



**الجامعة الوطنية**  
**National University**  
Science & Technology العلوم والتكنولوجيا

**College of  
Pharmacy**

**Program Handbook**  
**MSc. Clinical Pharmacy**  
**2023-2024**

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## Dean's Message

### Dear students,

Welcome to the College of Pharmacy at the National University of Science and Technology, Oman.

Our college offers a four-year Bachelor of Pharmacy (B. Pharm) program in academic partnership with the University of West Virginia, USA, and a two-year MSc. Program in Clinical Pharmacy. The College is enlisted in the FIP World List of Pharmacy Schools as an Academic member.

The B. Pharm Program is running successfully since 2003 (under the former Oman Medical College). The B. Pharm. and MSc Clinical Pharmacy degrees offer an in-depth education on Pharmaceutical care, patient safety and imparts professional skills in the manufacturing and handling of drugs. Our students are exposed to professional health care including observational trips, clerkship and clinical rotations/training in the hospitals and community pharmacies in Oman and/or abroad. MSc. Program in Clinical Pharmacy will train students in providing patient care in clinical settings. The program will include courses and clerkship along with courses in Clinical rotation and Research project.

We at the College of Pharmacy are committed to providing high-quality education and training that prepares our graduates with the necessary skills and attributes to be competent pharmacists and to be able to join the job market in hospital/clinical pharmacies, community pharmacies, industrial pharmacy, academia, research, and pharmaceutical marketing.

The College of Pharmacy at the National University of Science and Technology is where you will build your career in the field of pharmaceutical sciences.



**Prof. Khalid Al Balushi**  
Dean, College of Pharmacy

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## Section 1. General Information

College of Pharmacy (CoP) at the National University of Science and Technology, formerly known as Oman Medical College, has been successfully operating since 2003. The College of Pharmacy aspires to be a premier academic health sciences institution that is recognized for excellence in education, research, and community service endeavors. CoP has an academic partnership with West Virginia University (WVU) in the USA. WVU participates in the oversight of the curriculum, academic standards, and college quality assurance. WVU also provides specific educational materials and services to CoP. Students enrolled at CoP can apply for admission to WVU but cannot transfer directly to the programs at WVU. CoP admits both Omani and International students. The pharmacy program (B. Pharm) was started in Baushar campus in 2003 with training at the Ministry of Health Hospitals, Sultan Qaboos University Hospital, Armed Forces Hospital, community pharmacies and industrial institutions. Sultan Qaboos Comprehensive Cancer Care and Research Centre was added to the training sites last academic year. The MSc Clinical Pharmacy Program started in 2022 in academic collaboration with WVU, USA.

The degrees of B. Pharm and MSc are issued by CoP, under rules and regulations approved by the University Council and the Ministry of Higher Education, Research and Innovation (MoHERI) of Oman. The curriculum is taught entirely in English.

### National University of Science and Technology

#### **Vision:**

To be an internationally recognized University renowned for its excellence in education and research, driven by social values

#### **Mission:**

Transform students into global citizens with a quest for knowledge and its application, for the betterment of society.

#### **Values:**

**Personal Values:** Individual identity, Honesty, Integrity

**Institutional values:** Foster students' satisfaction, impeccable workplace ethics, equality and fairness

**Social values:** Social responsibility, Sustainable environment, Community outreach

## Graduate Attributes:

Knowledgeable & Competent in the subject area

**Solution seekers:** Critical thinkers and researchers with confidence in developing expert/professional solutions

**Lifelong Learners:** Mastering independent learning skills for career development and professional advancement.

**Confident & Adaptive:** Effective communicators and adapt to emerging technologies and economic scenarios.

**Ethical Practice:** Exhibit high level of professionalism and ethical behavior.

**Entrepreneurs & Responsive Citizens:** Change agents with creative ideas and sense of social responsibilities.

## MSc. in Clinical Pharmacy Program Objectives:

1. To impart knowledge, skills and values to practice the profession of pharmacy anywhere on the globe.
2. To provide students with the basic knowledge of clinical science for patient-centered pharmaceutical care.
3. To improve students' knowledge in information technology and other soft skills to practice profession of pharmacy in any sector.
4. To help students become self-directed lifelong learners.
5. To foster students' curiosity and inquisitiveness to build their research capability in clinical pharmacy or pharmaceutical sciences.
6. To prepare students to practice the profession with utmost dignity, integrity and, ethics.
7. To inculcate professional competency to become leaders in practice setup and able to tackle future challenges successfully.
8. To prepare the student's mindset for creativity and innovation.

## 1.1 Academic Calendar 2023-24

	Registration for Fall	23rd Aug. 2023	10 th Sept., 2023
FALL	Week 1 - Classes Begin & Add/Drop period, Orientation for Students	17th Sept.	21st Sept.
	Week 2 - 1st Week for Drop with (W) Prophet Birthday* (27/9)	24th Sept.	28th Sept.
	Week 3	1st Oct.	5th Oct.
	Week 4	8th Oct.	12th Oct.
	Week 5	15th Oct.	19th Oct.
	Week 6 - Last Day for Drop with (W) is 26th Oct.	22nd Oct.	26th Oct.
	Week 7	29th Oct.	2nd Nov.
	Week 8 – Mid Term Examinations	5th Nov.	9th Nov.
	Week 9 -	12th Nov.	16th Nov.
	Week 10 - National Day (18th Nov)	19th Nov.	23rd Nov.
	Week 11	26th Nov.	30th Nov.
	Week 12	3rd Dec.	7th Dec.
	Week 13	10th Dec.	14th Dec.
	Week 14	17th Dec.	21st Dec.
	Week 15	24th Dec.	28th Dec.
	Week 16- Final Exam	31st Dec.	4th Jan.
	Week 17- Final Exam	7th Jan.	11th Jan.
	Week 18- 19- Semester Break/ Course Registration for Spring 23-24	14th Jan.	25th Jan
SPRING	Week 1 - Classes Begin & Add/Drop period.	28th Jan.	1st Feb.
	Week 2 - 1 <sup>st</sup> Week for Drop with (W) Isra'a Wal Mi'raj* (8/2)	4th Feb.	8th Feb.
	Week 3	11th Feb.	15th Feb.
	Week 4	18th Feb.	22nd Feb.
	Week 5	25th Feb.	29 <sup>th</sup> Feb.

	Week 6 - Last day for Drop with (W) -7th March	3rd March	7th March
	Week 7 - Ramadhan starts 11 <sup>th</sup> March, Mid Term Examination	10th March	14th March
	Week 8 - Mid Term Examinations	17th March	21st March
	Week 9 -	24th March	28th March
	Week 10	31 <sup>st</sup> March	4th April
	Week 11 – Eid -al- Fitr* (9 <sup>th</sup> April)	7th April	11thApril
	Week 12	14th April	18th April
	Week 13	21st April	25th April
	Week 14	28th April	2nd May
	Week 15- Study days and Final Examination	5th May	9th May
	Week 16 <b>Final Exams</b>	12th May	16th May
	Week 17 – Evaluation and Exam Review	19th May	23rd May
	Summer / Semester Break	26th May	20th June
	Days off related to official holidays have not yet been determined. Announcements will be made before each holiday once government holidays are known		
<p>* Remedial courses will be offered for students who failed any of the courses between 23rd June till 31stAugust 2023</p>			

## 1.2 Orientation Days

Orientation Days are conducted in the first week of the semester. New students learn about CoP policies and guidelines. Sessions are conducted by CoP Faculty and staff.

## 1.3 Hours of Operation

Classes are normally scheduled any time between 3.00 pm to 7.00 pm for Master's program or depending on the schedule as decided. However, the regular working hours of the administrative units are from 8.00 am to 4:30 pm and students are free to utilize the campus facilities within this time.

## 1.4 Ramadhan Schedule

College of Pharmacy operates on a reduced schedule during Ramadhan. The class schedule during Ramadhan will be provided to students in advance.

## 1.5 Public Holidays

CoP adheres to the same holiday schedule as the government sector. Once the CoP administration has determined the date of a holiday, students are informed through official communication through the NU email and by an announcement posted on the notice boards at the College.

## 1.6 Offices

**Dean:** The Dean is the head of the academic and administrative structure of CoP.

**Head of the Program:** The Head of the Program looks after the day-to-day academic and administrative activities of the program.

**Heads of the Departments:** They look after the day-to-day academic and administrative affairs of the respective departments.

**Faculty:** The term “faculty” includes all persons who teach students. The primary job of the faculty is to help students learn. The members of faculty post their office hours of that semester through emails, on the office door, or the Department’s notice board. The faculty members are assigned as academic advisors and students can (and should) seek help from them.

**Lab Technicians:** Lab Technicians supervise the laboratories, and their offices are in the relevant laboratories.

**Student Counselor:** A trained counselor is available to help students who face academic difficulties and have personal problems. The counselor also monitors the progress of students on academic probation.

**Student Affairs Office:** The student affairs office coordinates and supervises the cultural, social and sports activities of students. This Office coordinates with the Directorate of Student Affairs for the University-wide activities.

**Admission and Registration Office:** The office of the Admission and Registration maintains the integrity of the academic record and assists students in the process of registering for classes, withdrawing, verifying enrollment and transcript requests/distribution. Faculty and staff rely on the office for classroom scheduling, course scheduling and coordination of course registers, grade submission, various enrollment reports and assistance with the registration process.

**Academic Assessment Unit:** The academic assessment unit is responsible for scheduling, conducting, and streamlining the evaluation process of the examination papers. The Examination Committee and the Controller of Examination oversee the functioning of the academic assessment unit.

**Finance and Administration:** Finance and administration is responsible for student fees, hostels, transportation and building maintenance.

## 1.7 Computer Facilities

Computers and printers are available for students' use in the library. Google Classroom, Black Board, and college internal share folder etc. are used in the teaching-learning process.

**Email Accounts:** All students receive NU email accounts. Email is the official means of communication with faculty, staff, and administration. The students are required to check their email accounts regularly for announcements from the administration or college.

## 1.8 Fees and Other Charges

All fees are due and payable on or before registration. Any student failing to complete registration during the normal registration period is charged a late fee of OMR 25. No student is permitted to register after two weeks of the start of classes. No student is admitted to class until all fees are paid in full.

### **Refund Policy:**

Students who withdraw from the Program:

- before the first day of classes, 90% of the paid tuition fees is refundable.
- by the midpoint of semester, 50% of the paid tuition fees is refundable.

Students who withdraw from a course:

- on or before the dates specified for the course withdrawal, the paid fees are retained and applied to a repeat of the same course.
- No refund will be made if the withdrawn courses are not repeated.

If the student postpones the study for a year or semester before the first day/midpoint of the classes, the paid fee will be retained and applied to the tuition fee upon rejoining.

**Tuition Fees:** The tuition fees cover the cost of academic services. The tuition fee for the MSc. Clinical Pharmacy Program is OMR 150 per credit hour for local students (Omani students and residents) and 165 OMR for international students. The registered candidates are expected to complete 42 credit hours.

## 1.9 Health and Safety

### General Safety Guidelines

- Always observe health and safety guidelines.
- Report all accidents and hazards to the administration and faculty.
- Always wear proper safety and protective equipment/clothing in laboratories.
- Fill out the relevant risk assessment form before any laboratory experiment under the supervision of the lab technician, if requested.
- Follow instructions given by the staff responsible for health and safety.
- Familiarize yourself with first aid and fire emergency procedures.
- Highlight any potential dangers to visitors and other students.

**First Aid:** First aid kits are kept in all laboratories, the first-aiders' station/student clinic and student hostel.

In emergency situations, CoP provides transport to hospitals or clinics to students who do not have relatives in the Muscat area. Some emergency contact numbers are: 111 (security), Nurse (7167), transport (5005/5006)

**Health Insurance:** The College does not maintain health insurance coverage for students. The Omanis are covered by the Omani National Health Service. The expatriates are expected to have their health insurance. The students are responsible for all costs associated with their health care, including the cost for vaccinations required before students participate in clinical training courses.

**Accidents:** A senior staff/Health and Safety Officer must be informed immediately about any accident. An accident report form must be completed with details of any incidents that occur.

**Fire Regulations:** Fire evacuation drills are carried out regularly and must be taken seriously. If you discover a fire or suspect a fire:

- Sound the alarm by breaking the glass in the nearest fire alarm.
- Send another student to alert a teacher or administrator.
- Summon the fire department by dialing 9999 or call NU security on 111.
- Call the College fire wardens to put out the fire with a suitable fire extinguisher (their names and contacts are displayed in different places at the College).

If you hear a fire alarm:

- Leave the building by the nearest exit and go to the nearest fire assembly point.
- Do not run and do not use the lifts.

- Inform a staff member if there seems to be a missing person.
- Do not re-enter the building until officially informed that it is safe to do so.

### 1.10 Housing

Students can live either on-campus or off-campus at their personal choice. A limited number of supervised on-campus accommodations are available for female students only. The students seeking on-campus accommodation are required to pay a refundable deposit of OMR 200. The current schedule of hostel fees is available at the Finance Department. The students who decide to live in the on-campus hostel are required to follow the College's hostel rules, which are posted inside the hostel.

Students who break the hostel rules are subject to disciplinary action for misconduct.

The female students can live outside the campus with the written permission of their parents or guardians. The permission forms are available from the College's administration. CoP does not have on-campus housing for male students. Male students must find their own accommodation off-campus. Students living outside the campus of CoP must take the responsibility for their safety and behavior to reflect the NU core values.

### 1.11 Identification Card

**NU identification (ID) card** is required to access the library and laboratories and to attend exams. While participating in off-campus educational activities, the ID card must be always displayed prominently on the student's white coat. The students who fail to properly display their ID cards are dismissed from the class. The dismissal is treated as an unexcused absence. Students who repeatedly fail to properly display their ID cards are subject to disciplinary action for misconduct. The damaged or lost cards must be replaced and are subject to a replacement fee (OMR 5). The students should go to the Admissions & Registration Office to report a lost or stolen card.

### 1.12 Library Facilities

**Library opening hours:** The library is generally open from 8.00 a.m. to 8.00 p.m., Sunday through Thursday. On Friday and Saturday, the Library remains closed. A current library schedule is posted near the library entrance mentioning the extended working hours of 8.00 am to 8.00 pm.

**Borrowing Policies:** The students can borrow books from the library. Students may check out a maximum of four books for three weeks. Books should be returned to the circulation desk on or before the due date stamped in the book. Borrowed books may be renewed provided that the books have not been requested by other students, faculty, or staff. Reserved books are for use in the library. In some cases, students may borrow reserve books overnight, but the books must be returned before 9 a.m. on the following day. Reference materials and journals are for use within the library only, they cannot be borrowed.

An online catalog is available on the COP Library website for students to browse at their convenience to check the availability status of books and reserve the books online.

**Other Library Services:** Instructions & help sessions, Selective dissemination of information, and Current awareness services are provided in the library. The library can arrange interlibrary loans of journal articles from local and regional medical libraries. Students interested in these services should contact the circulation desk. Students can access the SOLE portal from the West Virginia University (WVU), to access online journals and databases. Access is through the NU portal on NU website. The availability of Access Pharmacy through SOLE platform is a boon for the faculty and students as students can access e-books and multimedia resources related to the Pharmacy program.

Photocopying and printing services are available in the library through credit.

**Overdue Notice and Fines:** For overdue books, the students are charged a fine of OMR 0.50 baiza per working day per item. If the books are not returned within 15 days from the due date, the student's borrowing privileges are suspended until the fines are cleared.

### 1.13 Cafeteria & Lockers

The Bowsher campus cafeteria is open from 08.00 am to 05.00 pm Sunday through Thursday. All meal purchases are made in cash. The student can also use the locker facility to keep their valuables.

### 1.14 Parking

At the Bowsher campus, free parking is available outside the campus. Campus parking permit cards for students can be obtained from the Administration Office/Dean's Office with a charge of OMR 50 per academic year subject to the availability of parking lots. All students, staff and visitors are expected to park in marked spaces only. Bricked walkways and other bricked areas around the building are no-parking zones. The fine for parking in a no-parking zone is OMR 5.

### 1.15 Prayer

Students can use the prayer rooms available on the campus during working hours. Sleeping, eating, gathering, studying, speaking loudly, or talking on the phone or any action that causes distraction to those offering prayer in the prayer room are strictly prohibited.

### 1.16 Smoking

Smoking within the university campuses and hostels, including all buildings and grounds, is prohibited. This policy covers all users of the campus, including students, staff, visitors, contractors, and guests. Anyone found violating the No Smoking policy will face disciplinary action and penalties ranging between RO100 to RO300 will be imposed as per Article (16) of

the Administrative Decision 33/2010. Behavior or acts which violate any of the stated rules and principles will be dealt with fairly and without exception.

### 1.17 Lost & Found Items

Students who have lost books or other personal items should check with the Administration Office on the ground floor to see if the missing items have been turned in. The items found on the campus should be handed over to the Administration Office.

### 1.18 Student Extracurricular Activities

The students are encouraged to participate in extracurricular activities to broaden their horizons and to develop life-long leadership, interpersonal and community skills. Extracurricular activities are organized through the Student Affairs Office.

**Student Council:** The Student Council is responsible for helping to organize student activities and events. The students interested in a specific activity are expected to develop the activity through the Student Council. The nominations/ election to the Student Council will be made by Student's Affairs Office as per the directives of the Ministry of Higher Education, Research, and innovation (MoHERI).

**Sports and Recreation:** Recreational trips and academic/cultural/recreational activities are organized through the Student Affairs Office. The students must have signed permission from their parents or guardians to participate. Limited recreational facilities are available on-campus. The College may sponsor recreational activities off-campus if enough students are interested.

### 1.19 Student Files

Student files are in the custody of CoP. The students and parents may review a student's file with the Admission & Registration Office/Deanship of Graduate Studies and Research but cannot remove any of the contents under any circumstances. If a student feels his/her file contains inaccurate information, the student may write a statement and have it included in the file.

### 1.20 Students Lounge

The student lounge are provided for use between classes. There is space for study, recreation and dining.

### 1.21 Use of Cell Phones

The students are permitted to bring cell phones to campus and to use them on their own time. However, the use of a cell phone during class is not permitted. Cell phones must be turned off or switched to "silent" mode during classes. The students who receive or place calls during class hours are subject to disciplinary action for misconduct. The students are advised to switch off and handover their cell phones to proctors during the examinations.

## 1.22 Textbooks and Required Supplies

CoP provides textbooks to students on a “loan” basis for their use in most courses, according to the following policies:

- Loaned textbooks are distributed by the library at the beginning of a semester. Loaned textbooks must be returned to the library within 5 working days of the final course examination and signed for by the librarian.
- The students who do not return loaned textbooks will not receive textbooks during the following semester.
- The students who highlight portions of a loaned textbook, write notes in the margins, or damage the book in any way must pay for the book.
- The students who withdraw from a course before the end of a semester must return the loaned textbooks to the library before having their withdrawal form approved by the administration.
- Some required supplies are given to students by the college (for example, laboratory and hospital coats). However, other required items and stationery must be purchased by the students.

## 1.23 Transcripts

A student’s academic record is called a transcript. The transcript is part of the permanent student file. After graduation, NU issues an official copy of the transcript to each graduate. If students leave the College before graduation, a copy of their transcript is made available to them upon request.

To request an official transcript, the students can come in person or write to the Admission and Registration Office / Registrar and fill out the appropriate form. Transcripts cannot be requested by telephone or email. The signature of the student or guardian must appear on the request. A minimum of three working days are required for processing a transcript request. Transcripts are not provided to students who have any kind of financial obligation or "hold" (e.g., unreturned locker key or library books) at CoP/NU.

The first transcript is free. Subsequent transcripts require payment of fees as follows:

Official transcript via courier	OMR 26
Official transcript, picked-up in person	OMR 6
Faxed transcript (unofficial)	OMR 2

## 1.24 Transportation

Students who live off-campus must arrange their own transportation to the College. The Bowshar campus provides transport for students from the main College building to the

training sites. Hostel students are provided transport off-campus with an escort at least once a week to do shopping.

### **1.25 Visitors to Campus**

The visitors must obtain a visitor's pass from the guard at the College gate. Visitors cannot attend classes without prior approval by the administration and consent of the instructor. Visitors to the hostel must report to the housemother and must follow the hostel rules. The students are responsible and accountable for the actions and behavior of their visitors.

## Section 2. Academic Rules and Regulations

College of Pharmacy offers programs in the semester and credit-system whereby students' progress towards Master's degree, through earning a specific number of credits in each semester and which will count towards the total number of credits required for graduation. The credit system offers students the chance to pursue their university education in accordance with their degree plans, which indicate the study requirements laid down by the University and College and verifies the choice of elective courses. Under the credit system, students follow an academic program commensurate with their abilities and potential and responsive to their circumstances.

CoP is obligated to evaluate students as thoroughly as possible about their academic and professional knowledge and skills, their integrity, and their suitability for the practice of pharmacy. Students have the right to know how they will be evaluated, how progression through the program will be judged, and their rights and responsibilities at CoP. It is the student's responsibility to monitor their academic progress.

Academic regulations are the core strand of the University's regulatory framework for learning teaching and assessment and wards for the qualification earned. For detailed NU Postgraduate Academic Regulations, please refer to the document in the NU portal.

### 2.1 Policies for Academic and Professional Standards

CoP expects all students to:

- Fulfill the requirements for satisfactory academic progress as outlined in the syllabus in each course.
- Follow the Code of Professionalism
- Comply with the College rules of procedure, conduct and appearance.
- Comply with all local and national ordinances, rules, and decrees.

By enrolling in CoP, the student accepts the college's academic requirements and criteria for graduation. It is the student's responsibility to know and meet these requirements and criteria. It also is the student's responsibility to inform the College of any serious problem that would hinder the student's satisfactory progress. Failure to follow the College's rules or failure to meet the College's academic requirements can lead to a delay in advancement, academic probation, suspension, or dismissal from the college.

CoP embraces a Code of Professionalism for all students and staff. The Code provides the foundation for proper lifelong professional behavior. This behavior is to be consistently always maintained at its highest level, both inside and outside of the college.

**Code of Professionalism:** The students should always have the following behavior:

- 1. Honesty and Integrity**
  - Honesty in action and in words, with self and others
- 2. Accountability**
  - Report to duty/class punctually and well prepared
  - Complete all tasks on time.
- 3. Responsibility**
  - Prompt, prepared, and organized.
  - Seriously and diligently work to complete assigned goals and tasks.
- 4. Respectful and Nonjudgmental Behavior**
  - Courteous and civil to all people
  - Tolerate diversity in culture, nationality, gender, religion, political views, age, ethnicity and race.
- 5. Compassion and Empathy**
  - Respect and being aware of others' feelings.
- 6. Maturity**
  - Appropriately manage relationships and interpersonal conflicts
  - Maintain appropriate personal and professional boundaries.
- 7. Skillful Communication**
  - Use verbal, non-verbal, and written communication skills that are effectively and appropriate to the culture and setting.
  - Seek feedback that the communicated information is understood.
- 8. Self-directed Learning and Appraisal Skills**
  - Demonstrate the commitment and ability to be a lifelong learner.
  - Are honest in self-evaluation of behavior, performance, skills, and knowledge.
  - Take advantage of opportunities for self-improvement

### 2.1.1 Attendance

The students are required to attend all scheduled course activities and training. Attendance is taken in every class. Attendance is considered when assigning grades for professionalism. A student who signs an attendance sheet for another student has committed a serious form of dishonesty and is subject to disciplinary action.

The students are responsible for monitoring their attendance. The following points are important regarding attendance:

- Students receive a warning letter if more than 10% of scheduled classes are missed for any reason.
- Students are not permitted to sit the final course examination and receive a grade of F (fail) if more than 25% of scheduled classes are missed due to unexcused reasons.

- Makeup assessments (exams, quizzes, in-class assignments, etc.) are not given for unexcused absences. The student who misses an assessment with an unexcused absence receives a grade of “zero” on the assessment.

**Excused Absences:** Excused absences are given for authorized CoP activities and certain personal reasons, in accordance with MoHERI policy. Requests for an excused absence are handled by the Academic Assessment Unit (Examination Controller) and must be accompanied by written documentation. Students cannot obtain an excused absence from their instructors.

Only the following are valid medical excuses:

- Excused absences given by a physician at a government or CoP-approved clinic/hospital. The leave report must show a diagnosis and indicate how many hours or days of leave are being given. The report must be signed by the physician and stamped by the clinic or hospital.
- Emergency hospitalization or clinic treatment, accompanied by a properly signed report from the hospital or clinic.
- Prior-scheduled appointments with a medical specialist at a government clinic or hospital.

Excused absences are also given for deaths in the family. Three days are allowed for the death of a father, mother, grandmother, grandfather, sister, brother, son, or daughter. Two days are allowed for the death of an uncle, aunt, or cousin. Presentation of proof of death from the relevant authority is required.

Requests for an excused absence and supporting documents must be submitted within two days of the student’s return to classes. Students who delay turning in their request will not be given an excused absence. Undocumented illnesses are not accepted as valid excuses for missing class.

The students who represent University/ College in national and international events shall get prior permission and approval from the College authority and they are excused from being absent in the classes.

CoP reserves the right to refuse any medical leave certificate that the College considers to be unjustified or fraudulently obtained.

**Punctuality:** The students must be punctual in attending lectures and laboratories. The CoP has zero tolerance for latecomers. The students who arrive late to class are marked absent and can be denied entry to the classroom.

### 2.1.2 Appeals Process

Any student who feels that he/she has been unfairly or incorrectly graded, evaluated, or penalized has the right to appeal. The appeals process is a series of formal steps designed to

ensure fairness and justice. An appeal must be based on convincing evidence that a grade or a penalty was imposed based on incorrect, inaccurate, or incomplete information or in violation of CoP policy. Simply not liking a particular grade or penalty is not a ground for appeal.

Appeals must be made in writing to the Academic and Professional Standards Committee (APSC) and must clearly state the justification for the appeal. A senior faculty from APSC reviews the appeal and, if deemed necessary, interviews relevant people. The APSC Committee submits a report to the Dean containing their recommendations for action. The Dean's office then responds in writing to the student. All decisions of the Dean are final.

Appeals must be made on time. Appeals made more than 2 weeks after a grade or penalty has been received will not be considered.

### 2.1.3 Dishonesty and Misconduct

CoP expects all students and staff to share their commitment to honesty, integrity and the search for truth. CoP does not tolerate dishonest practices in its students or staff. Academic dishonesty grounds for immediate dismissal from the College.

**Academic Dishonesty:** Academic dishonesty includes plagiarism, cheating, forgery, misrepresentation, and fraud. Academic misconduct is conduct by which a student seeks to gain for himself/herself or another person an unfair or unjustified academic advantage in a course or unit of study and includes cheating, collusion and plagiarism intentionally or otherwise.

PLAGIARISM is defined as “using the ideas or writings of another person as one's own”. Plagiarism is a form of cheating because it steals ideas and words. Whenever students write something as if it were their own, they must always write it entirely in their own words. It is plagiarism to copy material from someone else without clearly giving credit to the original author (if the author is known) or the original source (if the author is not known). Plagiarism also includes omitting to give credit to every individual who is involved in a joint project. Plagiarism will not be tolerated. Students who hand in plagiarized work for a grade receive a grade of “zero” for the first offense and more severe penalties for repeat offenses (including dismissal from the college).

CHEATING includes:

- Obtaining help from another student during an examination
- Knowingly giving help to another student during an examination
- Taking an examination for another student
- Possessing unauthorized notes, books, or other sources of information during an examination, even if the material is not used.

- Obtaining without authorization an examination or any part thereof, including the questions of previous examinations
- Having mobile phones or other electronic devices during exams, even if the devices are turned off.
- Unauthorized use of any college computer or software program

FORGERY, MISREPRESENTATION, AND FRAUD include:

- Signing for another student on an attendance sheet or other college document
- Forging or altering any grade in a grade book or other document
- Altering an examination paper, homework assignment, laboratory notebook or other document with intent to defraud
- Using college documents or identification cards with intent to defraud
- Presenting false data or intentionally misrepresenting one's records for admission, registration, withdrawal from a course, or withdrawal from CoP.
- Knowingly presenting false data or intentionally misrepresenting one's records for personal gain.
- Knowingly providing false statements in any college proceeding
- Pretending to be ill or fraudulently obtaining a medical leave certificate
- Doing academic work for another student, including ungraded assignments
- Providing one's work for another student to copy and submit as his or her own.

***Procedure for Handling Academic Dishonesty:*** Anyone (faculty, staff, or student) who suspects academic dishonesty by a student has an ethical responsibility to report the matter to the Dean's Office/Chair of Program Office. After reviewing the evidence, the matter will be referred to the Academic and Professional Standards Committee (APSC) to examine the alleged charge of academic dishonesty. If required, an ad hoc Disciplinary Committee consisting of senior faculty and staff will be formed. The Disciplinary Committee reviews the evidence and interviews the student and other concerned people. The Committee then makes recommendations to the APSC. The Chair of APSC reviews the Committee's recommendation and makes a final recommendation to the Dean for necessary.

If an examination proctor observes that a student has notes written on paper, body parts, clothes or other objects, the proctor immediately reports the incident to the Chief Proctor. If the Chief Proctor confirms the observation, the incident is immediately reported to the Controller of Examination. The Disciplinary Committee constituted by the Dean will review the case and take the decision.

***Penalties for Academic Dishonesty:*** Depending on the nature and seriousness of the offense, the following penalties can be imposed on a student:

- Behavior that violates the Code of Professionalism. This includes repeated late or unexcused absences, poor personal hygiene, inappropriate dress, dishonesty, refusal to follow instructions or college policies and activities that are lewd, immoral or criminal.
- Fighting or other conduct that endangers or inflicts physical injury upon another.
- Sexual misconduct.
- Threats, stalking, or other activities which create a reasonable apprehension of physical or emotional harm to another.
- Discrimination based on race, ethnicity, national origin, religion, creed, gender, or age.
- Possessing or carrying any weapon or dangerous substance on campus.
- Operating a motor vehicle in a reckless manner on campus.
- Engaging in recklessly dangerous, disorderly, or obscene conduct on campus.
- Illegally possessing, manufacturing, selling, or delivering a controlled substance as defined by the regulations of Sultanate of Oman.
- Engaging in intimidating or disruptive conduct on campus, or inciting others to engage in such conduct.
- Engaging in conduct (or inciting others to engage in conduct) that improperly restrains the movement, speech or college-related activities of another person.
- Engaging in conduct that disrupts the academic environment.
- Misrepresenting oneself as another person.
- Adversely interfering with another person's academic standing, privacy or personal information.

***Procedures for Handling Misconduct:*** Anyone (faculty, staff or student) who observes an act of misconduct has an ethical responsibility to report the incident in writing to the Dean's Office/ Chair of Program office who will review the matter and refer to the APSC. Upon reviewing the evidence, the Academic and Professional Standards Committee (APSC) can make a formal charge of misconduct. The written notice of the charges is submitted to the Dean. A Disciplinary Committee of senior staff and the Student Counselor (if required) then investigates the incident and interviews the concerned people. The committee makes recommendations to the APSC. The APSC reviews the Committee's recommendations and forwards them to the Dean to make a final decision.

***Penalties for Misconduct:*** Upon receiving a recommendation from the Disciplinary Committee that a student has committed misconduct and depending on the severity of the offense, the Dean may:

- Place a formal letter in the student's file.

- Suspend the student from the College for a specified time following which the student can apply for readmission to CoP. Suspended students cannot attend classes or live in the college hostel.
- Dismiss the student from the College.

### 2.1.4 Dress Code

CoP places a high value on personal appearance including the attire of students and staff. The College's dress code sets standards for dress and appearance which are necessary to meet the service and safety objectives of patient welfare and the educational objectives of students. Students who do not adhere to the dress code can be dismissed from the class to correct their dress. Such dismissal is treated as an "unexcused absence". Refusing to adhere to the code or repeatedly failing to dress correctly is misconduct.

**General Standards:** Good personal hygiene must be always maintained. The faces of students must be always visible in all College facilities, including hostels.

Clothing should be clean and in good repair. Shirts, blouses, and other tops should cover the shoulders and midriffs. Women should wear skirts covering the knees, jeans, or tailored slacks. The following items of clothing are prohibited:

- Shorts
- Bare midriff tops; tee-shirts; halters; translucent or transparent tops; sleeveless shirts or tops, shirts or tops with plunging necklines, or tank tops
- Burqas or veils (naqaab)

**Additional Requirements for Laboratory Activities:** The students must wear a laboratory coat during all laboratory activities, including examinations. The students are prohibited from wearing sandals, open-toed shoes, canvas shoes, large buttons, or large pins in the laboratories.

### 2.1.5 Grievances

A grievance is a formal complaint about an incident that the individual feels is unfair. CoP is committed to developing and maintaining an effective system for grievances that is easily accessible to all students and staff. The aim of the grievance system is to resolve issues promptly, objectively with complete confidentiality, and in a fair manner. The views of the aggrieved students are treated with respect and complete confidentiality. Before filing a formal written grievance, the aggrieved student must first attempt to resolve the grievance by meeting with the other involved person(s). If the matter cannot be resolved in this fashion, then students should write a grievance letter and get it signed by the students' academic advisor and submit it to APSC.

**Procedures for Addressing Student Grievances:** The aggrieved student must submit the grievance in writing to the APSC. An Ad hoc Grievance Committee is appointed by the chair

of the APSC to consider the grievance. Only individual grievances raised by registered students are considered. Family members or friends are not authorized to raise a grievance on behalf of the aggrieved student. Further, the Grievance Committee will not consider any grievance of general applicability or grievance received from a group of students. The Grievance Committee investigates the grievance, discusses the issues with the concerned parties, reviews any relevant documents, and then makes a recommendation to the Dean. The Dean reviews the committee's recommendation and makes a final decision.

## **2.2 Admission and Transfer Policies**

The students must complete the Bachelor's in pharmacy Program to be admitted to MSc. in Clinical Pharmacy Program and/or as per the admission policy of NU.

### **2.2.1 Admission to First Year**

Admission is considered final only after a student signs a letter of acceptance, for ensuring admission and reserving the seat which will be later adjusted in the total tuition fees, provides the original or certified copy of past academic transcripts of all schools attended, and the relevant documents requested by the Deanship of Graduate Studies and Research/Directorate of Admission and Registration.

### **2.2.2 International Admissions**

The students who have completed the equivalent of B. Pharm. degree within an educational system approved by the Oman Ministry of Education Research and Innovation are qualified for admission to the Master's in pharmacy Program. The International students must provide the following:

- Completed application form.
- Results of the TOEFL or IELTS
- Attested original or attested copies of an official academic record in the original language of issue.
- Original or certified copies of all certificates or diplomas in the original language of issue
- Official attested English translations of academic records, certificates, or diplomas.

The above items should be sent to the Deanship of Graduate Studies and Research /Directorate of Admissions and Registration and must be received by the application deadline. Incomplete applications cannot be guaranteed consideration for admission.

### **2.2.3 Visa Policy for International Admissions**

The Directorate of Admission and Registration issues applications for student visas.

The approved visa request is then forwarded to the Finance Office for verification of immigration expenses and full semester fees are to be paid in advance, without which student visas will not be issued.

Renewal of visas are subject to clearance from Administration and Finance Department where the student's continuity in studies with CoP is verified, all the fee payable to college is settled, renewal charges are collected, and the clearance form is duly signed by the Registrar and Senior Manager/Director of Finance.

The visa renewal for students with CoP visa who postpone their studies more than one semester will be evaluated based on the academic standings and payment of requisite fees due for the semester if any and visas will be cancelled in case the students are not in the college for more than one semester.

### **2.2.4 Credit Hours per Semester**

In general, students will take 5 to 17 credit hours in fall and spring semesters as per the study plan for full-time and part-time students.

### **2.2.5 Adding or Dropping Courses**

A course may be added to or dropped from a student's schedule during the first two weeks following the normal registration period with no effect in the transcript. Students must discuss the effects of altering their course schedule with their academic advisor.

However, students are responsible for the effects of adding or dropping courses on their overall academic progression. Dropping a course with a grade of "W" is the last day of week 6. Students shall follow the fee refund policy of the University as given in section 1.8 of this handbook.

### **2.2.6 Academic Advising**

The goal of academic advising is to assist students in planning meaningful academic activities and educational goals to obtain the desired degree which are consistent with personal interests, values, and abilities. The Academic Advisor provides a personal and supportive environment in which students can pursue their educational goals. The guidelines for academic advising serve as a framework to enhance and improve the advising process and interactions between students, faculty, and administrators. Each student, on enrollment to the program, shall be assigned an academic advisor.

The advisor and advisee should develop an educational plan to ensure that the following regulations are met:

- Courses are taken in the proper sequence as per the regular study plan.
- Prerequisites and co-requisites should be considered prior to registering for the course if any

- Courses are taken in accordance with the curriculum for the Master's degree.
- All procedures are within the rules and regulations set by CoP.

In addition, the Academic Advisor is available to assist students in the areas of personal and intellectual growth, time management and career choices. Nonetheless, students are ultimately responsible for the successful completion of curricular requirements and should frequently check to ensure that they are making progress towards fulfilling their degree requirements.

### 2.2.7 Academic Probation

The students in the MSc. program must achieve a cumulative GPA of 2.0 and above. Failing which they are placed on "academic probation".

Following are the conditions under which a student is placed on academic probation:

Failing two courses in a semester (C- / D+ / D / F).

Failing one course in the Fall and one course in the Spring.

A semester GPA of less than 2.0 for any two successive semesters

A CGPA of less than 2.0 in any semester

#### ***What happens to students on "academic probation"?***

- Appeals shall be recommended by the academic advisor and approved by the Academic and Professional Standards Committee (APSC).
- Students on probation are barred from online registration and must register through their advisors.
- Students who receive warning letters for dismissals must inform their parents or guardian and appear for meetings with them when called.

***Removal from academic probation:*** A student who achieves a cumulative GPA of 2.0 or more is removed from probation and declared "Normal". Once the student is on Normal status, a subsequent probation is considered as the first probation.

***The probation status progressions:*** After being on probation for two semesters, if the student is out of probation, and returns to normal status with cGPA of 2.0, previous probation are not counted for subsequent action. For example: Probation 1      Probation 2      Normal      Probation 1.

***Warning Letters:*** Students on academic probation are issued letters of probation from the Dean's Office, if a student has a cGPA less than 2.0 or fails two or more courses for the first time. A student on academic probation must return to normal status within 3 consecutive semesters. A student who completes two consecutive semesters on academic probation will

receive a warning notice that he/she has one final remaining semester in which to achieve a cumulative GPA of 2.0.

**Dismissal Letters:** If the student fails to raise her cGPA to 2.0 for the third consecutive semester, he /she is given a dismissal letter. However, if such a student has a cGPA of 1.8 and above but less than 2.0, he/she can appeal for a last chance. The appeal will be subjected to approval from the Sponsor/APSC. A student with a cGPA of less than 1.7 after completing the first year of the pharmacy program will be dismissed with the right to appeal. Dismissal decisions shall be verified by NU Student Withdrawal Committee chaired by the DVC.

### 2.2.8 Dismissal from the Program

If a student is on academic probation for three semesters, he / she cannot continue in the Pharmacy program. A Pharmacy student is allowed only three years (full-time) or four years (part-time) from the date of initial enrollment to complete his/her Pharmacy studies. CoP may also dismiss a student for non-academic reasons in situations where the student is deemed unfit to continue into the profession of Pharmacy (for example, due to mental instability, unprofessionalism, or serious misconduct). Dismissal decisions shall be verified by NU Student Withdrawal Committee chaired by the DVC.

### 2.2.9 Awards

The awards would be given to the students based on the NU Award Policy

## 2.3 Examination Policies

**Assessment scheme:** Assessment of learning outcomes can be done using in-class assignments (quizzes, examinations, assignments, etc.) and out-of-class assignments (presentations, TBL, discussions, role playing, OSCE, etc.). Specific details of the assessment scheme for each course are provided in the course syllabus.

**Scheduling of Examinations:** The examination timetable gives the dates and time of course assessments. Under normal circumstances, the assessment schedule will not be changed after the schedule is released to students. The schedule of examinations will be provided to the students at the time of registration.

**Examination Protocols:** The protocol for conducting examinations is as follows:

- Students must follow the instructions of the proctors, including assigned seating and timings of the start and finish of the exam.
- Examinees must sign a printed attendance sheet and must show their CoP ID card.
- No personal belongings are allowed in the examination room, including reference materials, electronic devices of any kind, books, bags, calculators (when not permitted), tissues, or food. Prohibited items will be confiscated and handed over to the Examination Office.

- Students must not talk or communicate with each other in any way while in the examination room.
- No student may start an examination more than 20 minutes late. Latecomers will not be given extra time. Students who arrive more than 10 minutes late will have to fill in the late comer form. However, no one will be allowed to write the exam after 20 min of the start of the exam.
- Students are not permitted to leave the examination room during the first 30 minutes of the examination.
- Examination papers and materials cannot be removed from the examination room.
- Students are required to complete paper examinations in ink, felt tip, or ballpoint pens. The use of pencils, except for completion of computer answer sheets and drawings, is not permitted.
- Students are not allowed to ask questions to proctor during the examination. However, if an error is spotted in the examination paper, this error can be brought to the attention of the proctor.
- Students Who Miss an Examination Due to Illness or Injury: Students who become severely ill before a scheduled examination must notify the instructor and Academic Assessment Unit (Examination Office). The illness must be supported by written documentation along with the approved form.

Minor medical conditions are not acceptable excuses for missing an examination. Students without permission to miss an examination in advance or without a verified medical excuse will receive a grade of zero on the examination and are not permitted to make-up the missed examination. Pretending to be ill to miss a scheduled examination is an academic dishonesty.

It is solely the student's responsibility to judge whether he/she is well enough to sit in an examination. Each student who attends an examination is well enough to sit the examination. A student who is sick before an examination but chooses to attend the examination will not be granted a makeup examination later even if the student has documented evidence of illness.

The scanned copy of medical or death certificate must be submitted electronically to the Examination Office within a week (5 working days). The hard copy of the same certificate must be submitted to the Examination Office for verification/approval at the earliest. If such a student fails the course with a D grade, he/ she is permitted to write the re-sit exam, however this grade will change only the final grade not the other grades.

Students who miss the final examination due to death in the family are permitted to take a remake examination provided that the bereavement took place not more than 4 working days before the examination. The student shall submit a death certificate of the immediate family as per the CoP exam guidelines mentioned above to get excused absence. However,

if a student misses a remake exam for whatsoever the reason or failed (F & D grades) the remake exam then there will be no further re-sit or remake exam.

**Note:**

- Makeup examinations are not given for unexcused absences. In such cases, the student receives a grade of zero on the examination.
- If any students miss both midterm and final exams, then he/she is not eligible for remake/re-sit exam under any circumstances. Students must repeat the course in the following academic year.

***Illness during an Examination:*** A student who becomes ill (or experiences medical problems) during an examination may request a short break under supervision. The nature of the illness and the break will be noted by the proctor and a written report submitted to the Academic Assessment Unit (Examination Office). The student can continue the examination in the examination room after he/she has recovered sufficiently. However, additional time is not given. If the student chooses not to continue the examination, credit is awarded only for those answers that have already been recorded. The general rule is that once a student starts an examination, the student must finish it.

***Final Examinations:*** All students with satisfactory attendance are allowed to sit the final examination. As described under the Attendance Policy, students who have been recorded as absent on more than 25% of the attendance sheets for any reason (excused or unexcused absences) are not permitted to sit the final course examination and receive a grade of F in the course.

***Marking of Examination Papers:*** Credit is only given for student answers recorded in the appropriate places. No additional time will be allowed for students to recopy work once the proctor has announced the end of the examination or assessment period. The course instructors are required to submit the result of the course within 3 working days to the Head of the Department from the date of completion of exam.

***Review of Examination Papers and Graded Assessments:*** To give students an opportunity to learn from their mistakes, instructors will review the content of examination questions and other graded work with the class, within one week from the date of examination. However, it is not mandatory for instructors to show the actual examination questions to the class.

Students have the right to review individually their examination papers and graded work but must have a justifiable reason to do so. The request to review the exam individually should come through the academic advisor in the prescribed form. Students are only allowed to review graded work for up to one week after it has been reviewed in the class. After that, all grades are considered final. Students are not allowed to copy or record the questions or make notes about the examination questions during such reviews.

### 2.3.1 Grades

Course grades are assigned by the instructor, who judges students against academic and professional requirements as outlined in the course syllabus. When a student fails to meet the academic or professional requirements of a course, the instructor assigns the student an unsatisfactory course grade. At the very least, students who receive an unsatisfactory grade in a course will have to repeat the course later.

The grading procedure for each course is stated in the course syllabus. Grades are assigned to students using numerical and letter systems. The passing grade is 70% in all College courses. Any grade less than 70% is a fail grade.

**The Grade Scale** CoP uses the traditional A, B, C, D, F grading scale, as follows:

- A (Exceptional performance). A student has achieved nearly all the course requirements and course objectives in a consistently outstanding manner.
- B (Good performance). The student has met most of the course objectives and requirements in a consistent manner.
- C&C+ (Borderline performance) Student has only satisfied some of the course objectives and requirements.
- C- & D (Unsatisfactory performance). Students are eligible to write a maximum of two re-sit exams.
- F (Unacceptable performance). The course must be repeated.

Letter grades are shown with + or – to indicate, respectively, performance that is slightly above or slightly below the above descriptions. For example, C+ indicates performance that is slightly above a borderline pass, whereas C- indicates performance that is a borderline pass.

Other grade designations that may appear on a grade report or an official transcript and shall not carry numeric value are:

**IC – Incomplete:** An incomplete grade is given when course coordinator / instructor determines that the work of a student is unavoidably incomplete. An “IC” becomes an “F” if the work is not completed within one year (before the commencement of the next academic year)

**W – Withdrawn:** A “W” shall be assigned to a student who withdraws formally from a course within the prescribed deadline after the period of Drop & Add.

**R – Repeated:** A letter “R” after a course grade indicates that it is a repeated course. Both the original course grade and the repeated course grade appear on the official transcript. However, only the repeated course grade is used in the calculation of the student’s GPA.

**TC – Transfer Credit:** A “TC” shall be awarded to a student who has been granted credit from elsewhere. These credits shall contribute to the total required for graduation in a particular degree program but shall not contribute to the grade point average.

**AU – Audit:** An “AU” shall designate a course registration with audit status. This status must be declared at the time of registration. With special permission of the Dean of the respective colleges, students may be allowed to audit courses. The student registers for the audited course and pays full fees but is not permitted to take examinations or submit graded assignments. No course credit can be earned for auditing a course.

**IP– In Progress:** “IP” shall be assigned to a course such as a project, practical or a multi-semester course in which the student is registered, but which is still in progress at the time of grade reporting or transcript production. The “IP” grade is intended only for use in such circumstances and is not to be confused with the incomplete grade designations.

**OP– Officially Postponed:** A “OP” shall be assigned to a course in which the student is registered when he/she has been officially granted permission to postpone the semester.

**DT – Detained:** A “DT” shall be assigned for a course in which the student was detained due to not meeting the minimum attendance requirement.

**WF – Withdrawn Failing:** A student who withdraws completely from the college receives a grade of “WF” in all courses that the student was failing at the time of leaving COP and a grade of “W” in all courses that the student was passing at the time of leaving. Marks of “WF” do not affect a student’s GPA.

### **Grade Point Average:**

The Grade Point Average (GPA) is a weighted average that summarizes each of the two levels of activity: the semester and the cumulative work to date: a) The semester GPA is calculated on the courses taken within a given semester, b) The Cumulative GPA (CGPA) is calculated on all courses taken to date, inclusive of all semesters. The semester GPA shall be calculated as follows:

*Grade Point earned in a course = Numeric value of the grade earned x No of credits for that course*

Semester Grade Point Average (GPA) earned in a semester is calculated as follows:

*Semester GPA = Sum of the grade points earned in that semester / Total credits attempted during that semester*

### **Cumulative Grade Point Average (CGPA):**

The calculation of the CGPA shall be based on all courses taken and all credits attempted to date. The total grade points earned are divided by the total credits attempted.

For the purpose of computing the CGPA, courses with an incomplete or in progress grade are not included. Credits accepted on transfer (TC grades) from other institutions are included in the total number of credit hours applicable to degree requirements, but grades earned in such courses are not recorded on the permanent record at the University. GPAs or CGPAs will not be rounded off whatsoever (for example, a semester GPA of 1.99 will not be rounded to 2.00). B. Pharm students are expected to maintain a cumulative GPA  $\geq 2.00$ .

**Grade Point Average Calculation:** Within the A, B and C letter grade categories, the top three percentage points may be designated with a "+", and the bottom three percentage points with a "-". All course letter grades carry a numeric value that is used in computing the student's semester and Cumulative Grade Point Average (GPAs), according to the following scale:

Numerical scale %	Corresponding letter	Corresponding Grade points
90-100%	A	4.0
87-89%	A-	3.7
83-86%	B+	3.3
80-82%	B	3.0
77-79%	B-	2.7
73-76%	C+	2.3
70-72%	C	2.0
Failing Grades		
67-69%	C-	1.7
63-66%	D+	1.3
60-62%	D	1.0
0-59%	F	0.0

#### **CALCULATING GRADE POINT AVERAGE**

A student's grade point average (GPA) is a numerical measure of how well the student is doing overall in his/her academic program. Using the numerical values listed above, you can calculate your grade point average (GPA) as follows (see table below):

- The number of credit hours for each course (Column B) is multiplied by the numerical grade point that is equivalent to each letter grade (Column C). The result is placed in Column D. This procedure is followed separately for each course.
- The results are added together (total of column D).
- The total sum (Column D) is divided by the total number of credit hours attempted (sum of column B) to obtain the grade point average (Column F). (23.9 divided by 14 equals 1.7).

- Column E shows the credit hours earned in this student's semester. Note that it is less than credit hours attempted because no credit is earned from a grade of "F".

**Example:**

A	B	C	D	E	F
Course	Credit Hours Attempted	Grade Point	B x C	Credit Hours Earned	Grade Point Average
PBIO00101	4	C = 2	8	4	
PCHE00101	4	F = 0	0	0	
UEL000101	3	C+ = 2.3	6.9	3	
PHS000101	3	B = 3.0	9.0	3	
	<b>14</b>		<b>23.9</b>	<b>10</b>	<b>1.71</b>

Students at CoP are expected to maintain a minimum Grade Point Average of 2.0 in order to remain in good standing in the college. Students whose GPA falls below 2.0 are placed on probation.

**Posting of Grades:** In-course examination results are posted approximately one week following an examination. Final course grades are posted approximately two weeks after the final examination. Only course grades posted by the administration are considered official course grades.

### 2.3.2 Re-sit Examinations

Students who receive an overall course grade of 60-69 (C-, D or D+) may be allowed to take a re-sit examination in the Fall and Spring semesters. A student can take two re-sit examinations per semester. Re-sit examinations are not offered automatically for all courses. However, the students who fail a remake exam (course grade of 60-69 (C-, D or D+) can apply for re-sit exam.

When offered, re-sit examinations are like the final examination of a course. The assessment with the highest grade (regular or re-sit) is used to calculate the overall course grade. A fee of R.O. 50 is charged for a re-sit examination.

### 2.3.3 Repeating or Remediating Courses

The students who fail a course must repeat the full course during another semester of the current academic year or the subsequent year. Students need to pay the full course fees at the time of registration.

Most of the courses are offered once per academic year. Once the failed course is successfully repeated, the repeated course grade appears on the official transcript followed by the designation “(R)”. The original failing grade remains on the official transcript but is not included in the calculation of the student’s GPA.

### **2.3.4 Repeating or Remediating Courses**

Student is permitted up to THREE attempts to pass in a course.

## **2.4 Postponement of Studies**

The students may postpone their studies for one semester or a year with a valid excuse providing their grades are in good standing and they have permission from the Dean. Students with sponsorship require approval from their sponsors. Such cases need to be endorsed by the DVCP’s Office. Postponement-of-Study Form is available in the Admission & Registration Department.

### **2.4.1 Withdrawing from Courses**

The students who decide to withdraw from a course must complete a withdrawal form (available from the Registrar), which includes sections for approval to be signed by the course instructor, academic advisor, and the Dean. For sponsorship students, the student also is responsible for obtaining permission from the sponsor. The students who withdraw from a course before the midpoint of the course receive a grade of “W”. After the course’s midpoint, a grade of “F” is normally assigned. In case they withdraw after the midpoint, they have to pay regular course fees in the next semester when the course is being offered. Section 1.8 explains the refund policy.

### **2.4.2 Withdrawal from College of Pharmacy**

The students who no longer wish to attend CoP may withdraw from the college at any time up to the last day of scheduled classes. Students who wish to leave CoP must inform the Registrar who will explain the withdrawal procedure. Students are responsible for clearing all financial obligations and returning their ID card and College property before their withdrawal is finalized. Students who fail to fulfill these obligations will not be eligible to receive a transcript from the College. If the student is on a sponsorship, the college will inform the sponsor of the student’s actions.

## **2.5 Graduation Policies**

The students become eligible to get a degree when they complete all the requirements of CoP and the Program that were in effect at the time they first registered at CoP. However, if they withdraw for more than one semester, they must meet the remaining requirements in effect at the time of rejoining the College.

**Certificates:** Certificates are awarded in person to students who have completed all of the course and training requirements of their program. Certificates are issued only after all final clearance procedures are completed. Only one copy of the certificate is provided. Graduates who are unable to attend in person must submit, in writing, the identification details of the person who will receive the certificate.

### 2.5.1 Replacement of Lost or Damaged Certificates:

Replacement certificates are issued only after the graduate provides the following:

- A written request explaining the need for the replacement certificate.
- Acceptable evidence of the need for the replacement certificate (e.g., damaged original certificate, police statement of the original certificate's theft or loss by fire, etc.)
- Signed statement that the replacement certificate will be returned immediately to the College in the event of the original certificate being recovered.

The fee for a replacement certificate is OMR 60 for a certificate that is picked up in person and OMR 80 for a certificate that is forwarded to the graduate by certified courier. Replacement of the certificate may require 2 months. The replacement certificate will be stamped as "Duplicate Copy".

## 2.6 Academic System followed by CoP

The College of Pharmacy follows the American system of higher education in affiliation with our partner West Virginia University. Course grades are assigned by the instructor. It is the responsibility of the instructor to judge students fairly against academic and professional standards, without prejudice in terms of race, color, national origin, religion, or sex. The passing grade in all courses will be 70%. Students who fail a course must repeat the course later.

### 2.6.1 Advancement from one academic year to the next

The students who pass all their courses in an academic year will be eligible to register for the courses offered in the subsequent academic year provided they fulfill required pre-requisites.

## 2.7. Graduation Requirements for Pharmacy

The students in the Pharmacy Program must complete all course requirements with a cumulative GPA of 2.0 or greater including completion/registration of the Research Project and clinical rotation.

Satisfactory demonstration of professional behavior throughout their tenure at CoP.

A student may spend a maximum of 3 years in the program as a regular student and 4 years as a part-time student.

## Section 3. MSc. in Clinical Pharmacy Program Plan, and Course Description

The overall goal of the Clinical Pharmacy program is to provide pharmacists with sufficient information to interact with other healthcare professionals to provide effective and safe use of medicines. The learning objectives of the program are to train students in skills as below.

### 3.1. Program objectives:

1. To train the students to become Clinical Pharmacists and competent members of multidisciplinary healthcare teams dedicated to patient care.
2. To provide expertise to students in using evidence-based medicine and the ability to correlate knowledge of pharmacotherapy and disease conditions to provide optimum pharmaceutical care service.
3. To train the students to individualize, review, monitor and optimize a patient's medication regimen and demonstrate clear communication skills in both clinical and non-clinical scenarios.
4. To train the students in the application of research methodologies relevant to clinical pharmacy practice and carry out clinical research relevant to pharmaceutical care and social issues related to medicine use.
5. To prepare the students to take managerial and leadership roles to handle pharmaceutical care, prepare admixtures, manage drug information center and pharmacovigilance center for better clinical outcomes.

### 3.2 Program learning outcomes:

1. Develop and practice evidence-based pharmaceutical care plan.
2. Apply the latest knowledge of chemotherapeutics in infections and cancer
3. Demonstrate deep knowledge in pharmaco- therapeutics to manage and optimize patient medication plan
4. Use medical informatics and thus communicate with other health care providers effectively
5. Design and perform evidence based clinical pharmacy practice
6. Propose research questions and design the methodology to carry out meaningful clinical research projects.
7. Create a patient assessment plan including history to be able to plan a therapeutic regimen including monitoring of potential harmful effects of medicines
8. Address issues of drug-related treatment problems including possible adverse drug reactions
9. Develop strategies to educate patients about new drug therapies aimed at optimizing the clinical outcomes while maintaining the patient's quality of life
10. Demonstrate managerial and leadership skills in clinical settings upholding professionalism, integrity, confidentiality, and ethics of pharmacy specialists

### 3.3 MSc. in Clinical Pharmacy Course Plan:

MSc. in Clinical Pharmacy of the College of Pharmacy, National University of Science and Technology comprises 42 credits of coursework. A student must successfully complete 42 credits of coursework to be able to get a Master's degree.

The M.Sc. program in Clinical Pharmacy is designed to prepare graduate students professionally competent with deep subject knowledge and skills that match with the growing need for patient-centered pharmaceutical care service in Oman and abroad. The students will be exposed to the pathophysiological basis of pharmacotherapeutics and medicine optimization to work as medication management specialists.

The program enables the students to possess knowledge in the use of drugs, work as competent members of multidisciplinary healthcare teams for patient care, and correlate knowledge of drug therapy and disease conditions. Obtaining the M.Sc. degree in Clinical Pharmacy will provide students the competency to practice the profession effectively in a clinical pharmacy setting as a clinical practitioner involving medicines management and pharmaceutical care.

Graduates will be prepared to serve as specialists in the tertiary healthcare hospital, regulators in pharmaceutical care service in the ministry of health and as academicians/researchers. The program curriculum provides knowledge, skills and values to practice the profession of patient care in the dynamic and challenging healthcare scenario.

The fundamental courses like the antimicrobial chemotherapy, cancer chemotherapy, advanced pharmaco-therapeutics and medicine management and optimization will provide deep knowledge and understanding of pharmaceutical care service required in the healthcare delivery system. The planned clinical pharmacy service course equips the graduate to assume the role in the healthcare provider team as a medication management expert. The clinical pharmacokinetics and therapeutic drug monitoring course will train the students in dose calculation, monitoring and optimization of medication as per the patient clinical conditions. The clinical research methodology course will inculcate the mindset for a sense of inquisitiveness to propose research questions and then design, develop and conduct meaningful clinical research in a hospital setting. The elective courses like critical care medicine, parenteral nutrition, pharmacogenomics and Pharmacovigilance will provide additional competency of the graduates in areas of contemporary significance in pharmaceutical care. The students will undertake clerkship and clinical rotations in various wards under the direct supervision of a clinical practitioner in a tertiary care hospital to gain clinical competency and to resolve pharmaceutical care challenges in clinical settings.

<b>Awards Duration</b>	<b>Credit Hours</b>
M.Sc. Degree (Full time) 4 Semesters -2 Years	42
M.Sc. Degree (Part-time) 6 Semesters- 3 Years	42

### 3.4 Graduation Requirements:

Students enrolled in the MSc. program of Clinical Pharmacy are required to successfully complete 42 Credits with a cumulative GPA of 2.0 for being awarded with the MSc. degree which includes 28 Credits of Core courses, 3 Credits of elective courses, 5 Credits of Research project (Dissertation/ Master's Thesis) course, 1 Credit for Research Seminar, and 5 Credits Clinical Rotation course (500 contact hours of clinical rotation in various specialties of a tertiary care hospital).

### 3.5 PROGRAM PLAN (Full-Time Mode):

Sl. No	Course Code	Course Name	Credits	Contact Hours	Theory hr/week	Clerkship hr/week *
YEAR 1 SEMESTER 1						
1	PPRA0501	Clinical Pharmacy Practice	4	4	3	3
2	PTHE0501	Antimicrobial Chemotherapy	3	3	2	3
3	PCEU0501	Clinical pharmacokinetics & TDM	3	3	2	3
4	PTHE0502	Advanced Pharmacotherapeutics I	4	4	3	3
		Total	14	14	10	12
YEAR 1 SEMESTER 2						
5	PTHE0503	Advanced Pharmacotherapeutics II	4	4	3	3
6	PTHE0504	Cancer Chemotherapy	3	3	2	3
7	PTHE0505	Medicine Management & Optimization	4	4	3	3
8	PRES0501	Clinical Research Methodology	3	3	3	-
9	Electives (Any one course) PTHE0506 PTHE0507	a. Critical Care Medicine b. Parenteral Nutrition c. Pharmacogenomics	3	3	2	3

	PCOL0501 PPRA050 2	d. Pharmacovigilance				
		Total	17	17	13	12
YEAR 2 SEMESTER 3						
10	PCET0601	Clinical rotation**	5	30-35	-	30-35
		Total	5	30-35	-	30-35
YEAR 2 SEMESTER 4						
11	PRES0601	Master's thesis	5	-	-	30
12	PRES0602	Research seminar	1	1	-	-
		Total	6	1	-	30
Total Cumulative for Exit Degree: 42 credits						

*\*1 Credit Clerkship has 3 contact hours /week, and the student shall complete 50 contact hours in a hospital setting in a semester.*

*\*\* Clinical Rotation (5 credits) shall be undertaken clinical training for a minimum of 500 contact hours in various assigned medical specialties*

### 3.6 PROGRAM PLAN (Part-Time Mode):

Sl. No	Course Code	Course Name	Credits	Contact Hours	
				Theory hr/week	Clerk ship hr/week *
YEAR 1 SEMESTER 1					
1	PPRA0501	Clinical Pharmacy Practice	4	3	3
2	PTHE0501	Antimicrobial Chemotherapy	3	2	3
3	PTHE0502	Advanced Pharmaco-therapeutics I	4	3	3
Total			11	8	9
YEAR 1 SEMESTER 2					
4	PCEU0501	Clinical pharmacokinetics & TDM	3	2	3
5	PTHE0504	Cancer Chemotherapy	3	2	3

6	PTHE0503	Advanced Pharmaco-therapeutics II	4	3	3
<b>Total</b>			<b>10</b>	<b>8</b>	<b>9</b>
<b>YEAR 2 SEMESTER 3</b>					
7	PTHE0505	Medicine Management & Optimization	4	3	3
8	PRES0501	Clinical Research Methodology	3	3	-
9	Electives ( <i>Any one course</i> )				
	PTHE0506	a. Critical Care Medicine	3	2	3
	PTHE0507	b. Parenteral Nutrition			
	PCOL0501	c. Pharmacogenomics			
	PPRA0502	d. Pharmacovigilance			
<b>Total</b>			<b>10</b>	<b>8</b>	<b>6</b>
<b>YEAR 2 SEMESTER 4</b>					
10	PCET0601	Clinical rotation**	5	-	30-35
<b>Total</b>			<b>5</b>	<b>-</b>	
<b>YEAR 3 SEMESTER 5</b>					
11	PRES0602	Research seminar	1	1	-
12	PRES0601	Master's thesis	5	-	30
<b>Total</b>			<b>6</b>	<b>1</b>	<b>30</b>
<b>YEAR 3 SEMESTER 6</b>					
12	PRES0601	Master's thesis -Continued	IP	-	-
		Total Credit Hours/contact hours	IP	-	-
<b>Total Cumulative for Exit Degree</b>			<b>42 credits</b>		

\*1 Credit Clerkship has 3 contact hours /week, and the student shall complete 50 contact hours in a hospital setting in a semester.

\*\* Clinical Rotation (5 credits) shall be undertaken, clinical training for a minimum of 500 contact hours in various assigned medical specialties

### 3.7 COURSE DESCRIPTIONS:

**Course Code: PPRA0501 – year 1**

**Course: Clinical Pharmacy Practice**

**Credit: 200 hrs. 4 (3 Theory and 1 clerkship)**

**Prerequisite: None**

The course will cover various topics related to Clinical Pharmacy Practice including professional practice management skills; evidence-based medicines, medicine informatics, ambulatory care, inpatient pharmacy service-ward rounds, medication reconciliation etc. Emphasis will be focused on the functions of a hospital including Hospital pharmacy services, pharmaceutical care services; patient counseling, pharmacovigilance, Pharmacoeconomics, medication errors, adverse drug reaction monitoring and management, managerial and leadership skills in clinical practice.

**Course Code: PTHE0501 – year 1**

**Course: Antimicrobial Chemotherapy**

**Credit: 3 (2 Theory 1 Clerkship)**

**Prerequisite: None**

This course advances the knowledge on etiology, prevalence of infectious diseases - bacterial, viral, fungal, parasites, protozoa etc., with special emphasis on prevention and effective management. It will focus on the study of major classes of antibiotics and chemotherapy of bacterial, viral, fungal and parasitic infections. Up-to-date drugs of choice for infectious disease and the therapeutic plan are featured in this course. Case studies and virtual learning will be used to develop the skills in individualizing the goals of therapy, selecting an appropriate dose, dosage form, and regimen and monitor efficacy and safety of antimicrobial agents. This course targets the use of antibiotics and evidence-based medicines to reduce antimicrobial resistance and to handle emerging infectious diseases including antimicrobial stewardship to be covered for the following subtopics.

**Clerkship:** Antimicrobial stewardship. Case discussion and problem-based learning from hospitals on topics covered in the theory. (3 contact hours /week).

**Course Code: PTHE0501 – year 1**

**Course: Clinical Pharmacokinetics and Therapeutic Drug Monitoring**

**Credit: 3 (2 Theory 1 Clerkship)**

**Prerequisite: None**

The course will cover bioavailability, administration rate, dosage adjustments in geriatric, pediatric patients and various diseases (Renal, Hepatic and cardiovascular) including interpretation of plasma drug concentrations. Clinical Pharmacokinetics of various classes of drugs including aminoglycoside antibiotics, Digoxin, immuno-suppressants, Lidocaine,

Theophylline, Tricyclic antidepressants, Anticonvulsants etc. will be discussed. The students will be able to predict the effects of these drugs using mathematical equations. Therapeutic monitoring studies will provide the students with the knowledge to monitor the levels of narrow therapeutic index drugs in patients.

Clerkship: Case discussion and problem-based learning from hospitals on topics covered in the theory. Use of Pharmacokinetic software like PKPD software server Pharmacokinetics/Pharmacodynamics Software Server site, GastroPlus® PBPK & PBBM Modeling and Simulation and JPKD. V 3.1

**Course Code: PTHE0502 – year 1**

**Course: Advanced Pharmacotherapeutics I**

**Credit: 4 (3 Theory and 1 Clerkship)**

**Prerequisite: None**

This course is designed to advance and update the knowledge on risk factors, causes, pathophysiology, epidemiology, molecular mechanisms, clinical manifestations, complications and pharmaceutical care involved in cardiovascular, pulmonary and gastrointestinal, renal, neurological and psychiatric disorders. The structured Evidence Based Medicine (EBM) approach will also be used as an integral component of self-directed learning in some of the case studies. Virtual learning and case review will be used to advance critical thinking, problem solving and skills of integration, and self-learning. Completion of this course helps in developing a standard dose, dosage form, regimen and duration of medication.

**Course Code: PTHE0503 – year 1**

**Course: Advanced Pharmacotherapeutics II**

**Credit: 4 (3 Theory and 1 Clerkship)**

**Prerequisite: None**

This course is designed to advance and update the knowledge on risk factors, causes, pathophysiology, epidemiology, molecular mechanisms, clinical manifestations, complications and pharmaceutical care involved in endocrine, gynecology & obstetrics, urological, immunological, bone and joint disorders, ophthalmological, dermatological and hematological disorders, diseases and their complications with prospects. The course will also involve the application of evidence-based medicine to practice identifying benefits and limitations to the population as a whole and the individual patient. Case studies and virtual learning will be used to advance critical thinking, problem solving and skills of integration, and self-learning. Completion of this course helps to make rational decisions regarding a patient's drug management.

**Course Code: PTHE0504 – year 1****Course: Cancer Chemotherapy****Credit: 3 (2 Theory and 1 Clerkship)****Prerequisite: None**

This course advances the knowledge on etiology, prevalence, pathophysiology of cancer with emphasis on advancement in their prevention, detection, and effective management. Case studies and virtual learning will be used to develop the skills in individualizing the goals of therapy, selecting an appropriate dose, dosage form, and regimen, and monitoring the efficacy and safety of chemotherapeutic agents. This course is blended with the use of official formularies, guidelines, and evidence-based medicines to know recent trends in the field of cancers.

**Course Code: PTHE0505– year 1****Course: Medicine Management and Optimisation****Credit: 4 (3 theory and 1 clerkship)****Prerequisite: None**

This course equips health care professionals with the special skills and knowledge to contribute effectively to medication management services and individual drug therapy decisions. It includes case study analysis, critical appraisal of literature, pharmaceutical care planning and medication review, individualized therapy, drug monitoring in the context of co-morbidities. It also focuses on ethical issues influencing prescribing decisions, adherence, concordance and compliance, effective methods of working with patients and other health care professionals. It also provides information about the effective use of complex clinical data sets, clinical governance in the context of medicine management, public health and its role in improving the health of the nation.

**Course Code: PRES0501– year 1****Course: Clinical Research Methodology****Credit: 3 (Theory)****Prerequisite: None**

This course will provide an overview of the research process, developing a research problem and hypothesis, the role of systematic reviews and Meta-Analysis cohort, case-control and cross-sectional design. The design and interpretation of observational studies and quantitative data: a review of various aspects of biostatistics and clinical research methodology including study design, sample size calculation, questionnaire design, planning and implementation of statistical analysis, fundamental issues in evaluating the impact of interventions, protocol development and preparation for a clinical trial, data collection and management of ethical clinical research. Adoption and use of new scientific findings in patient care and the influence of research on public policy will be dealt with suitable statistical test procedures for a given data set and statistically evaluate the data using the software.

**Course Code: PTHE0506 (Elective)– year 1      Course: Critical Care Medicines**

**Credit: 3 (2 Theory; 1 clerkship)**

**Prerequisite: None**

The Critical care medicines course has been designed to deliver instructions to the healthcare professionals who provide medical care for critically ill patients. This course introduces students to the fundamental concepts of treating and stabilizing critical patients and those patients are at risk of or are recovering from conditions that may be life-threatening. Critical care pharmacists are contributing to medication safety, improved patient outcomes, reduced drug costs and as a source of drug information and provider of education. The course typically includes a combination of classroom study and supervised experience in critical care environments.

**Clerkship:** Case discussion and problem-based learning from hospitals on topics covered in the theory.

**Course Code: PTHE0507 (Elective)– year 1      Course: Parenteral Nutrition**

**Credit: 3 (2 Theory; 1 clerkship)**

**Prerequisite: None**

This course explains the importance of nutritional support, goals of parenteral feeding and its advantages. This course also will introduce the role of nutritional formulas leading to better health outcomes and improved quality of life. It provides students with the knowledge on how to reduce and manage complications of nutritional support. It familiarizes the student with the basic metabolic and physiological principles of parenteral nutrition (PN) support, pharmaceutical and compounding issues with PN admixtures. Practical aspects of writing PN orders and administering them in both the hospital and home settings. Case review will be used to advance critical thinking, problem solving and skills of integration, and self-learning. This will help students to acquire tools to interpret new scientific information, genetic predisposition and link with nutrition, better practical management of nutritional support.

**Course Code: PTHE0507 (Elective)– year 1      Course: Pharmacogenomics**

**1**

**Credit: 3 (2 Theory; 1 clerkship)**

**Prerequisite: None**

This course explains the key principles of understanding the concept of pharmacogenomics in personalized medicine and their application to individualized patient therapy. It will enlighten the student skills in interpretation of genetic studies of human populations,

diseases, drug development and targeted therapeutics. It also covers genetic and environmental risk factors for complex genetic disorders and genetic ancestries like Sickle Cell Disease, Hematological Malignancies, Chronic Myeloid Leukemia, Cystic Fibrosis etc., and assessment of disease risk with drug response. It will also address the ethical, legal, and social issues presented by precision medicine.

**Course Code: PPRA0502 (Elective)– year 1**

**Course: Pharmacovigilance**

**Credit: 3 (2 Theory and 1 clerkship)**

**Prerequisite: None**

This course will provide an opportunity for the student to learn about pharmacovigilance as a science, basic terminologies used in pharmacovigilance and the global scenario of pharmacovigilance. This course will train students on establishing pharmacovigilance programs in an organization, various methods that can be used to generate safety data and signal detection. It will also help to develop the skills of classifying drugs, diseases and adverse drug reactions.

**Course Code: PCET0601 - year 2**

**Course: Clinical Rotation**

**Credit: 5 Credits; (contact hours 500 in 15weeks)**

**Prerequisite: None Successful completion of all courses of the first year**

Each student will be scheduled clerkship and clinical rotation under preceptors in ambulatory care, cardiology, critical care medicine, internal medicine, pediatrics, psychiatry, neurology, oncology, gastroenterology, orthopedic departments and pharmaco-vigilance center of tertiary care hospitals in Muscat for 15weeks (500 contact hours). The students will be exposed to patient care in cooperation with patients, physicians, clinical pharmacists, and other health care providers. During this period the student will have opportunities to practice the skills and knowledge learned in advanced chemotherapeutics, advanced pharmacotherapeutics, clinical pharmacy practice and clinical pharmacokinetics and therapeutic drug monitoring courses required for effective medication management. The students learn about health promotion, wellness, and disease prevention in co-operation with patients, communities, and other members of healthcare providers. The students will be able to demonstrate skills in monitoring the National Health Program and schemes and develop leadership qualities to function effectively as a member of the health care team.

**Duration of Course:**

Duration of the course is 15weeks (total 500 contact hours -30-35hours per week depending upon the specialty)

**Training Schedule:**

Fifteen Weeks clinical rotation on weekdays (30-35contact hours per week depends upon the medical specialty)

Rotation in the following specialties in a tertiary care hospital (11weeks)

- a. Internal medicine (3 weeks- 100 contact hours)
- b. Surgery (1weeks)
- b. Any four of the following specialties (3 weeks) Cardiology, Endocrinology, Psychiatry/Neurology, Pulmonary,
- c. Family medicine, Dermatology and Gynecology
- d. Any two of the following specialties (2 weeks)
- e. Nuclear medicine, Ophthalmology, ENT and Orthopedic
- f. Pharmacovigilance and drug information center (1 week)
- g. TDM and TPN (1 week-)

*International experience (Electives) (4 weeks-120)*

Any two of the following specialties

- a. Critical care medicine
- b. Pediatrics medicine
- b. Infectious disease
- c. Cancer chemotherapy

A morning report with the preceptor is an important part of the clerkship /clinical rotation experience. This takes place daily at 8.00 AM, and attendance is mandatory for all students. The discussion with the preceptor will cover the various aspects of clinical pharmacy, including cases in the ward's clinical presentation, diagnosis, and the management of the cases.

### **Ward rounds**

During the ward rounds proficiency in obtaining patient history and medication history and interpretation of laboratory data will be emphasized. The students get an opportunity to observe and learn basic communication skills during the ward rounds. They also get an opportunity to observe medication procedures commonly performed in the ward.

### **Case presentation and discussion**

In the ward, students are divided into two groups, and they clerk the patients (with detailed history talking about the condition and health outcomes and medication management. They present the cases and pharmaceutical care plan to the faculty and are discussed in detail including medication monitoring and optimization.

### **Intradepartmental Lectures**

During the Clerkship, students are expected to read and present the suggested topics as intradepartmental lectures which are moderated by the preceptors. They should also understand the epidemiology, pathophysiology, diagnosis and treatment strategies of the common diseases.

## Case Write Ups

A detailed report of four case write ups should be submitted during the rotation. These should be handwritten on A4 paper.

<b>Course Code: PRES0601 - year 2</b>	<b>Course: Master's Thesis</b>		
<b>Credit: 5</b>	<b>Prerequisite:</b>	<b>Clinical</b>	<b>Research</b>
	<b>Methodology</b>		

The course will cover working on a research project based on Clinical research under the supervision of a faculty member. The research proposal prepared by the student will be evaluated by the Research and Innovation Committee/ Ethics and Biosafety Committee and after the Ethical approval, the student will start the project. The thesis will cover the Introduction, Literature review, Methodology, Results and Conclusion and reporting of References used. There is evaluation from time to time to check the progress of work.

The details on dissertation requirement are available in NU PG Project handbook.

<b>Course Code: PRES0602- year 2</b>	<b>Course: Research Seminar</b>
<b>Credit: 1 (1 hour /week)</b>	<b>Prerequisite: None</b>

The course will cover presentations on a specific topic related to Research in Clinical Pharmacy allocated to each student. The student will study the topic in detail and present it in front of students and the faculty. The presentation will be evaluated based on an in-depth study of the research topic, presentation style, communication and questions and answers session.