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Chemistry

CHB

CHEMISTRY

**Course Handbook**

**Introduction to chemistry**

Welcome to Chemistry. We hope that you enjoy your time in the department and find the process of studying the course a challenging and rewarding one.

The purpose if this guide is to provide you with a range of information and advice to help you organise your programme of study, learn independently, and equip you with important information about the department and how it can support you.

We have two well equipped labs in which all lessons take place. This allows us to integrate practical ad theoretical teaching. We have three members of staff and all teach both L6 and U6 chemistry.

Mrs Fiona Kennard (Head of Dept) fionakennard@godalming.ac.uk

Mrs Harriet Broughton

Dr Carol Jones

We also run workshops on a Friday and a Monday for additional support

Friday 1-2pm Chemistry Clinic A drop in session for student for help with anything chemistry related

Monday 1-2pm a revision workshop covering aspects of the syllabus that students find challenging.

Along with the names above, the following departments and places will be useful whilst studying on the course:

**The ILC** – your go-to place to complete work and independent study outside of lessons. The Silent Study area provides an area to work individually, whilst the library contains an excellent selection of wider reading. Make sure that you have familiarised yourself with the ILC when you start the course

**The Exams Office** – for any questions you have about your exam entries, exam timetable or remarks and script requests.

**Learning Support** – for any extra support or advice you need to help you study in general. If you are struggling to organise and manage your workload; need help refining your essay-writing technique; help with revision; or if you think you might be entitled to any exam concessions, learning support are the people to talk to.

**Careers** – when you start to think about your options after college, whether university or employment based, careers can give you advice on where to apply and help in producing a personal statement.

**ExpecTations**

**What is expected of students?**

1. **Attendance and punctuality** – learning cannot begin if you are not in lessons or if you arrive late to them and miss important content. Students should maintain full attendance and punctuality. Any unavoidable and legitimate absences should be accounted for properly, meaning that students get a parent or a guardian to contact college and then email their teacher(s) to catch up on missed work
2. **To maintain a mature and respectful learning environment** – this means behaving in and out of lessons in a way expected of a Sixth-Form student: listening carefully to the views of others and offering constructive contributions in class
3. **To stay up-to-date** – you will be set weekly structured preparation or homework tasks and it is essential that these are completed on time and in the required level of detail. We use structured homework to consolidate particular content or to set up lessons to come. If work is incomplete your understanding will be incomplete and you will under-perform. If you arrive at a lesson having not completed preparation work then your teacher may also ask you to leave and complete this elsewhere.
4. **To stay organised** – managing the demands of a minimum of three subjects is challenging, especially when you are being taught more than one unit in each. You need, therefore, to stay organised. This means preparing a folder for each of your units, bringing the correct materials to each lesson and recording homework in the same place every time
5. **To meet the 50/50** – students are expected to conduct 4.5 to 6 hours of independent study a week. This will include structured preparation or homework tasks set by your teachers along with proactive tasks you complete yourself to consolidate and extend your understanding. See the advice later in this booklet for more help on doing this.
6. **To make the most of feedback and support** – you will get a lot of feedback during your time on the course. This will come as written feedback on assessed work, verbal feedback on general class or homework, and targets set at formal 1-1s. Feedback needs to be recorded carefully by you and acted upon. When you get back assessed work, for example you will be asked to record your own targets based on this, and may, in addition, be asked to attend a lunchtime workshop to help process feedback.
7. **To be resilient** – any subject will at times be very challenging. At times you will not do as well as you want or will struggle to understand a new topic or idea. You need to be prepared to spend more time on areas such as these and to seek out extra help when needed. These experiences of finding areas where you are not doing so well and improving them are what lead to success.

**What can you expect of your teachers?**

1. **To deliver structured and engaging lessons** – your teachers will deliver lessons designed to challenge your understanding whilst also helping you to gradually build up your knowledge and skills. These lessons will follow the scheme of work, a version of which you can see in this handbook.
2. **Regular assessment and feedback** – in addition to your benchmark assessments (four in the first year and three in the second) your teachers will regularly set you exam-style questions to give you opportunities to practice and improve. Feedback will be given on standardised sheets which include the relevant mark scheme and clear developmental targets
3. **Structured weekly work** – you should expect to be given a significant amount of work to do by your teachers each week. You will be given guidance on how long this should take and completed work will be checked and/or taken in
4. **Additional support** – your teachers will be happy to provide extra help outside of lessons either informally, by responding to emails, or more formally through departmental workshops. Workshops are the best opportunity to received additional help and work best when students come to lunchtime sessions with a specific area of confusion or set of questions to get answered

**Approach to remote teaching and learning**

Following the closure of schools and colleges in March 2020, teachers and students have adapted to a new environment of remote teaching and learning. How ‘remote’ this is depends on the wider context of COVID-19, but the department has clear plans, and expectations of its students, in each of the scenarios below.

1. ***Normal Opening: The College is open as normal; all students attend and follow a full, face-to-face timetable***

In this situation the department would run lessons, as normal and all of the expectations of students and teachers on the page before would apply

1. ***Blended Learning: students will receive a mixture of physical and remote lessons, attending college physically one week and remotely the other***

The department will continue to offer high quality lessons in this scenario although the exact nature of teaching and learning may vary depending on what content is being covered. Students should expect a mixture of:

* **Streamed lessons** – when appropriate, lessons including half of the class will be streamed live through Microsoft Teams to the other half of the class learning from home
* **Recorded content** – tutorials, demonstrations, presentations etc. will be pre-recorded for students to watch and complete a set of follow-up tasks
* **Structured independent work –** students may be longer project-style work, or work that is made up of several structured tasks and asked to work on this independently for a period of time, during which their teacher will be available for support
* **Preparation work** **–** class time may be used to set students independent work in the form of research or pre-learning to prepare them for a specific live lessons, which will then be used to assess students’ level of understanding of the work they have completed.
* **Homework** – students will also be expected to complete homework tasks
1. ***Remote Learning: students will receive remote lessons and assessment will be conducted remotely***

In the event that college is not open for physical lesson, teaching and learning will move online through the combined use of Microsoft Teams and Godalming Online. The specific nature of each week’s learning will vary depending on what is being covered, but students should expect a mixture of:

* **Live lessons through Microsoft Teams** – this is a fantastic platform that allows classes to video-call, watch presentations, take part in Q&A, group work, 1-1s all in real-time. Teams lessons will be the main part of remote teaching and learning but may take a slightly different form or length than physical lessons to help students engage fully. For example, a 1.5 hour physical lesson might translate to a 30-45 minute Teams lessons, made up of a brief teacher-led presentation and class Q&A, followed by 45 minutes of structured independent work, during which time the teacher conducts 1-1s with students
* **Online submissions** – students will upload work regularly to help their teacher monitor their progress and offer support when needed. This will be done through the ‘Assignments’ feature on Teams or through Godalming Online
* **Remote Workshops** – in addition to remote lessons, department workshops will continue remotely to provide students with extra points in the week to get 1-1 help on content, homework or remote learning in general

**Expectations of students in scenario 2&3 –** if students find themselves learning remotely or in a mixture of physical and remote lessons, then the department has clear expectations of how they should work in this environment. The department has considerable experience in delivering content remotely and key to this is students remaining engaged, establishing a clear working routine and communicating effectively with staff. More specifically it is expected that students will:

* Attend all remote lessons unless told otherwise by their teacher
* Actively take part in remote lessons e.g. contribute questions and answers, take part in group work, turn webcams on (with the background blurred) when asked to by their teacher
* Submit all work via Godalming Online or Microsoft Teams by the deadline set
* Communicate regularly with their teachers, either as part of scheduled 1-1s or more informally to discuss work or any problems they might be having. This will be through Email or Teams.

To identify where your remote strengths and weaknesses might be, complete the specific department audit below. This is made up of the essential skills you would need to learn in a remote or blended environment.

|  |  |
| --- | --- |
| **Remote Learning Skills Audit that you need to master to succeed on this course** | ***Tick*** |
| Log on to Office 365 using your college details (in college and at home) |  |
| Open Microsoft Teams and find a class team |  |
| Join a lesson on Teams and post a comment |  |
| Download the Teams app on your phone |  |
| Upload or attach documents in Teams |  |
| Save documents on OneDrive |  |
| Access your OneDrive files at home |  |
| Share documents, PowerPoints etc without attaching them to emails  |  |
| Access Godalming Online course pages and download files |  |
| Upload work onto Godalming Online  |  |
| Access E-textbooks needed on the course  |  |
| Log on to any magazines or websites needed on the course  |  |
| Access Estream to watch films/documentaries/pre-recorded content  |  |



**There are lots of places you can go to get help with the skills listed above.

To begin with, speak to your teachers to get help with the basics of using Microsoft Teams or Godalming Online. This can be done at the start of the year through departmental surgeries and through workshops. A good idea would be to bring the completed audit above to a workshop and go through this with your teacher to fill in any gaps.

The IT Department are also available to offer more technical support or if you run into a problem your teacher cannot resolve. If in college, IT can be found on the top floor of the 300s. Also have a look at the IT Helpdesk on Godalming Online, which has help on using features such as Office 365. Finally IT are also contactable via ITsupport@godaming.ac.uk

If you are concerned about how to organise your time and working habits during a period of remote learning, then speak to your tutor for ideas and techniques to work independently. The Learning Support Department are also available to discuss specific

**L6 (First Year) A level Chemistry - Scheme of Work**

(and approximate timings for 2020/2021)

|  |  |
| --- | --- |
| **Teacher A** | **Teacher B** |
| **Autumn term** |
| **7 Weeks** | **Paper** | **Topic** | **Weeks** | **7 Weeks** | **Paper** | **Topic** | **Weeks** |
|   |  | Moles 1 (Solids) | 3 |   |  | Atomic Structure & Pre-coursework | 1 |
|   |  | Moles 2 (Gases) | 2 |   |  | Electron Structure | 2 |
|   |  | Group 1 & 2 | 3 |   |  | Bonding 1 (Ionic) | 2 |
|   |   |  |  |   |  | Bonding 2 (Covalent and metallic) | 1 |
| **Half term** |
| **6.5 Weeks** | **Paper** | **Topic** | **Weeks** | **6.5 Weeks** | **Paper** | **Topic** | **Weeks** |
|  |  | Moles 3 (Solutions) | 4 |  |  | Alkanes | 3 |
|  |  | Assessed Titration  | 1 |   |  | Alkenes | 3 |
| **Spring term** |
| **6 Weeks** | **Paper** | **Topic** | **Weeks** | **6 Weeks** | **Paper** | **Topic** | **Weeks** |
|  |  |  |  |  |  | Shapes | 1.5 |
|  |  | Redox 1 | 1.5 |  |  | Bond polarity | 1 |
|   |  | Periodic properties | 0.5  |   |  | Intermolecular forces | 2 |
|   |   | Group 7 | 3 |   |  | Energetics | 1 |
| **Half term** |
| **6 Weeks** | **Paper** | **Topic** | **Weeks** | **6 Weeks** | **Paper** | **Topic** | **Weeks** |
|  |  | Identification of Unknown Inorganic  | 1 |  |  |  |  |
|  |  | Alcohols  | 3 |  |  | Energetics | 4 |
|  |  | Aldehydes & Ketones  | 2 |  |  | Assessed Energetics | 1 |
|   |   | Halogenoalkanes | 4 |   |   | Born-Haber Cycles  | 1.5 |
| **Summer term** |
| **5 Weeks** | **Paper** | **Topic** | **Weeks** | **5 Weeks** | **Paper** | **Topic** | **Weeks** |
|  |  |  |  |  |  | Entropy | 3 |
|   |   | Carboxylic acids and derivatives | 2 |   |   | Optical isomerism  | 1.5 |
|  |  |   |  |  |  | Mass Spec/IR/Chromatography | 2 |
|   |   |   |   |   |   |  Solubility |  2 |



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Paper 1 & 2 |  | Paper 1 |  | Paper 2 |  |

|  |  |
| --- | --- |
| Teacher A (50%) | Teacher B (50%) |
| **Autumn Term** |
| 6 Weeks | Topic | Title  | Weeks | 6 Weeks | Topic | Title | Weeks |
|  | 18B (8-13) | Amines and Amides | 1.5 |  | 19B | Spectra pack II (C & H NMR) (CP 15) | 3 |
|  | 18B (14 17) | Amino Acids, Proteins and Polymers | 1.5 |  |  | **(**CP 15) Identify unknown organic | 1 |
|  | 18A | Aromatics  | 3 |  |  9 & 16 (1-7) | Kinetics I (CP13a 13b) | 1 |
| **Half Term**  |
| 7 weeks | Topic  | Title | Weeks | 7 Weeks | Topic | Title | Weeks |
|  | 10 11(2) | Equilibria Kc | 3 |  |  9 & 16 (1-7) | Kinetics I (CP13a 13b) | 3 |
|  | 11 (1-5) | Equilibria Kp | 2 |  | 16 (8-12) | Kinetics II (CP 14) | 4 |
| **Christmas** |
| 6 Weeks | Topic  | Title  | Weeks | 5.5 Weeks | Topic | Title | Weeks |
|  | 12 (1-15) | pH | 3 |  | 14 (18-19) | Redox II Titrations (CP 11) | 3 |
|  | 12 (16-24) | Buffers (CP 9) | 4 |  | 14 (1-17) | Redox III E Cells (CP10) | 3 |
| **Half term** |
| 6 Weeks | Topic | Title | Weeks | 6 Weeks | Topic | Title | Weeks |
|  | 15A (1-15 &17, 28 15B 20-27 | Transition Metals I (Theory & Practical) | 5 |  | 15B 28-35 & 16,18,19 | Inorganic Chemistry applications (CP12) | 2 |
|  |  |  |  |  | 18C | Organic Theory & Practical (CP16)  | 3 |
| **Easter** |
| 4 weeks | Topic  | Title | Weeks | 6 Weeks | Topic | Title | Weeks |
|  |  | Transition Metals (cont)  |  |  |  | Revision  |  |

U6 Scheme of work 2020-2021

**Chemistry Assessment Policy 2020-2022**

**The Importance of Feedback and Learning Outside the Classroom – ’50:50’**

Learning will not happen instantly and takes time; attending lessons is not enough, you also need to be working outside of class, to learn new information and consolidate learning. In the process, you will make mistakes but hopefully feedback will enable you to learn from these mistakes. Better to make a mistake during the year and correct it, than make your first mistake in the final exam. Feedback is essential for your learning and will consist of whole class (teacher runs a session in lessons), written (teacher marking), peer (where you feedback on someone else’s work in the class) and self (where you assess yourself).

There are 66 weeks of teaching weeks in total at College to help you learn and prepare for your exams. The classes are shared equally in the first year between two teachers for 2.25 hours; one of your tutors will be the Lead Subject Tutor who will be responsible for formalised 1-2-1s, writing your Student Reviews, seeing your parents at parents evening and for writing Action Plans.

In line with the College’s ’50-50’ initiative, each week, homework will be set and could take between 4.5 to 6 hours in total. Each teacher therefore could set you up to 2.25 to 3 hours homework per week. If a homework from one teacher only takes you 1 hour for a week, then you will have a further 1.25 to 2 hours to conduct further reading and consolidate learning.

## Study Skills

The learning process for this course is student centred. Students are therefore required to take responsibility for the preparatory work and supplementary reading as well as homeworks that are essential for the achievement of high grades.

**Working out of lesson time (weekly independent tasks)**

You can use free periods during the day to complete these tasks outside of lessons. To keep a good work/life balance, you might like to treat College as a 08.45 to 16.15 day and use your free periods in the library completing tasks. This will minimise the work you need to complete at home and is a more productive use of your time.

**The Final Assessment**

At the end of the two years, students will complete three exams

|  |  |  |
| --- | --- | --- |
| Paper 1; Advanced Inorganic and Physical Chemistry  | Paper 2 Advanced Organic and Physical Chemistry  | Paper 3 General and practical principles in chemistry |
| 30% of the total qualification | 30% of the total qualification | 40% of the total qualifications |
| 1 hour 45 min paper consists of 90 marks and includes multiple-choice, short open, open-response, calculations and extended writing questions | 1 hour 45 min paper consists of 90 marks and includes multiple-choice, short open, open-response, calculations and extended writing questions | 2 hours 30 min paper consists of 120 marks and includes short open, open-response, calculations and extended writing questions |

**Types of Assessment**

* **Homework (Weekly):** Homework does not necessarily need to be completed at home! You can use free periods during the day to complete these tasks outside of lessons. Homework tasks will consist of a variety of exercises. They could be completing past examination questions, preparing for tests, completing revision pages, preparing for practical lessons as well as submitting work booklets
* **Tests:** After every topic there will be a topic test to evaluate how well you have understood that topic.
* **Mock Exams and Benchmark Checkpoints (Half-Termly):** After a period of teaching, there will be the opportunity to sit a ‘mock exam/benchmark’ which will be an assessment under timed conditions. Each mock exam/benchmark should allow you to access the full grade range from A\* to U grade, given the topics covered so far and exam technique. They are an indicator of how well you have understand and can apply the content to questions you will meet in the final exams at the end of the two years. Mock exams/benchmarks are extremely important and should be treated like an actual exam. They are an ideal point to see how you are progressing and to get valuable feedback. You will make mistakes in these assessments and so the follow up work is to test whether you have learned from those mistakes to become better at the subject and exam technique.

**Tracking your Progress: Student Reviews, Action Plans and Parents Evenings**

The College’s policy is to deal with the student first but we also report to your parents at regular intervals to let them know how you are progressing and to inform them of what our expectations are through four Student Reviews (Reports) spread throughout the two years at College and also four parents evenings.

If the department feel you are under-performing based on evidence such as benchmark grades and your approach to learning in between these periods, then your Lead Subject Tutor may place you onto a Formal Department Action Plan and we will formally write to your parents after a 1-2-1 with yourself and to try and get you back on track in a supportive way

**Student Review 2, the ARG and Predicted Grades**

At the end of the first year (June 2020), your Lead Tutor will have a 1-2-1 to discuss your Annual Review Grade or ARG and also finalise your Predicted Grade which might be used for UCAS applications for University and other destinations.

The ARG is determined by your Lead Tutor in communication with your other teacher and will rely on the following evidence base:

1. **Benchmarks**
2. **Approach to Learning** over the length of the year including any periods of remote learning

The ARG plays a key part in determining the context in which you progress to the second year. Students who receive an A\*-D grade (A-level) are encouraged to continue with their studies into the 2nd year. However for students who receive a U or E Grade (A-level) as their ARG, it suggests that for whatever reason they have struggled with the transition from Level 2 Courses (GCSE) to Level 3 Courses (A-level/BTEC). This will be evidenced by poor performances throughout their benchmarks and an inconsistent or poor approach to learning in their student reviews and via formal Action Plans. Students who receive a U Grade we would not recommend to continue with the course and they would need to speak to a Senior Tutor about alternative pathways.

The College adopts a consistent and optimistic approach to predicting grades to ensure that they are both aspirational and achievable. A predicted grade is what we believe a student is likely to achieve by the conclusion of their course in positive circumstances and the predicted grade provides universities and colleges with some understanding of a student’s academic potential alongside their Personal Statement and a written Reference from their Personal Tutor.

The ARG is important in forming the basis for the predicted grade as well but the predicted grade will also be aspirational for the students’ ambitions although it must remain realistic and cannot be based on the idea that only now will the student start to work harder in the second year!

**Other Considerations**

* *LATE POLICY:* In line with the ‘College Assessment Policy’, the department are under no obligation to provide feedback to a student who does not meet the internal deadlines for homework tasks or benchmark assessments. Students who fail to prepare adequately for the lesson as requested, maybe excluded for part of the lesson and asked to work independently. A continued failure to meet work requirements will result in a reference to the pastoral team and a phone call home to parents.
* *RETURNED WORK:* Work will be assessed and returned within 10 working days of it being submitted.
* *PLAGIARISIM:*  Plagiarism is submitting another person’s written work as one’s own original work or using someone else’s idea without referencing the source or using pictorial work without permission or referencing the source. This also includes copying exam answers from another student or the internet. If there is a suspicion of plagiarism, the Head of Department and Senior Tutor will be informed and a meeting will take place. If a student is found guilty, they will be subject to disciplinary action by the College and the awarding body will be informed. Students should be aware that the College is subscribed to software designed to detect plagiarism.

**Benchmark Checkpoints, Student Reviews (Reports) and Mock Exams 2019-21**

|  |  |  |
| --- | --- | --- |
| **CHECKPOINT** | **DATE** | **DETAILS** |
| **Benchmark 1 Checkpoint** | Oct 2020 | **60 Minutes Benchmark test on work covered on both teaching side up to that point** |
| **Parents Evening (For All)** | Nov 2020 | **Meetings with your parents to discuss how you have settled in and transferred from GCSE to A-level learning based upon:**1. **Approach to learning** (how you are engaging in your learning, evidenced by attendance, punctuality, ability to meet weekly deadlines with quality work, how you have sought out extra support via workshops and your overall communication with your teachers)
2. **Performance Grade** in Benchmark 1 and from your homework tasks
 |
| **XMAS BREAK** |  |  |
| **Benchmark 2 Checkpoint** | Dec 2020 | **1hr 15min Benchmark test on Paper 1 topic covered so far** |
| **Student Review 1** | Jan 2021 | **A review of your progress in the first term (12-13 weeks of teaching) after a 1-2-1 with your Lead Tutor:** 1. **Performance grade (A to U)** (based on benchmark 1 and 2 but also your homework tasks)
2. **Approach to Learning** (how you are engaging in your learning, evidenced by attendance, punctuality, ability to meet weekly deadlines with quality work, how you have sought out extra support via workshops and your overall communication with your teachers).
 |
| **Parents Evening (Targeted)** | Mar 2021 | **Meetings with your parents primarily where teachers may have a concern about your progress since Student Review 1 in January.** |
| **EASTER BREAK** |  |  |
| **Benchmark 3 Checkpoint** | May 2021 | A review of tests and homeworks completed in the Spring term from Jan 2020 to March 2020 (changed in light of covid 19)  |
| **Benchmark 4 Checkpoint** | June 2021 | 2 Papers of 1hour 30 min each Paper 1 Covering all topics in this paper covered so farPaper 2 Covering all topics in this paper covered so far  |
| **Student Review 2** | July 2021 | **A review of your progress for the academic year (30-35 weeks of teaching) after a 1-2-1 with your Lead Tutor** 1. Approach to Learning
2. Performance Grade (Annual Review Grade or ‘ARG’ – performance for whole year (see notes above in main doc.)
3. Predicted Grade
 |
| **SUMMER BREAK** |  |  |
| **Benchmark 5 Checkpoint** | Oct 2021 | Benchmark Test on U6 work completed to this point  |
| **Parents Evening (All)** | Oct 2021 | **Meetings with your parents to discuss how you have settled in to the second phase of learning:**1. **Approach to learning** (how you have engaged since Student Review 2 including the first five weeks of teaching – deadlines met, engagement in class and communication with teacher)
2. **Performance** with reference to the benchmark 5.
3. **How to support you:** Discuss how parents can further support you and what is coming up in this year
 |
| **Benchmark 6 Checkpoint** | Dec 2021 | **One hour 30 min Mock Exam on Paper 1 topics**  |
| **Student Review 3** | Dec 2021 | **A review of your progress for the academic year since last Student Review (July) after a 1-2-1 with your Lead Tutor**1. Approach to Learning
2. Performance Grade (based upon benchmark 6 and homework tasks) compared to Predicted Grade
 |
| **XMAS BREAK** |  |  |
| **Benchmark 7 Checkpoint** | Mar 2022 | **One hour 30 min Mock Exam on Paper 2 topics**  |
| **Student Review 4** | Mar 2022 | **A review of your progress for the academic year (30-35 weeks of teaching) after a 1-2-1 with your Lead Tutor (see above)** 1. Approach to Learning
2. Performance Grade (based upon benchmark 7 Mock Exam only) compared to Predicted Grade
 |
| **Parents Evening (Targeted)** | Apr 2022 | **Meetings with your parents primarily where teachers may have a concern about your progress since Student Review 4.** |
| **EASTER BREAK** |  |  |
|  **Mock Exams** |  Apr 2022 | 3 exam papers sat over the first three weeks of term Paper 1 1hr 45minPaper 2 1 hr 45 minPaper 3 2hrs 30 min (these will entail staying after college to complete and alternative transport arrangements should be made)  |

Chemistry is a practical subject so students must also adhere to the following Health and safety guidance

1. Students may not enter laboratories without the express permission of teaching staff.

 2. Whilst waiting to enter a laboratory do not obstruct the doorways or corridors.

 3. Open floor and bench areas must be kept clear of coats, bags, etc. These must be stored in the specified areas.

 4. **Long hair must be tied back**

5. Clothing must be neat, no flowing sleeves etc.

 6. Laboratory coats must be worn for all chemistry and biology practicals.

 7. Safety goggles must be worn whenever handling chemicals or there is a risk of eye damage.

 8. **No drinking or eating in the laboratory at any time**

9.Do not sit on the benches, stand on the stools or run in the laboratory

 10. Do not touch anything, other than equipment needed for your own experiment

 11. Waste material must be placed in the appropriate receptacle for disposal

 12. All breakages, faulty equipment, etc., must be reported at once

 13. At the end of a practical:

* dirty apparatus must be rinsed and placed in the correct place for cleaning
1. your work area must be left tidy, wiped and dry
2. you must wash your hands

 14. **Preparation rooms and Chemical stores are out of bounds to all students**

15. **IF IN DOUBT, ASK!**