

## ASSOCIATION OF CONSULTING ENGINEERS SINGAPORE

To: ACES Members / RE & RTO / CIJC Members / BOA Members

# ACES DESIGN FOR SAFETY PROFESSIONALS (DfSP) COURSE 2020

We are pleased to inform you of ACES forthcoming Design for Safety Professionals (DfSP) Course in 2020.

The Association of Consulting Engineers Singapore (ACES) is the Accredited Training Provider approved by the Ministry of Manpower to conduct DfSP course where suitable participants upon successful completion would be able to function as Design for Safety Professional (previously known as Design for Safety Coordinator) for construction projects.

### **OVERVIEW**

This Competency Requirements document specifies the performance criteria, underpinning knowledge and range and context for the design, training and assessment of the Design for Safety for Professionals Course. Learners of this course will gain the knowledge and skills for fulfilling the roles of the construction Design for Safety Professional (DfS Professional) in accordance with the WSH (Design for Safety) Regulations 2015 was enacted on 10<sup>th</sup> July 2015. It has taken Effective from 1<sup>st</sup> August 2016.

## **OBJECTIVES**

Upon completion of this unit, Learners will have the skills and knowledge to function as a DfS Professional which purposes to:

- Assist the Developer to identify and address means to eliminate or mitigate the risks inherent in the design of a construction project through conducting DfS review meetings and maintaining a DfS register so as to reduce the safety and health risks during the construction, maintenance / repair phase, and demolition of the building and structure; and
- Coordinate the flow of the construction project safety and health risks information among the stakeholders from the design stage, to construction stage until the handover to the Developer for occupation and maintenance.

### **LEARNING OUTCOMES**

The skill and knowledge learnt during this course are likely to be applied in the following activities:

- Facilitate DfS Review Meeting that involves the relevant stakeholders to identify and address safety and health risks associated with construction project.
- Maintain records of safety and health issues arising from the DfS Review Meeting and actions taken.
- Coordinate the flow of relevant safety and health information among all stakeholders of a construction project at appropriate time.

### **TARGET AUDIENCE**

- Designer
- Architect
- Project Manager
- Professional Engineer
- Surveyors
- Other Professionals

### **ASSUMED KNOWLEDGE AND SKILL**

Learners are assumed to possess the following knowledge and skills for this unit:

- Building design and construction operations
- Building and construction processes
- Legal and statutory requirements associated with building and construction
- Basic safety and health issues associated with construction operations
- Written and oral communication, presentation, facilitation and problem solving skills

### RELEVENT EXPERIENCE AND QUALIFICATION

Learners should have reasonable exposure in safety and health for construction, and

o Be registered Professional Engineer with the Professional Engineers Board (PEB), or registered Architect with the Board of Architects (BOA) Singapore, with practising certificate;

### OR

 Have 10 years relevant experience in the design (at least 5 years in design which includes contributions to designs, writing specifications) and the supervision of the construction of structures, and degree accepted by PEB or BOA, or construction-related degree accepted by the Singapore Institute of Surveyors and Valuers (SISV).

### **COURSE ASSESSMENTS**

All course participants are required to complete an assessment session at the end of the course. The table below indicates the different types of assessment required:

Assessment	Assessment Method	Assessment Duration	Remarks
Assessment 1	Multiple Choice Question (MCQ)	30 minutes	He/She scores at least 70% for Assessment 1 (MCQ)
Assessment 2	Written Report (WR)	Submit within 12 weeks upon completion of training	He/She must address at least 75% for Assessment 2. This is an individual project to be completed outside the course schedule. Report to be submitted in full.

### **CERTIFICATION**

Participants will be issued with a Certificate of Attendance upon meeting 100% of the required course attendance. Only candidates assessed competence in Assessment 1 will be invited to submit the project report for Assessment 2. Certificate of Competency will be issued only if participants are assessed to be competent in Assessment 2.

# PROGRAMME OUTLINES

Date	Time	Session		
	08:30	Arrival & Registration		
	09:00	Introduction, overall objectives and content of the course		
	09:30	Overview of WSH (DfS) Regulations, ACOP for DfS, DfS Professionals and their roles Importance of Design for Safety Legal and Statutory Requirements		
	10:00	Tea Break (light refreshment provided)		
	10:15	Legal and Statutory Requirements		
_	11:00	Basic concepts in WSH Risk Assessment		
Day 1	12:00	Lunch Break		
	13:00	Duties and Responsibilities of Stakeholders		
	13:40	DfS Review Meeting Process		
	14:40	Safety and Health Risk Considerations for DfS Review Meeting		
	15:00	Tea Break (light refreshment provided)		
	15:15	Hazard Identification Tools		
	15:45	Learning Activity 1		
	16:45 – 17:00	Summary of Day 1		
	08:30	Arrival & Registration		
	09:00	Recap key learning points in day 1		
	09:15	Preparation for DfS Review Meeting		
	09:45	Conducting the DfS Review Meeting: ways to encourage participation		
	10:15	Tea Break (light refreshment provided)		
	10:30	DfS Register		
	11:00	Documentation, Monitor and Review of DfS Register		
Day 2	11:30	Coordination and Communication of Safety and Health Information		
	12:00	Lunch Break		
	13:00	Learning Activity 2 Key learning points from case study		
	15:15	Tea Break (light refreshment provided)		
	15:30	Guide 3 - Summary of Day 2		
	16:00	Requirements and expectation of Assessments		
	16:15	Course Evaluation		
	16:30 – 17:00	Assessment 1		

### **TRAINER'S PROFILE**



**Er. Koh Boon Liang** is a practising Civil & Structural Consulting Engineer for more than 30 years. He is the Joint Managing Director of Ronnie & Koh Consultants Pte. Ltd. and the Immediate Past President of The Association of Consulting Engineers, Singapore.

He graduated from the National University of Singapore with a Bachelor of Engineering (Civil) in 1982 and a Master of Science (Civil) in 1986. He was Board Member of the Professional Engineers Board of Singapore, an ASEAN Chartered Professional Engineer, a RFPE in Malaysia, a Security of Payment Adjudicator and a WSH (Workplace Safety and Health) DfS (Design for Safety) Trainer and Coordinator.

He is also serving in various government committees such as the BCA (Building & Construction Authority) RIWG, BCA Design and Safety Excellence Award Assessment Committee, Design for Safety Implementation Taskforce and the DfS Legislation sub-committee.

He has worked on many large and successful projects in Singapore, ASEAN countries, United Arab Emirates and Taipei. He has been involved in various types of Design and Management of Civil & Structural Engineering works for public and private housings, commercial and industrial infrastructures and transportation systems.

Currently, he is involved in various high-rise housing projects, commercial projects and large retrofitting of commercial malls in Singapore.



Mr. Oh Boon Chye, Jason IES, Health & Safety Engineering Technical Committee Advisor

Jason Oh obtained his Bachelor of Engineering (Honours) in Civil Engineering from the University of Glasgow, UK and furthered his study at the National University of Singapore (NUS) for his Master of Science (Safety, Health and Environmental Technology).

In his earlier years, he was serving in the Singapore Armed Forces (SAF) as Guards Officer, and later went on to venture into the construction, consultancy, bio-energy and the manufacturing sector as Engineer, Designer, HSE Manager, Project Manager and General Manager. He was registered as the WSH Auditor (Open Category) with the MOM from 2003 to 2010. He has gained vast experience in the construction, process industry, metal working, manufacturing and other industry sectors.

Jason is the Advisor for the Health & Safety Engineering Technical Committee of IES, he is also the Chairman, Building Fund Working Committee; Deputy Chairman for the Fund raising for WES (World Engineers Summit 2015). Additionally, he is also the Convenor for the review committee for CP63: 1996 (2005): Code of practice for the lifting of persons in work platforms suspended from cranes. He is actively promoting the "Design for Safety" training course with IES. He believes that all stakeholders have a part to play in the WSH family.

# **APPLICATION FORM**

## **COURSE DETAIL**

Duration: 2-Full Days

Time: 9.00 am to 5.00 pm

Venue: 18 Sin Ming Lane #06-01 Midview City Singapore 573960

\*FY 2019 Run: (1) 19 & 20 Feb 2020 (Wed / Thu) (2) 22 & 23 Apr 2020 (Wed / Thu)

(3) 27 & 28 May 2020 (Wed / Thu) (4) 29 & 30 Sep 2020 (Wed / Thu)

CPD: to be confirmed

**FULL COURSE FEES (for non SSG Trainee)** 

ACES / CIJC Members / RE: \$\$ 800.00 (No GST)
Non- Member: \$\$1,000.00 (No GST)

Class Size: Minimum 15 pax to proceed; maximum up to 20 pax per class.

\*There are 4 dates for selection. Organiser reserves the right to postpone the course to the next scheduled date if too low enrolments.

# **NETT COURSE FEES (for SSG Trainee)**

Funding is by SkillsFuture Singapore (SSG) under Non WSQ Certifiable Course approved by SSG.

For more information on different type of course and/or absentee payroll funding, please click <a href="here">here</a>. This course **is not** eligible for SkillsFuture Credit.

### **Eligibility and Conditions Tied to Funding**

1) Payment type: Nett Course Fee (Employer-Sponsored Training) Company pays the training organisation the unfunded portion of the course fee i.e. full course fee less course fee funding from SSG. The training grant application submitted by the company is first routed to the training organisation for endorsement, before being routed to SSG for approval. The training organisation is responsible for submitting the claim to SSG upon course completion. Upon approval of the claim, the course fee funding will be disbursed to the training organisation and Absentee Payroll funding, if applicable, will be disbursed to the company.

[Sponsored Company will need to submit for SSG funding and get approval first before commencement of course and issue a cheque on the Nett Course Fee to ACES before trainee can be accepted as SSG trainee.]

Useful links for Employer-Sponsored: Funding Support for Employers at this link

(<a href="http://www.ssg.gov.sg/programmes-and-initiatives/funding-funding-for-employer-based-training.html">http://www.ssg.gov.sg/programmes-and-initiatives/funding-funding-for-employer-based-training.html</a>)

Companies apply for training grant at this link (<a href="https://www.skillsconnect.gov.sg/sop/portal/">https://www.skillsconnect.gov.sg/sop/portal/</a>)

2) Training organization name: ACESing Pte. Ltd.

3) Course Name in SSG: Design for Safety Professionals (DfSP) Course

4) Reference No in SSG: CRS-N-0026613

5) Course Duration: 6 months (include both assessment submission & marking periods)

- 6) Company must be registered or incorporated in Singapore.
- 7) Trainees must be employed (salary paid) and fully sponsored by the company for all costs associated with the training.
- 8) Trainee must be <u>Singapore Citizen</u> or <u>Singapore Permanent Resident</u>, and must be employed by companies in accordance to the Employment Act except for sole proprietors, partners, working directors, members of co-operatives or commission-based agents.
- 9) Trainee must attend both days of the course to be eligible to sit for the Assessment. Trainee must have sat for and passed the <u>Assessment</u> (consist of MCQ and written report).
- 10) Trainee who have successfully completed the course and pass the <u>Assessment</u> will be eligible for SSG funding.

### Notes:

In the event the participant did not complete the training and became not eligible for the SSG funding claim (refer below notes on Certification requirement) or in the event the participant resigned from the company, the sponsored company is still liable to pay the TP the portion of SSG funding deducted from the full course fee.

### **CERTIFICATION**

Participants will be issued with a Certificate of Attendance upon meeting 100% of the required course attendance.

Only candidates assessed competence in Assessment 1 will be invited to submit the project report for Assessment 2. Certificate of Competency will be issued only if participants are assessed to be competent in Assessment 2.

Please email the completed application form to ACES Secretariat ecretariat@aces.org.sg Please issue cheque payable to "ACESing Pte Ltd" and mail your cheque together with this original form to 18 Sin Ming Lane #06-01 Midview City, Singapore 573960. Bank/Chg # : \_\_\_\_\_ Amt S\$: \_\_\_\_ **PART A: PERSONAL PARTICULARS** Please: a) Use block letters. b) Write legibly c) \* Delete accordingly NRIC No (last 3 digits + last alphabet e.g. 123x): Nationality: Name (as in NRIC) Dr/ Mr/ Ms / Mdm\*: Date of Birth: \_\_\_\_/\_\_\_ (DD MM YYYY) Gender: Male / Female\* Race: Chinese/ Malay/ Indian/ Eurasian/ Others\*, pls specify \_\_\_\_\_\_ Home Address: Home Number: \_\_\_\_\_ (HP): \_\_\_\_\_ Highest Education Qualification: (Please circle where appropriate) Master/ Degree/ Diploma/ 'A' Level/Others, please specify Membership No: [ ] ACES Members / RE / RTO\_\_\_\_\_\_ [ ] CIJC (PIs specify Institution) [ ] PE Reg No. \_\_\_\_\_ [ ] BOA Reg No. \_\_\_\_\_\_ [ ] Non-Member PART B: CURRENT EMPLOYMENT DETAILS Name of Company: \_\_\_\_\_ Designation: \_\_\_\_\_ Company Address: Postal Code: \_\_\_\_\_ (Fax) \_\_\_\_\_ No of years of experience (in terms of building design-related activities & construction experience): \_\_\_\_\_\_

Please complete the below questionnaires:	
• State the name of institution, title of qualification and year of graduation for a recognised university degother qualifications accepted by BOA and/or PEB for professional registration as an Architect and/or Engand/or construction-related degree accepted by the SISV: (Please attach true copy of your qualification	gineer
<ul> <li>Provide details of your current professional registration with BOA and/or PEB in the discipline of archite civil/structural engineering, or mechanical and/or electrical engineering); and/or construction-related degaccepted by the SISV: (Please attach true copy of your registration certificate).</li> </ul>	
If you do not have any building construction related academic degree recognised by BOA, PEB or SIS relevance of your degree to design and construction: (Please attach true copy of your qualification certif	
<ul> <li>Provide a summary on your skills and knowledge in the following:</li> <li>Details of building design-related experience - while holding a degree or other qualifications recognised and/or PEB for professional registration as an Architect and/or Engineer and/or construction-related degaccepted by the SISV</li> </ul>	
Details of building construction experience - while holding a degree or other qualifications recognised by PEB for professional registration as an Architect and/or Engineer, and/or construction-related degree act the SISV	
Details of Workplace Safety and Health (WSH) experience / knowledge being reasonable experience co	omprising;
• The appointment as site supervision staff (such as RE/RTO) with exposure to workplace safety and management on Site, and/or	health
<ul> <li>Working for an Architect/Engineer consultancy firm in which the applicant must have actively particip supervision and/or administering the building contract on site with exposure to workplace safety and management, and/or</li> </ul>	
<ul> <li>Working for a construction firm in which the applicant must have actively participated in workplace s health management.</li> </ul>	afety and
	<del></del>

### PART C: WITHDRAWAL AND REFUND

To withdraw from the course, applicants have to <u>send in their application for withdrawal</u>. Please note that proof of send does not mean proof of receipt by **ACES**.

Refund Policy				
If notice of withdrawal is given in writing:	Refund Amount			
At least 7 working days before course commencement	Full Refund			
4 - 6 working days before course commencement	50% of the course fee paid			
3 working days before and upon course commencement	No Refund			

### PART D: APPLICANT DECLARATION

I declare all the information given by me in this application is true and correct and I understand that misrepresentation or omission is sufficient grounds for rejection of my application or withdrawal of any place which may be offered and that this withdrawal may take place at any stage during the course I undertake. I also authorize any investigation of the above information for the purpose of verification. I understand and accept the terms and conditions, rules and regulations of the program set by ACES.

Before submitting to ACES please ensure you have all the items in the checklist ready

- Completed Application form
- 1 copy of highest academic certificate
- · Supporting documents or proofs of relevant experiences such as details of sites involved.

\*Due to stringent requirements in enrolment, applicants are required to submit their application and relevant supporting documents earlier for our assessment.

Signature of Applicant: _	 	
-		
Date:		