The Journey from Graduate Chemist to Chartered Chemist

Student assignment
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Graduating from university is the start of a new phase of learning and as a chemist there are many careers open to you when you graduate. Whether you decide to work in scientific research, as approximately a quarter of chemistry graduates do, or follow a different path such becoming a forensic scientist, teacher, environmental consultant or science writer, you will need to stay up-to-date and develop your skills as a professional. Achieving chartered status is recognition that you have successfully made the transition from a graduate to a highly respected professional and your professional body or institution can support you along the journey.

The Royal Society of Chemistry (RSC) is the professional body which awards the title of Chartered Chemist and it is the largest organisation in Europe for advancing the chemical sciences. If you are already a student member of the RSC you may be aware of the benefits and services on offer to you such as career information, conference discounts and travel discounts. Some of the benefits for graduates are access to a dedicated RSC Careers Service with one-to-one advice, the ability to keep up-to-date with developments in your field and networking opportunities that allow you to meet other scientists from your areas of interest. As a graduate member of the RSC you are also entitled to use designatory letters after your name: “AMRSC” for recent graduates and once you have gained three years of professional experience you can apply to use “MRSC” after your name. To prospective employers the RSC designatory letters confirm that you are not only qualified in the subject but committed to building a long-term successful career. If you were awarded the title of Chartered Chemist you would be able to use the designatory letters CChem after your name too.

“The award of CChem recognises the experienced practising chemist who has demonstrated an in-depth knowledge of chemistry, significant personal achievements based upon chemistry, professionalism in the workplace and a commitment to maintaining technical expertise through continuing professional development (CPD).” RSC

As well as awarding the title of Chartered Chemist, the RSC is also licensed by The Science Council to award the title of Chartered Scientist (CSci). This is another option if you feel it would be an advantage to your career to get a wider recognition outside your specific discipline or sector.

Some of the benefits of attaining a chartered title are:

- The status of being part of an elite group of professionals
- Recognition of your expertise and hard work
- High self-esteem
- Higher earnings potential
- Improved career prospects
- Greater influence within your organisation and industry
- International recognition of your qualifications
- Letters after your name eg J.Smith CChem
As well as the personal and career benefits of membership with your professional body and gaining chartered status for individuals, there are benefits to employers as well. Recruiting chartered professionals gives employers assurance of the competence and professionalism of candidates and shows customers or competitors that their staff are practising at the highest level.

Work your way through the following questions which will give you a greater understanding and insight into the support of the Royal Society of Chemistry (RSC) and the process of becoming a Chartered Chemist. The process for becoming a Chartered Scientist will be different but the requirements will be similar. Answers to the questions can be found on the RSC website [www.rsc.org](http://www.rsc.org) within the members’ section. For some questions you will also need to watch the YouTube video called “Chartered Chemist: Achieving professional recognition” [www.youtube.com/watch?v=VjJGOs5gCnw](http://www.youtube.com/watch?v=VjJGOs5gCnw).

1. Referring to the YouTube clip, list some of the benefits of becoming a Chartered Chemist both to individuals and employers.

2. Referring to the YouTube clip, what do the Chemists feel that the CChem status represents?

3. What are the four general requirements for Chartered Chemist?

4. What is the Professional Development Programme and how long does it take to complete?

5. Making a commitment to your Continuing Professional Development (CPD) is a requirement for chartered status. How would you define CPD and why is it important?

6. Name four activities that could contribute to your CPD once you graduate.

Now you have an understanding of the requirements for being a chartered professional, the next section will examine the competences you will need to develop not only to become a chartered professional but in order to secure graduate employment and progress in your early career. The focus will be on the non-technical competences, also known as transferable or employability skills. These are skills which employers state many graduates have either not developed sufficiently or are not able to evidence. Graduate applicants who cannot provide evidence to support claims of good employability skills on a job application may not make it through to the interview stage.

“Employability skills are a set of attributes, skills and knowledge that all labour market participants should possess to ensure they have the capability of being effective in the workplace.” The Confederation of British Industry (CBI)

Below is a list of common employability skills which employers look for in graduates:

A. **Self management** - readiness to accept responsibility, flexibility, time management, readiness to improve own performance.

B. **Team working** - respecting others, co-operating, negotiating/persuading, and contributing to discussions.
C. **Business and customer awareness** - basic understanding of the key drivers for business success and the need to provide customer satisfaction.

D. **Problem solving** - analysing facts and circumstances and applying creative thinking to develop appropriate solutions.

E. **Communication and literacy** - application of literacy, ability to produce clear, structured written work and oral literacy, including listening and questioning.

F. **Application of numeracy** - manipulation of numbers, general mathematical awareness and its applications in practical contexts.

G. **Application of information technology** - basic IT skills, including familiarity with word processing, spreadsheets, file management and use of internet search engines.

H. **Project management** - planning a programme of work, setting clear goals and objectives, managing resources and delivering the completed output.

I. **Leadership and management qualities** - the ability to inspire people and the ability to effect change

“Underpinning all these skills, the key foundation, must be a positive attitude: a ‘can-do’ approach, a readiness to take part and contribute, openness to new ideas and a drive to make these happen.” The Confederation of British Industry (CBI)

Work your way through the following questions. You will need to complete Worksheets 1 and 2 in response to questions 7, 8 and 9:

7. A key stage in the process of applying to become a Chartered Chemist or any chartered professional is being assessed against a defined set of technical and non-technical skills or attributes as set by the professional institution. The RSC sets twelve professional attributes which applicants for the chartered title are required to evidence over the course of the Professional Development Programme. Many of these attributes are comparable to employability skills. Complete worksheet 1 by stating which employability skill, from those listed above, compares to each professional attribute required for CChem status.

8. When you start to look for your first graduate role, you will become aware that although the degree and technical skills you have gained are vital to employers, they place just as much emphasis on finding graduates who have strong employability skills. Pick six of the employability skills listed on worksheet 2 and provide an example of when you have demonstrated each one, even if it is only in part. The example can be taken from paid or unpaid work, as well as from your studies or extra curricular activities. In your example briefly describe the situation, the action you took and the results of your actions. You may find the same example demonstrates more than one employability skill, which is acceptable as long as you make it clear in your answer how they evidence each one. Enter your examples into worksheet 2. If you are finding it hard to think of examples or write about them, you may find this website useful [www.reading.ac.uk/secc/skills-transformer/](http://www.reading.ac.uk/secc/skills-transformer/) : Skills transformer is a web-based tool which can assist you with the process of recognising, writing and talking about your employability skills.

9. There are a number of activities you can get involved in while at university to improve your employability skills and therefore increase your chances of being successful when you start to look for your first graduate role. These include getting a part-time job, taking
part in work experience or a summer internship, volunteering, organising charity events or getting involved in societies and clubs at university - you may be able to think of more. Identify your four weakest employability skills and for each one, plan some activities you will get involved in to develop the skills before you graduate. You can use some of the suggestions already offered as long as you are able to expand on them. Add your answers to the final column on worksheet 2.

10. If you are interested in a career that directly uses the chemistry skills you have gained on your degree, answer part (a) of this question. If you are interested in exploring a wider range of careers for chemists, answer part (b).

a) The RSC accredits graduate company training schemes which ensures graduates get the opportunity to develop the professional attributes required to become a Chartered Chemist. This provides a structured and fast-track route for you to attain CChem status. Below you will find a list of companies that have graduate training schemes which are accredited by the RSC. Visit some of the company websites and select one to write a brief summary about their business as well as a brief overview of their graduate training programme. In your summary identify any roles that would be relevant to a Graduate Chemist, highlighting one that particularly interests you and what it is about the role that appeals to you.

- Sellafield
- QinetiQ
- Magnox Sites Limited
- Dstl - Defence Science & Technology Laboratory
- GSK - GlaxoSmithKline
- AWE - Atomic Weapons Establishment
- EDF Energy
- Amec
- National Nuclear Laboratory
- Innovia Films
- Pfizer Global R&D
- UCB Pharma
- BP
- Nuleargraduates

b) Many students are unsure what career they would like to pursue upon graduation. It is vital to start thinking about this as early as possible as there may be many ideas you end up eliminating before you choose your career and this process takes time. As well as your university careers service, the RSC also has a careers advice service for members and there is a lot of information and advice online such as Prospects www.prospects.ac.uk. Using the careers advice section of the Prospect website look up the ‘Options with your subject’ selecting the Chemistry profile. Read the information about options with your Chemistry degree and look at the job options for a degree in chemistry. Select a job that appeals to you and briefly summarise the role and explain what it is that appeals to you about the work. You may find it useful to break down the summary of the job into the following elements:

- Description of work.
- Surroundings: where will you work?
- Prospects: what might this job lead to?
- Entry requirements: What will you need to get the job?
• Effects: what effects on your life might this job have?
• People: who will you work with, and in what capacity/role?
• Salary and conditions.
• Typical employers

Review the summary and explain what it is that appeals to you about the role.

11. Identify three things you have learnt as a result of completing this activity, relating to the RSC, chartered status and employability skills.

12. Identify three actions you will take as a result of this exercise and give a deadline for each action.