### 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



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)"

# **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 – AV	AILABLE	MODULES
A Active Design	<b>4-DAY</b> Design, Optimisa Measurement of Hig Central A/C Sys	h Efficiency	Driv	ving Energy Performance in SLE Buildings I
<b>B</b> Passive Design	2-DAY Efficient Building Envelope Design, ETTV & RETV ▶	2-DAY Solar Archite		<b>Urban Heat Island (UHI)</b> Witigation Strategies ▶
<b>C</b> Building Simulation	3-DAY CFD Modelling for Natural Ventilated Buildings ▶	<b>3-DAY</b> Building Perfo Simulatio	rmance	<b>3-DAY</b> Solar Modelling <b>▶</b>
D Operation & Maintenance	Wanaging Buildings for Health and Wellness I►	<b>ENHANCED</b> 2-DAY Strategies for Smart FM and Maintainability		Sustainable Energy Management for Existing Buildings
	The number of days is equivalent; courses may be conducted over several weeks in multiple sessions.			Dananigo
E Net Zero Carbon	Carbon Co	<b>2.5-DAY</b> Life Cycle Assessment: Imputation 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	<b>[CSC]</b> Efficient Building Envelope Design, ETTV and RETV	<b>[2-DAY]</b> Efficient Building Envelope Design, ETTV & RETV
4	<b>[CSC]</b> CFD Modelling for Natural Ventilated Buildings	<b>[3-DAY]</b> CFD Modelling for Natural Ventilated Buildings
5	[CSC] Building Performance Simulation	[3-DAY] Building Performance Simulation
6	<b>[CSC]</b> Both 'Energy Efficiency through Management and Audit' and 'Retro-Com- missioning and Performance Contracting'	<b>[3-DAY]</b> Sustainable Energy Management for Existing Buildings
7	<b>[CSC]</b> Design, Optimisation and Measurement of High Efficiency Central A/C System	<b>[4-DAY]</b> 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 (2023)

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Course Code	Name	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Aug-23	Sep-23	0ct-23	Nov-23	Dec-23
80039	CFD Modelling for Natural Ventilated Buildings										16, 17 & 20	
FMT503	FMT503 Managing Buildings for Health and Wellness		Evenings 24 Feb, 3 31 Ma	enings of 3, 10, 17, Feb, 3, 10, 17, 24, 31 Mar & 7 Apr	, 17, 24, r							
80046	Solar Architecture		8&9									
80053	Building Performance Simulation				13, 14 & 17							
73086	Solar Modelling							17, 18 & 21				
71929	Efficient Building Envelope Design, ETTV & RETV									18 & 19		
80045	Design, Optimisation and Measurement of High Efficiency Central A/C System				25-28							
80084	Urban Heat Island (UHI) Mitigation Strategies						21 & 22					
80086	Sustainable Energy Management for Existing Buildings							31 Aug, 1 & 4 Sep	& 4 Sep			
80054	Strategies for Smart FM & Maintainability								7 & 8			
80085	Driving Energy Performance in SLE Buildings									4,5&6		
81027	Life Cycle Assessment: Carbon Computation and Management Strategies										22, 23 & 24	