



JSPM UNIVERSITY PUNE

Recognized by UGC u/s 2 (f) of UGC Act 1956 and enacted by the
State Government of Maharashtra - JSPM University Act, 2022 (Mah.IV of 2023)

JSPM University Pune
Faculty of Science and Technology
School of Basic and Applied Sciences



NEP aligned Curriculum Structure

for

M.Sc (Chemistry)

(Effective from AY: 2025-26)



JSPM University Pune

FACULTY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BASIC AND APPLIED SCIENCES

FIRST YEAR MASTER OF SCIENCE
(ORGANIC CHEMISTRY)

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2024

REVISION NO.

0.0 (NEP)

SEMESTER I (LEVEL 6.5)

| TYPE | CODE | COURSE NAME | TEACHING SCHEME | | | | EXAMINATION SCHEME AND MARKS | | | | | | | | TOTAL | CREDITS |
|--------------|--------------|---|-----------------|----------|-----------|----------|--|---------------|------------------------|---|---|-------------------------------------|---|-------------------------------------|------------|-----------|
| | | | Hours / Week | | | | THEORY (Equal Weightage for CIE and ESE) | | | | PRACTICAL (Equal Weightage for CIE and ESE) | | ORAL (Equal Weightage for CIE and ESE) | | | |
| | | | L | T | P | EL | CONTINUOUS INSEMESTER EVALUATION (100 Marks) | | | END SEMESTER EXAMINATION (100 / 50 Marks) | CONTINUOUS INSEMESTER EVALUATION (50 Marks) | END SEMESTER EXAMINATION (50 Marks) | CONTINUOUS INSEMESTER EVALUATION (50 Marks) | END SEMESTER EXAMINATION (50 Marks) | | |
| | | | | | | | T1 (30 Marks) | T2 (30 Marks) | Assignments (40 Marks) | | | | | | | |
| PCC | 240GCHM01_01 | Reaction Mechanisms in Organic Chemistry | 3 | - | - | 2 | 30 | 30 | 40 | 100 | - | - | - | - | 100 | 3.5 |
| PCC | 240GCHM02_01 | Molecular Spectroscopy | 3 | - | - | - | 30 | 30 | 40 | 100 | - | - | - | - | 100 | 3 |
| PCC | 240GCHM03_01 | Coordination chemistry and Organometallic compounds | 3 | - | - | - | 30 | 30 | 40 | 100 | - | - | - | - | 100 | 3 |
| MMC | - | Multidisciplinary Minor Course | 1 | - | 2 | - | - | - | - | - | - | - | - | - | 100 | 3 |
| SEC | 240GCHM60_01 | Programming for Chemists | 2 | - | 2 | - | - | - | - | - | 50 | 50 | 50 | 50 | 100 | 2 |
| VSC (HSMC) | 230IDCB01_01 | Design Thinking and Creativity | 1 | - | - | 2 | - | - | - | - | 50 | 50 | 50 | 50 | 100 | 3 |
| AEC (HSMC) | 230UENM01_01 | Communicative English for Professionals | 1 | - | 2 | - | 30 | 30 | 40 | 50 | - | - | 50 | 50 | 50 | 1.5 |
| RMC | 230IRMM01_01 | Research Methodology | 2 | - | - | - | 30 | 30 | 40 | 50 | - | - | - | - | 50 | 2 |
| LC | 240GCHM04_01 | Organic Synthesis Lab | - | - | 2 | - | - | - | - | - | 50 | 50 | - | - | 50 | 2 |
| LC | 240GCHM05_01 | Quantitative Inorganic Chemistry Lab | - | - | 2 | - | - | - | - | - | 50 | 50 | - | - | 50 | 1 |
| TOTAL | | | 16 | 0 | 10 | 4 | | | | | 50 | 50 | | | 50 | 1 |
| | | | | | | | | | | | | | | | 750 | 22 |

L-Lecture

Format No.: JSPMUni/ACAD/001

T-Tutorial
Rev. No.:0.0

P-Practical Session (Laboratory)
Rev. Date:01/07/2024


EL-Experiential Learning
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| Sem. | Multidisciplinary Minor Course (MMC) | | |
|------|--------------------------------------|--------------------------|------------------------|
| I | Course Code | 230GCEB40 | 240GFRB53 |
| | Course Name | Sustainable Materials | Industrial Fire Safety |
| II | Course Code | 230GCEB42 | 240GSFB52 |
| | Course Name | Water Quality Management | Food Quality Testing |


Dr. Chandan Patel
 Programme Coordinator (Chemistry), SBAS


Dr. Anuradha S. Deshpande
 Associate Dean (Academics)


Dr. R. S. Deshpande
 Dean, Faculty of Science and Technology


Prof. B.B. Ahuja
 Vice Chancellor, JSPM University Pune



JSPM University Pune

FACULTY OF SCIENCE AND TECHNOLOGY

SCHOOL OF FORENSIC SCIENCES

FIRST YEAR MASTER OF SCIENCE
(ORGANIC CHEMISTRY)

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2024

REVISION NO.

0.0 (NEP)

SEMESTER II (LEVEL 6.5)

| COURSE | | | TEACHING SCHEME | | | | EXAMINATION SCHEME AND MARKS | | | | | | | | TOTAL | CREDITS | |
|-----------------|--------------|---|-----------------|----------|-----------|----------|---|------------------|---------------------------|--|--|---|--|--|------------|-----------|---|
| TYPE | CODE | COURSE NAME | Hours / Week | | | | THEORY (Equal Weightage for CIE and ESE) | | | PRACTICAL (Equal Weightage for CIE and ESE) | | ORAL (Equal Weightage for CIE and ESE) | | | | | |
| | | | L | T | P | E | CONTINUOUS INSEMESTER EVALUATION (100 Marks) | | | END SEMESTER EXAMINATION (100 / 50 Marks) | CONTINUOUS INSEMESTER EVALUATION (50 Marks) | END SEMESTER EXAMINATION (50 Marks) | CONTINUOUS INSEMESTER EVALUATION (50 Marks) | END SEMESTER EXAMINATION (50 Marks) | | | |
| | | | | | | | T1 (30 Marks) | T2 (30 Marks) | Assignments (40 Marks) | | | | | | | | |
| PCC | 240GCHM06_02 | Introductory Analytical Chemistry | 3 | - | - | 2 | 30 | 30 | 40 | 100 | - | - | - | - | 100 | 2.5 | |
| PCC | 240GCHM07_02 | Chromatographic Techniques | 3 | - | - | - | 30 | 30 | 40 | 100 | - | - | - | - | 100 | 3 | |
| PCC | 240GCHM08_02 | Spectroscopic Methods | 2 | - | - | - | 30 | 30 | 40 | 50 | - | - | - | - | 50 | 2 | |
| MMC | - | Multidisciplinary Minor Course | 1 | - | 2 | - | - | - | - | - | 50 | 50 | 50 | 50 | 100 | 2 | |
| SEC | 240GCHM61_02 | Informatics in Chemistry | 2 | - | 2 | - | - | - | - | - | 50 | 50 | 50 | 50 | 100 | 3 | |
| VSC | 230IINB02_02 | Innovation | 1 | - | - | 2 | - | - | - | - | - | - | 50 | 50 | 50 | 1.5 | |
| AEC (HSMC) | 230UENM02_02 | Business Communication | 1 | - | 2 | - | 30 | 30 | 40 | 50 | - | - | - | - | 50 | 2 | |
| RMC | 230IRMM02_02 | Research Design and Techniques | 2 | - | - | - | 30 | 30 | 40 | 50 | - | - | - | - | 50 | 2 | |
| LC | 240GCHM09_02 | Organic Separation Methods Lab | - | - | 2 | - | - | - | - | - | 50 | 50 | - | - | 50 | 1 | |
| LC | 240GCHM10_02 | Analytical Chemistry Lab | - | - | 2 | - | - | - | - | - | 50 | 50 | - | - | 50 | 1 | |
| IITP/FP/ CEP | 240GCHM21_02 | Internship/Field Project/Community Engagement Program | 4 to 6 weeks | | | | - | - | - | - | - | - | - | 50 | 50 | 50 | 2 |
| TOTAL | | | 15 | 0 | 10 | 4 | | | | | | | | | 750 | 22 | |

Note: A Postgraduate Diploma will be awarded if a student exits after first year.

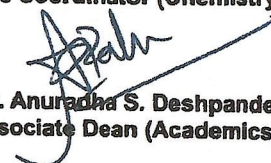
For Exit at the end of first year the student must complete: (Total credits = 8)

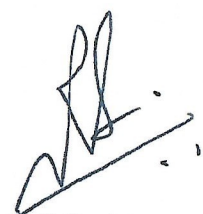
a) An internship / OJT of 8 - 10 weeks (4 credits)

b) Additional Course 1 (4 credits) (Vocational Skill Course (VSC) / Skill Enhancement Course (SEC))

| Sem. | Multidisciplinary Minor Course (MMC) | | |
|------|--------------------------------------|--------------------------|------------------------|
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