

## **Your degree in Analytical Chemistry with Quality Assurance... What Next?**

Graduating with an **Analytical Chemistry with Quality Assurance** degree gives you a range of career opportunities. Now is the time to carefully research your options.

The chemical industry has many facets: production, research, product development, problem-solving, analysis, quality assurance, environmental monitoring, marketing and sales. The chemical industry offers well-paid secure employment in a wide range of career options, and has a high and growing demand for chemistry graduate.

The Bachelor of Science in Analytical Chemistry with Quality Assurance prepares students for laboratory careers in the pharmaceutical industries. Graduates identify and solve analytical problems by the selection and use of a wide range of methods and techniques – from the mainstream areas of spectroscopy, chromatography, and electrochemistry, to more specialised areas such as particle size analysis or immunoassay techniques.

Types of analytical chemist:

Work may be carried out in areas as diverse as:

- drug formulation and development;
- chemical or forensic analysis;
- process development;
- product validation;
- quality control;
- toxicology.

### **Skills:**

You will need to show:

- self-confidence and motivation to investigate and solve complex problems;
- the ability to prioritise and schedule work to meet demands set by the department, company or external customer;
- presentation skills and the ability to convey technical information to non-technical people;
- a good standard of numeracy and skills in data analysis;
- IT and technology skills to work with advanced techniques;
- creativity and the ability to use initiative for independent work;
- effective teamworking skills;
- a flexible and methodical approach to work.

You also need to be skilled in good laboratory practice (GLP) and be able to perform tasks to quality standards in a safe environment.

## **Responsibilities:**

Techniques or activities vary depending on the employer or specialist area, but may include:

- analysing samples from various sources to provide information on compounds or quantities of compounds present;
- using analytical techniques and instrumentation, such as gas and high performance liquid chromatography (HPLC), ion chromatography, electrochromatography and spectroscopy (infrared and ultraviolet, amongst others);
- interpreting data and meeting strict guidelines on documentation when recording data;
- reporting scientific results;
- developing techniques for the analysis of drug products and chemicals;
- working collaboratively in cross-functional teams;
- liaising with customers, staff and suppliers;
- being aware of, and keeping up to date with, health and safety issues;
- validating methods and equipment.

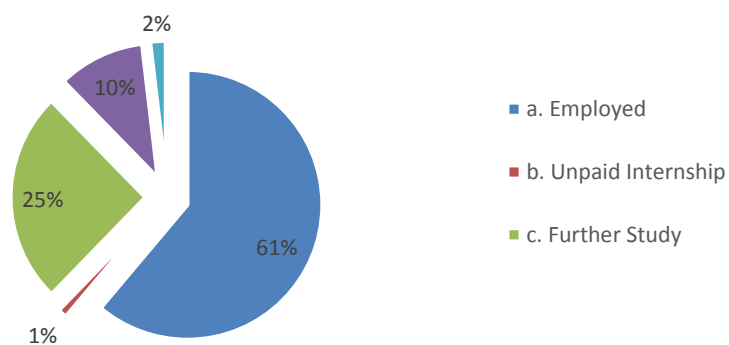
At a more senior level, it's likely you'll be involved in preparing documentations for product licence applications and setting specifications for finished products.

What to expect:

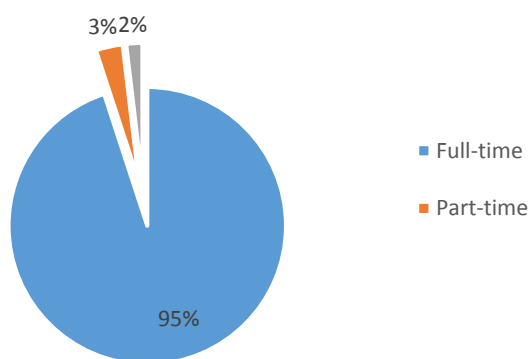
- Working in multidisciplinary teams is common, as is communicating with scientists and customers from both within and outside the company.
- At the start of your career, it's likely you'll be predominantly lab-based but as you reach more senior levels you'll work more in an office.
- Jobs are widely available throughout the country and tend to be in large, localised centres. Research and development (R&D) work can be more commonly found in south England.
- You may find the work occasionally stressful due to tight deadlines and pressure to solve problems as quickly as possible. Routine analysis can involve doing the same job for long periods of time, although this is less likely at more senior levels.
- Typically, travel within a working day and absence from home overnight are not that common. Overseas travel is rare, although secondments abroad may be possible as you reach higher grades.

## What are 2015 graduates in Analytical Chemistry with Quality Assurance doing?

**2015 Science & Informatics Graduates (major awards):  
Current Situation**



**2015 Science & Informatics (major awards): Employment  
Mode**



**Job Roles Graduates of Analytical Chemistry with Quality Assurance 2015 secured:**

Company	Job Role
Abbott	Lab Analyst
GSK	Quality Control Analyst
Phillips 66	Shift Chemist
Pfizer	Quality Control Chemist

**Employers:**

Work can be found in a diverse range of scientific industries and typical employers include:

- agrochemical companies;
- biotechnology or contract research organisations;
- chemical and polymer manufacturers;
- environmental agencies;
- food companies;
- government agencies;
- hospital laboratories;
- multidisciplinary consultancy or testing companies;
- petrochemical companies;
- pharmaceutical companies;
- public health laboratories.

**FURTHER STUDY**

Graduates achieving a First Class or Second Class (Grade 1) Honours Degree may proceed to postgraduate research programmes in Chemistry (MSc, PhD) at CIT. Such graduates will be eligible for consideration for a limited number of Postgraduate Research Scholarships offered by CIT each year. Holders of the Honours BSc ACQUA may also embark on postgraduate programmes in Irish and UK universities.