



Quality Assurance Unit



Assiut University
Faculty of Pharmacy

Course Specification

1-Basic Information

Title: Advanced drug delivery system

Code: MPT 051

Level: M. of Pharm. Sci. (Pharmaceutics) year 2

Department: **Pharmaceutics**

Unit: **2Hour/week**

Lecture: Two hour/ week

Tutorial

Practical:

Total: 2hr/week

Year: 2015-2016

2- Aims of Course

Provide the student with comprehensive theoretical basic information of modern techniques used for the release of the drug and the modern systems used to deliver drugs from selected pharmaceutical dosage forms.

3- Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

The graduate should be able to:

- a6- List different theories and techniques to prepare sustained release dosage forms.
- a3- List different techniques and their relevant basic principals, advantages and disadvantages of each techniques.

b- Intellectual Skills:

The graduate should be able to:

- b10-Suggest the most appropriate system to treat a specific disease, taking into consideration the properties of each drug and how to be used.
- b2-Applying the knowledge of the modern systems in development of new trends to deliver drug molecules.
- b2- Provide a creative thinks in development of pharmaceutical dosage forms and the use of different principles for design.

c- Professional and practical Skills:

The graduate should be able to:

C9- Collect the properties and specifications of modern systems for drug delivery and methods of preparations and the ultimate conditions for their use in a safety manner.

d- General and Transferable Skills:

The graduate should be able to:

d6- Communicate efficiently with the medical team.

Course Contents

| Topic | No. of hours | Lecture | Tutorial / Practical |
|--------------------------------|--------------|---------|----------------------|
| Pediatric medications | 8 | | |
| Geriatric medications | 8 | | |
| Sustained release dosage forms | 8 | | |
| Gastroretentive dosage forms | 6 | | |
| Total | 30 | | |

4- Teaching and Learning Methods

- 4.1- Lecturers
- 4.2- Discussions
- 4.3- Reports

5- Teaching and learning methods for disables

None

6- Student Assessment

a- Student Assessment methods

6.1- Written exam to assess understanding and knowledge.

b- Student Assessment Schedule

| No. | Assessment | week |
|-----|------------|---------|
| 1. | Final exam | In June |

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- | <u>Other types of assessment</u> | | |
| | <u>Total</u> | 100 | 100% |

7- List of References

a-Essential Books (Text Books)

- Ansel H. C., Allen L. V., and Popovich N. G. (1999). Pharmaceutical Dosage Forms and Drug Delivery Systems. 7th Edition. Lippincott-Williams & Wilkins.

b-RecommendedBooks

- Wise D. L. (2000). Handbook of Pharmaceutical Controlled Release Technology. CRC Press.

c- Periodicals, Web Sites,etc

International journals and web sites

8- Facilities Required for Teaching and Learning

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Course Coordinator:Dr. Ghian Nabil Fetih

Head of Department: Prof. Dr. Mahmoud El-Badry

Date: 7/ 3 /2016

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|-------------------|----------------------|---------------------|--------------------------------------|
| University | Assiut | Course Title | Advanced drug delivery system |
| Faculty | Pharmacy | Course Code | MPT 051 |
| Department | Pharmaceutics | | |

Matrix of the Intended Learning Outcomes (ILOs) of the Course

| Topic | Week | Knowledge and Understanding | Intellectual Skills | Professional and Practical Skills | General and Transferable Skills |
|--------------------------------|-------------|------------------------------------|----------------------------|--|--|
| Pediatric medications | 1-4 | a3 | b10,b2 | c9 | d6 |
| Geriatric medications | 5-8 | a3 | b10,b2 | c9 | d6 |
| Sustained release dosage forms | 9-12 | a6 | b10,b2 | c9 | d6 |
| Gastroretentive dosage forms | 13-15 | a3 | b10,b2 | c9 | d6 |

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