

Becoming a Chartered Scientist

Extended Competence report – If you do not have a level 7 qualification (masters level), you will need to follow this guidance.

Advice to applicants and mentors

All applicants for CSci need to demonstrate competence across five areas. As you do not have an M-level qualification, you will need to build evidence of experiential learning into each of your answers. This broadly means that your report does not just reflect your competence, but also how your skills have advanced since you left formal education.

Guidance on what the assessors will be looking for under each competence is provided below but the examples are just indicative – there will be many other valid examples you can choose.

Here are some tips you should bear in mind when compiling your application:

- When you are thinking about how to structure your answers, you will need to think of examples of your experiences in terms of what you did, how you went about it and why you did it.
- You should think about using examples that are fairly recent i.e. from the last three years, although you can also draw on relevant experience from further back in your career.
- You can use and refer to a particular example more than once, but do ensure you make it clear how and why it applies to a competence.
- You can use examples from broad professional experiences, but you must be able to show how you have applied the skills developed in your job role.
- In an extended competence report, we expect 400-500 words will be sufficient for each competence, although the level of detail required could be less if you are to be interviewed.

A: Application of knowledge & understanding.

A1: Use specialist experiential knowledge and broader scientific understanding to optimise the application of existing and emerging science and technology.

You should provide sufficient detail here to show your specialist experiential knowledge and how you have applied it. Further to this, include any examples of where your broader scientific understanding is applied to your area of practice. You must also show how your knowledge and understanding has increased over your time in your current employment, and demonstrate originality in your application of knowledge. Examples could include but are not limited to:

- Writing and presenting internal papers, reports or standards

- Conducting appropriate research to facilitate design and development of scientific processes.
- A time when you used your knowledge to solve a complex issue, in the absence of data.

A2: Exercise sound judgement in the absence of complete information and in complex or unpredictable situations.

This competence is asking you to identify and be aware of the limit of your own knowledge and professional competence, to demonstrate an ability to manage your own strengths and weaknesses and to recognise the level of risk attached to your actions. You must also reflect on how these kinds situations have added to your knowledge base. Examples could include but are not limited to:

- Considering when you have approached a piece of work or project flexibly and in a novel or different way, or reacted to an unexpected outcome.
- A time when you've evaluated a methodology and developed a critique or proposed a new hypothesis.

A3: Demonstrate critical evaluation of relevant scientific information and concepts to propose solutions to problems

You should think of this competence in terms of selecting the best methodology, the subsequent data analysis and conclusions you draw and how you overcome any barriers or issues. Examples could include but are not limited to:

- Engaging in experimental design and testing
- Reviewing relevant literature, manuals or designs
- Sharing your conclusions clearly with specialist and non-specialist audiences.

B: Personal responsibility

B1: Work autonomously and take responsibility for the work of self and others

It is important for this competence to ensure you describe your contribution, responsibility and impact on a certain task and make it clear what you personally have achieved i.e. "I" not "we". In formulating your answers, you should consider the following:

- You will be expected to undertake much of your work without day-to-day supervision and so you should demonstrate that you are able to achieve this
- You should demonstrate your understanding of when you may need to seek guidance from others and how you would obtain this guidance
- If you are responsible for managing the work of others, you should clearly describe how you discharge those responsibilities
- Remember to demonstrate M-level competence here, detailing how your job role and experience has helped to increase your autonomy and how you take responsibility for the work of yourself and those around you.

B2: Promote and implement robust policies and protocols relating to health, safety and security

You should demonstrate that you understand the policies and protocols related to health, safety and security that apply to the work you are undertaking and describe any responsibilities that you have related to this. Security can include issues related to data, Intellectual Property, confidentiality, prevention of contamination, traceability of documents and information. In formulating your answers, you should consider the following:

- These policies and protocols will document how relevant aspects of your work must be carried out. Demonstrate that you know where these policies and protocols are documented, and that you are able to apply them in your practice
- What risks you are aware of related to the security aspects of the work you carry out, and how you seek to mitigate these risks
- How you “promote” the awareness and application of these policies and protocols with others, especially peers and more junior colleagues

B3: Promote and ensure compliance with all relevant regulatory requirements and quality standards

You should demonstrate that you understand which regulatory requirements and quality standards apply to your area of work. In formulating your answers, you should consider the following:

- Describe what you do to ensure that these requirements and standards are being followed for those activities for which you are responsible
- Describe how you “promote” the awareness of regulatory requirements and quality standards amongst peers and more junior colleagues

B4: Oversee the implementation of solutions with due regard to the wider environment and broader context.

You should demonstrate an understanding of the potential and actual impacts of your work on your organisation, on the profession, on the general public and on the physical environment. Examples could include but are not limited to:

- Indicating that you are aware of the sensitivity of your work and show how this understanding translates into the ways in which you carry out your work
- Showing an awareness of how your profession is portrayed and viewed by the public at large, and how you take responsibility for recognising this in the work you do
- Describing how you seek to avoid reputational damage related to the work you carry out
- Explaining how you set a good example to others in the way you discharge the responsibilities related to the work you undertake

C: Interpersonal skills

C1: Demonstrate the ability to communicate effectively with specialist and non- specialist audiences

A non-specialist audience is anyone working outside of your particular area of expertise, so it would not necessarily be a non-scientist. Your example(s) should indicate how you have communicated in a way that is effective to each type of audience. In formulating your answers, you should consider the following:

- Not just the content of the message but also the mode or style of delivery that is adapted according to the audience
- The feedback loop to gauge the understanding and improve future communications
- How your ability to communicate complex issues to a wide variety of audiences has increased and been informed by your employment, with examples.

C2: Demonstrate effective leadership through the ability to guide, influence, inspire and empathise with others

This competence is about understanding your leadership skills and is not reserved for those in management roles; it is applicable to all. Examples could include but are not limited to:

- Experiences of mentoring or coaching you have had; you should consider how effective this was and the overall impact
- Considering when you have managed change within your organisation or overseen the implementation of any new processes
- Times when you have had to use your initiative and exercise your personal responsibility in a leadership capacity.

C3: Demonstrate the ability to mediate, develop and maintain positive working relationships

You should describe or define the “working relationship” and provide at least one example which focuses on your handling of a challenging interpersonal situation and demonstrates your ability to mediate and achieve a positive outcome. You should consider how through your approach you have changed or modified the behaviour or attitudes of others to positive effect. Examples could include but are not limited to:

- How you have managed the merger or integration of different teams
- Managing working relationships across different departments or organisations
- Interactions with committees, working groups or other professional body activities
- How you have managed and resolved a difficult relationship situation between members of a team for which you are responsible.

D: Professional practice

D1: Scope, plan and manage multifaceted projects

Describe a project that you have managed and make it clear the level of autonomy you had while working on the project, especially if you were in a team. You should show how you contributed to determining the resulting courses of action. In order to also demonstrate m-level ability you should also talk about your specific role in the decision making process. Examples could include but are not limited to:

- An operational project utilising resources across several disciplines
- A change management project aligning processes across sites
- An industry-wide project establishing guidance on technical standards and requirements

D2: Demonstrate the achievement of desired outcomes with the effective management of resources and risks

Using the project, you have discussed under D1, or another project with which you have been involved, you should describe your roles and responsibilities in managing the activities to achieve the desired outcomes. Examples could include but are not limited to:

- Identifying the resources (people and/or money) needed to undertake the activities
- Monitoring and surveillance of the progress of the activities
- Identification, evaluation and implementation of changes that may be needed to ensure the activities are successfully completed
- Identification and management of risks that could impact on the successful completion of the activities

D3: Take responsibility for continuous performance improvement at both a personal level and in a wider organisational context

Your examples should indicate what actions you take to make improvements to your personal performance and to your organisation as a whole. This could be through encouraging the continuous development of junior staff or through improvements to processes within the organisation. You must demonstrate the independent learning ability required for a high level of continuous professional development. Examples could include but are not limited to:

- Identification of lessons learned from activities undertaken by yourself or by others for whom you are responsible, such as what went well, went badly or was lacking
- Evaluation of the performance of specialist methods and tools used
- Development of recommendations for future enhancements or modifications to procedures or working practices in order to achieve performance improvements
- Description of examples where your actions have led to performance improvement by yourself or others

E: Professionalism

E1: Demonstrate understanding and compliance with relevant codes of conduct

You should describe how the codes of conduct under which you practice relate to the work that you carry out and give examples of how they govern your professional practice. Within this, you should include any ethical considerations, both in terms of scientific and business practices. Examples you may wish to use may relate to:

- Standards of professional practice in respect of your profession, employer, clients or patients
- Standards of professional behaviour in respect of attitudes, respect and confidentiality
- Standards of professional competence in respect of personal development and the development of others

E2: Demonstrate a commitment to professional development through continuing advancement of own knowledge, understanding and competence

Your answer should provide specific examples of what you have already done in terms of continuing professional development (CPD) and your plans for the coming year. In your examples you should describe how your engagement in CPD has benefited your practice and the users of your work.

Examples can be taken from any of the five categories of activity (work based learning, professional activity, formal/educational, self-directed learning and other) defined and exemplified at: http://www.charteredscientist.org/PDFs/categories_of_learning_activities.pdf