

<b>Post Details</b>		<b>Last Updated:</b> 10-04-2025	
<b>Faculty/Administrative/Service Department</b>	Faculty of Engineering and Physical Sciences / School of Chemistry and Chemical Engineering		
<b>Job Title</b>	Pilot Plant Technician		
<b>Job Family</b>	Technical and Experimental	<b>Job Level</b>	3
<b>Responsible to</b>	School Technical Manager		
<b>Responsible for (Staff)</b>	N/A		
<b><u>Job Purpose Statement</u></b>			
To be responsible for the maintenance and running of the chemical engineering pilot plant and to assist in the delivery of a high-quality pilot plant experience to students on the chemical engineering, chemistry and pharmaceutical sciences programmes.			
<b><u>Key Responsibilities</u></b> This document is not designed to be a list of all tasks undertaken but an outline record of the main responsibilities (5 to 8 maximum)			
<ol style="list-style-type: none"> <li>1. Maintaining the pilot plant facility within the School, including routine maintenance activities, repairs and modifications.</li> <li>2. Training students, postgraduates, academics and other technicians to use the pilot plant.</li> <li>3. Assist in the delivery of training and teaching modules on the pilot plant, including to students on the chemical engineering, chemistry and pharmaceutical sciences programmes.</li> <li>4. To assist in continuing professional development (CPD) programmes run on the pilot plant.</li> <li>5. Provide support for activities in relation to Outreach and Widening Participation events, Open Days and Offer Holder Days.</li> <li>6. Monitor and maintain a safe working environment in accordance with the latest health and safety procedures in laboratories as allocated by Head of safety forum.</li> <li>7. Contribute to the running of laboratory activities associated with Chemical Engineering and Chemistry in collaboration with other technicians in related areas when necessary.</li> <li>8. Assist with technical support administrative tasks as appropriate.</li> </ol>			
<b>N.B. The above list is not exhaustive.</b>			
<b>All staff are expected to:</b>			
<ul style="list-style-type: none"> <li>• Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities Policy.</li> <li>• Work to achieve the aims of our Environmental Policy and promote awareness to colleagues and students.</li> <li>• Follow University/departmental policies and working practices in ensuring that no breaches of information security result from their actions.</li> <li>• Ensure they are aware of and abide by all relevant University Regulations and Policies relevant to the role.</li> <li>• Undertake such other duties within the scope of the post as may be requested by your Manager.</li> <li>• Work supportively with colleagues, operating in a collegiate manner at all times.</li> </ul>			
<b>Help maintain a safe working environment by:</b>			
<ul style="list-style-type: none"> <li>• Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand.</li> <li>• Following local codes of safe working practices and the University of Surrey Health and Safety Policy.</li> </ul>			
<b><u>Elements of the Role</u></b>			
This section outlines some of the key elements of the role, which allow this role to be evaluated within the University's structure. It provides an overview of what is expected from the post holder in the day-to-day operation of the role.			
<b><u>Planning and Organising</u></b>			
<ul style="list-style-type: none"> <li>• The post holder will organise and prioritise their work within an established operating environment, guided by health and safety guidelines and laboratory best practices. On a day-to-day basis, the post holder will generally work with limited guidance from the School Technical Manager and more senior colleagues. They will have the latitude within their daily work routine to organise and prioritise their own work, to ensure that all the students can successfully complete their pilot plant activities.</li> <li>• This will include successfully managing any conflicting demands, possessing a basic awareness of the options available and being able to make effective and appropriate decisions, referring to their line manager where appropriate.</li> </ul>			

- They will be given the pilot plant programme for a whole semester and be expected to plan ahead to ensure that all the activities are prepared and available when required.

#### **Problem Solving and Decision Making**

- The post holder will often work within well-established processes and procedures as set out by the department. The post holder is expected to also apply their technical knowledge and practical knowledge in order to provide advice, training and assistance to staff and students regarding the pilot plant and use of common equipment for preparation and application of standard laboratory techniques.
- The post holder will be expected to apply reasonable personal initiative and judgement when faced with situations where past experience does not apply; referring only exceptionally complex or unprecedented issues to their line manager for advice or guidance.

#### **Continuous Improvement**

- The post holder is expected to take a pro-active approach to their work, making suggestions for minor improvements in working methods within areas of responsibility and implementing them under the guidance of their line manager.
- The post holder is also expected to develop new technical skills as appropriate to the developing nature of activities utilising the pilot plant and school laboratories, in order that they are able to contribute to the creation of innovative solutions to requirements. It will be necessary to attend training courses as required.

#### **Accountability**

- The post holder will be required to order miscellaneous material, parts and consumables and ensure adequate stock levels at an appropriate cost. Failure to do so would affect the students' pilot plant experience and impact the delivery of CPD programmes.
- The post holder is expected to also apply their technical knowledge and practical knowledge of the required laboratory practices in order to provide advice, training and assistance to staff and students regarding the application of techniques and use of common equipment for preparation and application of standard laboratory techniques. Whilst the work will usually follow an established pattern, the post holder is able to refer to well-defined procedures for guidance when required. The post holder is however, required to recognise when problem/issues should be referred to a senior member of the team or to their line manager for guidance or resolution. The post holder is expected confidently to provide advice and solutions to routine day-to-day problems in their specialist area.
- The post holder is expected to assist with the monitoring and maintaining a safe working environment within the Chemical Process Engineering pilot plant and laboratories, and ensuring that the environment meets Health and Safety requirements and procedures such as electrical safety testing, COSHH and disposal of waste chemicals are carried out in compliance with their associated regulations. Errors in judgement or failure to carry out a particular task could result in damaging equipment or risking students and staff's personal safety.

#### **Dimensions of the role**

- This role will be based in the Chemical Process Engineering pilot plant facility. The role will involve working alongside staff and post graduate demonstrators to provide frontline technical support for Chemical Engineering, Chemistry and Pharmaceutical Sciences pilot plant classes totalling over 200 undergraduate and postgraduate students. The post impacts the student and staff experience in terms of its provision of service and its contribution to learning.
- The post holder will take a leading role in the maintenance of the pilot plant and assisting in the delivery of high quality teaching activities across the School and with external partners, all using the plant facility.
- There are no budgetary responsibilities although the post holder will be required to order miscellaneous material, parts and consumables and ensure adequate stock levels under their own initiative.

#### **Supplementary Information**

- This role will have a fluid balance of working primarily in the pilot plant facility but may also need to support Chemical Engineering and Pharmaceutical Sciences teaching practical's and students' projects under the direction of the School Technical Manager when the pilot plant is not in operation. They should therefore be prepared to adapt to needs which directly affect the students' experience.

<b>Person Specification</b> This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role.		
<b>Qualifications and Professional Memberships</b>		
HNC/D, degree in the relevant specialist area, plus relevant work experience or broad practical work experience in a relevant teaching, technical or scientific role.		E
<b>Technical Competencies (Experience and Knowledge)</b> This section contains the level of competency required to carry out the role (please refer to the Competency Framework for clarification where needed and the Job Matching Guidance).	<b>Essential/Desirable</b>	<b>Level 1-3</b>
Experience of working and maintaining a pilot plant facility or similar	E	2
Understanding of regulations and procedures (including health and safety) and the implications of non-compliance on other users.	E	2
Experience of a mechanical workshop, or experience of using hand tools.	D	2
Knowledge and experience of maintenance and first-level fault finding in equipment	D	1
Experience working in Chemical Engineering, Chemistry or Pharmaceutical labs	D	1
Manual handling experience	D	1
Experience dealing with external organisations and managing CPD activities	D	1
Experience of ordering and handling chemical agents	D	1
<b>Special Requirements:</b>		<b>Essential/Desirable</b>
Candidate must be physically fit to participate in manual handling and for access to the pilot plant.		E
Candidate may be expected to work outside core hours as necessary, e.g Open Days or during CPD activities		E
<b>Core Competencies</b> This section contains the level of competency required to carry out this role. (Please refer to the competency framework for clarification where needed). n/a (not applicable) should be placed, where the competency is not a requirement of the grade.		<b>Level 1-3</b>
Communication		2
Adaptability / Flexibility		3
Customer/Client service and support		2
Planning and Organising		2
Continuous Improvement		2
Problem Solving and Decision Making Skills		2
Managing and Developing Performance		N/A
Creative and Analytical Thinking		2
Influencing, Persuasion and Negotiation Skills		1
Strategic Thinking & Leadership		N/A
<p>This Job Purpose reflects the core activities of the post. As the Department/Faculty and the post holder develop, there will inevitably be some changes to the duties for which the post is responsible, and possibly to the emphasis of the post itself. The University expects that the post holder will recognise this and will adopt a flexible approach to work. This could include undertaking relevant training where necessary.</p> <p>Should significant changes to the Job Purpose become necessary, the post holder will be consulted and the changes reflected in a revised Job Purpose.</p>		
<b>Organisational/Departmental Information &amp; Key Relationships</b>		

### **Background Information**

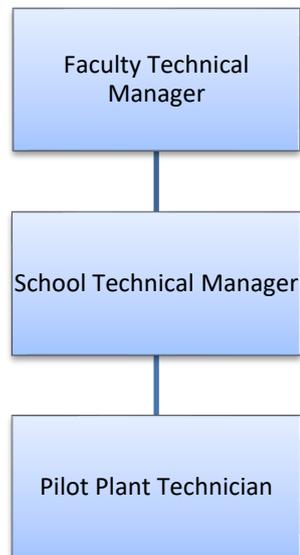
#### **School of Chemistry and Chemical Engineering:**

Newly formed in 2022, the School of Chemistry and Chemical Engineering (SCCE) brings together approximately 45 academic staff working at the forefront of both chemistry and chemical engineering into one cohesive unit to tackle global challenges. The School has expertise across chemistry (both organic and inorganic synthesis, medicinal chemistry, electrochemistry, analytical chemistry centre of excellence) and chemical engineering (process engineering, modelling, pharmaceutical and formulation technologies and energy). The School benefits from state of the art research, teaching and analytical laboratories and facilities and its own pilot plant. Student satisfaction is very high and the School contributed to two UoAs in REF2021. The School collaborates widely with colleagues across the Faculty of Engineering and Science and also the Faculty of Health and Medical Sciences.

#### **Faculty of Engineering and Science:**

The University of Surrey is organised into three Faculties: Engineering and Physical Sciences (FEPS); Health and Medical Sciences (FHMS) and Arts and Social Sciences (FASS). FEPS is made up of four Schools (Chemistry and Chemical Engineering; Computer Science & Electronic Engineering; Mathematics and Physics; Engineering). All Schools have a strong reputation for excellence in research and teaching, allied to a strong enterprise culture and an unrivalled record of graduate employment. Our members of academic staff are well respected, both nationally and internationally, amongst the many areas of academia and industry with which we interact.

### **Department Structure Chart**



### **Relationships**

#### **Internal**

- The post holder will report to the School Technical Manager and indirectly to the Head of School. They will establish working relationships with staff (including the technical team, academics, researchers) and students in the School in addition to staff in the wider Faculty and university, as appropriate.

#### **External**

- The post holder will liaise with external contractors and suppliers for the provision and price of services and goods.
- The post holder will liaise with external third parties/industry partners and external bodies informally and formally, as necessary, to offer CPD training opportunities