

**SCHEME  
OF  
EXAMINATION**

Under Choice Based Credit System (CBCS)

**For**

**M.Sc. (Chemistry)- 2 Years**

(W.e.f. Session 2019-20)



**UTTARANCHAL UNIVERSITY  
DEHRADUN**

**Evaluation Scheme (CBCS system)****(w. e. f. Session 2019-20)**

<b>SEMESTER-I</b>						
S.N.	Paper Code	Subject	L-T-P	Credit	Max Marks	
					Ext.	Int.
1.1	MCH-101	Analytical & Separation Techniques	4-0-0	4	60	40
1.2	MCH-102	Inorganic Chemistry-I	4-0-0	4	60	40
1.3	MCH-103	Organic Chemistry –I	4-0-0	4	60	40
1.4	MCH-104	Physical Chemistry-I	4-0-0	4	60	40
1.5	MCH-105	Computer for chemists	2-0-0	2	60	40
1.6	PMCH-101	Analytical Chemistry Lab	0-0-4	2	60	40
1.7	PMCH-102	Inorganic Chem-I Lab	0-0-4	2	60	40
1.8	PMCH-103	Organic Chem –I Lab	0-0-4	2	60	40
1.9	PMCH-104	Physical Chem –I Lab	0-0-4	2	60	40
2.0	PMCH-105	Computer for Chemists Lab	0-0-2	1	60	40
<b>Total for I semester</b>			<b>18-0-18</b>	<b>27</b>	<b>1000</b>	
<b>SEMESTER-II</b>						
S.N.	Paper Code	Subject	L-T-P	Credit	Max Marks	
					Ext.	Int.
2.1	MCH-201	Spectroscopy	4-0-0	4	60	40
2.2	MCH-202	Inorganic Chemistry-II	4-0-0	4	60	40
2.3	MCH-203	Organic Chemistry -II	4-0-0	4	60	40
2.4	MCH-204	Physical Chemistry –II	4-0-0	4	60	40
2.5	MCH-205	Essential Mathematics & Bio stats	3-1-0	4	60	40
2.6	PMCH-201	Spectroscopy Lab	0-0-4	2	60	40
2.7	PMCH-202	Inorganic Chem-II Lab	0-0-4	2	60	40
2.8	PMCH-203	Organic Chem-II Lab	0-0-4	2	60	40
2.9	PMCH-204	Physical Chem–II Lab	0-0-4	2	60	40
<b>Total for II semester</b>			<b>19-1-16</b>	<b>28</b>	<b>900</b>	

<b>SEMESTER-III</b>						
S.N.	Paper Code	Subject	L-T-P	Credit	Max Marks	
					Ext.	Int.
3.1	MCH-301	Polymer Chemistry	4-0-0	4	60	40
3.2	MCH-302	Environment & Green Chemistry	4-0-0	4	60	40
3.3	MCH-303	<b>Elective I</b>	4-0-0	4	60	40
3.4	MCH-304	<b>Elective-II</b>	4-0-0	4	60	40
3.5	PMCH-301	Polymer chemistry Lab	0-0-4	2	60	40
3.6	PMCH-302	Environmental Chemistry Lab	0-0-4	2	60	40
3.7	PMCH-303(i)	Elective-1 Lab	0-0-4	2	60	40
3.8	PMCH-304(i)	Elective-II Lab	0-0-4	2	60	40
3.9	PMCH-305	Seminar Presentation / SWAYAM /MOOC course	0-0-2	1	00	50
<b>Total for III semester</b>			<b>16-0-18</b>	<b>25</b>	<b>850</b>	
<b>SEMESTER-IV</b>						
S.N.	Paper Code	Subject	L-T-P	Credit	Max Marks	
					Ext.	Int.
4.1	MCH-401	Elective (Special.)-III	4-0-0	4	60	40
4.2	MCH-402	Elective (Special.)-IV	4-0-0	4	60	40
4.3	PMCH-401	Elective(Special)-III- Lab	0-0-4	2	60	40
4.4	PMCH-402	Elective(Special)-IV- Lab	0-0-4	2	60	40
4.5	PMCH-403	Project	0-0-12	6	200	100
<b>Total for IV semester</b>			<b>8-0-20</b>	<b>18</b>	<b>700</b>	
<b>Grand Total for all Semesters</b>				<b>98</b>	<b>3450</b>	

**Elective-I MCH 303**

- 1) Sugar, Pulp & Starch Industry
- 2) Nanotechnology
- 3) Heavy and Fine Chemical Industry
- 4) Total Quality Management
- 5) Any Other Elective offered by other Departments or from SWAYAM /MOOC Course

**Elective- II MICH 304(j)**

- 1) Bioinorganic, Bioorganic & Biophysical Chemistry
- 2) Advances in Ion exchange
- 3) Petroleum Chemistry and Agrochemicals
- 4) Any Other Elective/Pharmachem

**Elective (Specialization for Inorganic Chemistry)-III & IV**

- 1) Physical Methods in Inorganic Chemistry & Group Theory
- 2) General and Organometallic chemistry
- 3) Inorganic Rings, Chains, Clusters and Macrocyclic Complexes.
- 4) Inorganic Polymers and Supra-molecular Chemistry
- 5) Any Other

**Elective (Specialization for Organic Chemistry)- III & IV**

- 1) Chemistry of Natural products
- 2) Photochemistry & Pericyclic reactions
- 3) Medicinal Chemistry
- 4) Heterocyclic Chemistry
- 5) Any Other

