

Bachelor of Engineering (Chemical Engineering)
Recommended Semester Schedule for Polytechnic Graduate Students
(AY2026/2027 Intake)

Based on their polytechnic qualification, polytechnic graduate students will be exempted from Unrestricted Elective Courses (UEC, 20Units), EG3611P Industrial Attachment (10Units), DTK1234 Design Thinking (4Units) and EG1311 Design and Make (4Units)

(The following schedule is for those taking MA1301 Introductory Mathematics)

| Semester 1 | Units | Semester 2 | Units |
|--|--------------|--|--------------|
| CN1101A Chemical Engineering Principles and Practice I | 4 | CN2102 Chemical Engineering Principles and Practice II | 4 |
| GEA1000 Quantitative Reasoning with Data | 4 | CN2103 Material & Energy Balances | 4 |
| MA1301 Introductory Mathematics | 4 | CS1010E Programming Methodology | 4 |
| PF1101A Project Management and Finance | 4 | MA1511 Engineering Calculus | 2 |
| GE/UE | 4 | MA1512 Differential Equations for Engineering | 2 |
| | | GE/UE | 4 |
| Sub-total | 20 | Sub-total | 20 |
| Semester 3 | | Semester 4 | |
| CN2104 Chemical Engineering Thermodynamics | 4 | CN2105 Reaction Engineering | 4 |
| CN2109 Fluid Mechanics | 4 | CN2110 Heat and Mass Transfer | 4 |
| CN2111 Fundamentals of Biomolecular Engineering | 4 | CN3106 Separation Processes | 4 |
| CE2407A Engineering Uncertainty Analysis | 2 | EE2211 Introduction to Machine Learning | 4 |
| EG2401A Engineering Professionalism | 2 | GE/UE | 4 |
| ES2631 Critique and Communication of Thinking and Design | 4 | | |
| MA1513 Linear Algebra with Differential Equations | 2 | | |
| Sub-total | 22 | Sub-total | 20 |
| Semester 5 | | Semester 6 | |
| CN4119 Final Year Design Project (Part 1) | 4 | CN4119 Final Year Design Project (Part 2) | 4 |
| CN3104 Computer-Aided Chemical Process Simulation | 4 | CN4102 Chemical Engineering Lab | 4 |
| CN3105 Machine Learning in Chemical Engineering | 4 | GE/UE | 4 |
| CN4101 Process Control and Safety | 4 | GE/UE | 4 |
| CDE2501 Sustainable Systems for Liveable Cities | 4 | GE/UE | 4 |
| Sub-total | 20 | Sub-total | 20 |

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