

Human Performance Learning Pathway

for the Energy Sector

Leading to CIEHF Technical Membership

Handbook

This Learning Pathway is a collaborative work by:



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1 Introduction

This Learning Pathway has been developed in cooperation with the Chartered Institute of Ergonomics and Human Factors (CIEHF), the Energy Institute and I-CAB to build human performance (HP) and human factors (HF) skills capable of delivering a pragmatic and flexible skill set in the energy sector. The Pathway enables you to develop eligibility to apply for CIEHF Technical Specialist (Energy). This is a unique professional development Learning Pathway, the first of its kind, developed specifically to address a business need for HP and HF skills in the sector.

1.1 The Pathway as a route to Technical Specialist

The Learning Pathway is a mentored route to Technical Specialist of the CIEHF. At the start of the Pathway, you must be an Associate Member of the CIEHF to receive support and wider news and information about HF while you complete the Pathway. This enables you to understand the breadth and scope of the discipline beyond your own sector.

To be eligible to apply for Technical Specialist, you must complete a minimum of 200 days of HF activity. The activities specified in the Pathway will provide the necessary breadth of experience for your application and it is anticipated that the Pathway will take around two years to complete.

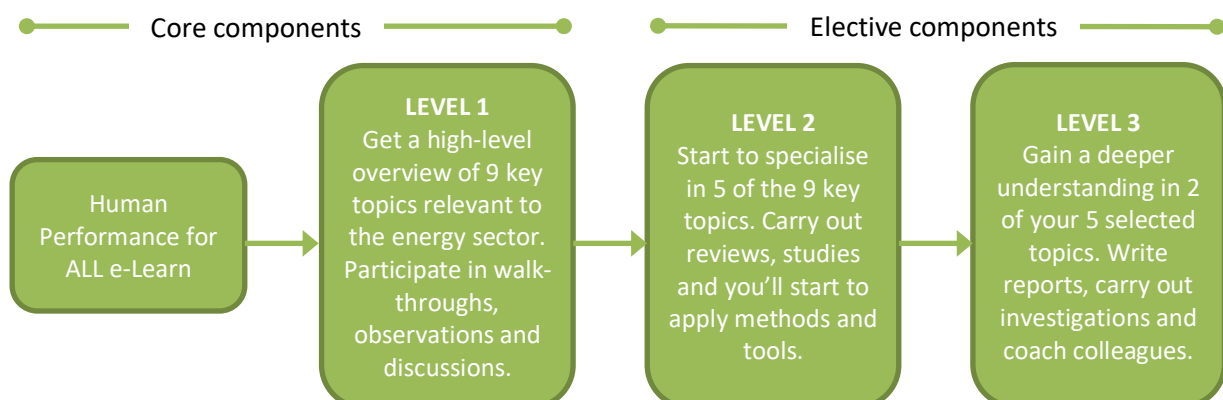
On successful completion of the Pathway and application for CIEHF Technical Specialist (Energy), you will receive a certificate and be upgraded from Associate Member to Technical Member. You will be able to use the post nominal TechCIEHF and the title 'Technical Specialist (HF in Oil & Gas)' for example.

1.2 How the Pathway fits into your work

The Pathway is flexible to allow you to tailor your route on the Pathway based on your role and the strategy and needs of the business. While you work to complete the Pathway, you are unlikely to have a role centred only on HP or HF. For example, you could be a Safety Engineer, a Process Safety Engineer, an engineer working on a project or an operations specialist. Therefore, the Pathway has been designed to be flexible to maximise the practical application of HF. Ideally, the HF activities will be part of your plan of work and therefore practicing the knowledge and skills set out in the framework will be achieved during your normal working duties.

1.3 The Pathway components

The Pathway comprises Core and Elective components over three levels which must be undertaken in order. The Electives are designed to equip you with the skills and knowledge to complete HP/HF activities required to support business strategy (e.g. task analysis, procedures and design). You should select an appropriate mix of Electives at Level 2 and Level 3 to meet the needs of your role.



1.4 The Pathway topics

The nine key topics included in the Pathway are:

1. Task analysis: The study of what someone needs to do to achieve a goal
2. Designing for people: Ensuring people's capabilities and limitations are taken into account
3. Incident investigation: Collection and analysis of evidence following an adverse event
4. Procedures: Methods and processes people must undertake to carry out their work
5. Safety critical communication: Requirements for accurate and precise transfer of information
6. Workload, stress and fatigue: The effect of work on physical, mental and social capacity
7. Human factors in projects: Understanding all activities and interactions of people in a system
8. Control room design and alarm management: The influence of alarm design on people and their work
9. Leadership, supervision and safety culture: How people contribute to effective, safe work

A set of learning resources for each topic is identified in the Workbooks for each level which you will need to review before you undertake the application activities.

1.5 Evidence of learning and activities

The Pathway also requires you to complete two additional pieces of work demonstrating implementation of your learning showing how you applied your HF skills to identify and/ or address an HP issue relevant to the local business or workplace.

Each level of learning and activity in the Pathway is followed by a multiple-choice competence test. Certificates of success will be provided and will contribute to the evidence of learning for your Technical Specialist application.

You will compile a log book as you work your way through the Pathway together with an accompanying portfolio of work that will form the evidential basis of your application. Prior HP experience can be included with appropriate evidence to support your application.

2 Progress through the Pathway

2.1 How your progress is logged

Your progress through the Pathway is logged in an online Learning Management System (LMS) provided by I-CAB. Through a personal and secure account in the LMS, you will receive instruction, tests and results. It is also the place where you will create your log book entries and upload the evidence for your Pathway activities. Once you have completed the Pathway, your records in the LMS will be made available to the CIEHF as the core component of your application.

2.2 Assessment of your progress

You will need an internal competence assessor; this will be your designated mentor. Mentors could be Chartered Members of CIEHF or someone with Competence Assessment Training (e.g. OPITO). HF/HP Advisors (who could be working towards CIEHF Chartered Member grade) can also provide coaching and information to support your portfolio of work and a reference for your Technical Specialist application. Others may be in a position to provide coaching too (e.g. investigations leads with HF skills).

Your mentor will discuss with you and assess your activities and associated learning. They will also help you complete an HF competency checklist that will help you to assess your breadth and level of competence before and after you complete the Pathway. The competency checklist also forms part of your Technical Specialist application.

3 The Pathway activities

You must work through the Learning Pathway level by level, completing the knowledge building activities through the learning resources (what you need to know) and then the knowledge application activities (what you need to do).

3.1 Pathway learning resources

The Workbook provided for each level of the Pathway comes complete with its own set of learning resources, which you will need to review before moving on to the application activities. You will also be provided with a more comprehensive set of resources in a separate document that will supplement your learning.

3.2 Pathway application activities

Activities that to allow you to put your learning into practice and gain experience become more involved as you make progress through the Pathway. Some examples include:

- Conduct a Walk-Through / Talk-Through on two tasks trying to identify where mistakes can be made.
- Review the layout and design of a simple workstation or field control panel, identify reach, eye positioning, clearance dimensions and other characteristics that would need consideration in order to design it for users.
- Participate in or observe an incident investigation, observing the HF analysis.
- Familiarise yourself with the regional fatigue and stress management programmes and procedures.
- Apply and document TIP (Task Improvement Process) on two simple critical tasks.

A full list of learning resources and associated activities is available in the Workbooks provided for each level of the Pathway.

3.3 Your Log Book

You must write up your activities as log book entries in the LMS as you progress through the Pathway. The entries must detail what you did, what you found and your improvement recommendations. A Workbooks for each Level accompanies the Pathway and are designed to be used on site to guide your learning and activities and to make notes while you are carrying out the activities. You can then refer to the notes when you write up your log book entries in the LMS.

3.4 Your portfolio of evidence

As you go through the Pathway you must keep documentary evidence to demonstrate completion of the pathway activities. You could keep these as paper documents in a file but they must be submitted as digital files with your Technical Specialist application to CIEHF. For example, evidence for a Level 1 'task analysis' activity should include the walk-through / talk-throughs that you completed and a brief list of findings shared with your line manager.

4 The Learning Pathway Step-by-step

To complete the Pathway and apply for CIEHF Technical Specialist, follow these steps in order:

1. Sign up to the Learning Pathway in I-CAB's Learning Management System at <https://lms.i-cab.org/energy/humanperformance>
2. Join the CIEHF as an Associate Member.

3. Start the Pathway by taking the Energy Institute's Human Performance for ALL e-Learn via the LMS, including the competence test.
4. Find a mentor and hold an initial meeting to understand your competencies and the topics you will take through the Pathway.
5. Start Level 1 in the LMS and download the Workbook and activity report templates.
6. Complete Level 1 activities, including the competence test.
7. Start Level 2 in the LMS and download the Workbook and activity report templates.
8. Complete Level 2 activities, including the competence test.
9. Start Level 3 in the LMS and download the Workbook and activity report templates.
10. Complete Level 3 activities, including the competence test.
11. Find two people to act as referees for your Technical Specialist application.
12. Finalise and submit your application and any additional supporting evidence.

5 Getting help

If you have questions about the Pathway and your activity and progress, please ask your mentor for help in the first instance. For enquiries about Technical Specialist membership or any other information about the Chartered Institute of Ergonomics & Human Factors, email ciehf@ergonomics.org.uk.