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| Faculty/School | Faculty of Chemical and Energy Engineering |
| Program Name | Master in Chemical Engineering |
| Program Code | METK |
| Mode of Program | Taught course |
| Academic Session/ Semester | 2023/2024-2 |

COURSE MENU

| University General Courses (Choose 1 ONLY) | | |
|---|---|---------------|
| Course Code | Course Name | Credit |
| UHMS6013 | Seminar on Global Development, Economic and Social Issues | 3 |
| UHIS6013 | Philosophy of Science and Civilization | 3 |
| UHPS6013 | Dynamics of Leadership | 3 |
| UHMZ6023 | Malaysia Society and Culture | 3 |
| UECS6023 | Introduction to Technopreneurship | 3 |
| UHLM6013 | Bahasa Malaysia Penulisan Ilmiah | 3 |
| UBSS6023 | Business Ethics, Responsibility and Sustainability | 3 |
| UBSS6013 | Organizational Behavior and Development | 3 |
| UECS6013 | IT Project Management | 3 |
| UMJJ6013 | Basic Japanese Language & Culture | 3 |
| URTS6013 | Environmental Ethics | 3 |

| Pre-Requisite Courses (Compulsory for non-chemical Engineering Background) | | |
|---|-------------------------------|---------------|
| Course Code | Course Name | Credit |
| METK0113 | Mass Balance | 3 |
| METK0123 | Chemical Reaction Engineering | 3 |
| METK0133 | Separation Processes | 3 |

| Core Faculty Courses (Compulsory) | | |
|--|----------------------|---------------|
| Course Code | Course Name | Credit |
| METU1013 | Research Methodology | 3 |

| Core Courses (Compulsory) | | |
|----------------------------------|---|---------------|
| Course Code | Course Name | Credit |
| METK1113 | Advanced Chemical Reaction Engineering | 3 |
| METK1123 | Numerical Computation in Chemical Engineering | 3 |
| METK1133 | Separation Technology for Industrial Applications | 3 |
| METK1143 | Project Management for Engineering and Technology | 3 |

| Elective Courses (Choose 4 only) | | |
|---|--|---------------|
| Course Code | Course Name | Credit |
| METK1213 | Advanced Thermodynamics | 3 |
| METK1223 | Multiphase Reactor Analysis | 3 |
| METK1233 | Data Science for Chemical Engineers | 3 |
| METB1103 | Biotechnology for Engineers | 3 |
| METB1123 | Facilities and Infrastructure in Bioprocess Engineering | 3 |
| METE1113 | Sustainable Energy Management | 3 |
| METE1143 | Thermal Energy Management and Audit | 3 |
| METE1233 | Energy Integration and Resource Conservation | 3 |
| METE1253 | Energy Planning for Conservation and Sustainable Development | 3 |

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| METM1153 | Hydrocarbon Gas Exploration, Production and Processing | 3 |
| METM1243 | Liquefied Natural Gas Technology | 3 |
| METM1253 | Membrane Technology for Gas Separation | 3 |
| METR1113 | Smart Materials | 3 |
| METR1233 | Rubber and Latex Technology | 3 |
| METR1243 | Surface and Foam Technology | 3 |
| METW1143 | Occupational Safety | 3 |

| Master Project | | |
|-----------------------|--------------------|---------------|
| Course Code | Course Name | Credit |
| METK1314 | Master Project 1 | 4 |
| METK1326 | Master Project 2 | 6 |

Programme Coordinator : Dr. Nor Alafiza Yunus
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PROGRAM STRUCTURE

COURSES OFFERED FOR NEW INTAKE STUDENTS SESSION 2023/2024 SEMESTER 2

| SYLLABUS | COURSE CODE | SEMESTER | SECTION | DAY & TIME | LECTURER'S NAME & CONTACT NO : (Email & HP no.) |
|----------------------------|--|----------|---------|---------------------------------|--|
| University General Courses | <i>Student MUST refer to SPS Website https://sps.utm.my/academic-related-resources/ for the University General Courses schedule</i> | | | | |
| Core Faculty Course | METU1013 | 1 | 01 | Wednesday 2.00 pm – 5.00 pm | Assoc. Prof. Dr. Zainul Akmar Zakaria zainulakmar@utm.my 012-6270423 |
| Core Courses | METK1123 | 1 | 01 | Monday 10.00 am – 1.00 pm | Dr. Nor Alafiza Yunus alafiza@utm.my 012-3302842 |
| | METK1143 | 1 | 01 | Wednesday 10.00 am – 1.00 pm | Dr. Umi Aisah Asli umi_aisyah@utm.my 012-7379054 |
| Elective Courses | <i>Please refer other programs that offer elective courses (as listed in the study plan)</i> | | | | |
| Project | - | | | | |