

**In the name of GOD**

**Department of**

**School of pharmacy**

Course title: Pharmaceutics 3 (theory)

Course code:

Credit(Theory or Practical): 3 (theory)

*Prerequisite:* pharmaceutics 1

*First Semester:* Sep 2023

Course Instructors: Dr. Zohreh Mohammadi, Dr Ahmadreza Barazesh,

Responsible Instructor: Dr. Zohreh Mohammadi

***References:***

- 1- Aulton's Pharmaceutics: The Design and Manufacture of Medicines, Michael E. Aulton BPharm PhD, Kevin M.G. Taylor BPharm PhD, latest edition
- 2- Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems, Loyd Allen, latest edition
- 3- Recent articles

***Student assessment:***

1-Attendance, class works and exams: 35%

3-Final exam (multiple-choice questions, descriptive questions):multiple-choice and descriptive questions: 65%

- All classes will be held in Besarati (Eastern 7) street, North Shahin Boulevard

Course title:

	subject	Professor	Date	Time
1	Suspensions: introduction, definition, main mechanisms, The DLVO theory,	Dr. Zohreh Mohammadi	27 Sep	10-13
2	And Particle movement in suspensions, Dispersability issues			
3	General suspension formulation considerations,	Dr. Zohreh Mohammadi	4 Oct	10-13
4	Stability considerations for suspensions And nanosuspensions			
5	Emulsions and nanoemulsions: introduction, formation mechanisms,	Dr. Zohreh Mohammadi	11 Oct	10-13
6	And Pharmaceutical emulsions and their formulations			
7	Emulsifying agents	Dr. Zohreh Mohammadi	25 Oct	10-13
8	And Emulsion processing and stability			
9	Introduction to solutions,	Dr. Ahmad Reza Barazesh	1 Nov	10-13
10	Pharmaceutical solutions: solvent system, drug, excipients,			
11	Parenteral drug delivery: introduction, definition, different routes, Absorption from injection sites	Dr. Ahmad Reza Barazesh	8 Nov	10-13
12	And Pharmacopoeial requirements of parenteral dosage forms			
13	Formulation of parenteral dosage forms	Dr. Ahmad Reza Barazesh	15 Nov	10-13
14	And Sterilization			
	And Pyrogens and depyrogenation			
	MID-TERM EXAM		22 Nov	10-13

15 16	Clean rooms: definition, classification, standards and controls	Dr Ahmad Reza Barazesh	29 Nov	10-13
17 18	Nasal drug delivery (1): introduction, various delivery systems And Nasal drug delivery (2): anatomical, physiological and formulation factors.	Dr. Zohreh Mohammadi	6 Dec	10-13
19 20 21	Ocular drug delivery(1): introduction and basic principles And Ocular drug delivery(2): Various preparations and their formulations And Ocular drug delivery(3): Improving drug solubility and absorption in ophthalmic preparations	Dr. Zohreh Mohammadi	13 Dec	10-13
22 23	Pharmaceutical packaging (1): introduction and basic principles And Pharmaceutical packaging (2): packaging materials	Dr. Zohreh Mohammadi	20 Dec	10-13