

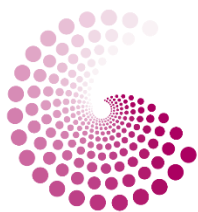
INSTITUTE OF
**MATHEMATICS &
ITS APPLICATIONS**

IMA CSci CPD Audit Meeting the Required Standards

The Science Council licenses the IMA to award the Chartered Scientist designation to Chartered Mathematicians.

Keeping an online CPD record is strongly recommended for Chartered Scientists who wish to revalidate.

This guide outlines what information you should provide in your CPD Record, examples of what activities are accepted and the level of detail that is required in your submissions.



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Continuing Professional Development (CPD)

IMA CSci CPD Audit - Meeting the Required Standards

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Information about the IMA CSci Audit

Chartered Scientists must engage in ongoing CPD to remain on the register. The IMA is required to select 2.5% of registrants for audit. If chosen, the audit will assess your CPD record against these standards:

- A registrant must maintain a continuous, up-to-date and accurate record of their CPD activities.
- A registrant must demonstrate that their CPD activities are a mixture of learning activities relevant to current or future practice.
- A registrant must seek to ensure that their CPD has contributed to the quality of their practice.
- A registrant must seek to ensure that their CPD benefits the users of the service (employee, customer, student etc).
- A registrant must maintain a portfolio containing evidence of their CPD upon request.

A more detailed version of these requirements can be found on this [Science Council document](#).

Standards 2, 3 and 4 require you to be professionally active to some degree, which may be a problem for you if you are fully retired.

If you are not professionally active, then your current learning activities might not be enough to revalidate. If you are on a career break (e.g. maternity leave, illness, etc.) you can request a deferment for up to 3 years.

We might ask for a CV or résumé of professional activities to demonstrate relevance of your CPD if required.



Meeting the CSci Audit Required Standards

Following the review process, you receive one of three possible outcomes:

- CPD record approved
- CPD record approved with advice for the following year
- Request for further information

If you were requested to provide further information on your record, you will need to address the assessors' recommendations and resubmit your CPD record for review. If an audit reveals that applicants cannot sufficiently illustrate maintenance of their Professional Record standards, the award may have to be removed.

An **essential** aspect of CPD is to reflect upon your development activities and to consider the benefit both to yourself and to those with whom you interact. Please ensure that your CPD records include this reflection element. Use the following guidance from The Science Council to ensure that your CPD Record meets the required standards:

- Make sure that your CPD activities are a mixture of learning activities relevant to your current or future practice. This can be met by ensuring that the activities fall under more than two of the five activity areas.
- Check that your CPD has contributed to the quality of your practice and reflect upon this. In the 'My Review' section of your Record you should reflect upon the ways in which your CPD activities have or will improve the quality of your work.
- If there were cases where you had expected your CPD activities to improve your work but this did not happen as planned, include this in your reflection. Take note of how you will change your approach to planning CPD activities to reduce the chance of this happening in future.
- Reflect upon the ways in which your CPD activities have or will benefit the users of your work. You can provide evidence of a direct benefit, for example feedback from a student. You may also describe indirect benefits, for example your enrolment on a training course may indirectly benefit clients through changes in your approach to interactions with them.



Examples of Approved vs Rejected CSci CPD Submissions

The examples below are taken from real CPD Records. Names of companies, dates and other personal information has been edited to ensure anonymity. Some of these submissions also include reflective comments from auditors. These submissions are **not** to be used as templates for your own submissions.

As a reminder, you should be already doing regular CPD as a Chartered Scientist. After you've done a CPD activity, make a record of it on the MyIMA Portal to ensure that it is logged correctly and in as much relevant and reflective detail as possible.

Approved Submission: Work Based Learning

Work Based Learning: Receiving Coaching from Others (1 Hour, 2 Points) I attended an online webinar explaining the use of xxx software for linear regression analysis.

Review: Although I have used xxx substantially and have performed many linear regression analyses using this software and other software packages such as xxx, it was really helpful for me to have a professional go through the mechanics of using xxx for linear regression analysis. I originally taught myself how to use it and missed out on a number of procedures that xxx offers that I will find helpful in the future when performing these analyses.

The information I gleaned from the webinar will enable me to produce a comprehensive output which will be useful for the beneficiaries of the analysis. I also guide students through the mechanics of using xxx for linear regression and what I have learned from the webinar will be helpful in this regard.



Work Based Learning: Supervising Colleagues or Students (2 Hours, 4 Points)

Had a zoom call with an iBSc medical student at xxx University, to work through with her dissertation research on xxx.

Review: There was limited data due to time constraints associated with her collecting the data. Although the analyses were relatively straightforward, I had to consider how best she could write up the results for her dissertation, whilst at the same time adhering to best practice in terms of deriving sensible conclusions.

This problem arises quite frequently for iBSC students and it made me think carefully about how best to proceed. This will be useful for similar situations that arise in the future. The student was very relieved that the analysis was completed and that I had given her insight into how to present the results in her dissertation.

Auditor Comment:

This is an excellent CPD log, it is continual, thorough, shows a range of activities and that you are reflecting in detail on the benefits of your CPD to yourself and others. Please keep up this excellent approach.



Rejected Submission: Work Based Learning

Work Based Learning: Course Development (4 Hours, 8 Points)

I have completed training to be authorised as Test & Commissioning Panel Chairperson at (Company). This allows me to chair Design Reviews to allow changes to workplace configuration or the building & development of new processes.

Review: *No Review Provided*

Work Based Learning: Course Development (2 Hours, 4 Points)

I have completed training on Counterfeit & Fraudulent activities. This allows me to produce technical specifications to buy relevant equipment.

Review: This allows me to prepare technical specifications for (Company)

Auditor Comment:

Please provide further details including:

dates or months of some of the activities to ensure your CPD has been continuous

what benefit you personally have derived from these activities, more of a personal aspect of what you learnt that was new or how your work has improved because of the activity

more detail of how your team of engineers, mentees, or company have benefitted, rather than just stating that they will, you need to reflect more on the specific aspects that they will benefit from or include details such as “a mentee has found my help on ... very useful because of ...”.



Approved Submission: Professional Activity

Professional Activity: Lecturing or Teaching (3 Hours, 6 Points)

Part delivery of a custom coding course tailored for scientists. This course also required delivery remotely (adding its own challenges).

Review: Remote delivery was an interesting challenge as this was a new revised version of a coding course. First delivery has highlighted that timing and exercise detail may need some further consideration.

Professional Activity: Other (5 Hours, 5 Points)

Preparation of course outlines for two coding courses potentially to be delivered to a scientific organisation. Whilst having prepared and delivered many courses, these outlines were to form part of a bid for training delivery and required tailoring for the requirements of a group of scientists. When preparing outlines, it is important to order material in order to present material in an appropriate order. This requirement also required a revision of exercises.

Review: Preparing these outlines gave an opportunity to rethink the overall structure of the training material and exercises. There are some elements of the revised course and exercises which can be applied to the existing courses. The bid for the training was won on the basis of the outlines.

Auditor Comment:

The quality of practice and service delivery is not necessarily apparent but is inferred.



Rejected Submission: Professional Activity

Professional Activity: Involvement in a professional body, mentoring Judge for a Science and Engineering Fair in 2020

Review: I Judged 13 projects submitted for the fair.

Auditor Comment:

Please provide further information – more detail about your CPD activities in their descriptions – for example the work-based learning individual activities currently just states your job titles when this could include detail about what lectures you have prepared, how many staff or students you have mentored. For all your examples you need to reflect with details about the value and benefit these activities have had both for yourself

AND your staff, students or journal readers.

More statements like “I learnt”, “the student now understands”, “student feedback has been ..”, that look at how the benefits have been realized in more detail. You could also include self-directed learning like papers you have read to increase your knowledge.



Approved Submission: Formal/Education

Formal/Educational: Attendance at Training Course (5 Hours, 10 Points)

Attended a Spring Conference and live webinar on responsible investment + scheme specific training on Responsible investment from WTW and specialists (detail confidential)

Review: Legal duty to maintain competence as pension trustee.

Appointment To Scheme Responsible investment Working group to derive and recommend RI policy large investment has been a particular focus this year. Weighing up the potential consequences for long-term investment return in pursuing various RI policies (e.g. exclusion, impact ...)

Formal/Educational: Attendance at Training Course (10 Hours, 20 Points)

Completion of new and revised modules of the Pension Regulator Trustee Toolkit
<https://trusteetoolkit.thepensionsregulator.gov.uk/>

Review: Legal duty to keep up to date. This year new modules include pension scheme and functioning of a DC scheme.

Auditor Comments:

This submission is coherent and fairly accurate.



Rejected Submission: Formal/Education

Formal/Educational: Writing Articles or Papers (15 Hours. 30 Points)

I am an active researcher and I am writing and publishing scientific papers. The link to my authored publication records can be found in the URL section as below.

Review: Doing research and communicating the results by written is an important activity that takes time and enhances my experience as a researcher, e.g. through the peer-review process. Publishing quality papers directly benefited my employer through the REF framework.

On the other hand, my research and my publications contribute to my teaching, e.g. by updating the lecture content with examples from my latest papers into my lecture notes. Thence, my students get cutting-information in my lectures along the core technical knowledge.

Auditor Comments:

Please provide examples of activities throughout the year – it is evident from looking at the links that your papers have been published throughout 2020 but without actually drawing attention to this through year activity in your CPD report itself it can't count as through-year CPD.

You may also have attended virtual conferences, workshops or events that you could include to demonstrate that your CPD has been a continuous activity.



Approved Submission: Self-Directed Learning

Self-directed Learning: Reading (8 Hours, 8 Points)

I read 2 (University) reports on Modelling COVID-19. Mathematical (stochastic) modelling of diseases was the subject of my PhD and so I was very interested in the methodology adopted by the Imperial College group. The papers were: (List of Papers and URLs)

Review: These two reports were referred to in the media as influencing government policy on addressing the COVID-19 threat. It was useful to see the methodology used and to understand the assumptions made in forecasting the spread of the infection. This updated my knowledge of current approaches to modelling the spread of diseases.

Self-directed Learning: Upgrading knowledge (2 Hours, 2 Points) Watched the online YouTube presentation of Chris Whitty – Gresham College - COVID-19 An initial view.

Review: This is an excellent overview of the management of epidemics from a medical point of view. It cuts away from media misrepresentations and gives an excellent scientific/medical insight into epidemiology, medical countermeasures, global picture.

Auditor Comments:

This is a very well written CSci report and examples include updating technical knowledge, refreshing their knowledge of good CPD, increasing breadth of knowledge of activities, and learning from other's perspectives.

If there is one area that you could make even stronger in some of the examples, it would be giving a little more detail on the positive benefit that your CPD brings to others.



Approved Submission: Other

Other: Other (5 Hours, 5 Points)

I studied the protocol of the Pfizer vaccine trial. I was interested in this because it was the first COVID-19 vaccine study to release results. Also having spent most of my career working at Pfizer on clinical trials I was interested in the design of this study and in particular the approach to carrying out interim analyses.

Review: This is an extensive protocol, some 146 pages. I focused my attention on the overall design and the approach to carrying out interim analyses. It helped clarify the claim for the level of efficacy and the plan to run the study to completion. Interesting learning on the design of vaccine trials.

Auditor Comments:

This is a very well written CSci report and the experience you have from the Science Council CPD advice shines through.