



KAKATIYA INSTITUTE OF TECHNOLOGY AND SCIENCE, WARANGAL
MINOR IN CHEMISTRY (MCH) - MINOR CURRICULUM
EQUIVALENT MOOCs - ODD SEMESTER, JULY-DEC 2021, AY 2021-22

| S.No | Course Code | Course Name | EQUIVALENT COURSES OFFERED BY | | | | | | | | |
|--------------------------|-------------|---|---|---|-----------------|------------------|---|---------------|------------------------|----|---------------|
| | | | SWAYAM-NPTEL | | | COURSERA / UDEMY | | | SPOKEN TUTORIAL - IITB | | |
| MINOR COMPULSORY COURSES | | | Course Name | C | Course Dates* | Course Name | C | Course Dates* | Course Name | C | Course Dates* |
| 1 | U18MCH1001 | Fundamentals of Organic Chemistry | Introductory Organic Chemistry I (08 weeks) | 2 | CCD: 23.08.2021 | -- | - | CCD: | -- | -- | CCD: |
| | | | | | LDR: 23.08.2021 | | | LDR: | | | LDR: |
| 2 | U18MCH1002 | Co-Ordination Chemistry | -- | | CCD: | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 3 | U18MCH1003 | Analytical Chemistry | Analytical chemistry (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| MINOR ELECTIVE COURSES | | | | | | | | | | | |
| 4 | U18MCH1004 | Basics of organic reaction mechanism | Mechanisms in Organic Chemistry (08 weeks) | 2 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 5 | U18MCH1005 | Quantum Chemistry | Quantum Chemistry of Atoms and Molecules (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 6 | U18MCH1006 | Chemistry of d-Block Elements, Quantum Chemistry and Spectroscopy | -- | | CCD: | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 7 | U18MCH1007 | Stereochemistry | Stereochemistry (08 weeks) | 2 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |

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| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 8 | U18MCH1008 | Chemical Thermodynamics and Kinetics | Introduction to Chemical Thermodynamics and Kinetics (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 9 | U18MCH1009 | Spectroscopic Techniques for Pharmaceutical and Biopharmaceutical Industries | Spectroscopic Techniques for Pharmaceutical and Biopharmaceutical Industries (12 weeks) | 3 | CCD: 26.07.2021 | - | - | CCD: | -- | | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 10 | U18MCH1010 | Food Chemistry | -- | | CCD: | -- | - | CCD: | -- | 2 | CCD: 20.07.2020 |
| | | | | | LDR: | | | LDR: | | | LDR: 27.07.2020 |
| 11 | U18MCH1011 | Biochemistry | Biological Inorganic Chemistry (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 12 | U18MCH1012 | Quantum Mechanics and Molecular Spectroscopy | -- | 2 | CCD: | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: | | | LDR: | | | LDR: |
| 13 | U18MCH1013 | Spectroscopy and its Applications | Trace and ultra-trace analysis of metals using atomic absorption spectrometry (8 weeks) | | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 14 | U18MCH1014 | Chemical Crystallography | Chemical Crystallography (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | | LDR: |
| 15 | U18MCH1015 | Introduction to Polymer Science | Introduction to Polymer Science | 2 | CCD: 26.07.2021 | -- | - | CCD: | -- | - | CCD: |

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| | | | (08 weeks) | | LDR: 02.08.2021 | | | LDR: | | LDR: |
| 16 | U18MCH1016 | Polymers: concepts, properties, uses and sustainability | Polymers: concepts, properties, uses and sustainability (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | LDR: |
| 17 | U18MCH1017 | Environmental Chemistry | Environmental Chemistry (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | LDR: |
| 18 | U18MCH1018 | Environmental Soil Chemistry | Environmental Soil Chemistry (12 weeks) | 3 | CCD: 26.07.2021 | -- | - | CCD: | -- | CCD: |
| | | | | | LDR: 02.08.2021 | | | LDR: | | LDR: |

- I. In exigency situations such as the student already completed the listed compulsory courses(s) on his/her own interest during previous semesters through valid MOOCs etc, the HoD in consultation with Dean-AA shall propose an alternative course(s) for the specific scenario, after verification of relevant documents.
- II. By the end of April of every academic year, the department in consultation with Dean-AA, shall
- notify the list of equivalent courses in SWAYAM-NPTEL MOOCs / other standard MOOCs against the list of courses notified under Honours curriculum
 - propose a new course(s) in the place of any listed course(s) in the Honours curriculum, in case no equivalent course is found in MOOCs

*C: Credits ; CCD: Course Commencement Date; LDR: Last Date of Registration

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|----|--------------------------|---|--|--|--|--|--|-----------------------------------|-------------|
| - | Minor Laboratory Courses | Laboratory Courses (any 2 courses) - TO BE TAKEN IN THE MINOR DEPARTMENT | | | | | | | |
| 19 | | U18MCH1019 | Computational Chemistry Laboratory | | | | | | 2 credits |
| 20 | | U18MCH1020 | Polymer Synthesis Laboratory | | | | | | |
| 21 | | U18MCH1021 | Water Quality Analysis Laboratory | | | | | | |
| 22 | | U18MCH1022 | Metal Nanoparticles Synthesis Laboratory | | | | | | |
| | | | | | | | | <i>Total Credits to be earned</i> | 18+2 |

Sd/-

Dr. K. Rajendra Prasad
MOOCs Coordinator

Date: 22.06.2021

Department of Physical Sciences, Minor - Equivalent MOOCs Odd Sem AY 2021-22

Sd/-

Dr. T. Madhukar Reddy
Head of the Department

Dean, Academic Affairs

Page 3 of 3