



Mutah University
College of Graduate Studies
Master's Degree in Chemical Engineering
Comprehensive Track

Comprehensive Track: The total credit hours required for graduation are 33 credit hours, distributed as follows:

| A: - Specialization Requirements Compulsory Credit Hours (24) | Course Code | Course Title | Credit Hours | Prerequisite |
|--|-------------|--|--------------|--------------|
| | 0404721 | Advanced Transport Phenomena | 3 | |
| | 0404731 | Advanced Separation Technologies | 3 | |
| | 0404732 | Advanced Thermodynamics | 3 | |
| | 0404741 | Advanced Chemical Reaction Engineering | 3 | |
| | 0404751 | Advanced Process Dynamic and Control | 3 | |
| | 0404724 | Research Methodology | 3 | |
| | 0404764 | Environmental Impact Assessment | 3 | |
| | 0404781 | Advanced Process Optimization | 3 | |
| | 0404701 | Graduate Seminar | 0 | with 0404724 |

| B: - Elective Major Requirements Credit Hours (9) | Course Code | Course Title | Credit Hours | Prerequisite |
|--|-------------|--|--------------|--------------|
| | 0404733 | Computational Fluid Dynamic | 3 | |
| | 0404761 | Quality Assurance and Control | 3 | |
| | 0404763 | Advanced Process Safety Engineering | 3 | |
| | 0404765 | Advanced Solid Waste Treatment | 3 | |
| | 0404775 | Water and Industrial Wastewater Treatment Technologies | 3 | |
| | 0404782 | Renewable and Sustainable Energy | 3 | |
| | 0404797 | Special Topics in Chemical Process Technologies | 3 | |

| C: - College Compulsory | Course Code | Course Title | Credit Hours | Prerequisite |
|------------------------------------|-------------|-------------------------|--------------|--------------|
| | | Continuous Registration | 0 | |
| | | Comprehensive Exam | 0 | |