Additional information</b>		
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**Referred to in LPO I** (examination regulations for teaching-degree programmes)

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**Module appears in**

Master's degree (1 major) Chemistry (2010)

Master's degree (1 major) Mathematics (2012)

Master's degree (1 major) Computational Mathematics (2012)