Bachelor of Engineering (Chemical Engineering) Recommended Semester Schedule for Polytechnic Graduate Students (AY2024/2025 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 who have to do 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 | CS1010E Programming Methodology | 4 |
| MA1301 Introductory Mathematics | 4 | MA1511 Engineering Calculus | 2 |
| PF1101 Fundamentals of Project Management | 4 | MA1512 Differential Equations for Engineering | 2 |
| GE/UE | 4 | GE/UE | 4 |
| | | GE/UE | 4 |
| Sub-total | 20 | Sub-total | 20 |
| Semester 3 | | Semester 4 | |
| CN2103 Mass & Energy Balances | 4 | CN2105 Reaction Engineering | 4 |
| CN2104 Chemical Engineering Thermodynamics | 4 | CN2106 Fluid Mechanics & Heat Transfer | 4 |
| CDE2000 Creating Narratives | 4 | CN3103 Mass Transfer and Separation Processes | 4 |
| CDE2501 Liveable Cities | 4 | ES2631 Critique and Communication of Thinking and Design | 4 |
| CE2407A Engineering Uncertainty Analysis | 2 | IE2141 Systems Thinking and Dynamics | 4 |
| EG2401A Engineering Professionalism | 2 | | |
| MA1513 Linear Algebra with Differential Equations | 2 | | |
| Sub-total | 22 | Sub-total | 20 |
| Semester 5 | | Semester 6 | |
| CN3104 Computer-Aided Chemical Process Simulation | 4 | CN4102 Chemical Engineering Lab | 4 |
| CN4119 Final Year Design Project (Part 1) OR CN4118 B.Eng. Dissertation (Part 1) | 4 | CN4119 Final Year Design Project (Part 2) OR CN4118 B.Eng. Dissertation (Part 2) | 4 |
| CN4101 Process Control and Safety | 4 | GE/UE | 4 |
| EE2211 Introduction to Machine Learning | 4 | GE/UE | 4 |
| GE/UE | 4 | GE/UE | 4 |
| Sub-total | 20 | Sub-total | 20 |

Bachelor of Engineering (Chemical Engineering)

Recommended Semester Schedule for Polytechnic Graduate Students (AY2024/2025 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)

| Semester 1 | Units | Semester 2 | Units |
|--|----------|--|----------|
| CN1101A Chemical Engineering | 4 | CN2102 Chemical Engineering | 4 |
| Principles and Practice I | 4 | Principles and Practice II | 4 |
| CE2407A Engineering Uncertainty | 2 | CS1010E Programming Methodology | 4 |
| Analysis | | - Co to to Li Togramming Wethodology | ' |
| GEA1000 Quantitative Reasoning with | 4 | MA1511 Engineering Calculus | 2 |
| Data MA1513 Linear Algebra with Differential | | MA1512 Differential Equations for | |
| Equations | 2 | Engineering | 2 |
| PF1101 Fundamentals of Project | | 3 | |
| Management | 4 | GE/UE | 4 |
| GE/UE | 4 | GE/UE | 4 |
| Sub-total | 20 | Sub-total | 20 |
| Semester 3 | | Semester 4 | |
| CN2103 Mass & Energy Balances | 4 | CN2105 Reaction Engineering | 4 |
| CN2104 Chemical Engineering | 4 | CN2106 Fluid Mechanics & Heat | 4 |
| Thermodynamics | 7 | Transfer | 7 |
| CDE2501 Liveable Cities | 4 | CN3103 Mass Transfer and | 4 |
| EE2211 Introduction to Machine | | Separation Processes ES2631 Critique and Communication | |
| Learning | 4 | of Thinking and Design | 4 |
| | _ | IE2141 Systems Thinking and | |
| EG2401A Engineering Professionalism | 2 | Dynamics | 4 |
| GE/UE | 4 | | |
| Sub-total | 22 | Sub-total | 20 |
| Semester 5 | | Semester 6 | |
| CN3104 Computer-Aided Chemical | 4 | CN4102 Chemical Engineering Lab | 4 |
| Process Simulation | <u>'</u> | • | ' |
| CN4119 Final Year Design Project | 4 | CN4119 Final Year Design Project | 4 |
| (Part 1) OR CN4118 B.Eng. Dissertation (Part 1) | 4 | (Part 2) OR CN4118 B.Eng. Dissertation (Part 2) | 4 |
| CN4101 Process Control and Safety | 4 | GE/UE | 4 |
| , | - | <u> </u> | <u> </u> |
| CDE2000 Creating Narratives | 4 | GE/UE | 4 |
| GE/UE | 4 | GE/UE | 4 |
| Sub-total | 20 | Sub-total | 20 |