

**Syllabus 541 Chem**  
**2022 / 1443 A.H.**  
**Sunday, 1-3 pm**  
**Course Director: Fatmah Alasmary**

**CHEM 541: Organic Spectroscopy 2(2+0):**

Applications of Spectroscopy: IR, NMR, MS, UV in the identification of organic compounds. Various examples of organic multi - steps preparations and the use of spectroscopy for the identification of its products.

**Course Description**

Topic	No. of weeks	Contact hours
Definition of electromagnetic radiation ultraviolet and visible spectra	2	4
Infrared spectra	2	4
Nuclear magnetic resonance spectra	3	6
Mass spectra	2	4
Structure elucidation by joint application of UV, IR, NMR, and Mass spectroscopy	2	4

**Schedule of Assessment Tasks for Students during the Semester**

	Activity	Week	Grade
1	Mid 1	7	20
2	Mid 2	9	20
3	Assignments	-	20
4	Final exam	-	40

Students MUST pass all parts and must gain 70 % out of 100 to pass the course.

**References and text books:**

1. Pavia, D. L.; Lampman, G. M. and Kriz, G. S., Introduction to Spectroscopy, 4th Edition (2009)
2. Silverstein, R. M. and Webster, F. X., Spectroscopic Identification of organic Compounds, 7th Edition (2005)