



## **MONAD UNIVERSITY**

Estd.Under U.P. Govt. University Act 23 of 2010 & U/S 2(f) of the U.G.C. Act 1956.  
N.H.24, Delhi Hapur Road, Village & Post – Kastla, Kasmabad,  
P.O. Pilkhuwa – 245101, District Hapur (U.P.) India  
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### **Course Plan**

#### **Program- D. Pharm - I**

#### **Course ER20-11T PHARMACEUTICS-I**

#### **Session - 2021-22**

<b>S. No.</b>	<b>Day</b>	<b>Subject</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Total</b>
1	D Day					
2	D+1	History of the profession of Pharmacy in India in relation to Pharmacy education.	1	0	0	1
3	D+2	Industry And Pharmacy Practice.	1	0	0	1
4	D+3	Various professional associations. Pharmacy as a career	1	0	0	1
5	D+4	Pharmacopoeia: Introduction to IP	1	0	0	1
6	D+5	Tutorial (Problem solving session/ class test)	0	1	0	1
7	D+6	Introduction to BP.	1	0	0	1
8	D+7	Introduction to USP.	1	0	0	1
9	D+8	NF and Extra Pharmacopoeia.	1	0	0	1
10	D+9	Salient features of Indian Pharmacopoeia	1	0	0	1
11	D+10	Tutorial (Problem solving session/ class test)	0	1	0	1
		<b>TOTAL</b>	8	2	0	10
12	D+11	<b>Packaging materials: Types</b>	1	0	0	1

13	D+12	Selection Criteria	1	0	0	1
14	D+13	Advantages And Disadvantages of Glass	1	0	0	1
15	D+14	Plastic, Metal	1	0	0	1
16	D+15	Tutorial (Problem solving session/ class test)	0	1	0	1
17	D+16	Rubber As Packaging Materials	1	0	0	1
18	D+17	Pharmaceutical aids: Organoleptic (Coloring) agents	1	0	0	1
19	D+18	Pharmaceutical aids: Organoleptic (flavoring) agents	1	0	0	1
20	D+19	Pharmaceutical aids: Organoleptic (sweetening) agents	1	0	0	1
21	D+20	Tutorial (Problem solving session/ class test)	0	1	0	1
		<b>TOTAL</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>10</b>
22	D+21	Unit operations: Definition, objectives/applications, principles, construction, and workings of: Size reduction: hammer mill	1	0	0	
23	D+22	Unit operations: Definition, objectives/applications, principles, construction, and workings of: Size reduction: ball mill	1	0	0	1
24	D+23	Size separation: Classification of powders according to IP, Cyclone separator Sieves and standards of sieves	1	0	0	1
25	D+24	Mixing: Double cone blender, Turbine mixer, Triple roller mill and Silverson mixer homogenizer	1	0	0	1
26	D+25	Tutorial (Problem solving session/ class test)	0	1	0	1
27	D+26	Filtration: Theory of filtration,	1	0	0	1
28	D+27	membrane filter and sintered glass filter	1	0	0	1
29	D+28	Drying: working of fluidized bed dryer	1	0	0	1
30	D+29	process of freeze drying	0	1	0	1
31	D+30	Tutorial (Problem solving session/ class test)	1	0	0	
		<b>TOTAL</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>10</b>
32	D+31	Extraction: Definition, Classification, method, and applications	1	0	0	1

<b>33</b>	D+32	Tablets – coated	1	0	0	1
<b>34</b>	D+33	Tablets – uncoated,	1	0	0	1
<b>35</b>	D+34	various modified tablets	1	0	0	1
	D+35	Tutorial (Problem solving session/ class test)	0	1	<b>0</b>	1
<b>36</b>	D+36	Sustained release	1	0	0	1
<b>37</b>	D+37	extended-release,	1	0	0	1
<b>38</b>	D+38	fast dissolving,	1	0	0	1
<b>39</b>	D+39	multilayered, etc.	1	0	0	1
<b>40</b>	D+40	Tutorial (Problem solving session/ class test)	0	1	0	1
		<b>TOTAL</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>10</b>
<b>41</b>	D+41	Capsules	1	0	0	1
<b>42</b>	D+42	hard gelatine capsules	1	0	0	1
<b>43</b>	D+43	soft gelatine capsules	1	0	0	1
<b>44</b>	D+44	soft gelatine capsules	1	0	0	1
<b>45</b>	D+45	Tutorial (Problem solving session/ class test)	0	1	0	1
<b>46</b>	D+46	Liquid Oral Preparations - Solution	1	0	0	1
<b>47</b>	D+47	Syrup, Elixir	1	0	0	1
<b>48</b>	D+48	Emulsion, Suspension	1	0	0	1
<b>49</b>	D+49	Dry Powder for Reconstitution	1	0	0	1
<b>50</b>	D+50	Tutorial (Problem solving session/ class test)	0	1	0	1
		<b>TOTAL</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>10</b>

<b>51</b>	D Day	Topical preparations - ointments				
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52	D+51	Creams	1	0	0	1
53	D+52	Pastes	1	0	0	1
54	D+53	Gels	1	0	0	1
55	D+54	Liniments	1	0	0	1
56	D+55	Tutorial (Problem solving session/ class test)	0	1	0	1
57	D+56	Lotions	1	0	0	1
58	D+57	Suppositories	1	0	0	1
59	D+58	Pessaries	1	0	0	1
60	D+59	Pessaries	1	0	0	1
61	D+60	Tutorial (Problem solving session/ class test)	0	1	0	1
		<b>TOTAL</b>	8	2	0	10
62	D+61	Nasal preparations	1	0	0	1
63	D+62	Ear preparations	1	0	0	1
		<b>TOTAL</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
64	D+63	Powders And Granules - Insufflations, Dusting Powders,	1	0	0	1
65	D+64	Effervescent Powders	1	0	0	1
66	D+65	Tutorial (Problem solving session/ class test)	0	1	0	1
67	D+66	Effervescent Granules	1	0	0	1
		<b>TOTAL</b>	3	1		3
68	D+67	Sterile formulations – Injectables,	1	0	0	1
69	D+68	Injectables	1	0	0	1
70	D+69	eye drops	1	0	0	1
71	D+70	eye drops	1	0	0	1
72	D+71	eye ointments	1	0	0	1
73	D+72	eye ointments	1	0	0	1
74	D+73	Tutorial (Problem solving session/ class test)	0	1	0	1

		<b>TOTAL</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>6</b>
<b>75</b>	D+74	Immunological products Sera	1	0	0	
<b>76</b>	D+75	Vaccines	1	0	0	1
<b>77</b>	D+76	Toxoids	1	0	0	1
<b>78</b>	D+77	their manufacturing methods.	1	0	0	1
<b>79</b>	D+80	Tutorial (Problem solving session/ class test)	0	1	0	1
		<b>TOTAL</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>80</b>	D+81	Basic structure, layout, sections, and activities of pharmaceutical manufacturing plants Quality control and quality assurance	1	0	0	1
<b>81</b>	D+82	Definition and concepts of quality control and	1	0	0	1
<b>82</b>	D+83	quality assurance	1	0	0	1
<b>83</b>	D+84	current good manufacturing practice (cGMP),	1	0	0	1
<b>84</b>	D+85	Introduction to the concept of calibration and validation	1	0	0	1
		<b>TOTAL</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>



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#### **Course ER20-11P PHARMACEUTICS-I**

#### **Session - 2021-22**

<b>S. No.</b>	<b>Day</b>	<b>Subject</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Total</b>
1	D Day					
2	D+1	To Prepare and Submit 10 ml of Simple syrup.	0	0	1	1
3	D+2	To Prepare and Submit 20 ml of elixir	0	0	1	1
4	D+3	To Prepare and Submit 20 ml of Aq. Iodine Solution IP.	0	0	1	1
5	D+4	To Prepare and Submit 10 ml of Castor oil emulsion	0	0	1	1
6	D+5	To Prepare and Submit 20 ml of Cod liver oil emulsion	0	0	1	1
7	D+6	To Prepare and Submit 20 ml of Calamine lotion	0	0	1	1
8	D+7	To Prepare and Submit 20 ml of Magnesium hydroxide mixture	0	0	1	1
9	D+8	To Prepare and Submit 20 gm of Simple ointment base	0	0	1	1
10	D+9	To Prepare and Submit 10 gm of Sulphur ointment	0	0	1	1
11	D+10	To Prepare and Submit 20 gm of Cetrimide cream.	0	0	1	1

			0	0	0	10
12	D+11	To Prepare and Submit 20 gm of Sodium alginate gel	0	0	1	1
13	D+12	To Prepare and Submit 10 ml of Turpentine liniment	0	0	1	1
14	D+13	Formulation and Evaluation of PCM Tablets by Granulation techniques.	0	0	1	1
15	D+14	To Prepare, submit and Evaluate 5 capsules of PCM.	0	0	1	1
16	D+15	To Prepare and Submit 10 ml of cold cream	0	0	1	1
17	D+16	To Prepare and Submit 10 ml of shampoo.	0	0	1	1
18	D+17	Sterilization of Prepared Eye drop of Zinc Sulphate Eye drops BP and Sodium Chloride Eye drops BP by Autoclaving Method.	0	0	1	1
19	D+18	To Prepare and Submit 20 ml of lotion.	0	0	1	1
20	D+19	To Prepare and Submit 20 ml of toothpaste.	0	0	1	1
21	D+20	To Prepare and Submit 20 ml of White liniment BPC.	0	0	1	1
		<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>01</b>	<b>10</b>
22	D+21	To Prepare and Submit 20 gm of Dusting powder	0	0	01	1
23	D+22	To Prepare and Submit 10 ml of Normal Saline	0	0	01	1
24	D+23	To Prepare and Submit 20 ml of Calcium gluconate Injection	0	0	01	1
25	D+24	To Prepare and Submit 10 gm of Effervescent powder granules	0	0	01	1
26	D+25	To Prepare and Submit 20 ml of Calcium gluconate Injection	0	0	01	1
			<b>0</b>	<b>0</b>	<b>05</b>	<b>05</b>
		<b>TOTAL</b>				<b>25</b>