



## ACI-SC CERTIFICATION SCHEME FOR CONCRETE FIELD-TESTING TECHNICIAN COURSE - GRADE 1 BATCH 51, INTAKE 5 – 2021

***Only 8 applicants Per Batch are allowed, will be given away on a first come, first served basis ! ! !***

### INTRODUCTION

- ❖ The ACI-SC Certification Program for Concrete Field Technicians – Grade 1 was developed for the purpose of certifying concrete technicians who will be qualified to conduct field tests on fresh concrete.
- ❖ The program is expected to upgrade the quality of concrete construction and prepare the industry for possible future mandatory certification and form the basis for higher-level of certification programs.

### OBJECTIVES

- ❖ To assure that qualified technicians perform testing for fresh concrete properly.
- ❖ To help the technicians gain more self-confidence on the job, and ultimately, instill greater confidence in the entire construction team and the general public as well.

### SYLLABUS

1. Properties of Concrete Materials:
  - Cement
  - Aggregate
  - Water
  - Chemical Admixture
  - Addition
2. Properties of Quality Concrete:
  - Desirable properties of fresh concrete
  - Desirable properties of hardened concrete
  - Terms relating to quality of concrete
3. Essentials of Quality Concrete
  - Selection of materials
  - Proportioning, mixing and transportation of concrete
  - Placing and consolidation of concrete
  - Finishing of concrete
  - Curing of concrete
4. Ready-Mix Concrete
  - Mixing plants
  - Method of mixing
  - Central plant requirements
  - Truck mixers
  - Conveying equipment
  - Effect of mixing time on concrete properties



5. Testing of Fresh & Hardened Concrete (Based on SS BS EN & BS EN Standards)
  - Sampling of fresh concrete
  - Slump of fresh concrete
  - Unit weight and yield of fresh concrete
  - Air content of fresh concrete
  - Temperature of fresh concrete
  - Making and curing test specimens
6. Guidelines for Record Keeping
  - Purpose of records and reports
  - What to record and report?

Note: The performance tests & material specifications shall be based on SS BS EN and BS EN standards.

## I. TARGET PARTICIPANTS

1. Personnel involved with concrete in buildings and construction sites.
2. Personnel involved in the production of ready-mixed or pre-cast concrete in either a practical, supervisory or technical function, e.g. Forman, Supervisors, Clerks-of-Works.
3. Others who have already acquired some practical knowledge of concrete construction.
4. Participants with minimum secondary education are preferred. **Proficiency (Read and Write) in English language is a must as the course material and instructions (lectures and practical) shall be in English. However, the Written examination paper (MCQ) is available both in English and Mandarin languages.**

## II. AWARD OF ACI-SC CERTIFICATE

1. The ACI-SC Certificate is valid for a period of **five years** and will be awarded to an individual who has demonstrated knowledge in concrete testing by successfully passing both Written and Practical Examinations. The concrete field technician must demonstrate ability to correctly perform and record results of the field tests on fresh concrete.

## III. ACI-SC RE-CERTIFICATION

1. If the technician's original certification has expired at **the day for a scheduled Re-Certification Examination**, then the technician **must attend the entire training course as a new Certification and pass both the Written and the Performance examinations to become Re-Certified.**
2. Before certification has expired, if the technician passes the Written examination on the first attempt, Re-Certification is granted. If the technician fails the Written examination on his first attempt, then he/she **must attend the entire training course as a new Certification and pass both the Written and the Performance examinations to become Re-Certified.**

(Note: A copy of the original certificate shall be submitted to ACI-SC Education Committee during *registration for verification*).

## IV. ACI-SC RE-SIT EXAMINATION

1. If the technician fails in either Theory or Practical examination then he will be eligible to sit for a Re-Sit examination. However, if he fails the Re-Sit examination on the first attempt then he shall not be eligible for any more Re-Sit examination. The technician **must enroll**



for the training course as a new Certification and pass both the Written and the Performance examinations to become Certified.

#### V. FEE STRUCTURE, VENUE & SCHEDULE

FEES FOR NEW CERTIFICATION:	<b>S\$550.00</b>
FEES FOR RE-CERTIFICATION:	<b>S\$150.00</b>
FEES FOR RE-SIT:	<b>S\$150.00</b>

#### DATE & TIME

LECTURES- DATE & TIME:	<b>1st Dec 2021, 9.30 am to 6.00 pm</b>
PRACTICAL DEMONSTRATION:	<b>2<sup>nd</sup> Dec 2021, 9.30 am to 11.00 am</b>
PERFORMANCE EXAM – DATE & TIME:	<b>2<sup>nd</sup> Dec 2021, 11.30am to 1.30 pm</b>
WRITTEN EXAM – DATE & TIME:	<b>2<sup>nd</sup> Dec 2021, 8.00 pm to 10.00 pm</b>

#### VENUE

**Zoom**

(Contact person: Mr. Lu, Mobile: +65 97611858 /  
Ms. Li, Mobile: +65 92372180)

Each completed application form should be accompanied by full fees (**S\$550.00 for new Certification, S\$150.00 for Re-Certification and S\$150.00 Re-Sit**). The payment should be made by cheque payable to “**ACI (Singapore Chapter)**”. The cheque is to reach the following address before the closing date (**15 Nov 2021**):

American Concrete Institute - Singapore Chapter  
ACI-SC Educational Committee  
58 Sungei Kadut Loop  
Singapore 729501

You may also pay via **internet banking** before the closing date **15 Nov 2021**:

ACI (Singapore Chapter)  
Bank Code: 7171  
Branch Code: 028  
**Account No: 0280025505**



## Telegraphic Transfer

Bank: DBS Bank Ltd Address: 12 Marina Boulevard, Marina Bay Financial Centre Tower 3, Singapore 018982, Bank Code: 7171, Branch Code: 028, Account No: 0280025505, Swift Code: DBSSGSG (Please email a copy of the TT slip to us. **The payer is responsible for all bank charges incurred**)

To register, please [Click HERE](#)