

Tentative schedule for the PhD NMR course HT-2020

| Week 39 | | |
|----------------|--|---|
| Sept 29 | Lecture-1 (9-11) <i>Basic principles of NMR spectroscopy, the spectrometer</i> | Lecture-2 (13-15) <i>Spectral parameters-1 (chemical shift, couplings)</i> |
| Sept 30 | Lecture-3 (9-11) <i>Spectral parameters-2 (chemical shift, couplings)</i> | Lecture-4 (13-15) <i>Relaxation, ¹³C-NMR, Polarization transfer experiments, Nuclear Overhauser Effect (NOE)</i> |
| Oct 1 | Seminar-1 (9-11) <i>Problems based on 1D-NMR spectra</i> | Lecture-5 (13-15) <i>2D-NMR spectroscopy, Protocol for routine structure determination</i> |
| Oct 2 | Lecture-6 (9-11) <i>Dynamic NMR Spectroscopy</i> | - |

| Week 40 | | |
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| Oct 6 | Seminar-2 (9-11) <i>Problems based on 2D-NMR spectra(1)</i> | Seminar-3 (13-15) <i>Problems based on 2D-NMR spectra(2)</i> |
| Oct 7 | Lecture-7 (9-11) <i>(Carbohydrates, hemicellulose and lignin)</i> | Seminar-4 (13-15) <i>(Problems on carbohydrates, hemicellulose and lignin)</i> |
| Oct 8 | NMR-lab demonstration (13-17) <i>(How to setup and run some basic 1 and 2D NMR experiments)</i> | |
| Oct 9 | Seminar-5 (9-12) <i>Student presentation of given problems in groups</i> | |