

Guidance Notes for Candidates applying for Membership in Structural Discipline by taking the HKIE Structural Examination

(Candidates must read this leaflet in conjunction with M3 Routes to Membership)

Please read the following notes carefully and comply with all requirements.

1. Introduction

The HKIE Structural Examination consists of TWO parts:

- (i) Written Examination; and
- (ii) Interview.

Unless exempted otherwise, candidates applying via any route must pass both parts and meet the experience requirements under the relevant routes to membership in order to be eligible to become a Corporate Member of the HKIE in the Structural Discipline (subject to meeting other requirements in the HKIE Constitution). Passing the Written Examination is not a pre-requisite for taking the Interview or vice versa.

2. Requirements for taking the HKIE Structural Examination

To be eligible for taking the HKIE Structural Examination, candidates must apply via one of the routes below and satisfy the following requirements:-

Formal Training Route

- (i) Candidates must possess an accredited/recognised engineering degree¹ or equivalent relevant to the Structural Discipline.
- (ii) Candidates must have completed 3-year Scheme “A” Training in Civil²/Structural Engineering Discipline by **31 October 2023**.³

General Experience Route

- (i) Candidates must possess an accredited/recognised engineering degree¹ or equivalent relevant to the Structural Discipline.
- (ii) Candidates must have at least five years post-graduation relevant experience by **31 October 2023**.

¹ The list of engineering degrees accredited by the HKIE: <https://www.hkie.org.hk/en/quali/program/>
For engineering degrees recognised by the HKIE under the Washington Accord, please visit the Washington Accord website at <http://www.ieagreements.org/accords/washington/>.

² For candidates who wish to sit for the Examination via the Formal Training Route (Scheme “A” Training in Civil Engineering Discipline), a self-declaration of 1.5 years of structural design experience is required (Please refer to the form of “Declaration on Experience”).

³ Submission of documentation after completion of Scheme “A” Training:

- A satisfactory Scheme “A” Final Training Report by candidate’s Scheme “A” company by **31 October 2023**, and
- A certified true copy of the Training Completion Certificate by the candidate by **31 March 2024**.

Mature Route

- (i) For candidates with an accredited/recognised engineering degree⁴ or equivalent:
- They must be over 35 years old.
 - They must have at least five years post-graduation relevant experience by **31 October 2023**.

Or

- (ii) For candidates without an accredited/recognised engineering degree:
- They must be over 35 years old.
 - They must have obtained relevant experience in posts of increasing responsibility over a period of at least 14 years by **31 October 2023**.

Research and Development Route

Candidates must fulfil the academic requirements, experience requirements and research and development requirements as specified in the “[Research and Development Route to Corporate Membership](#)”.

3. Application for the HKIE Structural Examination (applicable to candidates via Formal Training Route, General Experience Route and Mature Route only)

- (i) New candidates should complete and return to the HKIE the Application for the Class of Member or Additional Discipline for Corporate Member ([Form 1/MD](#)) with the fees required (see Section 8 below). Candidates who failed the HKIE Structural Examination previously can apply for a resit (Please refer to the form “[Application for Resit](#)” for the submission requirements). The assessment documentation for Interview should be submitted to the HKIE after the Written Examination.
- (ii) Candidates who wish to apply for or resit the HKIE Structural Examination are required to submit the application to the HKIE by **7:00pm, 31 August 2023**. Any application submitted after the deadline will not be considered. Please submit the application in a sealed envelope attention to the External Qualifications Section and mark “Application for the HKIE Structural Examination 2023” on the envelope. If the application is submitted by post, please affix sufficient postage.
- (iii) Eligible candidates will be informed of their candidature and detailed examination arrangements three weeks before the date of the Written Examination which will be held on 28 November 2023.
- (iv) Mature candidates shall follow the procedure as specified in “[M3 Routes to Membership](#)”. Eligible mature candidates are required to take both Written Examination and Interview.

⁴ The list of engineering degrees accredited by the HKIE: <https://www.hkie.org.hk/en/quali/program/>
For engineering degrees recognised by the HKIE under the Washington Accord, please visit the Washington Accord website at <http://www.ieagrements.org/accords/washington/>.

- (v) Eligible candidates via Formal Training Route and General Experience Route who wish to attempt the Interview will be required to submit their assessment documentation for Interview to the HKIE by **29 March 2024**. They should refer to the “[Guidance Notes for Documentation](#)” (attached) on submission requirements.
- (vi) The Interview, scheduled for June/July 2024, will be conducted under the competence-based system for all applications.
- (vii) All candidates will be notified of the results by mail. Under normal circumstances, the Written Examination result will be released in late April 2024 and the Interview result will be released in August 2024. All results will not be available prior to the notification. No telephone enquiry about the result will be allowed.
- (viii) Candidates will be allowed to resit the Section(s) they have failed in the Written Examination (see Section 6 below), that is, (i) resit Section 1 – Multiple Choice Questions only if candidates have passed Section 2 – Design Questions, (ii) resit Section 2 – Design Questions only if candidates have passed Section 1 – Multiple Choice Questions; or (iii) resit both Section 1 – Multiple Choice Questions and Section 2 – Design Questions if candidates have failed both Sections.
- (ix) Candidates who passed Section 2 – Design Questions but failed Section 1 – Multiple Choice Questions of the Written Examination will be invited to attend the Supplementary Written Examination (Multiple Choice Questions) usually scheduled for June at the HKIE Headquarters. The results are usually released in July.
- (x) Candidates who passed the Written Examination but failed the Interview will be invited to attend the Supplementary Interview usually scheduled for January. The results are usually released in March.
- (xi) Candidates who have passed both the Written Examination and Interview, but have not yet fulfilled the experience requirements as laid out in “[M3 Routes to Membership](#)”, will be required to submit a report on their experience in responsible position and CPD. They will be informed of the above requirements in the result letter. Those who have fulfilled the experience requirements will be notified of the results on admission to Corporate Member of the HKIE in the Structural Discipline by mail separately.

4. Application for the HKIE Structural Examination (applicable to candidates via Research and Development Route only)

- (i) New candidates should complete and return to the HKIE the Application for the Class of Member or Additional Discipline for Corporate Member ([Form 1/MD](#)) with the fees required (see Section 8). They will be required to provide the documents as specified in the “[Research and Development Route to Corporate Membership](#)”. Applications are accepted all year round.
- (ii) If the candidate satisfies all the academic requirements, experience requirements and research and development requirements, he/she will be eligible to take an Interview which follows the membership requirements as stated in “[M3 Routes to Membership](#)”. The Structural Discipline Advisory Panel shall reserve the right to require the candidate to undertake the Written Examination if necessary.

5. Key Dates for the HKIE Structural Examination (applicable to candidates via Formal Training Route, General Experience Route and Mature Route only)

Key Dates	Application Procedure	Documentation Submitted by candidates
31 August 2023	Application deadline	New application: Application for the class of Member or Additional Discipline for Corporate Member (Form 1/MD) and the form " Declaration on Experience " (if applicable) Resit application: Please refer to the form " Application for Resit "
Late September/ Early October 2023	Invitation to Preparatory Seminar by email	N/A
13 October 2023	Submission deadline for Supplementary Interview (for candidates who previously passed the Written Examination but not yet passed the Interview only)	Please refer to the " Guidance Notes for Documentation "
Late October/ Early November 2023	Preparatory Seminar (the registration for the Seminar will be accepted on a first-come-first-served basis. A confirmation email will be sent to the successful applicants one week prior to the Seminar)	N/A
Late October/ Early November 2023	Notification of details of the Written Examination to eligible candidates by post	N/A
Mid-November 2023	Notification of details of the Supplementary Interview by post	
28 November 2023	Written Examination	N/A
December 2023 to January 2024	Supplementary Interview	N/A
March 2024	Release of the Supplementary Interview result by post	N/A
29 March 2024	Submission deadline for Interview (for candidates via the Formal Training Route and the General Experience Route)	Please refer to the " Guidance Notes for Documentation "

Late April 2024	Release of the Written Examination result by post	N/A
Mid/ Late May 2024	Notification of details of the Interview by post	N/A
	Notification of details of Supplementary Written Examination (Multiple Choice Questions) by post	N/A
17 May 2024	Application deadline for Supplementary Written Examination (Multiple Choice Questions) (for candidates who passed the Design Questions but failed Multiple Choice Questions of the Written Examination only)	Please refer to the form " Application for Resit "
Mid/ Late June 2024	Supplementary Written Examination (Multiple Choice Questions)	N/A
June to July 2024	Interview	N/A
July 2024	Release of the Supplementary Written Examination (Multiple Choice Questions) result by post	N/A
August 2024	Release of the Interview result by post	N/A

6. Written Examination

The Written Examination will be held on 28 November 2023. The examination duration is seven hours. The eligible candidates will be informed of the detailed examination schedule three weeks before the date of the examination.

The Written Examination paper consists of two sections covering the following areas.

Section 1: Multiple Choice Questions (Answer ALL questions -- 20 marks) (Duration – One hour)

- Structural Engineering Concept
- Construction skills
- Building Control
- Contract and Construction Management
- Aspects on economy, health, safety and statutory regulations

Section 2: Design Questions (Answer ONE question -- 80 marks) (Duration – Six hours)

- Design concept
- Identification of alternative schemes
- Choice of materials
- Presentation of design scheme, calculations and details

Candidates are required to pass both Section 1 Multiple Choice Questions and Section 2 Design Questions in order to obtain an overall pass of the Written Examination.

The examination paper for Section 1 will be collected at the end of this Section before the commencement of Section 2. A **FAIL** will be given if a minimum of 40% cannot be attained for Section 1.

For Section 2 – Design Questions, candidates have to pass both Section A and Section B. Section A typically requires the preparation of two distinct and viable superstructural schemes. Some questions may also require the preparation of foundation scheme. For such cases, the question will set out the requirement for whether one or two foundation schemes should be prepared. If two foundation schemes are required, the two schemes should be viable and distinct. Section B requires the preparation of design calculations, framing plans and structural details.

For Section A, a **FAIL** may be given if the client’s requirements are not fulfilled. With regard to superstructural and foundation schemes, a **FAIL** will be given if any of the following is applicable:

	No requirement for foundation scheme	Requirement for one foundation scheme	Requirement for two foundation schemes
Only One superstructural scheme is proposed (even the scheme is feasible)	Fail	Fail	Fail
Two superstructural schemes are proposed but they are not distinct or one of the schemes is not feasible	Fail	Fail	Fail
The foundation scheme is not feasible	N/A	Fail	Fail
Only one feasible foundation scheme is proposed (even the scheme is feasible)	N/A	N/A	Fail
Two foundation schemes are proposed but they are not distinct or one of the schemes is not feasible	N/A	N/A	Fail

For Section B, a **FAIL** will be given if properly dimensioned framing plans are not provided.

If none of the above conditions are applicable, the answer will be marked. A **FAIL** will be given if a minimum of 40% cannot be attained for Section A or Section B.

Candidates are required to follow the Codes of Practice, Design Manuals and relevant design guidelines accepted by the Hong Kong SAR Government in answering the design questions.

Equipment:

Candidates are required to provide their own pens, pencils, rulers and other writing and drawing equipment. Reference books, notes, portable computers and programmable calculators are allowed.

7. Interview

The interview will be conducted under the competence-based system for all applications. It will last for about 45 minutes. Throughout the course of interview, assessors will aim to satisfy themselves that candidates have spent sufficient time on suitable work and self-reflection on the training/work experience. Assessors may question candidates to ascertain how far they have taken advantage of the opportunities provided during their training and experience. They will question candidates to ensure that all the competences set out in the HKIE Competence Standard for Professional Engineers (Corporate Members) are achieved so as to satisfy a recommendation for election to Membership.

Candidates are required to give a 15-minute presentation on the project(s) submitted prior to the Interview. The objective is to test the candidate's presentation skills as a professional engineer.

The interview shall be conducted in English.

8. Fees

Please refer to the attached [fee table](#) for the application fee and professional assessment fee required for the Structural Examination. The registration fee for Preparatory Seminar is HK\$200.

All fees paid are non-refundable and non-transferable.

Candidates who are absent from any parts of the HKIE Structural Examination will be treated as having attended the examination.

For updates on the HKIE Structural Examination, please visit our website at www.hkie.org.hk under "What's New" > "News".

If you have any queries, please contact the External Qualifications Section by phone at 2830 9098 or by email at eq@hkie.org.hk.

HKIE Structural Examination Guidance Notes for Documentation

(For Candidates via the Formal Training Route and the General Experience Route)

(Candidates must read this leaflet in conjunction with M3 Routes to Membership)

Candidates are required to submit their assessment documentation to the HKIE **by 29 March 2024** in order to participate in the Interview part of the HKIE Structural Examination.

For candidates who passed the Written Examination but not yet passed the Interview, and wish to join the Supplementary Interview in January 2024, they are required to submit their assessment documentation to the HKIE **by 13 October 2023**.

All documents should be the candidate's own work and MUST be verified by a Corporate Member of the HKIE or the candidate's employer.

All documents submitted will be treated as confidential and will be returned to the candidates. Candidates should, however, retain copies of all documents submitted as the HKIE does not accept responsibility for any lost or damaged documents.

The requirements of the documentations are as follows:-

1. Report on Training and Experience

The objective of this report is to inform the Assessors about the candidate's training and experience. The report provides evidence to demonstrate that the candidate meets the HKIE Competence Standard for Professional Engineers (Corporate Members). It should be concise, between 1,600 and 2,000 words, in English, typewritten on single sides of A4 paper and submitted in **duplicate**. At the top of the report, candidates must set out the specific periods of training and experience that they have acquired in chronological order, giving inclusive dates in months and years.

The report must not be a mere inventory of work prepared and executed. Candidates should:

- (i) describe in chronological order the tasks in which they have been employed, state the precise position they have occupied in each case and describe clearly the degree of responsibility they have been assigned;
- (ii) use the first person (I, me, my) to show their personal contribution;
- (iii) indicate the size and cost of the works;
- (iv) elaborate on any particular problems they have encountered and how they arrived at viable solutions;
- (v) **provide evidence to demonstrate that the competences set out in the HKIE Competence Standard for Professional Engineers (Corporate Members) are achieved by adding notations in the right margin for the competences (C1, C2...etc.) next to the passage of text. At most four relevant competences should be quoted at a time.**

2. Project Report

The report should be prepared in A4 paper, supported with drawings of NOT greater than A1 size and submitted in **duplicate**.

The report shall highlight the technical background of the projects, including general description on scope of works, structural design assumptions and concept, design calculation and analysis, support with related drawings such as foundation, excavation and lateral support plans, structural framing plan and site record photos.

Total no. of pages of the report shall be within 100 and total no. of drawings shall NOT be more than 15.

The Report should satisfy the below requirements:

- (i) use the first person (I, me, my) to show their personal contribution;
- (ii) provide evidence to demonstrate that the competences set out in the HKIE Competence Standard for Professional Engineers (Corporate Members) are achieved by adding notations in the right margin for the competences (C1, C2...etc.) next to the passage of text. At most four relevant competences should be quoted at a time.**

Pre-interview Project Presentation

Prior to the interview, candidates will be allowed 15 minutes to make a presentation of their Project Report. Candidates should plan this presentation carefully to allow themselves to cover the scope of their Report in the time allocated.

The Assessors will not normally ask questions until the presentation has been completed. The Assessors will, however, help a candidate who is clearly having problems due to nervousness.

Candidates will be able to use the supporting documentation, photographs and drawings submitted as part of the Project Report, and will be permitted to use flipcharts to illustrate the presentation. No visual aids such as slides or overhead projectors will be allowed.

The purpose of this part of the assessment is to ensure that candidates are able to present themselves orally as well as in writing.

3. Continuing Professional Development (CPD) Record

Candidates should provide a CPD record to show that they have met the minimum required number of CPD hours.

A record of Continuing Professional Development up to **the time of submission** should be provided. Any projection of CPD activities after **the time of submission** will not be accepted. Nevertheless, candidates are expected to continue their CPD activities after that date.

Please refer to Section 4 of M3 Routes to Membership “CPD Requirement and Guidelines” for details.

4. Training Logbook (applies to candidates under Formal Training Route only)