

BCA ACADEMY

ENHANCED GREEN MARK ADVANCED ACCREDITED PROFESSIONAL COURSE [Enhanced GMAAP]



An enhanced certification course streamlining the certification courses for:

1. Green Mark Advanced Accredited Professional [GMAAP]
2. Green Mark Advanced Accredited Professional (Facilities Management) [GMAAP(FM)]

Prior to the streamlining exercise, an industry survey was conducted to assist in the design of the Enhanced GMAAP course that will benefit learners.

Why do we need to streamline the GMAAP and GMAAP(FM)?

- To tailor course curriculum in tandem with BCA Green Mark 2021 (GM:2021) scheme and implementation, which encourages industry and professionals to collaborate and develop green building solutions.
- To upskill/support capability development in the following areas:
 - raising standards in building energy performance;
 - increasing emphasis on resilience to address climate change; and
 - creating healthier environment for building users.

UNIQUE FEATURES OF THE ENHANCED GMAAP



FLEXIBILITY

Choose relevant module that match your professional development



SUIT LEARNER'S SCHEDULE

Up to 2 years to complete the Enhanced GMAAP course



NO FINAL EXAM

100% Continual Assessment



ADVANCED CREDIT

Enjoy advanced credit at BCA Academy's partner university programmes



STACKABLE MODULES

On completion of the total course requirements within two years, learners will be awarded with e-Certificate of Successful Completion (e-CSC) of the "Certification Course for Green Mark Advanced Accredited Professional (GMAAP)"

Note: To apply for your GMAAP certificate, please visit <https://go.gov.sg/gmap-cert-req>

Key Highlights on Course Structure

PREVIOUS COURSE STRUCTURE

Certification Course for:

A) GMAAP COURSE

- 4.5-day GMAP Course
- 14-day GMAAP core modules
- 4-day GMAAP elective modules

B) GMAAP(FM) COURSE

- 4.5-day GMAP(FM) Course
- 13-day GMAAP(FM) core modules
- 4-day GMAAP(FM) elective modules

NEW COURSE STRUCTURE

Enhanced GMAAP

- 5-day Enhanced GMAP Course*
- Elective modules totaling 18 days, with at least one module from the following categories:
 - a) Active Design
 - b) Passive Design
 - c) Building Simulation
 - d) Operation and Maintenance
 - e) Net Zero Carbon[#]

* Those who had completed the 4.5-day GMAP/GMAP(FM) course will need to attend a 0.5-day bridging course – “Understanding Green Mark 2021” (course code: 80082)

[#]Applicable from Apr 2023 onwards

Available Stackable Modules

(click on the courses for more details)

| CATEGORY | ENHANCED GMAAP COURSE – AVAILABLE MODULES | | |
|-------------------------------------|---|--|---|
| A Active Design | 4-DAY Design, Optimisation and Measurement of High Efficiency Central A/C System ▶ | | NEW 2-DAY Driving Energy Performance in SLE Buildings ▶ |
| B Passive Design | 2-DAY Efficient Building Envelope Design, ETTV & RETV ▶ | 2-DAY Solar Architecture ▶ | NEW 2-DAY Urban Heat Island (UHI) Mitigation Strategies ▶ |
| C Building Simulation | 3-DAY CFD Modelling for Natural Ventilated Buildings ▶ | 3-DAY Building Performance Simulation ▶ | 3-DAY Solar Modelling ▶ |
| D Operation & Maintenance | NEW 4-DAY Managing Buildings for Health and Wellness ▶ | ENHANCED 2-DAY Strategies for Smart FM and Maintainability ▶ | ENHANCED 3-DAY Sustainable Energy Management for Existing Buildings ▶ |
| | The number of days is equivalent; courses may be conducted over several weeks in multiple sessions. | | |
| E Net Zero Carbon | NEW 2.5-DAY Life Cycle Assessment: Carbon Computation and Management Strategies ▶ | | |

Exemptions

To allow progression for our industry practitioners, exemption(s) is/are allowed for the following courses:

a) Full Course Exemption*

| No. | Attained COA/CSC for Previous GMAAP/ GMAAP(FM) Course(s) | Equivalent to Enhanced GMAAP Stackable Modules |
|-----|--|---|
| 1 | [COA] Solar Architecture | [2-DAY] Solar Architecture |
| 2 | [COA] Solar Modelling | [3-DAY] Solar Modelling |
| 3 | [CSC] Efficient Building Envelope Design, ETTV and RETV | [2-DAY] Efficient Building Envelope Design, ETTV & RETV |
| 4 | [CSC] CFD Modelling for Natural Ventilated Buildings | [3-DAY] CFD Modelling for Natural Ventilated Buildings |
| 5 | [CSC] Building Performance Simulation | [3-DAY] Building Performance Simulation |
| 6 | [CSC] Both 'Energy Efficiency through Management and Audit' and 'Retro-Commissioning and Performance Contracting' | [3-DAY] Sustainable Energy Management for Existing Buildings |
| 7 | [CSC] Design, Optimisation and Measurement of High Efficiency Central A/C System | [4-DAY] Design, Optimisation and Measurement of High Efficiency Central A/C System |

Note: COA: Certificate of Attendance; CSC: Certificate of Successful Completion

b) Partial Course Exemption*

Partial course exemption is allowed for the stackable module '**Certification Course on Sustainable Energy Management for Existing Buildings**', if you have:

| No. | Attained CSC for Previous GMAAP(FM) Course(s) | Only Required to |
|-----|---|---|
| 1 | Retro-Commissioning and Performance Contracting | Attend Day 1 of the enhanced stackable module course and meet assessment requirements |
| 2 | Energy Efficiency through Management and Audit | Attend Day 2 & 3 of the enhanced stackable module course and meet assessment requirements |

Partial course exemption for the stackable module '**Certification Course on Strategies for Smart FM & Maintainability**' is allowed if CSC is attained for previous GMAAP(FM) course *, only required to attend Day 2 of the enhanced module course.

Note: CSC: Certificate of Successful Completion

***NOTE: All exemption(s) is/are only applicable when the COA/CSC is/are attained during the period from Mar 2020 till Dec 2021, when the Certification Courses for GMAAP and GMAAP(FM) were conducted.**

To learn more about the Green Mark Professional Qualification Scheme, visit

<https://gmap.sgbc.online/public/directory>

Schedule of Enhanced GMAAP Stackable Modules (2024)

| Course Code | Name | Jan-24 | Feb-24 | Mar-24 | Apr-24 | May-24 | Jun-24 | Jul-24 | Aug-24 | Sep-24 | Oct-24 | Nov-24 | Dec-24 |
|-------------|--|--------------|-----------------------------------|------------------------------------|----------------|--------|----------|----------|----------------------|---------|-------------|----------|--------|
| 80039 | CFD Modelling for Natural Ventilated Buildings | | | | | | | | | | | 13 to 15 | |
| FMT503 | Managing Buildings for Health and Wellness | 26 (evening) | 2, 16, 23 (evenings), 3 (morning) | 1,8,15,22 (evenings), 30 (morning) | | | | | | | | | |
| 80046 | Solar Architecture | | | | | | | 29 to 31 | | | | | |
| 80053 | Building Performance Simulation | | | | 25, 26 & 30 | | | | | | | | |
| 73086 | Solar Modelling | | | | | | | | 15, 16 & 19 | | | | |
| 71929 | Efficient Building Envelope Design, ETTV & RETV | | | | | | | | | | 28 to 30 | | |
| 80045 | Design, Optimisation and Measurement of High Efficiency Central A/C System | | | | | | | | 27 to 30 Aug & 2 Sep | | | | |
| 80084 | Urban Heat Island (UHI) Mitigation Strategies | | | | | | 26 to 28 | | | | | | |
| 80086 | Sustainable Energy Management for Existing Buildings | | | | 18,19, 22 & 23 | | | | | | | | |
| 80054 | Strategies for Smart FM & Maintainability | | | | | | | | | 25 & 26 | | | |
| 80085 | Driving Energy Performance in SLE Buildings | | | | | | | | | | 16, 17 & 18 | | |
| 81027 | Life Cycle Assessment: Carbon Computation and Management Strategies | | | | | | 5 to 7 | | | | | | |