



RHODES UNIVERSITY
Where leaders learn

RHODES UNIVERSITY

CHEMISTRY DEPARTMENT

POSTGRADUATE STUDENTS ORIENTATION BOOKLET

2014

1. About the Chemistry Department

The department offers undergraduate and postgraduate courses in chemistry in the disciplines of Analytical, Inorganic, Organic, and Physical chemistry, as well as cognate fields such as Medicinal Chemistry and Nanotechnology. At the undergraduate level, the courses lead to the award of a BSc degree after 3 or 4 years of study. At postgraduate level a 12 month coursework and research program leads to the award of a BSc (Hons) in Chemistry, a 24 month research program leads to the award of an MSc in Chemistry and a 36 months research program leads to the award of a PhD in Chemistry.

The Department of Chemistry shares the well-designed Chemical and Pharmaceutical Sciences Building with the School of Pharmacy. Chemistry occupies most of the basement, first and second floors. The ground floor is a shared facility, where Chemistry hosts a 400 and 600 MHz NMR spectrometers as well as the DST/Mintek Nanotechnology Innovation Centre (NIC) which is home to several state-of-the-art instrumentation such as FT-Raman, XRD, MALDI-TOF, BET, EPR and XPS. These instruments are complemented within the department by equipment such as AFM, Gas and Liquid Chromatographs, LC/MS, ICP-OES, Flame and Flameless AAS, several UV/Vis, IR Spectrophotometers, TGA-FTIR, DSC, Elemental Analyser; Nanosecond Laser Spectrometers, and a variety of Electrochemical workstations and apparatus, just to mention a few. Other facilities include several lecture theatres/rooms, undergraduate laboratories; research laboratories which presently are home to over 60 postgraduate students; an undergraduate computer room (attached to the undergraduate laboratories) and a postgraduate computer modelling room, a chemical stores, a liquid nitrogen plant, a solvent distillation/drying room, a cold room and access to ultrapure water.

The Department is connected to the local area network (LAN), and has access to both hard and electronic journals, as well as several databases such as SciFinder and Science Direct. The Department enjoys a good interaction with neighboring universities (Fort Hare University, Walter Sisulu University, Nelson Mandela Metropolitan University), national (for example Stellenbosch University, University of Cape Town, University of Johannesburg, University of Witwatersrand) universities and international (for example Fundan University, Ghent Universiteit, James Cook University, University of Western Ontario, University of Geneva, , Technological Education Institute Of Piraeus, Justus-Liebig University, Tohoku University, Ecole Nationale Superieure de Chimie de Paris, Lund University, Universidad de Santiago, University of Bristol, University of Auckland, University of British Columbia, University of Florence, Mokpo National University, Emory University, USA National Cancer Institute) universities. The department is also associated with a number of local (for example SASOL, MINTEK, MEDICAL RESEARCH COUNCIL, WATER RESEARCH COMMISION) and internationally (for example Agilent Technologies, USA) companies and institutions.

1.1 History of the department

The Chemistry Department was established in 1904 as one of the original departments of Rhodes University College. The first Head of Department was Professor George Cory, who was later knighted for his contribution to South African historical research. Dr J.L.B. Smith who joined the staff of the Department under George Cory was known as an excellent teacher of Chemistry from 1921 until 1946, but also achieved distinction in his association with the discovery of the coelacanth when he left to become a full-time ichthyologist. Professor Cory was succeeded in 1925 by Professor W.F. Barker who remained Head of Department for thirty-seven years. During

this period postgraduate research work was established and many of the graduates took a leading part in the development of their profession in both the academic and industrial fields in Southern Africa. Since Professor Barker's retirement in 1962, the Heads of the Department have been Professor E.G. Prout (1962-64), Professor J.R. Nunn (1965-80), Professor T.M. Letcher (1980-91) and Professor P.T. Kaye (1992-2008), Professor M. Davies-Coleman (2008-2010), Professor N. Torto (2010-2013), and Professor R. Krause (current head).

As a premier department at Rhodes University, Chemistry had the honour of awarding the university's first MSc degree (1924), its first degree PhD (1938) and its first DSc degree (1993). As a premier department in the country, Chemistry has been fortunate to be one of the first departments in the country, through Professor Tebello Nyokong, to host a Research Chair in 2008 under the auspices of the South African Research Chair Initiative (SARChI), and to host a national research facility, the DST/MINTEK Nanotechnology Innovation Centre - Sensors.

1.2 Departmental Administration

Administrative Assistant: Mrs. Benita Tarr (F40)

Clerical Intern: Mr. Jethro Christian (F39)

Part-time Secretary (12:00 – 17:00): Ms. Sindiswa Skepe

Part-time Secretary (9:00 – 12:45): Ms. Barbara Ah Yui

The admin staff in the office are very knowledgeable about processes and procedures in the university and students are urged to consult them on a regular basis. Help is provided with issues from photocopying to travel arrangements. Some common queries are listed below:

Photocopying: Before using the photocopy machine please see the secretary who will then explain the correct operating procedures for the machine.

Photocopy cards must be brought to office to be filled before 11:00 and collected at 12:30. You need to get permission from your supervisor and which account code you may use.

Stationary, printing and paper orders, please see Ms. Ah Yui/ Mr. Christian between 9:30 – 11:00 each day.

Cartridges – place your orders well before your existing cartridges are empty. Get the permission of your supervisor and an account code before you ask Ms. Ah Yui/ Mr. Christian to order cartridges for you.

Tea-time is between 10:30-11:00 and 15:30 – 16:00, all are welcome to join the staff for a cup of tea/coffee in the tea room.

Orders: We have an interim process for all chemical orders, where you should please see your supervisor, who will sign your written quotation from the supplier, the order then gets delivered to Mrs. Tarr for processing. Once processed she will fax it to the supplier, the goods will then finally be delivered to Mr. Dondashe in the store. The delivery period is always on the quotation, it is your responsibility to note the delivery period.

Scanning: Students can use the scanners at the library. The library has all the latest equipment for students to use.

The Departmental Fax number is (046) 622 5109. Please keep a note of it for yourself in your diary. Private faxes will only be sent for you in emergencies only.

1.2 Current staff

PROF R.W.M. KRAUSE	Professor of Organic Chemistry and Head of Department, Office F41
PROF G.M. WATKINS	Associate Professor of Inorganic Chemistry, Office number S2
PROF P.T. KAYE	Emeritus Professor of Organic Chemistry, Office number S42
Dr. R. KLEIN	Senior Lecturer in Organic Chemistry, Office number S35
Dr. K.A. LOBB	Senior Lecturer in Physical Organic Chemistry, Office number S40
Mr. J. SEWRY	Senior Lecturer, Office number S36
Dr. P. MASHAZI	Senior Lecturer, Office number F44
Dr. S. KHENE	Lecturer, Office number S39
Dr. S.D. KHANYE	Lecturer, Office F43
Dr. P. KEMPGENS	Senior Scientist - NMR Specialist, Office number S42
Mr. A. ADRIAAN	Chief Technical Officer, Office number LG5
Ms. B. PETERS	Technical Officer, Office number LG24
Mr. F. CHINDEKA	Senior Technical Officer, Office number L10
Mr. H. KEULDER	Senior Technical Officer, Office number LG25
Mr. R. DOUGLAS	Carpenter, Office number LG5
Ms. V. GOJELA	Technical Officer, Office number F18
Ms. B. TARR	Office Administrator, Office number F40
Ms. B. AH YUI	Part-time Secretary, Office number F39
Ms. S. SKEPE	Part-time Secretary, Office number F39
Mr. J. CHRISTIAN	Clerical Intern, Office number F39
Mr. V. DONDASHE	Assistant Storeman, Office number LG25
MR. E. SUKULA	Stores Assistant, Office number LG5
Ms. N. NQEBEYA	Cleaner, Office number F49
Mr. B. KALIPA	Workshop Assistant and Cleaner, office number LG5

1.3 Staff of DST Nanotechnology Innovation Centre (NIC)

PROF T. NYOKONG (OMB)	Distinguished Professor and Director, Office number F47
Dr. J. Mack	Nanotechnology Specialist
Dr. J. Britton	Manager
Ms. G. Cobus	PA to Distinguished Professor and Director T. Nyokong

1.4 Student leadership

1.4.1 Postgraduate Students Representative

The postgrad/student representative is voted in by the postgraduate student body at the beginning of the year, typically mid-February. The representative serves primarily as a communicator between the staff and students. For example, the representative is invited to attend staff meetings and raise any issues by the student body to the attention of the HOD and staff and vice versa. The postgraduate representative has the following responsibilities:

- Convene meetings with the student body once a term (or more should an issue arise). Any pressing issues may be discussed including but not limited to:
 - Instrumentation
 - Tutoring/demonstrating
 - Happiness and general wellbeing
 - Ideas for functions
- Attend staff meetings and university meetings when invited (e.g. Postgrad Liaison Comm)
- Liaise between students and staff
- Assist with the organization of departmental student functions (Can designate other students to help should the need arise)
- Assist with the ChemSoc (Orientation)

1.4.2 Chemistry Society

The Chemistry Society is a Society for all Chemistry students. The aims and objectives of the Society shall be:

- a) To improve general awareness of the society and chemistry on the Rhodes University campus
- b) To increase involvement in community service in the form of science outreach initiatives
- c) To foster good relations between the undergraduates, postgraduates and lecturers within the Chemistry Department
- d) To initiate, organize and advertise functions for the members

The society committee consists of a chairperson, secretary, treasurer, media office, community engagement officer as well as 1st year, 2nd year and 3rd year representatives.

2. Important information from the higher degrees guide (HDG)

The guide contains information which is essential to the completion of master's and doctoral degrees at Rhodes University and clearly outlines what is your (the student's) responsibility and what is the responsibility of your supervisor. Please find the location of the higher degrees guide (<http://www.ru.ac.za/documents/Research/higherdegreessguide>) and read it carefully. Please find some of the important extracts from the guide.

- Your student card is your library card and will give you access to the Research commons and other facilities of the library. These facilities are to be used for writing up or meetings etc. in addition to research.
- The library has online resources which are available via the University's homepage and includes several online journals. You can register on some websites for regular updates. These include ACS and RSC journals.
- Computing facilities are available within each research group. Consult with your supervisor about computer access. You should already (after registration) have an official Rhodes email address and this should be checked at least twice a day in order to receive communication from the department and the university. If you want to use a private email you must arrange for the mail to be forwarded from this official Rhodes e-mail.
- Your degree is awarded based on a number of criteria, one of which is adequate familiarity with the literature and practice of your field, so you should read often in order to become

familiar with your field, and also with the writing style appropriate to your field (Section 2.3, page 6 of the HDG document).

- You must re-register each year by the 15th February (Section 3.2.4, page 9 of HDG).
- Section 3.4 concerns the University's policies on supervision. Pay special attention to pages 17 – 18 where the candidate's responsibilities are documented. Your main responsibility is to work hard, but these guidelines (along with your supervisor's wisdom) will help you to work smart!
- **Plagiarism can result in exclusion from the university and it is a very serious offence.** Make sure that all your work is your own, or you may find that you will not be able to receive a degree at all (see Appendix A of the higher degrees guide).

3. Research

The MSc and PhD programs offered in the Chemistry Department are both based on conducting research on a full time basis for a period of approximately 2 and 3 years, respectively. Research training at Rhodes encompasses all laboratory related activities as well as dissemination of the scientific data generated from the experiments conducted in the laboratory. The dissemination process can be in the form of research group seminars, departmental seminars, national or regional workshops and conferences as well as popular or scientific publications.

Students are encouraged to have a study (research) plan that is compiled in collaboration with the supervisor. The study plan should generally outline the events planned for the calendar year, with reviews scheduled after every 6 months. Although the study plan is not a legal document, it is best that it serves as some form of contract or commitment in terms of deliverables as one works towards their degree. Therefore supervisors might want the students to confirm their commitment by their signature once the work plan has been agreed.

It is the general expectation in the Chemistry Department that students graduating with an MSc and PhD degree to have published 2 and 3 scientific papers, respectively. Supervisors are committed to training students in various aspects about scientific writing. Although publications are not a graduation requirement, the department encourages all its postgraduates to develop their writing and dissemination skills at an international level through scientific publications. The MSc and PhD students that are completing their programs are also expected to present a seminar which addresses their scientific contribution.

4. Tutoring and Demonstrating

NB Safety in the Department

Safety is of paramount importance in both the teaching and research laboratories and all students are expected to be familiar with the safety regulations and practices. The department has a Safety Officer (currently Mr Francis Chindeka), and each lab has a safety representative to assist in maintaining the highest standards. By signing the departmental safety register with the Safety Officer you acknowledge your compliance with the regulations. It is the responsibility of each student to have a safety book, know their lab safety rep and sign the register.

The department is fortunate to have a large postgraduate school from which tutors and demonstrators can be drawn. Certain scholarships like Andrew Mellon have a requirement that the scholar should engage in these activities. Other tutors and demonstrators are paid either *via* a Graduate Assistant Bursary or per hour depending on the need for tutors.

4.1 The Definition of Tutoring

Tutoring is a loaded term meaning very different things to different people. Some believe that tutors are replacements for teacher; some that tutors are supposed to do the homework for the student; others may view tutors as support personnel. Given all of these conflicting views, it is important for each tutor to review their own definition of tutoring. As tutor, what are your responsibilities? What does "being a tutor" mean to you?

4.2 Basic Tutoring Guidelines

- Make sure that you have understood the material of the assignment thoroughly before the tutorial.
- Always be on time for tutoring sessions.
- A tutor does not replace an instructor, nor does a tutoring session replace missed class time.
- The student must complete his or her own work. Make sure that you know how much tutor assistance is allowed on each assignment.
- Remember that as a tutor you are an additional resource to help students succeed. You are important. Respect yourself.
- Remember that tutoring is a responsibility. Your tutee's time and efforts are valuable. Respect your tutee.
- When tutees repeatedly ask simple questions, remember that the only stupid question is the one that was not asked. Treat all questions seriously and patiently.
- When you are asked a question, do not just give the answer. Ask the student some questions as well to lead them to the answer.
- If you do not know the answer, ask another tutor, lab director, supervisor, or instructor.
- Anger has no place in the tutoring environment. Create a positive learning environment. Be patient.
- Harassment of any kind has no place in the tutoring environment.
- Your lifestyle choices and value systems may not agree with your tutees. Be sensitive to these differences and make sure that you do not impose your lifestyle choices and value systems on your tutee. Respect diversity.

4.3 Tutoring Do's

There are several things as a tutor that one should do in order to maximize the experience for the student. Listed below are some basic characteristics and mannerisms that a good tutor should possess:

- **Punctuality:** If meeting one-on-one, the tutor should certainly set an example by being on time. If working in a lab or tutorial venue, the demonstrator tutor should be on time and ready to begin helping.
- **Friendliness:** introduce yourself and wear a name tag.
- **Honesty:** Don't hesitate to say that you do not know about a particular concept. Trying to bluff your way through will only hurt the student and your reputation in the long run.
- **Enthusiasm:** If the tutor does not display a love for the subject they are tutoring, how can they expect the student to enjoy it. Come to the venue with a positive attitude that will rub off on the students.
- **Hard work:** Make sure you are familiar with the course material and textbooks that are available to students.
- **Listening:** The tutor should develop good listening skills so that they will better understand students' misconceptions and errors.
- **Willingness:** show interest and willingness to help.
- **Maintain academic standards at all times.**
- **Good personal hygiene:** If you smoke, you may want to use a breath mint.
- **Mobility:** You should move quietly about the group several times during a 45 minute session. This helps the student get easier access to the tutor.
- **Good questions:** The tutor should ask the student questions in order to probe students' understanding.
- **Encourage independence:** You do not want the student to rely on you at all times. Let them know that they must put forth an effort to benefit from tutoring.
- **Patience:** This is probably one of the most important characteristics of a tutor. Never act annoyed that the student does not know something. Even if they ask the most basic question, always demonstrate your patience.
- **Maintain confidentiality:** Any personal information such as medical conditions, handicaps, sores should be between only you and the student.
- **Encourage the student to focus on learning how to learn.**
- **Allow for periods of silence.** Avoid feeling like you have to interrupt a moment of silence by talking. Allow the student to reflect on the subject at hand before going on.

4.4 Tutoring Don'ts

Sometimes a tutor can do more harm than good. Listed below are some things not to do when tutoring.

- **Do not assume the role of the instructor.** As the assistant, you are there to help them not replace them. You are in the position to greatly enhance a student's perception and understanding of a subject.
- **Do not think of yourself as the dispenser of all truth and knowledge.** Try to relate to your tutees as equals. Do not talk about the upper level course that you have had (unless they ask about it).
- **Do not judge someone's ability or intellect based on appearance or age.**

- Do not allow your tutee's to just scrape by. Challenge them to reach for the "A" instead of settling for a "C".
- Do not let one student monopolize all of your time. Remember that you are trying to enable the student to become an independent thinker. This can't be done if they use you as a crutch the entire time.
- Do not introduce fancy ways you learned in your upper level classes to help the students solve their problems. Stick as close as you can to the way the instructor did it. If there is a slight variation that you know has worked well with others, you may want to share it, but be cautious! It is always safe to show them the way their instructor did it.
- Do not just sit staring out the window. This lackadaisical attitude discourages students from asking you questions.
- Do not work the students' assignments for them. You may want to make up similar problems as examples and let them do the actual work. You should only be helping them generate their own ideas and structure their thinking.
- Do not use tutoring as your personal dating service. This could do more than just hurt the students' grades; it could jeopardize your future.
- Switch off your cell phone during a tutorial.

4.5 Tutor and Demonstrator Duties in the Chemistry Department

Please note:

- **Anyone who is tutoring/ demonstrating (including those who do it as a bursary commitment) MUST make arrangements for someone to do their duties when they are away.**
- **Please wear your name badges at all tutorials and practicals.**

4.5.1 First year Tutors

Tutorials are held on Fridays at 10:30, in the timetabled lecture slot, in the Great Hall. Tutors must remember their group numbers and must arrive at the great Hall by 10:20 to arrange teaching area. Some Fridays will be a test instead of a tut, then tutors must go to the Great Hall to assist with setting up desks and handing out and collecting papers.

- **Thursday:** of the week before the tutorial:
Lecturer concerned hands out tuts to tutors by 4:00 pm.
- **Tuesday:** of the week of the tutorial:
Tutors hand in the completed tutorial to the lecturer by lunchtime (if you struggle, there are reference books in S38, ask the lecturer concerned, but don't copy from another tutor). Some lecturers may have the notes uploaded on ruconnected: <http://ruconnected.ru.ac.za> (login, go to Chemistry, Chemistry 101/2, and select the particular course).

- **Thursday:** the day before the tutorial: Attend a tut briefing usually at 11:00. A register will be taken. The lecturer returns marked tutors' tuts and discusses any apparent problems.
- **Friday:** Tutorial in Great Hall – all tutors present.
If a student has completed their tut, they may sign register and leave once their answers have been checked as satisfactory either by the lecturer in charge or the tutor.
- **Monday:** following the week of the tut:
Chem 1 students hand in their tut answers into pigeon-holes in LG Foyer by **12:00**. **Ms Ah Yui** to take tuts out of pigeon-holes and distribute to tutors, including a group attendance list.
- **Wednesday 12:30:**
Tutors distribute marked tuts to pigeon-holes inside Chem 1 lab and give group attendance list to Ms Ah Yui, who will file these.

4.5.2 First Year Practical Demonstrators

Take to heart all the points regarding tutors in sections **4.2**, **4.3** and **4.4** above. Also:

- Read through the relevant practical instructions before coming to the prac.
- Attend the prac briefing for that week's prac on **Monday 10h55** in the tearoom. A register will be taken.
- Arrive at the practical session 5 minutes before it is due to start. Turn on gas taps and water baths if needed.
- Be sure that you are properly dressed and are wearing your name tag and that you have a pen for marking.
- Each demonstrator will be given a section of the laboratory as their prime responsibility. However that does not stop you from attending to students from other sections who need help while their demonstrator is occupied.
- Remember that many of the students have not been in a laboratory or been able to handle even simple equipment before. They will be nervous, unsure of themselves and reluctant to approach a demonstrator. Hence you must make an effort to approach them and encourage them, particularly if they seem to be lagging behind other students in getting on with the task.
- If you see a student doing something wrong, and especially if dangerous, stop them and explain what was wrong and how to do it properly.
- When a student has completed the practical you will be expected to mark the student's work, **at their bench after their apparatus has been washed and put away**. A marking scheme will be provided.

4.5.3 Second and Third Year Practical Demonstrators

- Note the contents of section 4.5.2 above (including sections 4.2, 4.3 and 4.4)
- However briefings will be done by the lecturers-in-charge by arrangement.

5. Community Engagement

Developing our community is a large part of what the staff and students of the chemistry department have committed themselves to do. The current programmes, Khanya Maths and Science Club, Science Outreach, and Teachers Programme, are led by Mrs Sewry.

5.1 Khanya Maths and Science Club

Established in 2000, this club is coordinated and run by Mrs. Joyce Sewry, with help from the staff and postgraduate students of the Chemistry Department. The aim of the Club is to engender a love of Maths and Science amongst its members. The Club meets every Saturday morning from 09:00-11:00 at the Albany Museum, and lessons and workshops are presented by scientists and Chemistry students in an accessible and easy to understand manner.

Club members range from grades 7 to 12. These learners are divided into three groups, grades 7-8, 9-10, and grades 11-12. The younger group is taught curriculum-based Maths and does “fun science”, ranging from talks on a robotic dog to hands-on electricity workshops. The older group concentrates mainly on syllabus-related Maths.

All research groups take turns to run the Club on Saturday mornings.

5.2 Science Outreach

5.2.1 Practicals for Schools

Grade 11 and 12 classes approach the Department to do curriculum-based practicals in the Department laboratories. These include acid-base titrations and organic functional group analysis. These are done upon requests by schools and during Scifest. Postgraduate students volunteer to demonstrate at these occasions.

5.2.2 A Pollutant’s Tale

A Pollutant’s Tale is a lecture/demonstration which creates awareness of climate change while also educating people on the gases in the atmosphere. Postgraduates visit schools and do the lecture/demonstration “A Pollutant’s Tale” to learners and at times combine this with hands-on experiments for primary schools.

This programme also serves to make learners more interested in Science.

5.3 Teachers Programme

Physical Science teachers of the Grahamstown District meet in the Chemistry Department to improve their content knowledge of Chemistry. The Chemistry is taught by postgraduate students.

Both theory and practical sessions are provided. Content is determined by the needs of the teachers.

6. Rules for equipment laboratories

Research groups may have their own equipment in their own laboratories but some rooms have shared departmental facilities. These need to be monitored strictly in order to ensure that they are used appropriately so as to gain the most benefit from them while in good working condition. The following guidelines are displayed in each of the instrument laboratories and operating procedures or manuals will also be available next to the instruments as well as a booking system.

6.1 Room F6 –Chromatography (GCs + LC-MS + GC-MS)

- Please use the booking system available and enter the details on the required fields.
- There is only one GC that belongs to the department, but if you want to book the others check with the respective groups.
- **No sample preparation is allowed in this room for people working on the GCs.**
- **Remove your samples afterwards otherwise they will be removed the next day.**
- Clean afterwards and do not leave tissue paper lying around.
- **If gas gets finished, let Mr. Dondashe at stores know (x8257).**
- **Gas cylinders must be properly closed when finished.**
- Mr. Keulder and Mr. Chindeka are in charge of changing columns.
- Each group must bring their own syringes.
- Mr. Chindeka is in charge of running the GC-MS (only a non-polar column is available on this instrument and sensitivity is an issue).
- Training is necessary before using the GCs (see Mr. Keulder/Mr. Chindeka).
- Mr. Keulder is the designated operator for the LC-MS.
- Only a few selected students are trained on the LC-MS (on a needs base).
- Minor sample preparation is allowed for people working on the LC-MS.

6.2 Room F7 Metal ion analysis (ICP + AAS)

- Please use the booking system available and enter the details on the required fields.
- No preparation of samples in the ICP room is allowed.
- If gas gets finished, let Mr. Dondashe at stores know (x8257).
- The use of the computer should be strictly for ICP work.
- Do not use your flash sticks on the computer.
- Create your own folder under my documents and e-mail results to yourself
- Do not save results on the desktop.
- Remove your samples afterwards otherwise they will be thrown away the next day.
- Clean afterwards and do not leave tissue paper lying around.
- Ensure that the gas cylinders are properly closed when finished.
- Only multi-element analysis should be carried out on the ICP and in cases where there is not lamp for that particular metal ion, otherwise all single element analysis must be done on the AAS. The ICP may also be used for trace single element analysis.
- Please ensure that you work with the suitable concentrations on the ICP. Analysis should be done on the ppb range or low ppm range (up to 10 ppm).
- For training on the ICP and AAS consult Mr. Keulder/Mr. Chindeka.

- For outside users, Mr. Keulder/Mr. Chindeka will be in charge.
- Operational procedures are outlined next to the instruments (for occasional users).
- If you are not sure how to proceed see Mr. Keulder/Mr. Chindeka.

6.3 Room F11 (IR, DSC, TGA, Solid state UV-Vis and microbalance)

- Please use the booking system available and enter the details on the required fields, except when using the microbalance.
- Staff member in-charge: Prof Watkins. Senior students with instrument responsibility are - TGA/DSC: Ivan & Matthew; FTIR: Matthew; Solid state UV.
- Only personnel trained by personnel above on the use of the instrumentation (*including* the microbalance) may use it.
- Make sure the air conditioner is on, if not speak to one of the students above.
- Preparation of samples for analysis on these instruments is allowed in this room.
- Clean afterwards and do not leave DSC pans, samples and tissue paper lying around.
- Please clean the microbalance after use.
- Please also leave the specialist pair of tweezers next to the microbalance.
- DSC pans must be supplied by user.
- Gas cylinders must be properly closed when finished.
- If gas gets finished, let Mr. Dondashe at stores know immediately (x8257).
- Do *not* exceed the temperature limits given in the instructions for the TGA or the DSC.
- Do *not* try to retrieve anything that falls inside the furnace on the TGA, call for assistance.
- When things go wrong inform one of the persons above.

6.4 Room S7 (HPLCs)

- Please use the booking system available and enter the details on the required fields.
- Each laboratory/research group should have their own person who is authorized to train others on the normal phase HPLC systems. If in doubt consult with your supervisor or Dr. Klein. Prior to running the HPLC you are requested to read the manual provided (Blue book in the HPLC room).
- For the Agilent 1100 chromatograph, training is necessary before using this HPLC (see Mr. Keulder/Mr. Chindeka).
- Each group must bring their own syringes.
- Please ensure that the solvent drum is removed when it is full.
- Ensure that you clean after your session.

7. Important events and dates

Monday 24 & 25 Feb	Honours Project Presentations
Monday 19 & 20 May	Honours Essay Presentations
June (Date to be confirmed)	Honours Essay hand in
Monday 13 & 14 October	Honours Final project presentations
Monday 15 October *	Honours Project hand in

***Provisional dates**

Thursday and Friday: Date to be confirmed (July)	MSc seminars
Thursday and Friday: Date to be confirmed (June)	PhD seminars

