

Full Agenda for 1-D and 2-D NMR Spectroscopy: Structure Determination of Small Molecule Organic Compounds Course

- NMR Hardware
- NMR Software
- Sample Preparation
- 1-D Experiments
 - ^1H
 - Chemical shift
 - Coupling constants
 - Integration
 - First order splitting patterns
 - Proton exchange
 - Presaturation
 - ^{13}C
 - Proton decoupling
 - Chemical shift
 - Coupling constants
 - DEPT/APT
 - Other nuclei (^{19}F , ^{15}N , ^{31}P , etc.)
 - 1-D NOE
- 2-D Experiments
 - Homonuclear
 - COSY/TOCSY
 - NOESY/ROESY
 - Heteronuclear

- ^1H -X Direct Bond
 - HETCOR
 - HSQC/HMQC
- ^1H -X Multiple Bond
 - COLOC
 - HMBC
 - HSQC-TOCSY
- NMR Problem Solving Strategy
 - Experiment Selection
 - 1-D versus 2-D
 - Hydrogen versus Carbon
 - Homonuclear versus Heteronuclear
 - Experiment Optimization
 - Pulses
 - Delays
 - Maximizing Sensitivity
 - NMR Software
 - TOPSPIN
 - VNMR
 - ACD
 - MestreNova
- Other Experiments
 - qNMR
 - HOESY
 - INADEQUATE

- H2BC
- Spectral Assignment Strategy