



**Trinity College Dublin**  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin

# **School of Chemistry**

## **Postgraduate Welcome Booklet**

### **2014-2015**





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## Director of Teaching and Learning- Postgraduate Students Welcome

On behalf of all chemistry staff, we would like to warmly welcome you to the School of Chemistry.

The School of Chemistry was founded in 1711 and until recently was known as the *Department* of Chemistry. Originally part of the medicine or, more precisely, the School of Physic, it is one of the oldest Chemistry Schools in the world. Over the years it has been home to many distinguished scientists. James Emerson Reynolds, who was appointed in 1875, was interested in ‘comparative chemistry’, chemical similarities within a group. In particular, he was interested by the “remarkably close analogies” between carbon and silicon. He suggested at the much higher temperatures of a young Earth, silicon chemistry may have realized “Nature’s earliest efforts in building compounds suited for the purpose for organic development”, hinting at the possibility of silicon based life. The idea was immediately taken up by H. G. Wells who in an 1894 essay wrote:

*“One is startled towards phantastic imaginings by such a suggestion: visions of silicon-aluminum organisms – why not silicon-aluminum men at once? – wandering through an atmosphere of gaseous sulphur, let us say, by the shores of a sea of liquid iron”.*

Your own research may not prove quite as exotic as Wells’ imaginings. There will be valleys of frustration, and summits of clarity, with, most probably, many blind alleys along the way, but in the end your work should make an original contribution to the world of science.

There are also, of course, practical matters to consider. This booklet, as part of postgraduate orientation week, is intended to clarify some of the practicalities of living in Ireland, and particularly Dublin. In the coming weeks, we will hold another orientation meeting addressing matters specific to pursuing a postgraduate degree in Chemistry.

In the meantime we hope that you settle into Dublin.

Prof. Dónall A. Mac Dónaill,

Director of Teaching and Learning, Postgraduate (DTLPG): [dtlpgch@tcd.ie](mailto:dtlpgch@tcd.ie), [dmcdonll@tcd.ie](mailto:dmcdonll@tcd.ie)

Niamh McGoldrick, Global Officer for the School of Chemistry: [Niamh.McGoldrick@tcd.ie](mailto:Niamh.McGoldrick@tcd.ie)



## The Role of Your Supervisor

Supervisors of postgraduate students have a personal responsibility to:

- Ensure that they supervise in accordance with the College's regulations on supervision and the School's regulations on safety and postgraduate affairs.
- Ensure that students take their responsibilities seriously – or ensure that a student who is not taking responsibilities seriously is dealt with through the proper channels.
- Ensure that they prepare students for the submission of a cogently argued confirmation report.
- Ensure that they receive and read the final draft of the confirmation report, confirm that it is largely free from errors and confirm that it is fit for examination.

## Important Contact Information

There are a number of important people that you are likely to need in the coming weeks. Their contact details are listed below

Prof. Dónall Mac Dónaill	Director of Teaching and Learning- Postgraduate	donall.macdonail@tcd.ie
Prof. Mike Bridge	Safety Officer	mbridge@tcd.ie
Teresa McDonnell	Chief Technical Officer	mcdnnlt@tcd.ie
Manuel Ruether	Senior Technical Officer	ruetherm@tcd.ie
Chris Smith	College Laser Safety Officer	chsmith@tcd.ie
Sinéad Boyce	School Administrator	sboyce@tcd.ie
Noelle Scully	Freshman Coordinator	pnsully@tcd.ie
Niamh McGoldrick	Global Officer	nmcgoldr@tcd.ie
Des Keany	CRANN	keanyd@tcd.ie
Fred Cowzer	Senior Technical Storeman	cowzerf@tcd.ie
Robert Conway Kenny	GSU Postgraduate Rep	conwaykr@tcd.ie



## **Accommodation ([accommodation.tcdsu.org](http://accommodation.tcdsu.org))**

If you do not secure University housing or wish to find your own accommodation, the Students' Union operates an Accommodation Advisory Service from mid-August until the end of Freshers' Week. It will be located on the ground floor in the Students' Union building (House 6) on campus. The service will be open Monday to Friday from 09.30 – 17.30.

The Accommodation Advisory Service offers computers and phones free of charge to assist with your search. A full-time staff member will be available for queries about accommodation-related issues. The Service will provide information on tenant's rights and health and safety information. The Service also provides an excellent opportunity to meet other students looking for housing. For more information or queries relating to private rented accommodation you can contact the Welfare Officer on [welfare@tcdsu.org](mailto:welfare@tcdsu.org) or on +353 1 6468 437.

If you are looking for accommodation outside of campus, useful websites are

[www.daft.ie](http://www.daft.ie)

[www.myhome.ie](http://www.myhome.ie)

[www.rent.ie](http://www.rent.ie)

[www.let.ie](http://www.let.ie)

Some accommodation vacancies will also be advertised through the TCD noticeboard ([www.tcd.ie/Secretary/Communications/Noticeboard/](http://www.tcd.ie/Secretary/Communications/Noticeboard/)).

Additional advice for all new tenants is available from the PRTB website ([www.prtb.ie/tenants](http://www.prtb.ie/tenants)).

## **Getting Started**

Students arriving in Ireland will be required to (i) apply for a PPS number, (ii) register with the Garda National Immigration Bureau (GNIB), if from a non-EU country and (iii) get an Irish bank account

## **Apply for a Personal Public Service Number (PPS)**

Your Personal Public Service Number (PPS Number) is a unique reference number that helps you access social welfare benefits, public services and information in Ireland. Details of how to apply for a PPS number can be found at <http://www.welfare.ie/en/Pages/Personal-Public-Service-Number-How-to-Apply.aspx>. A letter of notification will be sent automatically to the address given on the application form, usually within 3 to 5 working days. Your reference number can then be used to register with the Revenue and other services in Ireland.



## **Garda National Immigration Bureau (GNIB)**

The Garda National Immigration Bureau (GNIB) is located on Burgh Quay, approximately a 5-minute walk from the campus. In order to register with the GNIB, students must collect the following documents to support their application and will also be required to pay a 300 euro fee.

Group trips for GNIB registration will be arranged on the evenings of 1-4 September, 20-23 October, 28-30 October and 17-20 November 2014. Registered students will receive an email with specific information.

### **Mandatory Supporting Documents**

- ✓ Proof of Trinity registration (from Academic Registry)
- ✓ Tuition fee receipt (from Academic Registry)
- ✓ Proof of address (i.e., a utility bill or a letter addressed to your Irish address from Trinity College)
- ✓ Bank statement from an Irish bank account showing at least €3000 available.
- ✓ Valid Passport
- ✓ Proof of health insurance

Please allow 5 working days for Irish bank statements and for documents needed from Academic Registry.

## **Getting a Bank Account**

The main Irish banks are AIB, Bank of Ireland, Ulster Bank and Permanent TSB. Bank of Ireland has a Trinity branch just outside the Front Gate of Trinity and a small branch in the Hamilton Building on campus. It is possible to open a bank account with a foreign address, however be advised that all correspondence (including your ATM/Debit card) will be sent to that address and may take up to three times as long to arrive as items mailed to Irish addresses. For foreign addresses, you will need two types of proof of address, both certified by your foreign bank or by a public notary. A letter from Trinity will not be sufficient as proof of foreign addresses. You are advised to open a bank account after you obtain an Irish address.

### **Mandatory Documentation to Open a Student Account:**

- Photo ID (Passport, National ID card)
- Trinity ID card
- Proof of Address: Utility Bill, Revenue/PPS Letter, Letter from Trinity Academic Registry sent to Irish address

You can set up online banking for an existing account on [www.365online.com](http://www.365online.com). In order to set up a designated beneficiary for online banking, you will need to wait to receive a code in the post. Please allow 5 working days to arrive at Irish addresses. Bank of Ireland takes two days to process an



application from the date of submission. To request a bank statement for immigration purposes, please allow 5 working days after requesting the statement online or in the branch.

## Getting your monthly PhD stipend (getting paid)

Once you have a bank account and have received your PPS number, you need to complete two forms

- ✓ **Direct Pay Mandate** - to give your account details to Trinity College so that you can get paid.
- ✓ **Scholarship Exemption Declaration Form** - to ensure that you do not pay tax on your monthly stipend or demonstrating pay.

## Health Insurance

Non-EU students are required to have insurance cover for medical treatment and hospitalization before arriving in Ireland. Please check with your insurance company at home that you are sufficiently insured for your period of study in Ireland. If you do not already have insurance cover, you may wish to insure with one of the health insurance providers in Ireland

[www.VHI.ie](http://www.VHI.ie)

[www.avivahealth.ie](http://www.avivahealth.ie)

[www.layahealthcare.ie](http://www.layahealthcare.ie)

[www.odon.ie/tcd](http://www.odon.ie/tcd)

Students from EU states should apply for a European Health Insurance Card (**EHIC**) in their home country before departure.

## Trinity College Medical Centre ([www.tcd.ie/collegehealth/](http://www.tcd.ie/collegehealth/))

The medical centre is located on the main Trinity College campus. It is available to all students and staff. Emergency appointments are available at 9.30 am and 2.00 pm daily, however, you should arrive in plenty of time as the service can be busy. The medical centre also offers a variety of other services such as travel advice and vaccinations, and physiotherapy. A full list of fees and opening times are available on their website.



A number of pharmacies around the perimeter of Trinity College also have walk-in GP (local doctor) appointments available, however, these can cost up to 70 euro per visit.

## Student Counselling service

Trinity College provides a free student counselling service (SCS). The Student Counselling Service is located just off the main college campus, on the 3rd floor of an office building in South Leinster



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Street. If you would like to avail of this service, please contact SCS on [student-counselling@tcd.ie](mailto:student-counselling@tcd.ie).

For information on all the other services provided by TCD, please visit the faculties and services website ([www.tcd.ie/structure/services/](http://www.tcd.ie/structure/services/)).

## Graduate Students Union

The Graduate Student Union (GSU) officer is elected by the postgraduate students of the School of Chemistry on a yearly basis, commencing at the beginning of the academic year. Students with at least one year's experience in the School may apply. The role of the GSU officer is to provide a link between the GSU, and the School of Chemistry. There are three GSU meetings per year which all GSU officers must attend to be updated on college news and actions that generally affect postgraduate students in the college. If issues arise during one of the GSU meetings that greatly impacts the college-wide postgraduate community, or directly affects the School, then the GSU officer will contact the students in the school via email, a general meeting or social media to inform them of the matters arising.

The GSU officer also attends school executive meetings, which is a monthly meeting that the head of school organises with representatives from the academic, technical and administrative staff reporting on monthly progress and the general operation of the School. The GSU officer speaks on behalf of the postgraduate body, and reports back to the students with updates arising from the meetings.

Normally, the GSU officer will not be involved in postgraduate-supervisor disputes, which are dealt with by the director of postgraduate teaching and learning; however, the GSU officer can offer advice on how to deal and proceed with such disputes.

## Accessing Wifi on Campus and Student Email

([www.isservices.tcd.ie/students/](http://www.isservices.tcd.ie/students/))



To connect your laptop or tablet to TCD Wifi, you will need your myzone username and password, which will be given to you at registration. Students can access TCD Wifi through the IS services website. If you need further assistance, IS services is located in

Áras an Phiarsaigh, which is highlighted on the main map at the back of this booklet. You can also email IS services at [helpdesk@tcd.ie](mailto:helpdesk@tcd.ie).

Eduroam is an additional network available on the TCD campus, and is available to all registered TCD students and staff. For information on the Eduroam network please visit [www.isservices.tcd.ie/network/eduroam.php](http://www.isservices.tcd.ie/network/eduroam.php)





If you live in private accommodation, you will need to purchase Wifi outside of the college campus. There are many different companies who provide Wifi services in Ireland, including O2, Vodafone, Eircom, and 3. Make sure you ask for the student rate!

## Library

To access the library facilities, you first must sign a copy of the Library Bond form, which can be found at [www.tcd.ie/hr/forms/staff%20bond.pdf](http://www.tcd.ie/hr/forms/staff%20bond.pdf). The form should be returned to the reception desk in the Berkeley Library. Please return the Library Bond Form at least 24 hours before you collect your student card.

There are several libraries located on the main campus. Although you will have access to all of the libraries on campus, the main science library is the Hamilton Library (see map). You can find out more about the library opening hours and on how to reserve a book online on the Library website. ([www.tcd.ie/Library/opening-hours/](http://www.tcd.ie/Library/opening-hours/)).

## English Language Support

Students for whom English is not their first language are eligible to attend the English for Academic Purposes course run by the School of Linguistic, Speech and Communication Sciences. There is a 50 euro registration fee for the course. Details on in-session and pre-session programmes are available at [www.tcd.ie/slscs/english/](http://www.tcd.ie/slscs/english/). Current TCD English-language requirements are available on the TCD Graduate studies webpage. Irish Language Office

Trinity College has a dedicated Irish language office on campus that is open to all staff and students. The office runs free Irish-language classes for students and staff. Information on the classes and services that the Irish Language office provides is available at [www.tcd.ie/gaeloifig/](http://www.tcd.ie/gaeloifig/)

## Trinity College Clubs and Societies ([www.trinitysocieties.ie/societies](http://www.trinitysocieties.ie/societies))

Trinity College has many clubs and societies that students can join. Clubs and societies are a great way to meet new people, and to get involved in student life in Trinity. The cost is usually small (€2-€5 per year), and every club/society is always looking for new members. During Fresher's week, all students can sign up to TCD clubs and societies in Front Square, so go along to find out more!

## Trinity College Sports Centre ([www.tcd.ie/Sport/](http://www.tcd.ie/Sport/))

The Trinity College Sports Centre is located on the main campus next to the Science Gallery. Membership for postgraduate students is included in your registration fees at the beginning of each academic year. You must bring your student I.D. to the sports centre every time you visit. The Sports centre has a gym, a swimming pool, an indoor sports hall and a climbing wall. There are also fitness classes and courses in yoga, tennis, squash and swimming. The classes are usually inexpensive and



you can book and pay for your class at the main desk in the Sports Centre. The opening hours and the class timetables can be found at [www.tcd.ie/Sport/classes/](http://www.tcd.ie/Sport/classes/).

## Food on Campus

There are many places to eat on campus. The college catering service runs the Hamilton restaurant, the Hamilton Coffee Shop, the main Dining Hall (front square), the Buttery café (front square) and the Arts Building café. All of these are marked on the map attached. Opening hours for all services are available at [www.tcd.ie/catering/StaffandStudentOutlets/index.php](http://www.tcd.ie/catering/StaffandStudentOutlets/index.php).



The Science Gallery is located in CRANN on campus, and runs free public exhibitions all year round. Students can buy a membership card for 15 euro which entitles you to discounts on all Science Gallery event tickets for the year. The Science Gallery café is a great place to meet other students, and is located beside the exhibitions on the ground floor.

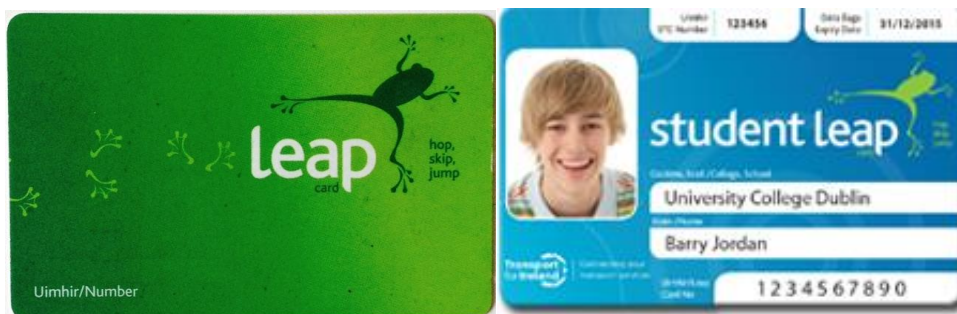
Science Gallery members get 10% off all purchases in the Café and Shop, as well as getting your first coffee free in the Café. ([www.dublin.sciencegallery.com/community](http://www.dublin.sciencegallery.com/community))

## Food off- Campus

The main supermarket chains in Dublin city are Tesco, Dunnes, Supervalu, Lidl, Aldi, and Marks & Spencers. Smaller shops like Centra, Spar and Londis are easy to find, but can be more expensive and will not have as much choice as the larger supermarkets. Remember to bring bags for your shopping with you, as a plastic bag in an Irish supermarket costs 22 cent.

## Travel Smart Cards

A Leap Card is a reusable plastic smart card that can be used instead of paper tickets to pay-as-you-go for transport in Dublin. You can buy a standard Leap Card for €5. Leap Cards can be topped up at any LUAS or train station or from any shop in Dublin with the Leap Card symbol and can be used on Dublin Bus, DART, LUAS, and Commuter Rail services. Remember to tag-on and tag-off!



If you are a student, the Student Travelcard provides discounts on rail, bus, and LUAS services in Dublin and throughout Ireland, as well as student discounts in many shops, restaurants, and



attractions. The Student Travelcard can also be used as a Leap card. You can buy a Travelcard by post (€12.00) or from the Student Union in House 6, Front Square (€15.00). The Student Travelcard is valid for one year. It is also possible to put money on a Student Travelcard and use it to pay for travel on public transport in Dublin. More details are available at [www.studenttravelcard.ie](http://www.studenttravelcard.ie) and [www.leapcard.ie](http://www.leapcard.ie).

## Local Dublin Area Transport

There are extensive bus (Dublin Bus), train (DART), and tram (LUAS) systems operating in Dublin, as well as rail and bus links to other Irish destinations. Trinity College is situated in the heart of Dublin city and is easily accessible by the multiple transport options available in the city.

## City Bus Service-Dublin Bus

Dublin Bus covers a wide area from Newcastle in County Wicklow to Balbriggan in County Dublin and Maynooth in County Kildare. Many destinations are serviced by multiple Dublin Bus routes and so check all the stops close to your destination on the Dublin Bus website ([www.dublinbus.ie](http://www.dublinbus.ie)). The Dublin Bus app also provides a realtime schedule. Outside of standard operating hours, Dublin Bus' Nitelink runs on selected routes every 1-2 hours throughout Friday and Saturday nights and can be identified by the 'N' attached to the route number. Please remember to check your Nitelink timetable on-line before you travel at [www.dublinbus.ie/en/Your-Journey1/Timetables/Nitelink-Services/](http://www.dublinbus.ie/en/Your-Journey1/Timetables/Nitelink-Services/)



A map showing the main bus routes in the city centre is available online at:

[www.dublinbus.ie/PageFiles/6275/Core\\_routes\\_interactive\\_map\\_July\\_2014\\_Final.pdf](http://www.dublinbus.ie/PageFiles/6275/Core_routes_interactive_map_July_2014_Final.pdf)

Buses also represent the only public transport option for travel to and from Dublin Airport. The Aircoach ([www.aircoach.ie](http://www.aircoach.ie)) provides a 24/7 service (€7 single and €12 return) and stops on Westmoreland Street. Dublin Bus' Airlink 747 (€6 single and €10 return) also runs regularly, and has a bus stop on College Green. Other Dublin Bus routes (such as the 16A) also service the Airport for standard Dublin Bus fares but can take much longer than the specialised operators, so allow plenty of extra time if availing of this option.

## Local Trains



The DART (Dublin Area Rapid Transit) runs along the east coast, from Greystones in County Wicklow in the south to Malahide and Howth in north County Dublin. The nearest stop to the Chemistry buildings is Pearse station, although Tara Street station and Connolly station are also nearby. The DART operates every fifteen minutes between the hours of approximately 6am and midnight. Commuter services extend the routes to Dundalk, County Louth; Portlaoise, County Laois; Longford, County Longford;



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Dunboyne, County Meath; and Gorey, Co. Wexford, covering many towns within commuting distance of Dublin city. See [www.irishrail.ie](http://www.irishrail.ie) for more details and the Irish Rail app for realtime timetables.

A map showing the main train routes is available online at:

<http://www.irishrail.ie/travel-information/station-and-route-maps>

### Dublin Trams-LUAS



There are two LUAS tram lines in Dublin. The Green Line, on the south side of the river, runs from Brides Glen in South Dublin to Stephen's Green at the top of Grafton Street, which is the closest stop to Trinity. The Red Line, on the north side, runs from the Point in the Dublin Docklands to Tallaght and Saggart in west Dublin. Two of the national train stations, Heuston and Connolly, and the main bus terminal, Busaras, are stops on the Red Line. Abbey Street is the nearest stop to the main entrance of Trinity. Operating hours on both lines are approximately 5.30am to midnight, although this varies depending on the day of the week and the direction of travel. More details can be found at [www.luas.ie](http://www.luas.ie), and the free LUAS app can also be downloaded for realtime information.

The Dublin tram route map is available at [www.luas.ie/interactive-map.html](http://www.luas.ie/interactive-map.html)

### Taxis/Hackneys

Unless your destination is serviced by a Nitelink route, the only option for travel in Dublin outside of public transport operating hours is by taxi. Dublin has many taxis and taxi ranks are plentiful, but it is recommended that you always have either the number of a taxi company or an app such as Hailo installed on your phone, especially if outside the city centre. Taxis to Dublin Airport take approximately 30 minutes and cost around €20 from Trinity College.

### DublinBikes ([www.dublinbikes.ie](http://www.dublinbikes.ie))

Dublin has a growing bike-sharing scheme, allowing you to collect a bike from any DublinBikes stand and return it to any other stand. They offer annual memberships at very low cost. Check their website to find how where to get a bike, and how to sign-up.

### Travelling outside of Dublin

Bus Éireann provides services around Ireland, and many of these now accept Leap Card payment. Many private bus companies operate daily services around Ireland and these services can be cheaper than Bus Éireann. Make sure to ask for advice before you travel! Train services around Ireland are operated by Irishrail. Connolly station and Heuston station are the two main train



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stations in Dublin. If you are travelling to the North or North-West of Ireland, your train will leave from Connolly station. Trains going to the West or South of Ireland will depart from Heuston station. Student tickets are much cheaper than adult tickets, but you must bring your Student Travel card with you when you travel. You can also book your tickets online in advance ([www.irishrail.ie](http://www.irishrail.ie)).



## Dublin Chemistry- Graduate Programme

Dublin Chemistry is a joint-educational programme between Trinity College and University College Dublin (UCD). Lecturers from both universities teach classes on a variety of topics at a postgraduate level. All PhD students in the School of Chemistry are enrolled in this programme.

### How do the courses run?

Dublin Chemistry is a credit-based system with each course worth 2.5 or 5.0 credits. Students enrol in courses that are relevant to their research. The courses are assessed differently; some have an exam at the end of the course, others use assignments or practicals to assess your performance. The courses are usually lecture-based, which can take place in either TCD or UCD (or both). The courses are usually held during the undergraduate teaching term, and can run for one or two semesters or intensively over one or two days.

### How many should I take at once?

You need 30 credits at the end of your PhD to pass, with at least 15 credits already acquired before you submit your transfer report. Getting 10 credits per year is ideal, but some courses only run every second year so you may want to take them early.



### When do I enrol in them?

You usually sign up to them at the beginning of each semester. You will receive a form by email from the Chemistry Office.

### Can I change my mind once I've enrolled?

You can always change your mind, but if you have enrolled in a course you can fail it if you do not attend. If you have signed up for a course that you do not want to complete, you may switch the course to "audit", which means you will not be examined in the course, but you will not gain any credits for attending it. You can also choose to take a course as "audit" before you start it, in case you're interested in the course but do not wish to take it for credits.

### Are any of the courses mandatory?

In TCD, you have to take the Seminar course in first year, and the presentation course in your third year.

### How can I see my grades?

UCD use their Student Information System (SIS) to record the grades for both TCD and UCD postgraduate students. You are automatically registered on their system and a username and password is emailed to you by the Chemistry Office (usually at the start of semester 2).

### How do I get out to UCD?

The quickest way to get to UCD is by Dublin Bus. The 39A bus, which stops at the Nassau Street stop (stop no. 404), stops inside UCD. Also from Nassau Street (stop no. 406), you can take the 46A (going to Dun Laoghaire), the 145 (going to Kilmacanogue), the 7B (going to Shankhill), or the 7D (going to Dalkey). all of which will bring you to the flyover just outside the UCD campus (stop no. 2007).

To get from UCD to TCD you can get the 32X (going to Malahide), 66X (going to Maynooth), 67X (going to Celbridge), 39A (going to Ongar) from the bus stop just outside the main entrance to the campus

## Demonstrating Freshman Chemistry labs

As a demonstrator you will serve as a mentor and instructor to the students. Most of the students will have had little or no experience in reducing theory to practice in laboratory classes and will be learning skills that they have not encountered before. This makes your help the most important contributing factor to their successful acquisition of the skills required to be a good experimental chemist.

- Promote active thinking by asking questions that force the student to make the connection between what they observe and the chemistry behind the observation.
- Ensure that the students wear their safety glasses properly at all times in the lab and do not eat, as eating is prohibited in the lab. Report all accidents to the member of staff in charge.
- It is absolutely essential to be helpful and supportive. Students may be shy about asking for assistance or reassurance.



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- It is essential that you go to the students rather than expecting them to approach you.
- The Staff Member in charge will give a pre-practical talk at the start of the class. It is nevertheless important that you make sure that your students are clear on what they have to do and that they know how to set up the equipment correctly before they start the experiments. Also make sure that your students know the theory behind the experiments as just giving them the correct answer will not help them learn. To do this, you must have a good knowledge of the practical so you must be well prepared for the class.
- Attendance must be taken each week at the beginning of the lab class (make sure that you have filled in your name and the correct date on the top of the form). Make sure that the students are in the correct lab class – if a student is not in the right class then send them to talk to the staff member immediately.
- You must take a copy of the sheet and give the original to the staff member in charge of the lab class.
- You must also provide the staff member with a list of the students who attended the practical class but did not hand in a report and/or results sheets.
- When marking lab reports use the marking scheme below. Also, please keep in mind the guidelines on awarding grades (See Table 1). You should clearly identify errors on the report/results sheets and indicate how the student can correct errors and how they can improve their reports.

If you are taking the **Demonstrator module**, please familiarize yourself with the module's procedures. It is your responsibility to ensure that certain tasks are completed prior to the start of the labs. These tasks include informing the staff member and technical staff that you are registered for the demonstrating module.

### General rules:

- You must be on time
- If you need to swap your demonstrating you must ask the staff member's permission by e-mail in advance and also provide the name and e-mail address of the person you intend to swap with. If you are demonstrating as part of your College/School studentship, you can only swap with another postgraduate on a College/School studentship (i.e., the School cannot incur a cost from you swapping your demonstrating). It is also your duty to ensure that the demonstrator you swap with is sufficiently familiar with the experiments.
- You must be proactive in teaching the students and encouraging them to continue their studies in chemistry
- Coloured lab coats and name badges will be provided for you for the lab classes.
- You must lead by example in terms of safety in the chemistry lab.



Schedule of Grades
I = 70%+
II-1 = 60-69%
II-2 = 50-59%
III = 40-49%
F-1 = 30-39%
F-2 = 0-29%

**Table 1: Guidelines on Awarding Grades**

Mark Range	Criteria
90-100	IDEAL ANSWER; showing insight and originality and wide knowledge. Logical, accurate and concise presentation. Evidence of reading and thought beyond course content. Contains particularly apt examples. Links materials from lectures, practicals and seminars where appropriate.
80-89	OUTSTANDING ANSWER; falls short of the 'ideal' answer either on aspects of presentation or on evidence of reading and thought beyond the course. Examples, layout and details are all sound.
70-79	MAINLY OUTSTANDING ANSWER; falls short on presentation and reading or thought beyond the course, but retains insight and originality typical of first class work.
65-69	VERY COMPREHENSIVE ANSWER; good understanding of concepts supported by broad knowledge of subject. Notable for synthesis of information rather than originality. Sometimes with evidence of outside reading. Mostly accurate and logical with appropriate examples. Occasionally a lapse in detail.
60-64	LESS COMPREHENSIVE ANSWER; mostly confined to good recall of coursework. Some synthesis of information or ideas. Accurate and logical within a limited scope. Some lapses in detail tolerated.
55-59	SOUND BUT INCOMPLETE ANSWER; based on coursework alone but suffers from a significant omission, error or misunderstanding. Usually lacks synthesis of information or ideas. Mainly logical and accurate within its limited scope and with lapses in detail.
50-54	INCOMPLETE ANSWER; suffers from significant omissions, errors and misunderstandings, but still with understanding of main concepts and showing sound knowledge. Several lapses in detail.
45-49	WEAK ANSWER; limited understanding and knowledge of subject. Serious omissions, errors and misunderstandings, so that answer is no more than adequate.
40-44	VERY WEAK ANSWER; a poor answer, lacking substance but giving some relevant information. Information given may not be in context or well explained, but will contain passages and words, which indicate a marginally adequate understanding.
35-39	MARGINAL FAIL; inadequate answer, with no substance or understanding, but with a vague knowledge relevant to the question.
30-34	CLEAR FAILURE; some attempt made to write something relevant to the question. Errors serious but not absurd. Could also be a sound answer to the misinterpretation of a question.
0-29	UTTER FAILURE; with little hint of knowledge. Errors serious and absurd. Could also be a trivial response to the misinterpretation of a question.





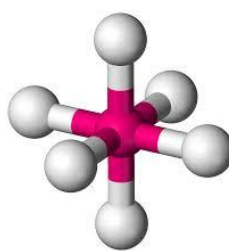
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The University of Dublin

## The Werner Chemical Society

The Werner Chemical Society was first established by the School of Chemistry in 1949. Originally, the committee was made up of one academic staff member (president), and three chemistry postgraduate students (vice-president, treasurer and secretary). In recent years this has changed and now the committee is made up of second year PhD students. The society is named after the Swiss chemist Alfred Werner. Werner won the Nobel Prize in 1913 for proposing the octahedral configuration of transition metal complexes.



(L) Alfred Werner (R) Octahedral configuration

One of the society's main activities is to organise local and international speakers for postgraduate seminars that are run in conjunction with the School of Chemistry's weekly seminar series. The School seminar series takes place at 12 noon every Thursday during the academic year. The Werner Society talks can also be used in the Dublin Chemistry Seminar module, providing the seminar is 45 minutes long. Some of the Werner-organised speakers in the 2013/2014 academic year included Prof. Dermot Diamond (DCU), Prof. David Smith (University of York) and Prof. Dermot Brougham (DCU).

The society also organises different social events throughout the year. The various social events include a Halloween party, a Christmas party, table quizzes and a night out at Shelbourne race track. For those with an interest in sport, the postgraduate students play basketball once a week in the TCD Sports Hall. You can sign up in September and an email will be sent out to all PhD students with the details. During the summer months (May – August) the Werner society organises a School of Chemistry tag rugby team to play in the UCD leagues (for those who don't know what tag rugby is just follow this link [www.tagrugby.ie/!](http://www.tagrugby.ie/)). At the end of the summer the Werner society also organises the Keely Cup. The Keely Cup is an indoor charity soccer tournament for the students and staff of the School of Chemistry. The event is followed by a trip to one of the surrounding drinking establishments for the prize-giving ceremony.



If you have any questions about the Werner Chemical Society you can send an email to [werner@csc.tcd.ie](mailto:werner@csc.tcd.ie). The current Werner Society committee and their emails can be found below:

Barry McKenna	<a href="mailto:bmckenn@tcd.ie">bmckenn@tcd.ie</a>
Olan Cleary	<a href="mailto:clearyol@tcd.ie">clearyol@tcd.ie</a>
Eoin Mac Seán	<a href="mailto:mccarnee@tcd.ie">mccarnee@tcd.ie</a>
Colm Healy	<a href="mailto:healyc6@tcd.ie">healyc6@tcd.ie</a>
Bryan Irwin	<a href="mailto:birwin@tcd.ie">birwin@tcd.ie</a>

## School of Chemistry FAQs

### Q. Where is the School of Chemistry located?

A. The School of Chemistry is not located in one building but is spread over six buildings. These buildings are known as the Old Chemistry Building, the SNIAM Building, the Lloyd Building, the CRANN Research Institute and the Trinity Biomedical Sciences Institute (TBSI; off-campus). The Cocker Lab, one of the two chemistry teaching labs, is located in a building called East-End 4-5.

### Q. Where are the technical instruments located i.e. NMR and Mass Spec?

A. One 600 MHz and two 400 MHz NMR instruments are located on the ground floor of the Old Chemistry Building, one self-service 400 MHz instrument is located on the 7<sup>th</sup> floor of the TBSI and access to an 800 MHz instrument can be requested for biological samples from Dr. John O'Brien ([nmrchem@tcd.ie](mailto:nmrchem@tcd.ie)). This instrument is located on Level -3 in the TBSI. Mass Spec is operated from the Old Chemistry Building and the TBSI. With the exception of the self-service NMR instrument in TBSI, all NMR and Mass Spec samples must be dropped off in the designated drop off zone beside the NMR instruments on the ground floor of the Old Chemistry Building.

### Q. Is there a chemical stores for general lab equipment and basic chemicals?

A. Yes, there is a general chemical stores located on the ground floor of the SNIAM Building. The purchase arrangements for items in this stores varies from group to group and you should consult a group member for your specific arrangement.

### Q. I need to purchase chemicals from a supplier i.e. Sigma-Aldrich – can I order these myself?

A. Each group has a unique ordering system for suppliers of chemicals and lab equipment that can't be purchased in stores. Therefore, you must consult with a senior group member before any purchase is finalised about the group's process.

### Q. I require liquid nitrogen for a reaction – does this need to be ordered through stores?

A. Liquid nitrogen is available in front of the SNIAM Building each weekday at approximately 11AM for group members located in the Old Chemistry Building, the SNIAM Building and the CRANN Institute and is operated by a drop off/collect system. Group members located in the TBSI can also



avail of liquid nitrogen on weekdays using the drop off/collect system but the designated time is shown daily on the building's information screen system.

**Q. Is there access to other instruments such as IR and CD within the school?**

A. The school is very well equipped with instrumentation. However, these are scattered throughout the numerous buildings under the school's control. The main locations include the Instrumentation Room located in the Cocker Teaching Lab, beside the NMR instruments in the Old Chemistry Building, the SNIAM Teaching Lab and the Instrumentation Rooms located on the 2<sup>nd</sup> and 3<sup>rd</sup> floors of the SNIAM Building. Access to the high precision instruments in the CRANN Institute usually have to be booked. Please consult members of your group for necessary login details and training. Please note that some groups have equipment that is only available to their group – access to this equipment is at the discretion of the group's PI.

**Q. Can equipment be borrowed from other labs or the teaching labs?**

A. One-off use of some equipment or glassware etc. is usually not a problem from the teaching labs or other group labs. However, this remains at the discretion of the group/technical staff and must be signed out and returned in prompt time. Some groups may have specific sharing agreements for chemicals but please consult a senior group member for information on any of these agreements.

**Q. There is an upcoming conference that I would like to attend, as I believe it's relevant to my work – can I apply independently and request reimbursement from the school?**

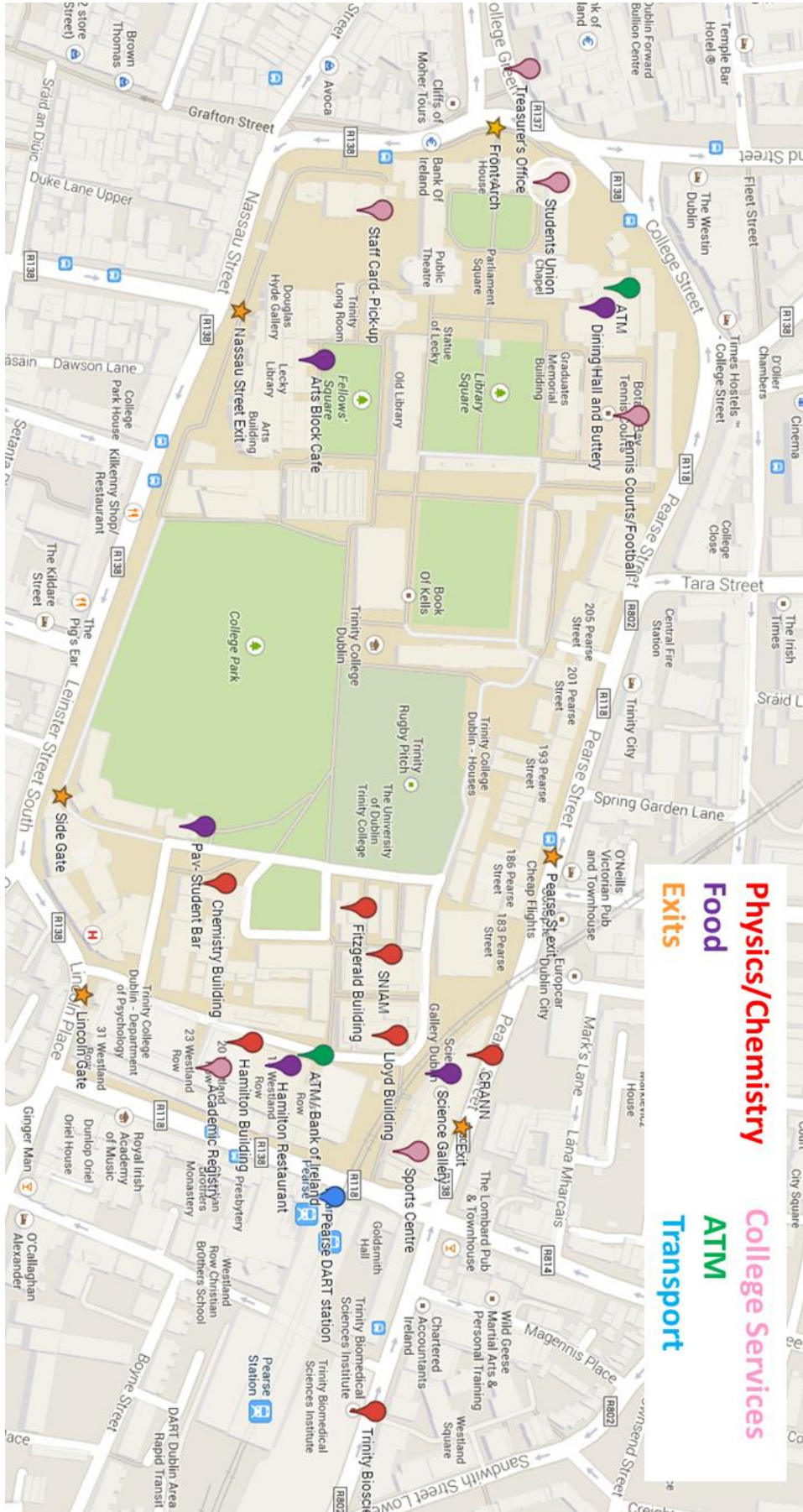
A. It is rare that you will apply for a conference without first consulting your PI or a senior group member as the timing may conflict with prior research or demonstration requirements. As your PI also has to authorise reimbursement for the conference, it is best practise to consult with them well in advance before applying. Most conferences require attendees to present work as a research talk or poster and this may also have to be authorised by your PI.

**Q. How do I get access to research journals and databases such as REAXYS and Scifinder?**

A. If you are connected to the internet via a wired or wireless connection on the TCD network, access to journals will be automatically available for journals TCD has subscribed to. If you are connected to the internet off-campus you may still access journals by inserting "elib.tcd.ie" between the final letter of the general website address and the search component of the website address. For example, if the web address is <http://pubs.acs.org/doi/abs/10.0000>, you will need to edit this to be <http://pubs.acs.org.elib.tcd.ie/doi/abs/10.0000> - this will send you to a redirect page hosted by TCD, which will allow you to access the journal. This is a standard over all publishers. Access to databases like REAXYS and Scifinder can be completed through the TCD library website, both on the TCD network or a different one. Clear instructions are shown on the library pages if registration is necessary.



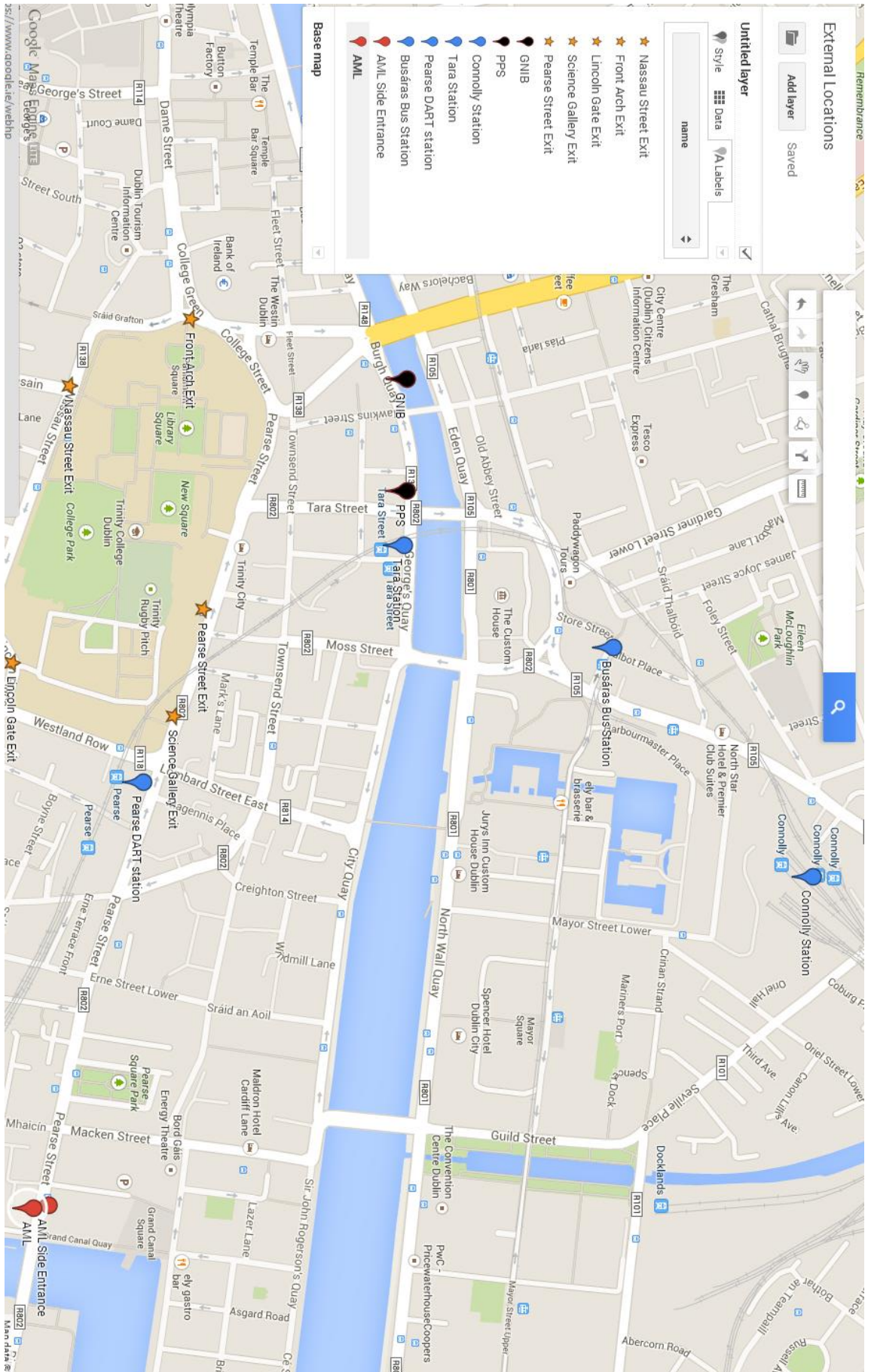
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