

Quality Assurance Unit

Department of Phamaceutic

Analytical Chemistry





Course Specification

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1-Basic Information

Title: New Trends in Drug Analysis Code: ----Level: Ph. D. students Department:

Pharmaceutical Analytical Chemistry

Unit: 1 hr / week

Lecture: 15 Tutorial --- Practical: --- Total: 15

2- Aims of Course

Preparation of Ph. D. student to know and understand the basic information concerning the subject of dissertation in the literature and to have a complete scientific background assisting experimental study.

3- Intended Learning Outcomes of Course(ILOs)

a- Knowledge and Understanding:

- al- Illustrate medicinal importance of investigated drugs and their pharmacological classification.
- a2- Explain structure-activity relationships of investigated drugs.
- a3- Describe official and reported analytical methods of investigated drugs.

b- Intellectual Skills:

- b1- Conclude the effect of addition or removal of certain functional group from the molecules of investigated drugs on biological activity.
- b2- Design new methods for analysis of investigated drugs based on functional groups and physicochemical properties.

c- Professional and practical Skills:

- c1- Operate different advanced analytical instruments.
- c2- Avoiding serious precautions during operation of instruments.
- c3- Troubleshooting of analytical instruments.

d- General and Transferable Skills:

- d1- Communication with other colleagues and teamwork.
- d2- Time management during operation of instruments.

4- Course Contents

Topic	No. of	Lecture	Tutorial /
	hours		Practical
Medicinal importance of	1	1	
investigated drugs			
Structure-activity relationships	1	1	
of investigated drugs			
Official and reported analytical	5	5	
methods for investigated drugs			
Analysis of investigated drugs	5	5	
in biological fluids			
Research protocol and proposed	3	3	
directions			

5- Teaching and Learning Methods

- 4.1- Lectures using power point.
- 4.2- Writing a review paper from reference books and periodicals.
- 4.3- Carrying out a net search.

6- Teaching and learning methods for disables

The same as above.

7- student Assessment

a- Student Assessment methods

6.1-Wtittento Exam to assess theoretical background

b- Student Assessment Schedule

No.	Assessment	week
1.	Written Exam	at the end of course

c- Weighting of Assessments

No.	Exam.	Mark	%
1.	Mid-Term Examination		
2.	Final-Term Examination	100	100
3.	Oral Examination		
4.	Practical Examination		
5.	Semester Work		
6-	Other types of assessment		
	<u>Total</u>		100%

8- List of References

a-Course Notes

Students are encouraged to read reference books and periodicals and not to depend on course notes.

- b- Essential Books (Text Books)
 - 1- "Analytical Profiles of Drug Substances", Ed. K. Florey, Academic press, N. Y. Volumes 1-20
 - 2-" Analytical Profiles of Drug Substances and Excipients ", Ed. : H. G. Brittain, Academic Press, N. Y., Volumes 21-29
 - 3- "Profiles of Drug Substances, Excipients and Related Methodology", Ed.: H. G. Brittain, Academic Press Amsterdam, Volumes. 30-34.

c-Recommended Books

- 1- "Phearmaceutical Analysis", Ed.: T. Higuchi, E. Brochmann, H. Hanssen and H. Hanssen, CBS Publishers & Distributors, New Delhi, 2005.
- 2- "The Quantitative Analysis of Drugs", D. C. Garratt, 3rd Ed., CBS Publishers & Distributors, New Delhi, 2005.
- d- Periodicals, Web Sites, etc Analyst, Talanta, International J. of pharmaceutics, J. Pharm. Sci., IPA, CA, AA.

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Date: 20 /3 /2010