





BEM – GRADUATE ASSESSMENT (BEM-GAP) PROGRAMME (MECHANICAL ENGINEERING)

INTRODUCTION

The Board of Engineers Malaysia (BEM) has introduced a 2-year top-up programme called BEM-Graduate Assessment Programme (BEM-GAP). The Faculty of Mechanical Engineering (FME) is offering BEM-Graduate Assessment Program (BEM-GAP) in Mechanical Engineering for several categories of unrecognized Bachelor of Engineering (BEng) programmes as well as for the conversion of Engineering Technologist to Graduate Engineer. The abovementioned programme will be managed by UTMSPACE. The program can be used as a pathway for the following purposes:

1) Registration as a Graduate Engineer

- Local 3-Year Bachelor of Engineering Degree accredited by Malaysian Qualifications Agency (MQA).
- First cycle (bachelor's degrees) listed in FEANI (European Engineering Education Database EEED) database with EUR-ACE label.
- 3-year Bachelor of Engineering accredited by Engineering Council, UK (requiring further learning for CEng application purpose).
- 4-year engineering degrees from non-Washington Accord (WA) signatories.

2) Change of Registered Engineering Branch (Graduate Engineer)

Change of branch for registered Graduate Engineer (sub-branch to main branch)

3) Conversion of Engineering Technologist (ET) to Graduate Engineer (GE)

ET from 3-year course and ET from 4-years course

- ET degree in Mechanical
- ET degree in Integrated

PROGRAM IMPLEMENTATION

- 1) The programme will be conducted on a part-time basis, which is the same as the current Bachelor of Mechanical Engineering with Honours SPACE part-time programme.
- 2) The programme will only be offered at UTM Kuala Lumpur campus, where all the teaching and learning (T&L) activities are conducted only on Saturday and Sunday.
- 3) Mode of T&L will be conducted physically in Kuala Lumpur campus.
- 4) Application for February intake is open from December to January and application for September intake is open from June to August.
- 5) The maximum of 10 credits are only allowed to be registered in each normal semester and the maximum of 6 credits in short semester.
- 6) The candidate must register for all the courses for each semester through FKM SPACE Office.
- 7) The candidate must attend all the lectures, summative and formative assessment and other related activities to pass the course.
- 8) The candidate must also abide to all the SPACE Academic Regulation.
- 9) The maximum duration for completion of the programme is four (4) years or eight (8) normal semesters.
- 10) At the end of every semester, a certificate will be given to each candidate stating the achievement status (pass/fail) and grade obtained for the courses registered.
- 11) Upon completion of the programme, the candidate will be awarded with a full certificate of the programme completion.

PROGRAM STRUCTURE

The programme structure for Semester I, 2023/2024 Session intake is as follows:

| SEMESTER | COURSE CODE | COURSES | CREDIT |
|-------------------------------|-------------|---|--------|
| 2023/2024 SEMESTER 1 | SEMM2413 | Thermodynamics | 3 |
| | SEMM1113 | Mechanics of Solid I | 3 |
| | SEMM1513 | Introduction to Design | 3 |
| 2023/2024 SEMESTER 2 | SEMM2313 | Mechanics of Fluid I | 3 |
| | SEMM1213 | Dynamics | 3 |
| | SKEE2413 | Basic Power & Electric Machines | 3 |
| 2023/2024 SEMESTER 3 | UBSS1032 | Introduction to Entrepreneurship | 2 |
| | SEMM4902 | Engineering Professional Practice | 2 |
| | SEMM3242 | Instrumentation | 2 |
| 2024/2025 SEMESTER 1 | SEMM2423 | Applied Thermodynamics | 3 |
| | SEMM2123 | Mechanics of Solid II | 3 |
| SEIVIESTER I | SEMM2613 | Dynamics Basic Power & Electric Machines Introduction to Entrepreneurship Engineering Professional Practice Instrumentation Applied Thermodynamics Mechanics of Solid II Materials Science Manufacturing Process Control Systems Materials Engineering Mechanics of Fluid II | 3 |
| 2024/2025 - SEMESTER 2 - | SEMM2713 | Manufacturing Process | 3 |
| | SEMM3233 | Control Systems | 3 |
| | SEMM3623 | Materials Engineering | 3 |
| | SEMM2323 | Mechanics of Fluid II | 3 |
| 2025/2026 SEMESTER 1 | SEMM2223 | Mechanics of Machines and Vibrations | 3 |

| | SEMM3523 | Component Design | 3 |
|-------------------------|----------|------------------------------------|---|
| 2025/2026 SEMESTER 2 | SEMP4833 | Project Management and Maintenance | 3 |
| | SEMM4533 | System Design | 3 |
| | SEMM3253 | Mechatronics | 3 |
| TOTAL CREDITS | | 60 | |

CREDIT TRANSFER

The total credit of the programme is 60 credits. However, the total credit to be taken is subject to the total credit transfer given with the maximum of 50% (30 credits) allowable credit transfer (depending on the category).

FEES

Registration Fee: RM300.00 per semester

Course Registration and Assessment Fee: RM300.00 per credit

APPLICATION

The application shall be made by email to Seksyen Pengurusan Akademik, SPACE UTM (spa@utmspace.edu.my). Please also provide the following information and relevant documents.

- (i) E-mail Address
- (ii) Contact Number
- (iii) Copy of Identification Card
- (iv) Undergraduate Degree Certificate
- (v) Undergraduate Degree Transcript

FURTHER INFORMATION

For further information please contact:

Academic Matters: Dr. Natrah binti Kamaruzaman

External Program Academic Manager

Faculty of Mechanical Engineering

Universiti Teknologi Malaysia 81310 Johor Bahru

E-mail: paplfkm@utmspace.edu.my

Registration and Fees:

Seksyen Pengurusan Akademik SPACE UTM spa@utmspace.edu.my