

S.N.D.T. WOMEN'S UNIVERSITY



**Syllabus for
M.Sc. Programme
Subject: Analytical Chemistry
Revised-2014**

Eligibility: B. Sc. with 5 units of 4 credits each (Annual System) or 32 credits (Semester System) of Chemistry.

FACULTY : Science**TOTAL CREDIT : 96****COURSE : Masters in Analytical Chemistry (M.Sc.)****SEMESTER I**

| Paper | Title | Hrs/wk | Internal | External | Total Marks | Credit |
|--------|--|--------|----------|----------|-------------|--------|
| 102101 | Fundamentals of Analytical Chemistry | 4 | 50 | 50 | 100 | 4 |
| 102102 | Food & Biochemical Analysis | 4 | 50 | 50 | 100 | 4 |
| 102103 | Environmental Science (or Through credit transfer) | 4 | 50 | 50 | 100 | 4 |
| 102104 | Drug Laws and Packaging | 4 | 50 | 50 | 100 | 4 |
| 102201 | Practical Analytical Chemistry | 8 | 50 | 50 | 100 | 4 |
| 102202 | Practical Food and Biochemical Analysis | 8 | 50 | 50 | 100 | 4 |
| Total | | | | | 600 | 24 |

SEMESTER II

| Paper | Title | Hrs/wk | Internal | External | Total Marks | Credit |
|--------|--|--------|----------|----------|-------------|--------|
| 202101 | Electro Analytical & Spectroscopic Methods | 4 | 50 | 50 | 100 | 4 |
| 202102 | Pharmaceutical Analysis | 4 | 50 | 50 | 100 | 4 |
| 202103 | Cosmetics Formulations & QC (or Through credit transfer) | 4 | 50 | 50 | 100 | 4 |
| 202104 | Research Methodology | 4 | 50 | 50 | 100 | 4 |
| 202201 | Practical Spectroscopy and Chromatography | 8 | 50 | 50 | 100 | 4 |
| 202202 | Practical Pharmaceutical Analysis | 8 | 50 | 50 | 100 | 4 |
| Total | | | | | 600 | 24 |

SEMESTER III

| Paper | Title | Hrs/wk | Internal | External | Total Marks | Credit |
|--------|---|--------|----------|----------|-------------|--------|
| 302101 | Advanced Chromatography & Spectroscopic Methods | 4 | 50 | 50 | 100 | 4 |
| 302102 | Organic Analysis | 4 | 50 | 50 | 100 | 4 |
| 302103 | Microbiological Methods of Analysis | 4 | 50 | 50 | 100 | 4 |
| 302112 | Elective Paper (or Through credit transfer) | 4 | 50 | 50 | 100 | 4 |
| 302201 | Practical Advanced Spectroscopic Methods | 8 | 50 | 50 | 100 | 4 |
| 302202 | Practical Organic Analysis | 8 | 50 | 50 | 100 | 4 |
| Total | | | | | 600 | 24 |

SEMESTER IV

| Paper | Title | Hrs/wk | Internal | External | Total Marks | Credit |
|--------|--|--------|----------|----------|-------------|--------|
| 402101 | Advanced Analytical Techniques (9 wks) (or Through credit transfer) | 4 | 50 | 50 | 100 | 4 |
| 402201 | Practical Advanced Anal. Techniques (9 wks) | 8 | 50 | 50 | 100 | 4 |
| 402301 | Research Project (9 wks) | 12 | 100 | 100 | 200 | 8 |
| 402302 | In-plant training (6 weeks) | 40 | 100 | 100 | 200 | 8 |
| Total | | | | | 600 | 24 |

25 Marks, 1 credit, 15Hrs (1 lecture=1 hour)

Elective

1. Industrial Products & Forensic Analysis
2. Medicinal Chemistry
3. Biosensors, Agrochemicals & Organic Polymers

Methodology

1. Lectures, Tutorials
2. Self study/ Internet/ Websites
3. Home assignments

Internal Assessment (Any One)

1. Presentation on one of the topic from the text
2. Community extension work
3. Field survey

