

COURSE DESCRIPTION



This course is registered with the CFSE Advisory board and is included on the Course Providers List

This course provides an overview of process industry safety engineering from the point of view of the Risk Analyst, Process Safety Coordinator, and Control Systems Design Engineer. It delivers a complete overview of the functional safety lifecycle. The course reviews Process Hazard Analysis (PHA), Consequence Analysis, Layer of Protection Analysis (LOPA), Safety Integrity Level (SIL) Target Selection, Safety Requirements Specification (SRS) generation, failure rates, device and system reliability, SIF verification, SIF detailed design and Operations requirements.



The FSE 100 course forms a broad review in preparation for the Certified Functional Safety Expert (CFSE) and Certified Functional Safety Professional (CFSP) process industry application engineering exams.

FSE 101

FSE 102

SKILLS YOU WILL LEARN

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| <ul style="list-style-type: none"> Develop a thorough understanding of the IEC61511 Safety Life Cycle requirements, Establishing tolerable risk and the ALARP concept, Hazard and risk analysis techniques, Layer Of Protection Analysis (LOPA) techniques, SIL determination techniques. | <ul style="list-style-type: none"> Review the fundamental concepts of reliability engineering. Safety Instrumented System failure modes. Develop a thorough understanding of the IEC61511 Safety Life Cycle requirements. SIS design from requirements analysis and documentation. Safety Instrumented System analysis techniques |
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COURSE TOPICS

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| <ul style="list-style-type: none"> Introduction to Safety Instrumented Systems Principles of Risk Management The Safety Lifecycle Process Hazard Analysis Consequence Analysis Likelihood Analysis Layer of Protection Analysis Tolerable Risk SIL Target Selection Safety Requirements Specification | <ul style="list-style-type: none"> Safety Instrumented Systems Failure From Failure Rate to SIL Single Devices to System Redundant Architectures Requirements to SIF SIF Design and Verification in the Safety Lifecycle SIF Detail Design Operations |
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TRAINING MATERIALS PROVIDED

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| <p>Handout (bound manual)</p> <ul style="list-style-type: none"> FSE 101 Slides Exercises Exercise Answers Terms and Abbreviations | <p>Handout (bound manual)</p> <ul style="list-style-type: none"> FSE 102 Slides Exercises Exercise Answers Terms and Abbreviations |
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WHO SHOULD ATTEND

- Potential CFSE application exam candidates.
- Control Engineers and their Management
- HSE engineering and management
- Loss Prevention Professionals
- Plant Risk Analysts

COURSE CERTIFICATE

All attendees will receive a Course Completion certificate at the conclusion of the course. On completion of the course, the delegates will write a short exam. If successful, the delegates will receive an exida Academy **Functional Safety Practitioner** certificate.



COURSE INSTRUCTOR



Mr. Greg Chantler, CFSE has over 25 years of professional experience. For the past 18 years he has been involved in consulting and engineering design of safety related systems within the process industry. This consulting work has led to him being an expert in all aspects of the functional safety standards, including HAZOP and SIL Selection facilitation, SRS development, SIL Verification calculations and development of operations and maintenance procedures. He is a current CFSE and TUV Rheinland FS Expert.



IEC 61511: Functional Safety Analysis,
Design, and Operation
*Previously titled Functional Safety
Engineering I & II




REGISTRATION FORM

Course Dates:		Venue:
Training Course:	Sunday 07 th July to Wednesday 10 th July 2019 (4 full days)	Triumph Hotel Heliopolis Cairo Egypt https://triumphotels.com/plaza/contact/
CFSP Exam Review:	Thursday 11 th July 2019 am	
CFSP Exam:	Thursday 11 th July 2019 pm	

I will be attending:			
IEC 61511: Functional Safety Analysis, Design, and Operation Training Course (\$1,800) Discount 5% for early bird booking before 23rd of May, 2019 (\$1,710)	<input type="checkbox"/>	CFSP Exam and Exam Review, including fees to be paid to CFSE.org (\$2500) Special discount for early bird booking before 23rd of May, 2019 (\$2,410)	<input type="checkbox"/>
		CFSP Exam attendance only. Assumes fees paid separately. (\$200)	<input type="checkbox"/>

I am interested in purchasing the Safety Book Package. Please send me information.

 Because of the high level of difficulty of the CFSE/P exam, delegates are strongly encouraged to pursue additional studies on their own in preparation for the exam. (refer to the CFSE website www.exidacfse.org for exam application requirements)

DELEGATE INFORMATION

Name	
Organisation	
Postal Address	
Telephone	
Cell Phone	
Fax	
Email address	
Accounts Contact	

PAYMENT DETAILS

Electronic Fund Transfer	<input type="checkbox"/>	Purchase order attached	<input type="checkbox"/>
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TERMS AND CONDITIONS

<ol style="list-style-type: none"> Receipt of payment will secure the booking, (bank details will be provided by email). Purchase orders to be made out to Roqqy Training and Development (LLC) Course cancellations notified in writing not less than 21 days prior to course commencement will receive a refund less a 10% cancellation fee. Refunds will not be made within any lesser period unless the course is cancelled. A substitute delegate prior to course commencement is allowed. Acceptance of bookings, cancellation and refund policies are conditions of registration. exida reserves the right to cancel the course upon written notification to the registered delegates. 	<p>PLEASE COMPLETE THIS FORM AND SEND TO:</p> <p>Address: 48 Hesham Labib St., Nasr City, 11762 Cairo, Egypt</p> <p>Ph. +202 22876213 Fax +202 22876215 Cell +201092007400 Email: info@roqqy.com www.roqqy.com</p>
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I _____ (name & surname) hereby confirm that I accept and agree with all information as well as terms and conditions stated on the Booking form (and will participate at the **IEC 61511: Functional Safety Analysis, Design, and Operation Training Course** to be held in July 2019, Cairo, Egypt)

Signed		Date	
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