

**Study plan MSc "Geoscience" with focus "Crystallography"**

<b>Mandatory modules</b>	<b>CP</b>	<b>Sem.</b>	<b>Weekly hours</b>	<b>Comment</b>	<b>recommended semester</b>
<b>Crystal chemistry</b>	<b>10</b>				
Crystal chemistry		WS	2		1st and 2nd semester
Structures and phase transformations		SS	2		
Gemmology		SS	2		
<b>Crystallization</b>	<b>10</b>				
Mineralization in geothermal systems		WS	4		1st and 2nd semester
Synthetic crystals		SS	2		
<b>Crystal physics</b>	<b>10</b>				
Crystal physics		WS	2		1st and 2nd semester
Physical characterization		SS	4		
<b>Crystal structure analyses</b>	<b>10</b>				
Crystal structure analyses (lecture)		SS	2		2nd and 3rd semester
Single crystal X-ray diffraction: practical		WS	3		
Powder X-ray diffraction: practical		WS	3		
<b>Recommended modules</b>	<b>CP</b>	<b>Sem.</b>	<b>Weekly hours</b>	<b>Comment</b>	<b>recommended semester</b>
<b>Solid-state spectroscopy</b>	<b>10</b>				
NMR-spectroscopy (FK I)		SS	2		2nd and 3rd semester
General Spectroscopy (FKII)		WS	2		
Lab exercises I		SS	2		
Lab exercises II		WS	2		
<b>Thermodynamics</b>	<b>6</b>				
Principles of elementary thermodynamics		SS	2		2nd or 4th semeste
Solution phase thermodynamics		SS	2		
<b>MSc thesis</b>	<b>30</b>				