

<i>CSci (current competency)</i>	<i>CSci (current descriptor)</i>	<i>CSci (updated competency)</i>	<i>CSci (updated descriptor)</i>	Updates made 1) To the competency 2) To the descriptor
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. 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	A1: Demonstrate how you use knowledge, experience, skills and broader scientific understanding to optimise the application of existing and emerging science and technology	You should provide sufficient detail here to show your deep understanding of your specialist scientific subject 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. 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 - Writing primary journal articles and patents	1) Competency updated 2) Descriptor updated
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. 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.	A2: Exercise sound judgement and understand principles of uncertainty in complex and 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. Examples could include but are not limited to: • When you have reacted and dealt with an unexpected outcome - When you have approached a piece of work or project flexibly and in a novel or different way, or reacted to an unexpected outcome.	1) Competency updated 2) Descriptor updated
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 findings with others.	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, evaluations 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, databases, manuals or designs • Statistical analysis and numerical modelling	1) No changes to competency 2) Descriptor updated
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.	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 or project and make it clear what you personally have achieved i.e. "I" not "we". In formulating your answers and giving relevant examples, you should consider the following: • You will be expected to undertake 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.	1) No changes to competency 2) Descriptor updated

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.	B2: Promote, implement and take responsibility for robust policies and protocols relating to health, safety and sustainability	You should demonstrate that you understand the policies and protocols related to health, safety and sustainability that apply to the work you are undertaking giving examples where you have implemented and promoted them and describe any responsibilities that you have related to this. In formulating your answers, you should consider the following: • Demonstrate that you know where these policies and protocols are documented, and that you are able to apply them in your practice • How your work contributes to the update and development of your departments/organisations policies and procedures • How you "promote" the awareness and application of these policies and protocols with others, especially peers and more junior colleagues.	1) Competency updated to include more responsibility and sustainability also added 2) Descriptor updated
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.	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 including data integrity and privacy. In formulating your answers and giving examples, 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. - Describe how you safely store and handle data in line with national and international data protection and cyber security regulations.	1) No changes to competency 2) Descriptor updated

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.	B4: Oversee the implementation of solutions and demonstrate an understanding of potential and actual impacts of your work on your organisation, on the profession and on the wider community.	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 and the benefits to the organisation.	1) Competency updated for clarity 2) Descriptor updated
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.	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.	1) No changes to competency 2) No changes to descriptor
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.	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; you should consider how effective this was and the overall impact.	1) No changes to competency 2) Descriptor updated

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.	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. 1) No changes to competency 2) No changes to descriptor
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. 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.	D1: Demonstrate how you scope and plan and manage projects	Describe an example where you have developed a project scope with clearly defined boundaries and project plans. Any problem solving techniques used should be highlighted along with potential benefits of the project to the business. You should make it clear the level of autonomy you had while working on the project, especially when the project is large covering multiple areas and a significant time span. You should show how you contributed to determining the resulting courses of action. Examples could include but are not limited to: • Lead 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. 1) Competency updated to remove “multifaceted” and make language more accessible 2) Descriptor updated
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.	D2: Demonstrate the achievement of desired outcomes with the effective management of resources and risks	Using projects with which you have been involved as examples 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. 1) No changes to competency 2) Descriptor updated

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. 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 specialists 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.	D3: Take responsibility for continuous improvement within a scientific or technical environment	Your examples should indicate what actions you take to make improvements 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. Examples could include but are not limited to: • Evaluation of the performance of specialists 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. • 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	1) Competency updated to to clarify its around "process" rather than "performance" 2) Descriptor updated
E1: Demonstrate understanding and compliance with relevant codes of conduct	n/a 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.	Note D3 CSci aligns with RSci D4 and problem solving covered in D1 E1: Comply with and promote relevant codes of conduct and practice	N/A You should provide comprehensive examples of how you have applied and promoted the codes of conduct under which you practice and the outcome. Examples you may wish to include but are not limited to equality, diversity and inclusion, reliability and integrity and ethical practices.	1) Competency updated to add "promote" 2) Descriptor updated

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 and reflect on its impact. Examples can be taken from any of the five categories of activity (work based learning, professional activity, formal/educational, self-directed learning and other).	E2: Demonstrate a commitment to professional development through continuing advancement of your 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 must describe how your engagement in CPD has benefited your practice and the users of your work and reflect on its impact. Examples can be taken from any of the five categories of activity (work based learning, professional activity, formal/educational, self-directed learning and other). e.g. .Application of knowledge acquired on an external course that has benefitted the business – how you acquired the knowledge of a new technology and how you planned, implemented and reviewed its success in your organisation .Your work to promote careers in the STEM area including the design of materials and reflection on success We are not looking for a list of courses here but evidence of how your CPD benefits your practice and benefits others. (Note registrants will need to comply with the Science Council CPD Standards)	1) Competency - added word "your" 2) Descriptor updated
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