	UNIVERSITAS PADJADJARAN FACULTY OF MATHEMATICS AND NATURAL SCIENCES MASTER PROGRAM IN CHEMISTRY	COURSE CODE: D20B.215

Module designation	Elucidation of the structure of organic compounds
Semester(s) in which the module is taught	2
Lecturers	Prof. Dr. Unang S Prof. Dr. Tati Herlina Dr. Desi Harneti
Medium of instruction	English and Indonesian
Relation to curriculum	Mandatory elective course Natural Product Chemistry and Synthesis Master of Science in Chemistry
Teaching methods	Lecture and discussion
Workload	Total workload: 53.42 hours **CLASS** Lecture : 15.35 hours Tutorial : 4.69 hours Assignment : 2 hours Assessment : 6.68 hours Independent Study : 26.7 hours
Credit points	2 (2-0) 2 Credits = 3.62 ECTS

Required and recommended prerequisites for joining the module	1. Organic Chemistry 1 2. Organic Chemistry 2 3. Kinetics and Reaction Mechanism

Module objectives/intended learning outcomes	1. Students are able to master the theoretical concept of identifying and characterizing the molecular structure of organic compounds in the aliphatic, aromatic and alkaloid groups based on spectroscopy, IR, UV, 1D and 2D H-C-NMR and MS data. (C2) 2. Student is able to produce precise conclusions regarding the structure of organic molecules based on the results of identification and analysis based on spectroscopy, IR, UV, H-C-NMR 1D and 2 D and MS data, both personally and in group work, and present them (C3)

Contents	In this course students learn structure elucidation using spectroscopic methods such as UV, IR, NMR and MS for various groups of natural compounds such as aliphatic, aromatic (phenolic), alkaloids and peptides

Examination forms	Test, Presentation, and Assignment
Study and examination requirements	Minimum attendance at lectures is 80%. Final score is evaluated based on quiz (10%), individual assignment (20%), mid semester exam (35%), and end semester exam (35%).
Reading lists	1. Silverstein, R.M., Bessler G., and Morril, T.C.1999.Spectronic Identification of Organic Compounds", fifth ed, John Willey and Sons. 2. Breitmaer, E. 1993.Structure Elucidation by NMR in Organic Chemistry, John Willey and Sons. 3. Supratman, U., 2010, Elusidasi Struktur Senyawa Organik, Widya Padjadjaran,.