



What employers expect from PhDs

The Leeds Chemistry Industrial Advisory Board¹ members have proposed the following set of attributes and skills that distinguish PhD chemists from graduates. These characteristics are in addition to the deeper level of technical knowledge, technical skills and understanding within the discipline itself, as a result of their research experience.

For PhD students applying for job vacancies, ***it is important for them to provide evidence for these additional attributes*** either within the context of their research project or as a result of additional professional/personal development opportunities that they have engaged in and benefited from.

Application of technical knowledge to solve problems

Complex problem-solving

- demonstration of innovation, creativity, risk analysis, judgement
- working knowledge of related disciplines

Finding and evaluating information from a range of sources

Handling large datasets

Behaviours

Reflection

- able to articulate skills, capabilities, strengths, weaknesses, approach to learning

Initiative

- providing options and recommendations rather than just results
- identifying areas for improvement and acting to resolve
- taking responsibility for own learning and development

Resilience

- open to challenge and prepared to challenge others

Working with a high degree of autonomy/independence and effective in uncertain/ambiguous situations

Collaboration and communication

Working effectively with others within a team and across discipline/team boundaries

Able to communicate results (written and verbally) to a wide range of audiences

Supervisory/mentorship experience

Wider perspective

Project management

- planning to achieve specific objectives/milestones
- working with defined budget/resource constraints
- chairing/recording meetings

Awareness of needs/constraints within commercial sector

Able to identify where their expertise could have a bearing on a wider- or unfamiliar problem

¹ The Leeds Chemistry Industry Advisory Board comprises over 20 members including representatives from chemistry-based organisations across a range of sectors and senior members of the Leeds Chemistry Department