Course Specifications

General Information

Course name	Selected Topics In Medicinal Chemistry
Course number	PHCH5219
Faculty	
Department	
Course type	Major Needs
Course level	5
Credit hours (theoretical)	2
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

1 - Spreading the knowledge of the students with new topics in pharmaceutical chemistry including synthesis, formulations, enhancment of solubility, analysis
2 - New approaches in drug synthesis, and automization processes
3 - Focusing on biotechnological products synthesis, therapy, purification
4 - Application of biotechnology in identification of drugs targrts
5 - Computer programm in drug development and modulation (Drug Design)

Intended Learning Outcomes

Knowledge and Understanding	* New developments for drug finding as a lead compound
	* Identification of new targets for drugs
	* Biotechnology as important branch in pharmaceutical industry and therapy
	* Protein synthesis and purifications technique
	* Drug design an approache to simulate the activity of a drug using computer
Professional Skills	* Using scientific background , references, and data banks as drug information resources
General Skill	* Application of sciences in pharmacy in understanding the drug as a molecule with respect to stereochemistry and metabolism

Course Contents

1 - Synthesis of drugs: Automization procedures, Combichem
2 - Finding a lead compound, high throughput screening
3 - Identification of drugs targets
4 - Stereochemistry and drug activity
5 - Computer aided drug design
6 - Monoclonal antibodies production, purification, analysis
7 - Application of monoclonal antibodies in therapy, diagnosis, analysis

Teaching and Learning Methods

1 - Lectures for students using special pharmaceutical chemistry books
2 - Seminars prepared by some students followed by discussion
3 - Using some illustrating materials like videos

Students Assessment

Assessment Method	TIME	MARKS
Midterm exam	dring semester 6th week	30
Seminar and reports	during semester	20
Final Exam	End of Semester	50

Books and References

Course note	Course notes including powerpoint presentations should be given for students
Essential books	Wilson and Gisvolds Textbook of organic, medicinal, and pharmaceutical chemistry, 11th edition, Block J and Beale J, 2004, LIPPENCOTT WILLIAMS and WILKINS.
Recommended books	Essentials of Pharmaceutical Chemistry, 4th Edition, Pharmaceutical Press, 2012.
	Medical Biotechnology, Judit Pongracz, Mary Keen, Elsevier Health Sciences, 2009,