Job family: Education

Technical Professionals in the Education job family play a vital role in supporting student learning at UCL. Although many staff in this area will be responsible for setting up practical classes, a large number will contribute for the designing, delivering, and assessing students' work. Technical staff at UCL, contribute to deliver teaching to undergraduates, postgraduate students and also members of staff.

Technical staff play a vital role in teaching and supporting the learning of students within UK higher education (HE). They are increasingly being relied upon to design and deliver teaching and learning activities and, in many cases, to engage in formative and summative assessment.

Technical staff at UCL are also encouraged to apply and engage on 'teaching fellowship' accreditation programmes, awarded by Advance HE (formerly HEA) and their professional standards framework. UCL is accredited to award Advance HE Fellowship accreditation, through the ARENA centre and several technical professionals at UCL are accredited with AFHEA, FHEA and SFHEA.

Education – Grade 4

Typical roles: Trainee Technician, Junior Technician, Assistant Archaeologist, Laboratory Support Staff

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Report faults or damage to equipment or infrastructure and assist with simple maintenance tasks under supervision
- Promote and follow safe working practices
- Understand and follow safety paperwork, with the ability to identify and report hazards
- Conduct routine compliance tasks under supervision
- Maintain good housekeeping, assisting with waste disposal procedures and cleaning activities under supervision

Core responsibilities

- Contribute to meetings
- Make suggestions to improve the service
- Contribute to and support change
- Assist with stock control and stores operations under supervision
- Assist with record keeping, inventory and asset management under supervision
- Assist in moving/relocating instrument and equipment
- With a high level of accuracy, prepare routine reagents and materials adhering to standard operating procedures where necessary
- Operate simple equipment following instructions or standard operating procedures and interpret simple results under supervision
- Assist with calibration and testing of instruments/equipment, following instructions and standard operating procedures under supervision
- Organise laboratory spaces in preparation of scheduled activities
- Set up and operate equipment following well-established procedures under supervision
- Support teaching and training of students in technical skills
- Organise learning spaces in preparation of scheduled activities
- Provide basic demonstration and support to students in the laboratory space with safe working practices
- Assist with the induction of new staff
- Assist with Laboratory Efficient Assessment Framework (LEAF) award application
- Conduct manual handling of instruments and equipment

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Liaise with stakeholders e.g., senior members of the team and students
Develop an understanding of essential processes and procedures under supervision

Learning from others

Shadow senior members of the team in the working environment
Expand knowledge of other classes do not come under the current remit
Join a Community of Practice

Formal learning

Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre
Health and safety training
Accreditation/certification from a recognised professional body

UCL Ways of Working

These describe expected behaviours in line with UCL culture and values (see pages 66-67).
For Ways of Working indicators and steps to development please refer to the Ways of Working website www.ucl.ac.uk/human-resources/policies-advice/ways-working

Transferable skills and competencies

RELATING AND NETWORKING

WORKING WITH PEOPLE

PRESENTING AND COMMUNICATING INFORMATION

(see pages 64-65)

Education – Grade 5

Typical roles: Assistant Technician, Technician

Transferable skills and competencies

APPLYING EXPERTISE AND TECHNOLOGY

PRESENTING AND COMMUNICATING INFORMATION

LEARNING AND RESEARCHING

(see pages 64-65)

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Report faults or damage to equipment or infrastructure and assist with simple maintenance tasks
- Promote and follow safe working practices
- Understand and follow safety paperwork, with the ability to identify and report hazards
- Conduct routine compliance tasks
- Maintain good housekeeping, assisting with waste disposal procedures and cleaning activities

Core responsibilities

- Contribute to meetings
- Make suggestions to improve the service
- Contribute to and support change
- Assist with stock control and stores operations
- Assist with record keeping, inventory and asset management
- Conduct manual handling of instruments and equipment
- With a high level of accuracy, prepare routine reagents and materials adhering to standard operating procedures where necessary
- Operate simple equipment following instruction or standard operating procedures and interpret simple results
- Assist with calibration and testing of instruments/equipment, following instructions and standard operating procedures
- Organise laboratory spaces in preparation of scheduled activities
- Set up and operate equipment following well-established procedures
- Provide basic demonstrations and support to students in the laboratory space ensuring safe working practices are explained and used
- Assist with the induction of new staff
- Assist academic staff with the preparation of lecture demonstration
- Assist with preparation and running of outreach events for schools and colleges
- Contribute to and support Laboratory Efficient Assessment Framework (LEAF) award application

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Take responsibility for the delivery of events e.g. external events and open days
Under close supervision, begin to take responsibility for delivery of a module including procurement of simple consumables
Liaise with important stakeholders e.g. senior members of the team and students
Develop an understanding of essential processes and procedures under supervision of management

Learning from others

Shadow senior members of the team in the working environment
Expand knowledge of other classes do not come under the current remit
Join a Community of Practice

Formal learning

Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre
Attend Health and safety training
Accreditation/certification from a recognised professional body

UCL Ways of Working

These describe expected behaviours in line with UCL culture and values (see pages 66-67).
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Education – Grade 6

Typical role: Teaching Technician

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Complete routine equipment maintenance and repairs
- Liaise with suppliers and manufacturers to resolve simple problems
- Advise on equipment capabilities
- With the academic lead, establish and maintain a safe/compliant working environment
- Assist/complete and update routine safety paperwork (dependent on the risk owner)
- Hold specific safety responsibilities relevant to the area of work
- Organise and complete compliance tasks
- Maintain up-to-date health and safety knowledge, providing support and advice to others

Core responsibilities

- Ensure effective delivery of objectives by planning and managing own workload
- Assist the academic lead with the day-to-day running and supervision of laboratory spaces
- Allocate work to one or more members of technical staff
- Work collaboratively to deliver objectives
- Contribute to progress and management meetings
- Manage a small budget, monitoring resource usage and maintaining supplies of key items
- Assist with stores operations including ordering, receiving, processing, and distributing goods
- Source and negotiate with suppliers for routine items
- Provide a high standard of teaching support, including preparing for classes and field work
- Provide support to students through tuition
- Prepare and deliver tutorials to students
- Support taught course projects by contributing to experimental design and data acquisition
- Prepare and manufacture a range of simple specimens/samples
- Report infrastructure faults and support small-scale building works
- Manage equipment bookings, calculate charges/costs, and assist with re-charging
- Update and deliver local inductions
- Provide training and demonstrations of techniques and equipment
- Take responsibility for the successful delivery of assigned laboratory classes
- Share skills and best practice
- Manage arising issues with a solution-focused attitude
- Manage the maintenance of machinery and equipment as required
- Contribute to risk assessments
- Write standard operating procedures
- Manage the Laboratory Efficient Assessment Framework (LEAF) award application

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Provide detailed written and verbal feedback to students
Explore opportunities to take on acting-up duties

Learning from others

Join special interest groups, and/or network groups to learn about best practice in other areas of UCL, as well as external groups to learn about other organisations and sectors
Join a Community of Practice
Attend conferences
Develop understanding of people and lab management by shadowing and covering for senior technicians

Formal learning

Attend Health and safety training
Relevant training through Higher Education and Technician Educational Development (HEaTED)
Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre
Specialist instrument training as required
Apply for training through a mid-career apprenticeship programme
Accreditation/certification from a recognised professional body

UCL Ways of Working

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Transferable skills and competencies

APPLYING EXPERTISE AND TECHNOLOGY

WORKING WITH PEOPLE

PRESENTING AND COMMUNICATING INFORMATION

(see pages 64-65)

Education – Grade 7

Typical Role: Senior Technician/Technical Specialist, Senior Teaching Technician

Transferable skills and competencies

ANALYSING

PLANNING AND ORGANISING

ACHIEVING PERSONAL WORK GOALS AND OBJECTIVES

(see pages 64-65)

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Create documentation (such as standard operating procedures) that include maintenance/repair protocols
- Hold responsibility as the point of contact for specific instruments within the Department
- Advise advanced users on advanced on equipment capabilities demonstrating how results can be achieved
- By developing local procedures, establish and maintain a safe/compliant working environment
- Creating risk assessments for laboratory activity
- Hold responsibility for the implementation of safety controls; ensuring controls are widely communicated and implemented
- Oversee compliance tasks ensuring timely completion and maintenance of appropriate records
- Complete accident reporting and assist with investigations
- Manage equipment maintenance, e.g. arranging servicing, buying and replacing parts and consumables

Core responsibilities

- Provide management, motivation, and support to a technical team of broad remit
- Schedule, prioritise and monitor work and performance in line with demands and deadlines
- Assist with recruitment of technical staff
- Hold delegated responsibility from the academic lead for the planning, operation, and supervision of a variety of laboratory spaces
- Organise and facilitate progress and management meetings
- Be a key contributor to service development, delivery, and planning
- Contribute to and support change
- Oversee local record keeping, inventory and asset management
- Manage one or more budgets monitoring resource usage
- Source and negotiate with suppliers for a range of items including specialist parts/equipment
- Provide a broad range of skilled research and technical support
- Prepare and manufacture a range of specimens/samples with limited direction
- Contribute to small- and large-scale building works
- Manage local security and access control arrangements
- Deputise in the absence of laboratory manager(s)
- Design, develop and deliver inductions, demonstrations and training covering a broad range of activities (not limited to techniques and equipment)
- Assist managers with the identification of training and development needs
- Develop a broad knowledge and skills base, sharing with others
- Mentor junior staff
- Assist with procurement of higher value items that require tender
- Provide delegated safety responsibility for the class
- Oversee the entire laboratory organisation process, ensuring timely completion of appropriate records and procedures
- Oversee the successful delivery of all teaching in the designated area of work
- Plan the logistics across various practical sessions
- Manage several modules
- Hold responsibility of spaces
- Improve lab sustainability through the Laboratory Efficient Assessment Framework (LEAF)
- Lead on the Laboratory Efficient Assessment Framework (LEAF) award application

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Provide mentoring support to apprentices
Ensure compliance with health and safety in areas that are not your direct responsibility
Take responsibility for the delivery of specific projects
Provide detailed written and verbal feedback to students
Write articles and letters for professional body magazines and newsletters

Learning from others

Build relationships with senior team members
Join and participate on safety committees
Engage with college-wide initiatives
Attend conferences and symposiums
Work in collaboration with professional bodies
Join a Community of Practice

Formal learning

Industrial qualifications related to role and area of work
Accreditation/certification from a recognised professional body
Attend advanced Health and Safety training Programme training
Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre
Apply for training through a mid-career apprenticeship programme

UCL Ways of Working

These describe expected behaviours in line with UCL culture and values (see pages 66-67).
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Education – Grade 8 – Specialist Pathway

Typical Roles: Senior Technical Specialist, Instructor Dental Technician

Transferable skills and competencies

DECIDING AND INITIATING ACTION

LEADING AND SUPERVISING

COPING WITH PRESSURE AND SETBACKS

(see pages 64-65)

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Advise and oversee all equipment purchases relevant to the specialism ensuring compliance and alignment to facility priorities, while ensuring that resources and equipment remain current and relevant
- Plan and oversee all maintenance and repair activities including the completion of in-house, highly skilled repairs and maintenance
- Ensure that all equipment linked to the specialism is appropriately maintained
- Lead investigations into new equipment purchases/modifications
- Hold specific safety responsibilities relevant to the specialism e.g., laser safety advisor
- Ensure all safety paperwork relevant to the specialism is completed/reviewed
- Maintain relevant up-to-date health and safety knowledge providing expert support/advice

Core responsibilities

- Provide direct line-management support, schedule, prioritise and monitor work and performance in line with demands and deadlines
- Supervise other staff and students working within the specialism, providing support which ensures that staff and students knowledge remains current to fulfil the future needs of teaching
- Organise and facilitate meetings as necessary and attend and present at School/Department meetings and forums e.g., academic and teaching meetings
- Lead the introduction and development of new and cutting-edge equipment and techniques
- Contribute to and support local change
- Manage budgets relating to the specialism, monitoring resource usage
- Contribute data to influence budget setting processes
- Hold overall responsibility for ensuring that the specialist area delivers against the needs of teaching and research, and that all assets relating to the specialism are utilised
- Provide highly skilled and highly-specialised teaching, research and taught course support. This will include the development of new techniques or new practical class activities
- Ensure that the management of facilities relating to the specialism is robust and compliant
- Assess, develop, and implement training and development arrangements relating to the specialism
- Maintain in-depth specialist knowledge, sharing with others e.g. presenting at conferences
- Mentor/coach junior staff
- Contribute to module and course planning meetings
- Undertake recruitment responsibilities. This will include the creation of job descriptions and conducting interviews
- Line manage junior technical staff

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Take on secondary support for other instruments and spaces
Undertake training e.g. introduction to financial/budget awareness
Undertake training on managing internal processes
Develop new health and safety protocols
Train junior members of the team to retain expertise and knowledge within the team

Learning from others

Work shadow colleagues to learn more about different roles and responsibilities
Join a Community of Practice

Formal learning

Formal and/or industrial qualifications related to role and area of work
Accreditation/certification from a recognised professional body
Apply for training through a mid-career apprenticeship programme
UCL Leadership and/or Management training
Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre

UCL Ways of Working

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Education – Grade 8 – Management Pathway

Typical Roles: Technical Manager, Operations Manager

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Advise and oversee significant equipment purchases ensuring compliance and alignment to School/ Department priorities in conjunction with Senior Specialist Technicians where appropriate
- Ensure that all equipment is appropriately maintained in conjunction with Senior Specialist Technicians where appropriate
- To be responsible for the implementation of the University's health and safety policy, translating this into effective local policies and procedures
- Hold specific safety responsibilities (e.g. membership of School/Department level committees)
- Ensure all necessary safety paperwork is completed/reviewed across the School/Department
- Oversee completion of all compliance tasks across the School/Department
- Lead safety inspections and accident investigations
- Maintain up-to-date health and safety knowledge providing expert support/advice to others

Core responsibilities

- Provide management, motivation and support to the School/Department technical team developing the team to keep pace with changing teaching, research and technology needs
- Schedule, prioritise and monitor work and performance in line with demands and deadlines
- Be responsible for the recruitment of all technical staff
- Manage all space and its allocation ensuring that it is used to maximum effect
- Organise and facilitate meetings as necessary and attend and present at School/Department meetings and forums
- Lead the development of School/Department services and facilities ensuring that they remain fit-for-purpose and deliver maximum benefit
- Lead change-management initiatives at a local level in collaboration with more senior staff
- Hold responsibility for the effective operation of stock control, whole life costings and asset management/ inventory systems across the School/Department
- Manage School/Department budgets and those relating to specific projects ensuring that appropriate and compliant systems are in place to deal with purchasing
- Contribute data to influence budget-setting processes
- Hold overall management responsibility for all facilities ensuring that local facility management arrangements are robust and compliant
- Manage the Department's teaching laboratories, technical teaching staff and resources to ensure efficient delivery of department's laboratory teaching timetable
- Oversee School/Department security and access control arrangements
- Assess, develop, and implement School/Department-wide training/development arrangements
- Design, develop and deliver inductions, demonstrations and training covering a broad range of activities (not limited to techniques and equipment)
- Develop and maintain a broad knowledge and skills base, sharing with others
- Mentor/coach junior staff
- Develop new health and safety protocols
- Sign-off the SOP Risk Assessment for the technician spaces
- Manage several modules
- Contribute to the Departments strategic planning for teaching

Transferable skills and competencies

DECIDING AND INITIATING ACTION

LEADING AND SUPERVISING

COPING WITH PRESSURE AND SETBACKS

(see pages 64-65)

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Take on secondary support for other instruments and spaces
Undertake training e.g., introduction to financial/budget awareness
Undertake training on managing internal processes
Develop new health and safety protocols
Train junior members of the team to retain expertise and knowledge within the team

Learning from others

Work shadow colleagues to learn more about different roles and responsibilities
Join a Community of Practice

Formal learning

Formal and/or industrial qualifications related to role and area of work
Accreditation/certification from a recognised professional body
UCL Leadership and/or Management training
Apply for training through a mid-career apprenticeship programme
Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre

UCL Ways of Working

These describe expected behaviours in line with UCL culture and values (see pages 66-67).
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Education – Grade 9 – Specialist Pathway

Typical Roles: Technical Operations Manager, Head of Technical Services

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- By developing local procedures, establish and maintain a safe/compliant working environment within the specialist area
- Hold specific safety responsibilities relevant to the specialism e.g. laser safety advisor
- Ensure all safety paperwork relevant to the specialism is completed/reviewed
- Oversee completion of all compliance tasks related to the specialist area
- Complete accident reporting and assist with investigations
- Maintain in-depth and up-to-date health and safety knowledge relevant to the specialism
- Maintain relevant up-to-date health and safety knowledge providing expert support/advice

Core responsibilities

- May provide direct line-management support, schedule, prioritise and monitor work and performance in line with demands and deadlines
- Supervise other staff and students working within the specialism
- Undertake the procurement of equipment for purchases up to £50,000
- Design and provide specialist training and training materials to research students and staff at all levels.
- Conduct complex research experiments contributing to the experimental design
- Lead on/prepare outputs as appropriate to the role, contributing to the development of the individual's or UCL's reputation.
- Specialise in a skillset deemed to be expert in their area and/or including project management of major technical projects
- Hold responsibility for the overall technical project management of research projects, including the design and implementation of systems
- To maintain and run a state-of-the art core facility, which meet the needs of UCL, including a service users
- To work collaboratively with other research groups in UCL in addressing major research questions. This involves work at the cutting edge of the technology, where high level technical expertise in this field is required
- To lead your own research programme and disseminate research findings both within UCL, and externally in the form of publications, presentations and reports.
- To bring skill and rigour of our part of the collaboration to match the input from the collaborators on the biological problem under investigation.
- To supervise the provision of the core facility this largely through management of staff and oversee the quality of the service, its cost effectiveness and the appropriate use of its resources.
- Contribute to research outputs, including research papers, as a co- or lead author.
- Apply for grant funding from appropriate external funding agencies and internal funding programs.

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Undertake strategic planning in specific area of responsibility
Gain practical experience of line management
Develop a clear understanding of the main HR processes to support line management of staff

Learning from others

Establish good working relationships with academics and faculty senior management
Join a Community of Practice
Conference attendance/ presentation
Represent department/faculty/ UCL at external network meetings/working groups

Formal learning

UCL Leadership and/or Management training
Apply for training through a mid-career apprenticeship programme
Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre

UCL Ways of Working

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Transferable skills and competencies

FORMULATING STRATEGIES AND CONCEPTS

PERSUADING AND INFLUENCING

DEVELOPING RESULTS AND SETTING CUSTOMER EXPECTATIONS

(see pages 64-65)

Education – Grade 9 – Management Pathway

Typical Roles: Technical Operations Manager, Head of Technical Services

Transferable skills and competencies

FORMULATING STRATEGIES AND CONCEPTS

PERSUADING AND INFLUENCING

DEVELOPING RESULTS AND SETTING CUSTOMER EXPECTATIONS

(see pages 64-65)

Experiences

Activities and responsibilities likely to be required when working at this level

Health & Safety responsibilities

- Advise and oversee significant equipment purchases ensuring compliance and alignment to College/Faculty priorities
- Ensure that all equipment is appropriately maintained in conjunction with School/Faculty technicians
- Ensure that the University's health and safety policy is translated into effective local policies and procedures
- Hold specific safety responsibilities
- Ensure all necessary safety paperwork is completed/reviewed across the College/Faculty
- Ensure that all compliance tasks are completed
- Lead safety inspections and accident investigations
- Maintain up-to-date health and safety knowledge providing expert support/advice to others

Core responsibilities

- Provide management, motivation and support to the College/Faculty technical teams developing the teams to keep pace with changing teaching, research and technology needs
- Ensure that all work is appropriately scheduled in line with priorities and deadlines
- Maintain oversight of all technical staff recruitment within the College/Faculty
- Oversee space management and allocation across the College/Faculty
- Lead the development of College/Faculty services and facilities ensuring that they remain fit-for-purpose and deliver maximum benefit
- Lead change-management initiatives in collaboration with more senior staff
- Produce options papers, proposals, and reports for senior management review
- Ensure that inventory and asset management is appropriately managed across the College/Faculty
- Manage College/Faculty budgets (including trading accounts) and those relating to specific projects ensuring that appropriate and compliant systems are in place to deal with purchasing
- Contribute data to influence budget setting processes
- Oversee the management of all College/Faculty facilities, monitoring budgets and overall performance
- Maintain oversight of all large-scale building works leading on those of a significant value/impact
- Oversee College/Faculty security and access control arrangements
- Assess, develop and implement College/Faculty-wide training/development arrangements
- Coach staff
- Oversee small- and large-scale buildings works
- Contribute to research outputs, including research papers, as a co- or lead author.
- Apply for grant funding from appropriate external funding agencies and internal funding programs.

Personal and professional development

Development options to consider when working towards this level

Learning on the job

Undertake strategic planning in specific area of responsibility
Gain practical experience of line management
Develop a clear understanding of the main HR processes to support line management of staff

Learning from others

Establish good working relationships with academics and faculty senior management
Represent department/faculty/UCL at external network meetings/working groups

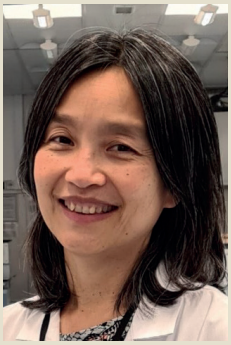
Formal learning

UCL Leadership and/or Management training
Line Management training
Apply for training through a mid-career apprenticeship programme
Fellowship of the Higher Education Academy – Advance HE via UCL Arena Centre

UCL Ways of Working

These describe expected behaviours in line with UCL culture and values (see pages 66-67).
For Ways of Working indicators and steps to development please refer to the Ways of Working website www.ucl.ac.uk/human-resources/policies-advice/ways-working

Case Studies



Helena Wong

Senior Chemistry Teaching Laboratory Technician, Department of Chemistry

I am the Senior Chemistry Teaching Laboratory Technician of the Physical Chemistry undergraduate teaching laboratories, in the Christopher Ingold Building. My role is to provide continuity, full oversight, and operational management of the Graham Physical Chemistry teaching lab. This includes stock control, procurement, provision of resources, budget management, equipment and instrument maintenance, lab infrastructure, building services, waste management and Health and Safety. With assistance from 0.5 FTE Grade 6 Natural Science Technician (whom I task manage) and a full-time Grade 4 technician (whom I line manage), I provide technical support for 900+ Chemistry undergraduates in years 1 to 3. This number is not inclusive of the students in other programmes of NatSci, Life Science and Chemistry MSci projects that we (as a team) also support.

A major part of my role is supervising the preparation of all teaching lab sessions to ensure their smooth and safe delivery, to maximise learning outcomes and the student experience. To achieve this, I advise on feasible timetabling, deliver instrument and equipment training to both staff and students, suggest and assist in developing new lab activities, work with academics to improve existing practical classes and teaching methods, advise on the procurement of new instrumentation, equipment and troubleshoot technical issues as and when they develop. Basically, anything that is required to ensure the learning outcomes of the lab activity is achieved together with good student experience.

I also implement sustainable practices, support physical and mental health needs of all students, and support equity for all students in the Graham Lab. Preparation of internal and external demonstration resources also falls under my remit. In 2019, I oversaw the refurbishment of the analytical teaching labs. Since 2018, I have been a volunteer assessor for the professional awards of RSciTech and RSci status on behalf of the Royal Society of Chemistry (RSC).

I did my Chemistry degree and my PhD in Synthetic Organic Chemistry at the University of Bristol. After my PhD I took a career break to bring up a young family, re-entering the workforce in 2004 as a Biology Technician in a foundation school, followed by a chemistry post in a grammar school from 2007 until 2011. This allowed me to juggle childcare responsibilities until my children were of a more independent age.

I started my current post at UCL in 2019 arriving from King's College London where I had been a Teaching Technician of the chemistry labs in Pharmacy, mental health 1st aider and deputy radiation protection supervisor of the department. I made this move from organic to physical chemistry to recognise my potential and facilitate my career progression. My journey at King's started in 2011 as a Junior Technician, despite my previous qualifications, knowledge and experience. In my time at King's, I helped relaunch the Chemistry department (which opened in 2012), oversaw the refurbishment of the teaching labs in 2014, sat on the Development, Diversity and Inclusion committee (from 2018) and the Athena Swann application committee of the department (2015). I was also a founding member of the core focus group at King's to drive the Technicians' Commitment movement (2016), and one of the first at King's to be professionally registered as RSci in 2013. My sustainability champion work for labs started at Kings in 2017.

My journey to where I have arrived has not been conventional. My proactiveness and willingness to volunteer for additional and challenging responsibilities has equipped me with skills which prove my capabilities and potential, while giving me the experience and opportunity to grow, develop and secure the position I am presently in.

Outside of my own personal ambitions, I maintain a commitment to participate in activities that will support the recognition of, and promote career progression opportunities for, all Technical Professionals at UCL. Through my active engagement with UCL's Technical Manager's Group, the RSC, and other collaborative groups, I will continue to work towards improvements that the technical community have long deserved.

Case Studies

Martyn Towner

Natural Sciences Technician, Department of Chemistry

I'm a Natural Sciences Technician and I've worked in the Chemistry Teaching labs for just under a decade. My role mainly focuses on supporting the delivery of the laboratory practical classes as part of the technical team but also to take lead on technical support for Third year Organic/Inorganic modules along with some Post Graduate modules. I'm also responsible for maintaining spectroscopic instrumentation within the Teaching labs (including training provision, sample preparation and troubleshooting) as well as providing induction, training and troubleshooting on the departmental XRD instrument. I also manage an instrument booking system used for both teaching and research supporting specific requirements or adaptions per instrument.

I went to college to do my A-levels and after not getting into the university I hoped for, was offered the chance to apply for a technician role. I supported the practical classes with preparation of chemicals, cleaning glassware supporting the lab space in the sports centre. I spent two years at the college before going to study Chemistry at university where I achieved a 1st class degree. In the weeks after exams but before results were made available, I wondered what I should do. I initially wanted to be a teacher and if not, an industrial chemist but found it hard to find suitable roles and I wanted a break from studying. I looked back to being a technician and after applying for a few places, I managed to get the Natural Sciences role at UCL starting Sept 2013 at a Grade 5 position.

Since then, I've discovered my passion for education and helping others, my role has developed from simply cleaning benches and helping students with equipment issues to being responsible for certain module delivery and having direct impact on discussions relating to lab organisation and implementation. I was regraded to a Grade 6 in August 2017 and become responsible for the implementation (from the technical side) of the new Third Year Organic/Inorganic labs. This involved adapting experiments to suit provisions in the lab, chemical purchases, lab layout as well as equipment availability. Over the last few years my role has substantially grown in terms of complexity, responsibility and input. I am involved throughout the entire process of the lab development. This includes advising on experiment suitability, safety, and organising lab classes (reviewing student groups with respect to experiments etc). This increase in involvement stems from 2020 where I proposed how labs could occur in a COVID suitable environment. After COVID we've had an increase in student numbers and once again I was singled out as the person who will ensure the labs can be run smoothly and to provide solutions to issues regarding experiments.

Not only have I dramatically increased my input and support for lab classes I have also provided innovative ideas to improve the student experience, sustainability and the safety processes in the lab. I've developed digital NMR submissions to reduce errors and allow students to get their data via email. I've created Standard Operating procedure template and have supported the technical team in utilising them and improving overall safety procedures within the lab. I have had several successful projects that positively impacts student experience and sustainability such as implementing a water chiller system for rotary evaporators that reduce dramatically the amount of Dry Ice being used and improved solvent collect that would otherwise enter the atmosphere.

My advice to those looking to enter the technical field is simply to be passionate about what you do and understand the impact you can have. Students often rely on the support of technical staff to guide them through processes or understanding the techniques. I feel this is because, as technical staff, we are invested in ensuring students get the most out of their practical time, we put a lot of effort in setting it up! More than that though, at least for me, I want to students to come out of their degree trained in a variety of techniques and instrumentation with the confidence to use them. Being a technician is like being a teacher without all the marking! You really can have a positive impact of the student's experiences which will last with them throughout their career. Who knows, maybe the support shown to them helps inspire them to support others.

What's next for me? It's 2023 and I'm currently in the School of Pharmacy on secondment learning all sorts of new skills with a fantastic technical team. I'm still a Grade 6 in my substantive role and will return to continue supporting lab classes at the higher level. I hope to progress further in terms of responsibility and see lab management/Lab co-ordinator as the career goal I'd like to achieve. I want to be able to continually improve the lab spaces, support education and help maintain a positive lab environment for all students.