Lens development

The Lens for Progression Pathways to Chartership in Biology, Chemistry and Physics on the Vitae Researcher Development Framework has been developed by Vitae in consultation with the Royal Society of Biology, Royal Society of Chemistry and the Institute of Physics.

Chartered Status

Gaining CBiol, CChem or CPhys will prove that you have:

- · built on your academic achievements and critical awareness of your chosen area of research
- · developed strong scientific skills and are committed to self-improvement
- made a critical contribution to the success of your research, organisation or institution
- shown personal and professional integrity
- committed to developing your career, as well as advancing excellence in the sciences

"Chartered status demonstrates your commitment to your professional development which is valued by both individuals and employers helping to shape your future career"

Hilary Jeffreys, Chair of Admissions Committee, Royal Society of Chemistry

"Research training in the sciences is an essential part of ensuring that the UK continues to be at the forefront of scientific discovery and is able to exploit research and development opportunities to their fullest extent. However, to be an effective researcher you need far more than merely research skills.

The Vitae Researcher Development Framework Lens provides the basis for ensuring that research training covers all aspects of the journey between a learner and an independent researcher. Not only does this ensure that the best possible training is provided, and that this training is accredited by peers representing the appropriate learned society, but it also enables graduate researchers to take the first steps towards careers in either academic or other settings"

Professor Richard Reece, The University of Manchester

Lens for Progression Pathways to Chartership in Biology, Chemistry and Physics

Researchers may wish to use this Lens to:

- Make links between the attributes needed for CBiol,
 CChem and CPhys and development of a researchers'
 knowledge and understanding of how to act
 professionally
- Identify how the skills and knowledge they have developed as a researcher can contribute to applying for Chartered Status
- Select areas that they need to develop to gain
 Chartered Status and use this to inform development reviews
- Provide evidence to meet the competence and commitment for Chartered Biologist (CBiol), Chartered Chemist (CChem) or Chartered Physicist (CPhys)

Researcher Developers may wish to use this Lens to:

- Demonstrate to researchers and other stakeholders the links between a researchers' knowledge and understanding of how to act professionally, and the attributes needed for CBiol, CChem and CPhys
- Enable researchers to recognise the learning they have made as a researcher and its transferability to apply for Chartered Status
- Highlight personal development needs and create action plans
- Strategically align learning and development provision around the Lens

Vitae and its membership programme are managed by the **Careers Research and Advisory Centre (CRAC) Limited** an independent registered charity. CRAC Registered Charity No 313164.













Lens for Progression Pathways to Chartership in Biology, Chemistry and Physics

Overview

The Vitae Researcher Development Framework (RDF) underpins a major new approach to developing world-class researchers. The framework has been developed by and for researchers working in higher education as an aid to planning, promoting and enhancing professional and career development. It articulates the knowledge, behaviours and attributes of successful researchers and encourages all researchers to realise their potential. This is one of a series of lenses on the Vitae Researcher Development Framework. For further information about the Vitae Researcher Development Framework visit www.vitae.ac.uk/rdf

Supporting materials relating to this lens are available at www.vitae.ac.uk/rdflenses

Purpose of a lens

Using the Vitae Researcher Development Framework Lens for Progression Pathways to Chartership in Biology, Chemistry and Physics enables researchers to focus on the key areas that are important to demonstrate for a successful career, and for those aspiring to gain Chartered Status with the Royal Society of Biology, Royal Society of Chemistry or Institute of Physics. It provides a bridge between the Vitae Researcher Development Framework and the competence and commitment for Chartered Biologist (CBiol), Chartered Chemist (CChem) or Chartered Physicist (CPhys).

The Royal Society of Biology is a single unified voice for biology: advising Government and influencing policy; advancing education and professional development; supporting its members; and engaging and encouraging public interest in the life sciences. www.rsb.org.uk

Around the world the Royal Society of Chemistry invests in educating future generations of scientists, working to shape the future of the chemical sciences – for the benefit of science and humanity. See www.rsc.org

The Institute of Physics is a leading scientific membership society working to advance physics for the benefit of all. Its purpose is to gather, inspire, guide, represent and celebrate all who share a passion for physics. www.iop.org

"MBDA values the opportunity to further develop our employees with an externally recognised qualification, such as Chartership, because it is evidence of our capabilities to our customers, and shows our commitment to our staff to encourage them to strive in their careers. We have many qualified employees, and we hope to encourage more in the future."

Nicki Jay, MBDA

Context

CBiol, CChem and CPhys are awarded to those who can demonstrate the required professional attributes. Assessment of evidence is reviewed by the relevant sector, and can be derived from a range of sources such as research, industry related activity, influencing others to solve problems, communication skills, and public engagement. The Lens for Progression Pathways to Chartership in Biology, Chemistry and Physics provides a strong link between the attributes needed for CBiol, CChem and CPhys and development of a researcher's knowledge and understanding of how to act professionally.

The Lens is intended to help researchers make these links and identify the elements of their research that could demonstrate Chartered Competency. It can be used as a professional development tool to identify areas of growth.

Why become Chartered?

Chartered Status demonstrates a commitment to professional development and recognition of competence in your skills, knowledge and experience which has been recognised by your peer group. In a crowded market, you need to do everything you can to stand out. Chartered Status is highly regarded by employers.

How to become Chartered

The first step is to become a full member of a relevant professional body, such as the Royal Society of Biology (www.rsb.org.uk), the Royal Society of Chemistry (www.rsc.org) or the Institute of Physics (www.iop.org), who will also provide you with guidance on becoming registered. You need to plan and record your development against the professional attributes for the individual Charters. The Lens over the page will help you make the link between what you do as a researcher and the competencies needed for Chartered status. Staff members are available to help and guide you on this journey.

Vitae Researcher Development Framework

Lens for Progression Pathways to Chartership in Biology, Chemistry and Physics

Communication methods

Publication

Communication media

Teaching

Enterprise

Policy

Public engagement

Society and culture

Global citizenship

Health and safety

Ethics, principles

and sustainability

Legal requirements

Respect and confidentiality

Attribution and co-authorship

IPR and copyright

Appropriate practice

Research strategy

Risk management

Project planning and delivery





- Work effectively as part of a team and contribute to team goals.
- Discuss work objectively with others who are at a variety of levels and roles including superiors, colleagues, customers and others. Respond appropriately to alternative views.
- Exert effective influencing and leadership skills.

Communicate competently in verbal and written forms which are appropriate to the task.

Actively participate towards the societal aims of your professional body through contributing to the profession outside of your usual job remit.

Work with due care and consideration for environmental issues, health and safety matters and adhere to the relevant requirements.

> Show an appreciation and respect for confidentiality issues such as ethical practice.

> > - Adhere to your professional body's code of conduct.

- Use technical and managerial skills to plan, organise time and resource to implement work and deliver results or improvements.

Collegiality Team working People management Supervision Influence and leadership Collaboration

Mentoring Information seeking Languages **Equality and diversity** Knowledge base Working with others

Engagement,

Domain D

influence and impact The knowledge and skills to work with others and ensure the wider impact of research

Domain C Research governance and organisation

The knowledge of the standards, requirements and professionalism to do research

Finance, funding

Income and funding generation Financial management Infrastructure and resources Subject knowledge

Research methods: theoretical knowledge Research methods: practical application

Information literacy and management

Academic literacy and numeracy

Analysing Synthesising **Critical thinking Evaluating Problem solving**

Inquiring mind

Innovation

Intellectual insight

Intellectual risk

Enthusiasm

Perseverance

Self-confidence

Integrity

Self-reflection

Argument construction

Knowledge and intellectual abilities The knowledge intellectual abilities and techniques

to do research Domain A

Domain B Personal effectiveness

The personal qualities and approach to be an effective

Professional and career development

Responsibility Preparation and prioritisation Commitment to research Time management Responsiveness to change

Work-life balance

Career management Continuing professional development Responsiveness to opportunities

Reputation and esteem

Use the appropriate level of developed knowledge, and contribute to key tasks in your employment, understanding fully the objectives of your work and its relevance to your employers and the discipline.

> Solve problems, evaluate critically and draw logical conclusions from scientific and other data.

Work reliably and with integrity, furthering the aims of the scientific community.

Use a high level of professional skills in the practice and advancement of your discipline. This includes problem-solving, thoroughness, and technical ability.

- Develop skills necessary to fulfill the objectives of your work. This includes technical and professional skills such as operational planning and networking.
- Take the initiative for self directed personal learning through continuing professional development. This includes demonstrating an interest in broader developments in your discipline.