

Achieving Chartered Chemist status

Roles and responsibilities of the CChem mentor

1. INTRODUCTION

Chartered Chemist (CChem) is a professional qualification awarded by the Royal Society of Chemistry. CChem recognises the experienced chemical scientist who has demonstrated an in-depth knowledge of chemistry, significant personal achievements based upon chemistry, professionalism in the workplace and a commitment to professional development. CChem is valued and understood across the chemical sciences and provides assurance of competence and professional conduct. An application for the award of CChem involves submission of a portfolio of evidence to demonstrate that the applicant meets a set of professional attributes (see Appendix 1). A CChem mentor must be familiar with professional development and be able to support the applicant throughout their application. It is helpful if a CChem mentor is familiar with the applicant's day-to-day work. The most appropriate person is usually the applicant's immediate manager or another senior colleague. Ideally the CChem mentor will be a Chartered Chemist themselves - when in doubt please contact us to discuss suitability.

2. YOUR ROLE AS A CChem MENTOR

As a CChem mentor you play a critical role in the CChem awarding process. We extend our thanks in advance for the time invested in supporting the applicant to meet the requirements, and your commitment to enhancing the standing of the award of CChem.

When agreeing to become a CChem mentor, the first requirement is that you commit to take on the responsibilities outlined here. The applicant will arrange meetings with you to discuss their application and you should be prepared to advise them on suitable evidence to include in the final portfolio. If you know the applicant's day-to-day work then you will also be able to confirm the authenticity of the supplied evidence. If you are not that familiar with the applicant's day-to-day work then the applicant will need a separate referee to do this. You should be aware of relevant external activities such as science outreach or involvement with interest groups as well as the applicant's day-to-day work.

The final report and portfolio is assessed by a panel of experienced members drawn from across industry and academia. These assessors will not be familiar with the role of the applicant and the work that they do. You therefore hold an essential role by providing in-depth comments which will be used by the final assessors to decide whether the award should be made. As the first reviewer of the portfolio, your recommendation as to whether or not CChem status should be granted is vital. If, for any reason, you believe that the award is not merited please make this clear on the report form or contact us to discuss.

3. STANDARD ROUTES TO CHARTERED CHEMIST

3.1 Professional Development Programme (PDP)

Eligible applicants with fewer than six years' professional experience will normally follow the two year professional development route to gain CChem status. As a CChem mentor, your role is to provide guidance on the attributes the applicant is required to demonstrate, and to help the applicant to decide what to include in the portfolio of evidence. The applicant will discuss their progress with you at regular intervals throughout the two year period and you should provide honest, constructive feedback to the applicant and in the reports. Discussions may take place face-to-face, phone or video call or email as preferred.

3.2 Direct Programme

An applicant with six or more years' appropriate experience may be eligible to apply for CChem without completing a further two years' professional development. Appropriate experience is at the level normally expected of a Master's level graduate and may include PhD research. Such applicants are still required to identify a CChem mentor although fewer discussions are likely to take place. The applicant is expected to submit a final report and portfolio of evidence within 12 months of confirmation of eligibility.

4. PORTFOLIO OF EVIDENCE

4.1 Requirements

Documentary evidence is required to support each of the twelve professional attributes. To fully demonstrate achievement it may be necessary for the applicant to provide more than one piece of evidence for certain attributes.

Whilst it is acceptable to use one piece of evidence for up to three attributes a portfolio must include a variety of evidence types. It is typical for 20 different pieces of evidence to be used in a complete portfolio clearly relating to the applicant.

Examples of suitable types of evidence are listed in Appendix 2.

Portfolios must be carefully planned and well presented and the final document will consist of a maximum of 45 sides of A4 in length.

Applicants may be asked to supply additional evidence, or occasionally to resubmit their portfolio, if the above guidance is not followed.

4.2 Confidentiality

Reports and portfolios for CChem are handled in the strictest confidence by staff and assessors. Information may be redacted by the applicant if necessary and we can enter into a non-disclosure agreement with the applicant's employer organisation if required.

Where it is necessary to redact certain information it is important that there is sufficient text remaining visible to enable the assessors to make a judgement whether or not that particular attribute is met. As a guide, we recommend that if more than one quarter of text is redacted, this would not be suitable evidence. If in doubt, please contact us to discuss options.

5. FURTHER INFORMATION AND ADVICE

We are happy to provide extra information and advice to applicants and CChem mentors at any stage of the process. You can contact us by email or phone:

Membership and Qualifications

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CB4 0WF

Email: cchem@rsc.org

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APPENDIX 1

Regulations for the award of Chartered Chemist (CChem)

- CC1** All candidates for Chartered Chemist have to be a Member (MRSC) or Fellow (FRSC).
- CC2** Candidates are required to produce evidence of being awarded a Royal Society of Chemistry accredited degree at Master's level and be engaged in the practice, application and/or teaching of chemistry.
- CC3** Candidates who cannot fulfil the academic requirements in CC2 above must demonstrate that they have an in-depth knowledge and critical awareness of a substantial area of chemistry. This is usually demonstrated by achievement of a suitable postgraduate award and/or appropriate professional development. Council, at its discretion, may require candidates to attend a professional interview, or undertake other procedures, to determine the extent of the candidate's understanding of chemistry.
- CC4** All candidates are required to present evidence of professional attributes in a range of specific areas to a level prescribed by Council. This is accomplished by means of a two year Professional Development Programme (PDP). Candidates must register with the Royal Society of Chemistry at the beginning of the programme. They are also, at the time of registration, required to nominate a CChem mentor who is able to provide guidance in developing the attributes and to verify the evidence provided.
- CC5** Candidates with substantial professional experience over at least six years, and who believe that they have already achieved the level of professional attributes prescribed by Council, may apply for the direct award of Chartered Chemist without registering for the 2 year Professional Development Programme. In collating their submission, such candidates are required to identify a CChem mentor who is able to assist with the collection of information and to verify the evidence provided.
- CC6** For the final assessment, all candidates are required to provide the name of a referee. In a case where the chosen CChem mentor is not a Chartered Chemist, it is normally required that the referee is a Chartered Chemist or holds chartered status in a science or engineering profession. In all cases the referee is expected to have sufficient knowledge of the candidate's work.
- CC7** Chartered Chemists are entitled to use the abbreviation "CChem" after their names.
- CC8** Chartered Chemists are required to maintain their professional interests in the chemical sciences. Council, at its discretion, may require candidates to provide information regarding recent development activities to determine whether professional interests are being maintained. Any member who fails to provide suitable information is unable to retain the Chartered Chemist designation.

APPENDIX 2

Further guidance on how to present evidence in the portfolio

When compiling the portfolio of evidence, please note the following pieces of important information:

- An up-to-date CV and current job description are to be included.
- Documentary evidence is required to support each of the twelve professional attributes. To fully demonstrate achievement it may be necessary to provide more than one piece of evidence for certain attributes.

A typical portfolio consists of 20 different pieces of evidence.

- The portfolio should be no more than 45 pages in length.
- Each piece of evidence supplied must clearly relate to the applicant and have the relevant attribute written in the top right hand corner.
- Applicants should ensure that all information is well presented and easy to follow.
- Pages should be numbered.
- Each piece of evidence should be cross referenced to the appropriate attribute.
- Applications should be submitted online. They can also be emailed to cchem@rsc.org or sent in by post. If sending by post, applicants should use copies of certificates and documentation and not originals.
- Please ensure that all confidential information is redacted, this includes email address and other personal information included on email correspondence and minutes from meetings where the applicant does not have permission to share those details with us.

The professional attributes for CChem are grouped into five key areas:

A. Demonstrate and develop your knowledge of the chemical sciences

B. Professionalism

C. Communication and influencing skills

D. Professional responsibilities

E. Supporting the profession

Attribute**What this means**

A1	Explain how your knowledge of the chemical sciences informs your decisions and impacts on your work.	Use evidence to show that you use knowledge of chemical science subject areas and related areas to help you make decisions and take courses of action broadly across your work. You should cover how you make decisions based on your experiences as a chemical scientist or practitioner of chemistry. You should cover what decisions you have made and why. You should also tell us what the ultimate impact of your work was on the subject area (such as adding to a body of research), colleagues, customers, regulators and others (including students).
A2	Explain how you continue to develop your knowledge of the chemical sciences and how this impacts on your work.	Show how you increase your knowledge of chemical science that is both specific to your immediate role and more broadly. You should include how this personal and professional development links to your primary role and the positive impact this has had on your work. Evidence is more than just attending courses, you need to show what you have done with what you learnt.
A3	Demonstrate how you solve problems and draw conclusions by interpreting data, using evidence-based judgement and critical thinking to develop courses of action.	Use evidence to show how you make judgements and decisions based on scientific thinking and evidence. You should explain how you take a logical approach to solving problems and what information and resources you use to help you. This includes reflection on what additional expertise or knowledge you needed. This attribute is not limited to solving pure chemical science problems, but covers wider problems and issues such as those affecting resources or other individuals.
B1	Show how you work with autonomy, accountability and integrity in your role.	Show how you display personal leadership and have taken responsibility for the work you do, are able to plan courses of action and make decisions (rather than be told what to do). You should also explain what trust and authority was placed in you, what your role was and how you could reasonably justify the action you took. You may also wish to describe how you keep work-based commitments, deal with confidential work and intellectual property. This can also cover managing relationships such as being a manager, or working with external customers and collaborators.
B2	Describe how you make a successful contribution as part of team and its impact.	Show how you are an active team member who makes valued contributions to teamwork, with positive outcomes. Contribution to teamwork can be made as an individual as part of a wider project, but also as a collaborative team member. You should explain what personal contribution you made towards the functioning of the team as well as towards the team's outputs and outcomes from the work. Teams can be large or small, within your area or cross-team. You should also include how you support your team members using leadership skills; this could be by helping their development, team motivation or sharing knowledge for example.
B3	Demonstrate where you plan, organise and deliver work and manage resources to meet organisational requirements.	Use evidence so show that you are able to plan your work, and understand how tasks fit together in the wider context of your organisation. This includes balancing tasks, prioritising action, allocating time and resources, managing budgets and people or tasks. You should also include reference to your organisational constraints and how you work within them.
B4	Describe how you contribute to continuous improvement by evaluating your work, and displaying adaptability.	Use evidence that shows you seek out opportunities to take proactive steps to make improvements in the workplace and/or to work undertaken that are based on sound scientific evidence. This includes implementing or improving existing initiatives such as resource management, cost saving, or time reducing measures. To evidence adaptability, think about how you deal with change. Change can include unexpected changes (stopping or starting a course of action) or planned-for changes that require significant disruption to established ways of working. Explain how you responded to the changes both professionally and personally, and how you successfully overcame any issues.

Attribute**What this means**

C1	Describe how you effectively convey information using both verbal and written forms.	This attribute is about using communication techniques to pass on information to others. This includes where you have written documents and given presentations or talks about your work. This can include both scientific and non-scientific information. You should explain who the audience was, how you ensured that you delivered the information in the correct format, and how you knew that you were successfully understood. You may wish to include any feedback you received.
C2	Identify where you consider and respond to alternative views and the influence this has on your actions.	This attribute is about how you take on information from others. This includes how you listen or reflect on feedback given to you about your work. 'Alternative' here does not mean that the views were opposed to your own, or that you were wrong. It means the views of others that could be equally as valid as your own view or thoughts. You may wish to explain how the feedback you have received has led you to change something. Or, you could explain how the feedback made you reflect on your work and your decisions to not make any changes.
C3	Explain how you exert influence in your role either directly or through networks.	Use evidence here of combining your communication and listening skills together with an ability to reason and bring others round to your way of thinking. This can include explaining how you went about successfully starting or stopping a course of action, who did you speak to, were they internal or external? You should outline what action you needed to take to influence. This could include making arguments based on evidence and data, or ensuring you have secured engagement with the relevant stakeholders. 'Directly' means that you had interacted with others on an individual basis. 'Through networks' could include examples of implementing ways of working or changes that others then follow - in this instance they may not have dealt with you personally.
D1	Describe your personal contribution and impact to ensuring a healthy and safe working environment.	This attribute is more than just following health and safety requirements such as wearing the appropriate PPE and completing COSHH forms. Use evidence to show that you have taken a proactive and positive step towards ensuring your workplace is safe and that the work environment is one which supports the health and wellbeing of yourself and others. This can also include supporting mental health and ensuring compliance with relevant health and safety assessments or regulators. You may also be making a contribution to supporting workplace environments of others. Note the attribute says 'a healthy and safe working environment' it does not specify 'your'.
D2	Explain how you contribute to a sustainable future.	Use evidence to show what actions you take to advance steps towards a sustainable future. 'Sustainable future' here means a future way of working or a workplace where you are able to continue work over a period of time, causing little or no damage to the environment. This includes how you participate in and promote or improve existing sustainability initiatives such as recycling, reducing use of harmful chemicals, using alternative methods that reduce resources and time or increase efficiency, and supporting sustainable goals. Teaching others about sustainability is acceptable, as is working on projects or research that inherently contribute to sustainable goals. This can also include your involvement in setting workplace policies and positions, and your personal impact with regard to complying with regulatory requirements. However, simply undertaking your own personal recycling is not suitable on its own as evidence as this is about how you undertake responsibilities in a professional rather than personal capacity.
D3	Describe how you adhere to relevant codes of conduct including the RSC Code of Conduct, relating to fulfilling your duties in the workplace, and ensure you apply ethical practice to your role.	Use evidence to show that you are aware of the relevant codes of conduct you follow in the workplace, making reference to how the RSC Code of Conduct is also relevant to you. You should also show an understanding of the steps you take to comply with these codes. This also includes ensuring that equality, inclusion and diversity practices along with ethical working are embedded in your work. You may also wish to reflect on the negative consequences of not following these codes and so highlight why they are important to follow.

Attribute**What this means****E1**

Give an example of how you have been an active member of the scientific community, either at work or outside work.

This attribute is an important aspect of CChem. You should show you seek out opportunities for supporting and promoting the chemical science profession. This can include activities that are related to the Royal Society of Chemistry, or other professional and scientific bodies. You should make reference to how you promote our profession to others either within your workplace or outside of it, with scientifically literate audiences or a general audience. This also includes how you support others within the chemical science profession through activities such as mentoring, but also others in the wider scientific community. Being an active member also covers involvement in small-scale activities and initiatives as well as those with a larger impact. It is not limited to science outreach.

