

BEng (Industrial & Systems Engineering)

Students Matriculated in AY2017/2018

Recommended Semester Schedule for PPP Pathway**Option 1: IE4102 ISM (4MCs) + EG3612 VIP (6MCs) + ISE Electives (12MCs)**

| Modules | | MCs | Modules | | MCs |
|-------------------|--|-----|-------------------|---|-----|
| Semester 1 | | | Semester 2 | | |
| MA1505 | Mathematics I | 4 | MA1508E | Linear Algebra | 4 |
| CS1010E | Programming Methodology | 4 | ST2334 | Probability & Statistics | 4 |
| IE1111 | Industrial & Systems Engineering Principles & Practice I | 6 | IE1112 | Industrial & Systems Engineering Principles & Practice II | 6 |
| PC1431 / PC1432 | Basket of Science Modules | 4 | IE2140 | Engineering Economy | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 22 | Sub-total | | 22 |

| Semester 3 | | | Semester 4 | | |
|-------------------|-----------------------------|----|-------------------|--------------------------------------|----|
| IE2110 | Operations Research I | 4 | IE2100 | Probability Models with Applications | 4 |
| ES1531 | Critical Thinking & Writing | 4 | IE2130 | Quality Engineering I | 4 |
| | GE/UEM | 4 | IE2150 | Human Factors | 4 |
| | GE/UEM | 4 | EG2401A | Engineering Professionalism | 2 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 20 | Sub-total | | 18 |

| Semester 5 | | | Semester 6 | | |
|-------------------|---|----|-------------------|------------------------|----|
| IE3100M | Systems Design Project | 6 | IE3100M | Systems Design Project | 6 |
| IE3110R | Simulation | 4 | IE4211 | Modelling & Analytics | 4 |
| IE3101 | Statistics for Engineering Applications | 4 | | GE/UEM | 4 |
| IE4240 | Project Management | 4 | | GE/UEM | 4 |
| | | | | GE/UEM | 4 |
| Sub-total | | 18 | Sub-total | | 22 |

| Special Term | | |
|---------------------|-----------------------------|---|
| EG3612 | Vacation Internship Program | 6 |
| Sub-total | | 6 |

| Semester 7 | | | Semester 8 | | |
|-------------------|--------------------------------|----|-------------------|--------------|----|
| IE4102 | Independent Study Module (ISM) | 4 | IE4xxx | ISE Elective | 4 |
| IE4xxx | ISE Elective | 4 | IE4xxx | ISE Elective | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 16 | Sub-total | | 16 |

Notes:

- Students are required to read one General Education Modules (GE) from each of 5 pillars: Human and Cultures (H&C), Quantitative Reasoning (QR), Thinking and Expression (T&E), Singapore Studies (SS) and Asking Questions (AQ).
- Internship is optional for poly intake students and students in the following special programmes: DDPs, CDPs, GEP & CSP. The modular credits for the internship will become 'Free Electives' i.e., Unrestricted Electives (UE).

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Recommended Semester Schedule for PPP Pathway**Option 2: IE4100R FYP (8MCs) + EG3612 VIP (6MCs) + ISE Electives (8MCs)**

| Modules | | MCs | Modules | | MCs |
|-------------------|--|-----|-------------------|---|-----|
| Semester 1 | | | Semester 2 | | |
| MA1505 | Mathematics I | 4 | MA1508E | Linear Algebra | 4 |
| CS1010E | Programming Methodology | 4 | ST2334 | Probability & Statistics | 4 |
| IE1111 | Industrial & Systems Engineering Principles & Practice I | 6 | IE1112 | Industrial & Systems Engineering Principles & Practice II | 6 |
| PC1431 / PC1432 | Basket of Science Modules | 4 | IE2140 | Engineering Economy | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 22 | Sub-total | | 22 |

| Semester 3 | | | Semester 4 | | |
|-------------------|-----------------------------|----|-------------------|--------------------------------------|----|
| IE2110 | Operations Research I | 4 | IE2100 | Probability Models with Applications | 4 |
| ES1531 | Critical Thinking & Writing | 4 | IE2130 | Quality Engineering I | 4 |
| | GE/UEM | 4 | IE2150 | Human Factors | 4 |
| | GE/UEM | 4 | EG2401A | Engineering Professionalism | 2 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 20 | Sub-total | | 18 |

| Semester 5 | | | Semester 6 | | |
|-------------------|---|----|-------------------|------------------------|----|
| IE3100M | Systems Design Project | 6 | IE3100M | Systems Design Project | 6 |
| IE3110R | Simulation | 4 | IE4211 | Modelling & Analytics | 4 |
| IE3101 | Statistics for Engineering Applications | 4 | | GE/UEM | 4 |
| IE4240 | Project Management | 4 | | GE/UEM | 4 |
| | | | | GE/UEM | 4 |
| Sub-total | | 18 | Sub-total | | 22 |

| Special Term | | |
|---------------------|-----------------------------|---|
| EG3612 | Vacation Internship Program | 6 |
| Sub-total | | 6 |

| Semester 7 | | | Semester 8 | | |
|-------------------|-------------------|----|-------------------|-------------------|----|
| IE4100R | BEng Dissertation | 4 | IE4100R | BEng Dissertation | 4 |
| IE4xxx | ISE Elective | 4 | IE4xxx | ISE Elective | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 16 | Sub-total | | 16 |

Notes:

- Students are required to read one General Education Modules (GE) from each of 5 pillars: Human and Cultures (H&C), Quantitative Reasoning (QR), Thinking and Expression (T&E), Singapore Studies (SS) and Asking Questions (AQ).
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Recommended Semester Schedule for PPP Pathway**Option 3: IE4102 ISM (4MCs) + EG3611A IAP (10MCs) + ISE Electives (8MCs)**

| Modules | | MCs | Modules | | MCs |
|-------------------|--|-----|-------------------|---|-----|
| Semester 1 | | | Semester 2 | | |
| MA1505 | Mathematics I | 4 | MA1508E | Linear Algebra | 4 |
| CS1010E | Programming Methodology | 4 | ST2334 | Probability & Statistics | 4 |
| IE1111 | Industrial & Systems Engineering Principles & Practice I | 6 | IE1112 | Industrial & Systems Engineering Principles & Practice II | 6 |
| PC1431 / PC1432 | Basket of Science Modules | 4 | IE2140 | Engineering Economy | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 22 | Sub-total | | 22 |

| Semester 3 | | | Semester 4 | | |
|-------------------|-----------------------------|----|-------------------|--------------------------------------|----|
| IE2110 | Operations Research I | 4 | IE2100 | Probability Models with Applications | 4 |
| ES1531 | Critical Thinking & Writing | 4 | IE2130 | Quality Engineering I | 4 |
| | GE/UEM | 4 | IE2150 | Human Factors | 4 |
| | GE/UEM | 4 | EG2401A | Engineering Professionalism | 2 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| | | | | GE/UEM | 4 |
| Sub-total | | 20 | Sub-total | | 22 |

| Semester 5 | | | Semester 6 | | |
|-------------------|---|----|-------------------|---------------------------------|----|
| IE3110R | Simulation | 4 | EG3611A | Industrial Attachment Programme | 10 |
| IE3101 | Statistics for Engineering Applications | 4 | | | |
| IE4240 | Project Management | 4 | | | |
| IE4xxx | ISE Elective | 4 | | | |
| | GE/UEM | 4 | | | |
| Sub-total | | 20 | Sub-total | | 10 |

| Semester 7 | | | Semester 8 | | |
|-------------------|--------------------------------|----|-------------------|------------------------|----|
| IE3100M | Systems Design Project | 6 | IE3100M | Systems Design Project | 6 |
| IE4xxx | ISE Elective | 4 | IE4211 | Modelling & Analytics | 4 |
| IE4102 | Independent Study Module (ISM) | 4 | | GE/UEM | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| | GE/UEM | 4 | | GE/UEM | 4 |
| Sub-total | | 22 | Sub-total | | 22 |

Notes:

- Students are required to read one General Education Modules (GE) from each of 5 pillars: Human and Cultures (H&C), Quantitative Reasoning (QR), Thinking and Expression (T&E), Singapore Studies (SS) and Asking Questions (AQ).
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