Heterocyclic Chemistry

Eric Fillion, Ph.D. Professor of Chemistry Department of Chemistry University of Waterloo 200 University Avenue West Waterloo, ON, Canada, N2L 3G1

This course is intended to provide an overview on the structure, properties, synthesis, and reactivity patterns of heterocyclic compounds such as furans, indoles, pyridines, pyrroles, thiophenes, and others.

Classical and modern heterocyclic ring synthesis and functionalization methodologies will be covered, and an array of organometallic-promoted methods will be presented. The use of heterocycles in the design and synthesis of bioactive compounds in medicinal chemistry, as intermediates in the synthesis of natural products, and in the preparation of materials will be discussed. By the end of this course, you should be familiar with basic aspects of heterocyclic chemistry, understand the mechanistic basis for synthetically important transformation, and be able to predict the outcome of many organic reactions related to the synthesis and functionalization of heterocyclic structures.

The emphasis of this course is on the *development of problem solving skills* in the context of synthesis and reaction mechanisms of heterocyclic compounds. The student will gain and demonstrate <u>an understanding of the relationship between the</u> <u>structure of a heterocyclic molecule and its reactivity</u>.

Termin	Dzień tygodnia	Godzina	Miejsce
16.06.2016	Czwartek	7.15 – 10.00	Minicentrum Konferencyjne (Luwr)
17.06.2016	Piątek	7.15 – 10.00	Minicentrum Konferencyjne (Luwr)
20.06.2016	Poniedziałek	16.15 – 19.00	Minicentrum Konferencyjne (Luwr)
21.06.2016	Wtorek	16.15 – 19.00	Minicentrum Konferencyjne (Luwr)
22.06.2016	Środa	16.15 – 19.00	Minicentrum Konferencyjne (Luwr)