

CURRICULUM

UNDER CHOICE BASED CREDIT SYSTEM

(w.e.f session 2016-2017)

MASTER OF SCIENCE (MSC)

PROGRAMME

IN

Chemistry

**SIDHO-KANHO-BIRSHA UNIVERSITY
PURULIA, WEST BENGAL**

SIDHO-KANHO-BIRSHA UNIVERSITY

Curriculum

MASTER OF SCIENCE (MSc) PROGRAMME IN

CHEMISTRY

(w.e.f academic session: 2016-2017)

| | Course Code | Course Title | Credit | Marks |
|-------|-------------|--|--------|-------|
| SEM-1 | MCHECCT101 | General Chemistry -I | 4 | 40+10 |
| | MCHECCT102 | Inorganic Chemistry -I | 4 | 40+10 |
| | MCHECCT103 | Organic Chemistry -I | 4 | 40+10 |
| | MCHECCT104 | Physical Chemistry -I | 4 | 40+10 |
| | MCHECCS105 | Inorganic Chemistry Practical | 4 | 50 |
| | MCHECCS106 | Organic Chemistry Practical | 4 | 50 |
| SEM-2 | MCHECCT201 | Analytical Chemistry | 4 | 40+10 |
| | MCHECCT202 | Inorganic Chemistry -II | 4 | 40+10 |
| | MCHECCT203 | Organic Chemistry -II | 4 | 40+10 |
| | MCHECCT204 | Physical Chemistry -II | 4 | 40+10 |
| | MCHECCS205 | Physical Chemistry Practical | 4 | 50 |
| | MCHECCS206 | Analytical Chemistry Practical & Data Processing | 4 | 50 |
| SEM-3 | MCHECCT301 | Advanced General Chemistry-I | 4 | 40+10 |
| | MCHECCT302 | Advanced General Chemistry-II | 4 | 40+10 |
| | MCHEMET303 | Paper I of opted Major Elective Group | 4 | 40+10 |
| | MCHEOET304 | OPEN ELECTIVE | 4 | 50 |
| | MCHEMES305 | Paper II of opted Major Elective Group | 4 | 50 |
| | MCHEOPS306 | OUTREACH PROGRAMME | 4 | 50 |
| SEM-4 | MCHEMET401 | Paper III of opted Major Elective Group | 4 | 40+10 |
| | MCHEMET402 | Paper IV of opted Major Elective Group | 4 | 40+10 |
| | MCHEMET403 | Paper V of opted Major Elective Group | 4 | 40+10 |
| | MCHEACT404 | ADD-ON COURSE | 4 | 50 |
| | MCHEMES405 | Paper VI of opted Major Elective Group | 4 | 50 |
| | MCHEMEP406 | Project & Dissertation | 4 | 50 |

SIDHO-KANHO-BIRSHA UNIVERSITY

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LIST OF MAJOR ELECTIVE COURSES

Students of the **CHEMISTRY** course are required to study **ONE** Group from the available groups (if any)

Group-A

| Paper | Course Ref Code | Course Title | Credit | Marks |
|-------|-----------------|--|--------|-------|
| I | MCHEMET303A | Inorganic Chemistry Special-I | 4 | 40+10 |
| II | MCHEMES305A | Inorganic Chemistry Special Practical-I | 4 | 50 |
| III | MCHEMET401A | Inorganic Chemistry Special-II | 4 | 40+10 |
| IV | MCHEMET402A | Inorganic Chemistry Special-III | 4 | 40+10 |
| V | MCHEMET403A | Inorganic Chemistry Special-IV | 4 | 40+10 |
| VI | MCHEMES405A | Inorganic Chemistry Special Practical-II | 4 | 50 |

Group-B

| Paper | Course Ref Code | Course Title | Credit | Marks |
|-------|-----------------|--|--------|-------|
| I | MCHEMET303B | Organic Chemistry Special-I | 4 | 40+10 |
| II | MCHEMES305B | Organic Chemistry Special Practical-I | 4 | 50 |
| III | MCHEMET401B | Organic Chemistry Special-II | 4 | 40+10 |
| IV | MCHEMET402B | Organic Chemistry Special-III | 4 | 40+10 |
| V | MCHEMET403B | Organic Chemistry Special-IV | 4 | 40+10 |
| VI | MCHEMES405B | Organic Chemistry Special Practical-II | 4 | 50 |

Group-C

| Paper | Course Ref Code | Course Title | Credit | Marks |
|-------|-----------------|---|--------|-------|
| I | MCHEMET303C | Physical Chemistry Special-I | 4 | 40+10 |
| II | MCHEMES305C | Physical Chemistry Special Practical-I | 4 | 50 |
| III | MCHEMET401C | Physical Chemistry Special-II | 4 | 40+10 |
| IV | MCHEMET402C | Physical Chemistry Special-III | 4 | 40+10 |
| V | MCHEMET403C | Physical Chemistry Special-IV | 4 | 40+10 |
| VI | MCHEMES405C | Physical Chemistry Special Practical-II | 4 | 50 |

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LIST OF OPEN ELECTIVE COURSES

Students of the **CHEMISTRY** course are required to study **ONE** Open Elective Course from the following list of courses to be selected from the courses not offered by the department of **CHEMISTRY**.

| Course ref Code | Course Title | Offered by Department | Credit | Marks |
|-----------------|---|-------------------------------|--------|-------|
| MOE1 | Gerontology | Anthropology & Tribal Studies | 4 | 50 |
| MOE2 | Bangla Sahityo o Sanskriti | Bengali | 4 | 50 |
| MOE3 | Sustainable Agriculture and Food Security | Botany | 4 | 50 |
| MOE4 | Entrepreneurship Developments | Commerce | 4 | 50 |
| MOE5 | Essence of Chemistry | Chemistry | 4 | 50 |
| MOE6 | Intellectual Property Rights | Economics | 4 | 50 |
| MOE7 | Yoga Education | Education | 4 | 50 |
| MOE8 | Business English and Grammar | English | 4 | 50 |
| MOE9 | Land and People | Geography | 4 | 50 |
| MOE10 | Urban Study | History | 4 | 50 |
| MOE11 | Statistical Methods | Mathematics | 4 | 50 |
| MOE12 | Modern Indian Thoughts | Philosophy | 4 | 50 |
| MOE13 | Nature of Universe and Concepts of Physics: Inventions and Applications | Physics | 4 | 50 |
| MOE14 | Human Rights Study | Political Science | 4 | 50 |
| MOE15 | Ancient Indian Culture and Science | Sanskrit | 4 | 50 |
| MOE16 | Communicative Santali | Santali | 4 | 50 |
| MOE17 | Social Relations | Sociology | 4 | 50 |
| MOE18 | Biodiversity and Wildlife Conservation | Zoology | 4 | 50 |

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LIST OF ADD-ON COURSES

Students of the **CHEMISTRY** course are required to study **ONE** Add-On course from the following list of courses

| Course ref Code | Course Title | Offered by Department | Credit | Marks |
|-----------------|---|---------------------------------|--------|-------|
| MAC1 | Environmental protection and management | Botany | 4 | 50 |
| MAC2 | Statistical Analysis | Economics | 4 | 50 |
| MAC3 | Communicative English | English | 4 | 50 |
| MAC4 | Computer Application | Mathematics | 4 | 50 |
| MAC5 | Value Based Education | Philosophy | 4 | 50 |
| MAC6 | Indian Constitution | Political Science | 4 | 50 |
| MAC7 | Communicative Sanskrit | Sanskrit | 4 | 50 |
| MAC8 | Health, hygiene, sanitization | Zoology | 4 | 50 |
| MAC9 | Community Resource Management | Anthropology and Tribal Science | 4 | 50 |
| MAC10 | Sociology and Social Work | Sociology | 4 | 50 |
| MAC11 | Indian History: Heritage and Culture | History | 4 | 50 |