

**STAFF ORIENTATION**

**APPLIED CHEMISTRY SECTION**

**2017-2018**

## CONTENTS

SN	TOPICS	PG NO.
1.	A word of welcome	3
2.	Introduction	4
3.	The Applied Chemistry program	6
4.	The delivery plan	7
5.	Academic advising	8
6.	The course coordinator	8
7.	Lecturer file	9

## 1. A WORD OF WELCOME

Welcome to the Applied Chemistry Section!

A new place of work often presents a challenge even to the most accomplished of staff. A different environment, a new set of rules and sometimes a different work culture and ethics all add up to a mind-boggling experience. However, you will be pleasantly surprised to find several resources to help you get started in this section.

Your colleagues in the chemistry section are all friendly and cooperative. You'll find them ready to clear your confusions and spare some time for you as you take your first steps in the college.

You also have a friendly Head of Section, whose office is open to you (on appointment) for sorting out your problems, clearing any doubts or simply having a chat! However, do remember that protocol (and convenience) demands the use of e-mail as the primary means of communication with the HoS. The office of HoS is associated with a coordinator who may be contacted as a first stop to set up an appointment with the HoS to clear some of your doubts.

There is a department registrar and several coordinators in the Department of Applied Sciences who will be ready to provide all kinds of assistance in their respective areas. Their names are provided in the Department orientation manual in the college website (<http://www.hct.edu.om/pdf/applied-sciences/das-staff-handbook.pdf>). The Department orientation manual also contains a lot of relevant and interesting information about the college so it is strongly recommended that you peruse this document.

Last and most important are your students. This college and all its efforts exist to serve the students to the greatest extent possible. You will find the students, by and large, well-mannered and interested to learn. Lending a friendly ear to your students and maintaining an open channel of communication with them will help you stay on track in your primary responsibilities.

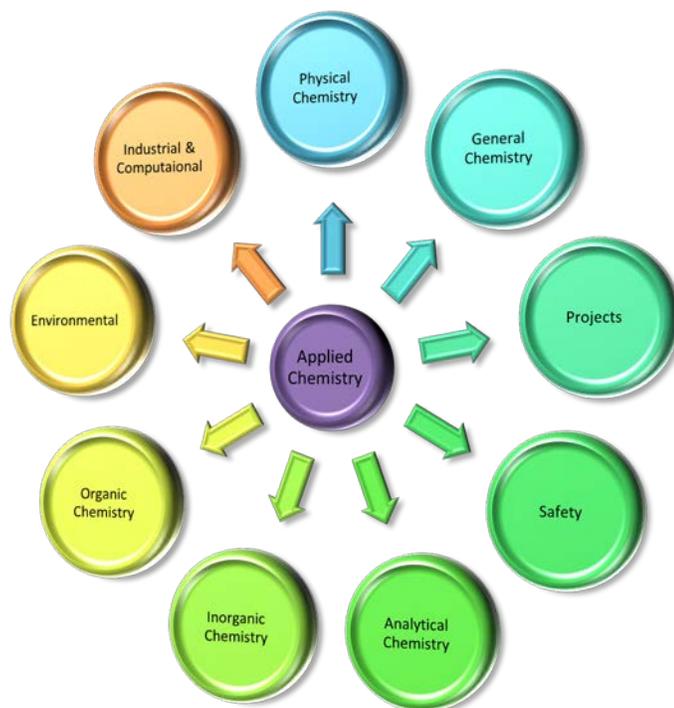
This handbook has been prepared to help you negotiate your stay in the Chemistry Section and make your journey here a pleasant one. Your feedback and suggestions to improve this handbook will be most welcome.

## 2. INTRODUCTION

The Applied Chemistry section is the biggest in the Department of Applied Sciences. Apart from offering support courses to the Engineering Department, we offer Diploma, Advanced Diploma and B. Tech qualifications in Applied Chemistry. Our curriculum is outcome-based and designed to cater to market demands. Constant monitoring and upgrading of our courses & curricula ensure the viability of our program. Teaching methodologies and materials are of a high standard to ensure a student friendly environment.

### Academic Staff in the Chemistry Section

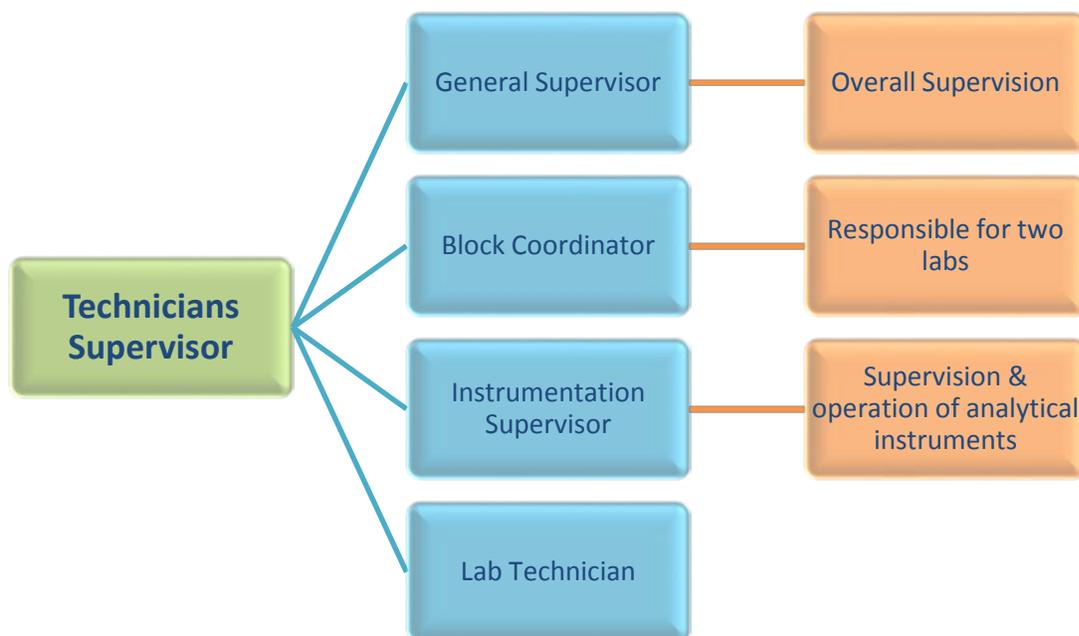
There are around 30+ chemistry teaching staff members in the section. In spite of the well-defined administrative structure, there is also a great deal of flexibility in the system. Regular section meetings are held in which all staff are free to air their opinions and collective decisions are taken. All relevant Department Council decisions are also circulated among staff members who also can provide their feedback via e-mail. All staff members are members of academic groups within the section and work on creating new teaching materials, question banks, etc. apart from up-grading old materials. Each group has its own coordinator. Furthermore, all courses have a course coordinator who is responsible for maintaining uniformity & quality between different lecturers handling the same course.



**Groups in the Applied Chemistry Section**

## Technical Staff & Laboratories

There are around 15+ laboratory technicians under a general supervisor. They are distributed in 3 blocks. Each block has a block coordinator. There is also an instrumentation coordinator responsible for the maintenance & operation of instruments. These technicians serve a total of 5.5 laboratories (Room Numbers M106, M108, M142, M144, M104 and M146). <http://www.hct.edu.om/academic-departments/applied-sciences/facilities/chemistry-laboratories>



### Details of Applied Chemistry Technicians

We are fortunate in having well-equipped laboratories with high quality analytical equipment. Some of the instruments available with us include HPLC, GC-MS, AAS (with graphite furnace), FT-IR, spectrofluorometer, UV-visible spectrophotometer, etc., apart from routine lab equipment.

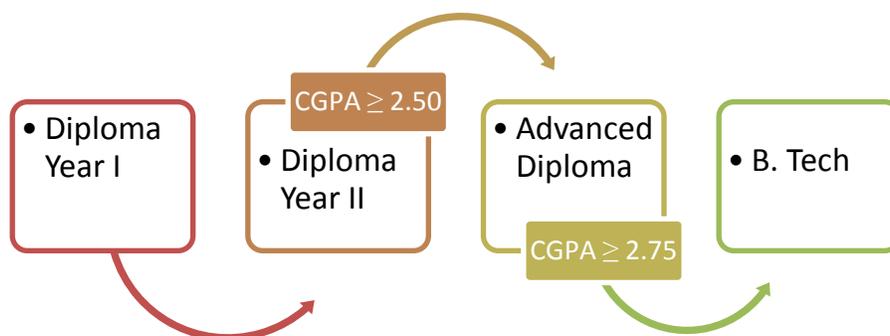
### Safety

Safety aspects are given the utmost importance in our department. All safety rules are prominently displayed in the laboratories, including the use of proper Personal Protective Equipment. Safety aspects are also emphasized in all our practical course manuals. Fostering the right attitude towards safety among our students is a priority for us. More details including the students' safety manual are available in the HSE page of the college website. (<http://www.hct.edu.om/academic-departments/applied-sciences/hse-committee>).

### 3. THE APPLIED CHEMISTRY PROGRAM

The teaching and learning system follows a common pedagogical framework under the Ministry of Manpower (<http://www.hct.edu.om/qau/general-resources/common-pedagogical-framework>)

Before entering the Department of Applied Sciences, a student clears a year of foundation program.



- **Diploma Year 1** - The program starts with Diploma Year I in which students enter the Applied Sciences Department. At the end of Diploma Year I, students are specialized into Applied Chemistry, Applied Biology or Environmental Sciences.
- **Diploma Year 2** - The second level is Diploma Year II. At the end of this level students with an overall CGPA of 2.50 can go to the next level; Advanced Diploma. Those who fail to attain this CGPA, exit the college with a Diploma in Chemistry after undergoing on-the-job training.
- **Advanced Diploma** – Diploma level students with CGPA of 2.5 and above reach this level. A minimum score of 4 in the in-house IELTS (4.5 in the case of intakes after 2017) is also a pre-requisite to entering the Advanced Diploma level. A student at Advanced Diploma should obtain a CGPA of 2.75 to reach the B. Tech level. Students who fail to do so exit after undergoing on-the-job training.
- **B. Tech Level** – Students with a CGPA of 2.75 and above in the Advanced Diploma Level as well as a minimum of 4.5 IELTS (5 in the case of intakes after 2017) reach the B. Tech Level. On completion of this level, students undergo on-the-job training and are awarded **Bachelor of Technology in Applied Chemistry**.
- **On-the-Job Training** – All students undergo an 8-week industrial apprenticeship program called **OJT** before exiting the college, regardless of the exit level.
- **Dismissal** – A student is placed under probation when his/her GPA falls below 2.00 (out of a possible 4.00). A student is dismissed from the college after 3 consecutive

probations. A fourth probation is possible on a conditional basis after assessment of the students' chances.

The complete degree audit of the Applied Chemistry program is given in the college website.

There is also a Course Booklet containing all program and course-related details like objectives, outcomes, mapping against graduate attributes, etc. (<http://www.hct.edu.om/pdf/applied-sciences/course-booklet/applied-chemistry-course-booklet.pdf>)

### **Nature of Courses**

While the courses taught in the Applied Chemistry section are usually a hybrid of theoretical and practical components, there are also a few purely technique based courses, apart from two student projects. The course content is application oriented to a great extent, as warranted by the award of the B. Tech. degree, although there is sufficient emphasis on fundamentals to allow the students to pursue higher education opportunities.

### **Research Opportunities**

Staff members are encouraged to further their research interests. Students carry out a simple project at their diploma level and a more advanced, research-based one, at their baccalaureate level. These projects are carried out under the supervision of our faculty members. The facilities of our department are available to staff members who wish to carry out research projects. The Research Council (TRC) of Oman provides grants to selected staff and student projects. Details are available in the college website (<http://www.hct.edu.om/trc-resources>).

### **Student and Staff Activities**

Applied Sciences students belong to **Science Club** involved in several activities throughout the academic year. This provides them the opportunity to develop their creativity and organization skills, apart from enabling their interaction with other departments and society at large. Details are in the website (<http://www.hct.edu.om/academic-departments/applied-sciences/students>)

Staff members are also involved in activities that develop their skills and uplift their morale, and provide the opportunity for socializing with their colleagues. Staff activities include training sessions for staff development apart from an annual gathering. Details are found in the website (<http://survey.hct.edu.om/training/index.html>)

There is also an **Entrepreneurship and Innovation Unit** that functions as a resource for student business development activities including mentoring of start-ups and involvement in national and international competitions.

#### **4. COURSE DELIVERY & THE DELIVERY PLAN**

Course delivery follows a mix of strategies including lectures, power-point presentation, practicals, student self-study using internet resources as well as use of the college e-learning portal.

Every course taught in the department has a delivery plan associated with it. This is a document given to all students registered in each course. This document contains the following:

- The course name, course code and pre-requisites
- The timing & venues of the course
- The lecturer name, contact information & office hours
- The goals, objectives & outcomes of the course
- A detailed delivery plan indicating the weekly coverage of outcomes and relevant materials, teaching methodologies, etc.
- Assessment plan
- Passing grades

To view the common delivery plan, you may download the template from the Policy Management Manual: <http://survey.hct.edu.om/pms/staff/activities/downloadforms/>

#### **5. ACADEMIC ADVISING**

Another very important aspect of life in the Higher College of Technology is Academic Advising. Each staff member is assigned around 25 -30 students. The advisor is responsible for advising the courses required by the advisees. The advisor also provides mentoring for the advisees and maintains records of his/her advisees.

However new lecturers are not likely to be given this responsibility in the current semester. They will be provided with appropriate orientation for this later.

The Student Handbook containing the rules and regulations of the college is an excellent reference.

#### **6. THE COURSE COORDINATOR**

When a course is shared between many lecturers, one of them is assigned as a course coordinator. He/she deals with day-to-day problems and coordinates with all the lecturers.

## **Responsibilities of the Course Coordinator**

- The course coordinator calls for a meeting of all lecturers in the beginning of the semester where the overall delivery of a course is discussed.
- All tasks related to a course are assigned in this meeting. This includes identifying staff responsible for setting tests, mid-terms, assignments and the final exam. Further, the moderators are also to be assigned.
- A **course coordinator's file** is maintained by the coordinator as an electronic copy in the common folders in L-drive. A hard copy is also kept in the HoS office.
- The course coordinator consolidates the results at the end of the semester as per the instructions of the examination committee.
- The course coordinator ensures that all Quality Assurance related documents are duly completed and submitted as required by the QA coordinator. This includes course evaluation by staff and students.
- There is an **E-learning portal** which is used to upload delivery plans, teaching material and other relevant information. All students registered in a particular course are enrolled in this portal. The course coordinator is responsible for uploading the material.

## **7. LECTURER FILE**

As a lecturer, you should maintain a lecturer course file for all your courses. The contents of which may be gleaned from the L-drive under QA files.

## **8. EXAMINATION**

Part of your responsibility as a lecturer is the assessment of your students. There are various assessment components including quizzes, assignments (home/class/online), practical experiments and full-length examination. Lecturers are expected to prepare and moderate examinations, carry out marking and produce results. As a new lecturer, your colleagues will help you in this process.

## **9. OTHER IMPORTANT RESOURCES ON THE COLLEGE WEBSITE**

Surfing the college website will prove most illuminating for a new staff member. All important announcements like examination dates, change in rules, details of staff and student activities

are announced on the college website. Apart from the resources discussed above, the college website also contains the following:

- **E-learning Portal:** This is used to deliver materials and content to students for each course as well as to conduct on-line quizzes (<http://e-learning.hct.edu.om/moodle263/login/index.php>)
- **Staff Portal:** This is used by staff for on-line applications including leave applications, visa renewal or visa applications for family members, apart from providing access to all other resources (<http://www.hct.edu.om/staffportal#>)
- **College Information Management System (CIMS):** This resource provides all data related to students, their courses, transcripts, schedules, etc. Staff members use this system for various advising related activities, entering attendance and for uploading marks of courses at the end of the semester (<http://www.hct.edu.om/about/the-college/cims>)
- **Quality Assurance:** This is an important aspect of life in the college with regular surveys and quality audits being conducted. All aspects of life in the college are addressed in the Strategic Plan which is implemented by the Operational Plan for each department. As the college readies itself for accreditation, quality assurance is given more importance. The portal shows the various forms involved with the process (<http://www.hct.edu.om/gau>)
- **Policy Management System:** Since the inception of the current program, the college has been governed by the College By-Laws (<http://www.hct.edu.om/about/the-college/college-bylaws>).  
Apart from these, there are detailed policies and procedures governing all aspects of the college including assessment, staff appraisal, student discipline, etc. All these policies and procedures are easily accessible to staff and may be perused as and when required. (<http://survey.hct.edu.om/pms/>)
- **Academic Calendar:** This is a document detailing the dates of start and end of a semester, dates of exams and other important milestones in the academic year. (<http://www.hct.edu.om/pdf/general/hct-academic-calendar.pdf>)