Human Factors Safety Critical Task Analysis (SCTA) **Distance Learning Course**

Human Factors Safety Critical Task Analysis (SCTA) Distance Learning Course

human reliability

Overview

Safety Critical Task Analysis (SCTA) is a key methodology for improving human performance and reducing the risk of human error in safety, quality, and revenue critical tasks.

SCTA is recommended by the UK process industry regulator, to address the human factors aspects of major accident hazards under the COMAH (Control of Major Accident Hazards) regulations. SCTA is sometimes known as Human Factors Critical Task Review (HFCTR) or SHERPA (Systematic Human Error Reduction and Process Analysis). It is also referred to as Human Reliability Analysis by the UK safety regulator and in the US nuclear power industry.

SCTA involves three key elements:

- **Task analysis** - which develops a graphical or text-based map of how a task is or should be performed.
- **Failure analysis** - which identifies potential human failures leading to unwanted or severe safety, quality, or other unwanted consequences.
- **Performance Influencing Factors (PIF) analysis** - which identifies and improves those aspects of the system which increase or decrease the likelihood of human failures.

These steps allow us to understand the differences between 'work-as-imagined' i.e. as usually documented in procedures, and 'work-as-done', i.e. how tasks are actually carried out at the operating level.

Our SCTA distance learning course provides the requisite knowledge to start implementing an SCTA programme at site, or to be an intelligent customer when procuring and reviewing SCTA work done by contractors.

The course is certified by the Chartered Institute of Ergonomics and Human Factors (CIEHF) and all participants who complete the course will receive a certificate with this recognition.

> ## A very effective and productive way to deliver training
>
> " The Safety Critical Task Analysis course delivered remotely by HRA Ltd covered all the elements of SCTA that I wanted out of the course and also provided some very useful hints and tips. The use of video and webinars offers a very effective and productive way of delivering training on this topic and we will be looking to make greater use of this in the future. "
>
> **Snr Staff HES Engineer, Valero Pembroke Refinery**

Learning outcomes

- Provides skills to facilitate SCTA projects, workshops & walkthroughs

- Understanding of regulatory background and requirements

- Identify different the four main types of human failures and what to do about them.

- Be able to apply task analysis best practices.

- Ability to understand and apply failure and PIF (Performance Influencing Factors) analysis

- Provide awareness of practical hints and tips for successful workshops and walkthroughs

- Capability to develop SCTA outputs, e.g. SCTA reports, procedures and competence standards

- Explore the ways in which these methods can achieve enhanced production and quality outcomes as well as safety objectives.

Essential knowledge to drive human reliability improvement

"This is a course all (Major Hazard Industries) in Singapore should consider as it helps participants acquire the needed knowledge, not only to drive human reliability improvement, but also to meet the Human Factors aspect of the local Safety (Regulations)."
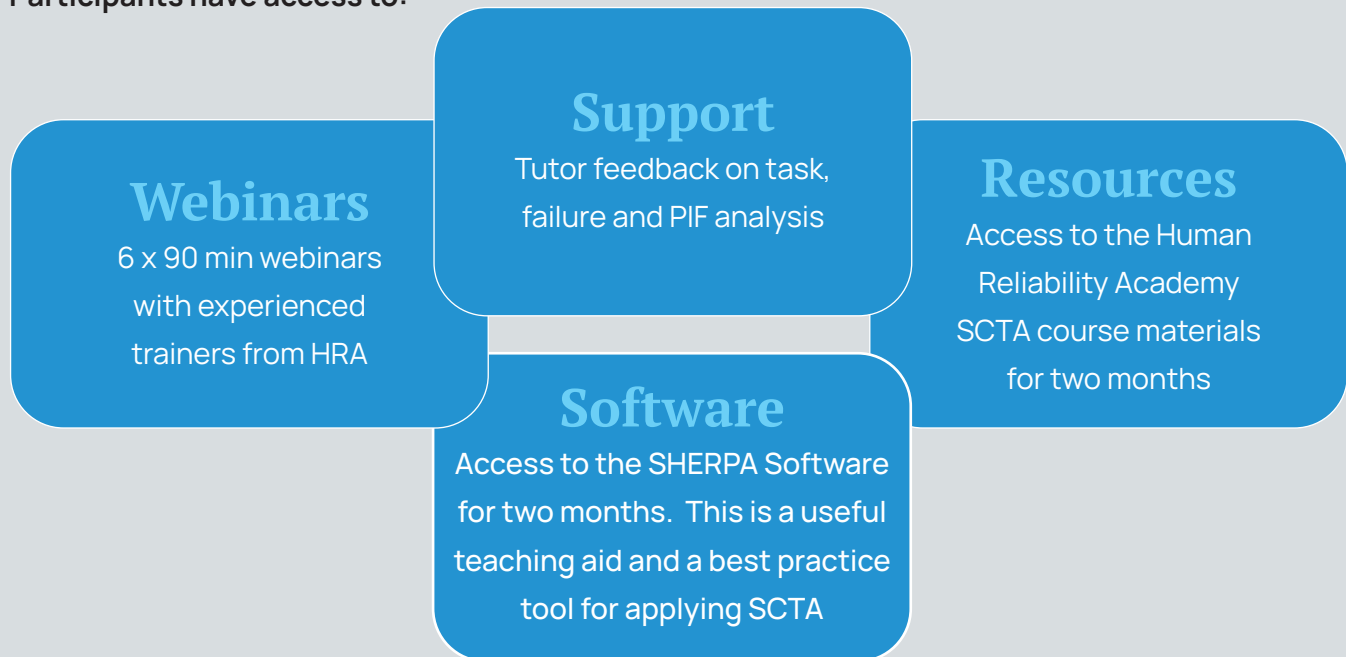
Process Safety Manager

What our Distance Learning Experience involves

human reliability

The course is delivered remotely using a blend of online learning and access to digital resources.

There are over 20 hours of video talks, quizzes, activities, workshops, and webinars. Participants will engage with a detailed road tanker offloading case study as part of the course, which has a high degree of vulnerability to different types of human failure.

Participants have access to:

Support
Tutor feedback on task, failure and PIF analysis

Webinars
6 x 90 min webinars with experienced trainers from HRA

Resources
Access to the Human Reliability Academy SCTA course materials for two months

Software
Access to the SHERPA Software for two months. This is a useful teaching aid and a best practice tool for applying SCTA

A flexible course & practical examples – a good first rung on the SCTA ladder

"Flexible modular course focussed on HF & SCTA with use of practical examples to enable HSE professionals, operations and engineers get onto the first rung of the SCTA ladder to improve task-based procedures and competence assurance - a must for anyone working on a MAH site."

HSE Manager

Course structure

Modules

1. Human Factors for Process Safety
2. Overview of Safety Critical Task Analysis
3. Human Failure and non-compliance
4. Foundations of task analysis
5. Task analysis: industry case study workshop

Failure and PIF analysis

6. (a) foundation
7. (b) demos
8. (c) workshop
9. Practical advice on running workshops & walkthroughs
10. SCTA outputs and impact talks

Bonus material

- ☐ 'Fall from Grace' video
- ☐ Safety critical task identification and prioritisation
- ☐ Advanced use of the SHERPA tool: rating PIFs, quantification, incident analysis
- ☐ Embedding Human Factors & SCTA in an organisation

The self-directed course felt the best of both worlds – exceeded my expectations

"Due to the nature of my job it is hard to block out time to attend the 'live' scheduled sessions over a week or longer, so I opted for the self-directed course. It felt like I had the best of both worlds as I could do the course in my own time, get detailed individual feedback, and the pre-recorded class webinars made me feel part of the group discussion. I found it useful to book a coaching call part way through the course which is included in the course support – it was good to be able to talk about different approaches to failure and PIF analysis with the instructor.

I feel like the course has prepared me enough to facilitate my first SCTA session, and I can better see the potential value of this methodology for the organisation."

Regional Manager (responsible for fuel pipeline networks and a COMAH Terminal).
Self-directed delegate

One course: Three schedules

Delegates have a choice of three schedules:
Intensive, **Extended**, **Self-directed**. This is designed to give participants maximum choice and flexibility to suit different schedules and learning styles. The scheduled courses have live group webinars, whereas the self-directed course has recorded webinars and more 1-to-1 feedback.

Intensive - 1 week (Hare)

The Intensive course schedule is done roughly over a week. It is for people who prefer a shorter timeframe, e.g., perhaps it is easier to take this time from work, or who want to do the course quickly.

There are 6 live webinars which means the work doesn't quite fit into a week. Generally, there is an introductory webinar the week before the main course, then a webinar every day on the second week. About 3 hours of work is to be completed between each webinar.

Extended - 1 month (Tortoise)

The Extended course schedule is done roughly over 3-5 weeks. It is for people who prefer a longer timeframe, and more flexibility in how they do the course, e.g. it could be conducted around existing work commitments.

There are about 1-2 webinars a week. About 3 hours of work is to be completed in between each webinar. This format allows more time to think about and reflect on the exercises in between the webinars.

Self-directed – Delegates own schedule over 2 months (Offroad)

The Self-directed course format does not have the live group webinars and so can be done to the delegate's own schedule. There is a two-month window to do the course, which includes access to the SHERPA software platform to support the workshops and case studies. This provides enough flexibility to complete the course and stay focused and motivated.

Delegates have access to webinar recordings, additional 1-to-1 feedback and can book coaching calls to discuss their work. This is for people who find scheduled times difficult to organise with their work, want that extra flexibility, and who prefer to have more individual attention rather than work in groups.

HRA's: Human Factors Safety Critical Task Analysis (SCTA)

Course programme for 2023/24

energy
institute

The schedule below shows our planned dates for SCTA courses in 2023/24.

There are six live webinars. For the 1-week course, the kick-off session is normally the week before the intensive week, i.e., the six webinars don't quite fit neatly into a single week.

N.B. There is roughly 3 hours of work to do between the webinars, including talks, exercises and groupwork. This is engaging and intensive work and needs to be properly resourced and scheduled.

For the **self-directed** option, we have a rolling enrolment to sign up at anytime.

When	Course	Type	Webinar dates	UK Webinar times	Time zone friendly?
Winter 2023/24	SCTA	Online 1 week	6 Dec; 11-15 Dec	15:00 - 16:30	N. America morning, e.g. US Eastern 10:00 - 11:30
	SCTA	Online 5 weeks	9, 11, 18, 25 Jan; 1, 8 Feb	08:30 - 10:00	Asia/Pacific afternoon, e.g. Singapore 16:30 - 18:00
Spring 2024	SCTA	Online 3 weeks	5, 7, 12, 14, 19, 21 March	15:00 - 16:30	N. America morning, e.g. US Eastern 10:00 - 11:30
	SCTA	Online 1 week	17 April; 22-26 April	08:30 - 10:00	Asia/Pacific afternoon, e.g. Singapore 16:30 - 18:00
Summer 2024	SCTA	Online 1 week	5 June; 10-14 June	15:00 - 16:30	N. America morning, e.g. US Eastern 10:00 - 11:30
	SCTA	Online 5 weeks	12, 19, 26 June; 3, 10 and 17 July	08:30 - 10:00	Asia/Pacific afternoon, e.g. Singapore 16:30 - 18:00
Autumn 2024	SCTA	Online 1 week	11 Sept; 16-20 Sept	08:30 - 10:00	Asia/Pacific afternoon, e.g. Singapore 16:30 - 18:00
	SCTA	Online 3 weeks	30 Sept; 3, 7, 10, 14, 17 Oct	15:00 - 16:30	N. America morning, e.g. US Eastern 10:00 - 11:30

human
reliability

Course Fees

- £1,650 per delegate.
- Existing SHERPA Software clients can receive a 10% discount on request.
- Organisations booking 3 or more delegates in one booking can claim a 10% discount.
- Organisations booking 10 people or more will receive an additional free place.
- VAT will need to be applied for organisations in the UK.

Exclusive Bonus – a Community of Practice for SCTA Course Alumni

The 'SCTA Craft Club' is a Community of Practice for our SCTA Course Alumni. One delegate described the SCTA course as a good first rung on the ladder for applying SCTA. We wanted to support people to climb the rest of the ladder even after the course. This is a way to keep the interesting and fruitful discussions we have during the course alive – with more resources, webinars, Q&A and support.

How to book

Please visit **https://www.energyinst.org/whats-on/training/risk-management** , select the course that you are interested in and click "Book now," and follow the onscreen instructions.