



GİRNE ÜNİVERSİTESİ
UNIVERSITY OF KYRENIA

A GUIDE BOOK OF

PHARMACY PRACTICES

FOR KYRENIA UNIVERSITY
PHARMACY STUDENTS

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(Dean)

PREFACE

Pharmacy education with five years (10 semesters) is composed of theoretical, laboratory and pharmacy practice courses. Our students are coming from different countries. During their educational life, all academic and administrative staff are focusing on the quality and diversity of education. We believe that the experience gathered from the real professional field is important as much as the one given on campus. That is why, we are giving more attention to our pharmacy practice education and improving year by year.

The main purpose of this "A GUIDE BOOK OF PHARMACY PRACTICES FOR KYRENIA UNIVERSITY PHARMACY STUDENTS" is to provide our students with clear understanding of the expectations and requirements of all of the five pharmacy practices they will participate in during their education. This booklet is also designed to be a valuable source for our students to consult whenever they have any questions related to our pharmacy practice education. The content of the guideline allows for particularly rapid review of essential information that will be needed throughout their education. We also wanted to highlight some important aspects of pharmacy practice for all our students.

We strongly advise our students to keep this guideline throughout their Pharmacy education (to get the best experience from all pharmacy practices).

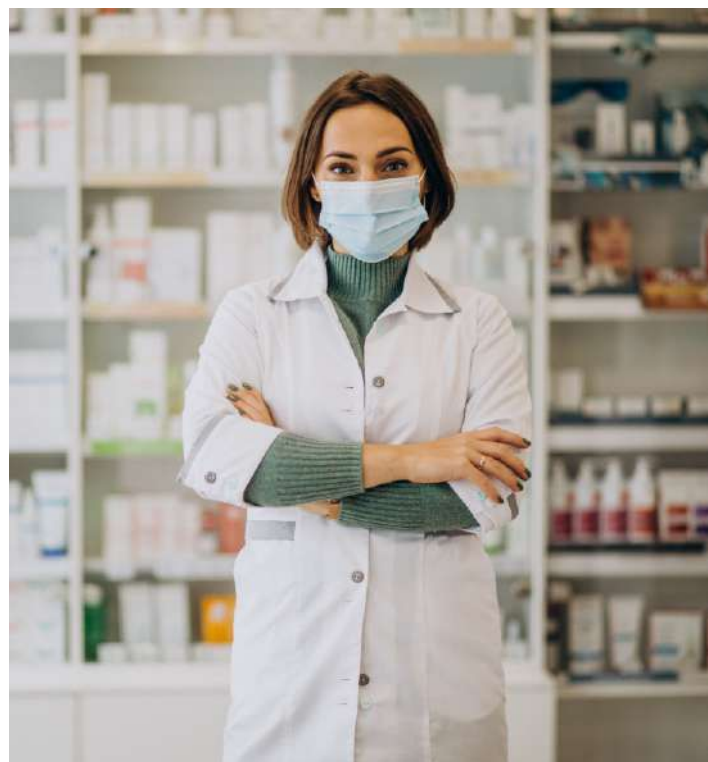
Prof. Dr. Sedef GİDENER



DEFINITIONS

Pharmacist: is an expert in medicines and their use. Their knowledge of medicines and the effect they have on the human body is critical for the successful management of every type of medical condition. Pharmacists;

- Advise other healthcare professionals, including doctors and nurses, on how to choose medicines and use them correctly
- Ensure that new medicines are safe to use with other medication
- Advise on dosage and suggest the most appropriate form of medication such as tablet, injection, ointment or inhaler
- Make sure that patients use their medicines safely
- Provide information to patients on how get the maximum benefit from the medicines they are prescribed
- Advise on the most effective treatments for a particular condition including those for sale without prescription
- Help patients manage long term conditions
- Recommend changes to prescriptions and give advice on prescribing
- Provide information about potential side effects
- Monitor the effects of treatment to ensure that it is safe and effective



Pharmacists are also involved in manufacturing medicines when ready-made preparations are not available. For example, certain cancer treatments and intravenous feeding solutions need to be tailor made under sterile conditions for individual patients. Pharmacists may also supervise [pharmacy technician and pharmacy assistants in purchasing, quality testing or dispensing medicines.](https://www.healthcareers.nhs.uk/explore-roles/pharmacy/roles-pharmacy/pharmacist) (<https://www.healthcareers.nhs.uk/explore-roles/pharmacy/roles-pharmacy/pharmacist>, Accessed: 08.08.2018)

DEFINITIONS

Training for pharmacists shall provide an assurance that the person concerned has acquired the following knowledge and skills:

- Adequate knowledge of medicines and the substances used in the manufacture of medicines;
- Adequate knowledge of pharmaceutical technology and the physical, chemical, biological and microbiological testing of medicinal products;
- Adequate knowledge of the metabolism and the effects of medicinal products and of the action of toxic substances, and of the use of medicinal products;
- Adequate knowledge to evaluate scientific data concerning medicines in order to be able to supply appropriate information on the basis of this knowledge;
- Adequate knowledge of the legal and other requirements associated with the pursuit of pharmacy

(DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, of 7 September 2005 on the recognition of professional qualifications)

Pharmacy is where medicines are stored, prepared and dispensed. Pharmacies can be found in hospitals and the community, in health centers and supermarkets. This type pharmacy locations may be different country to country, because of their legislation. In some country, pharmacist is the owner of community pharmacy, in others, chain type of community pharmacy stores run as business firm.

Drug is a substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease

(<https://www.merriam-webster.com/dictionary/drug>).

Classification of Drugs

Drugs may be categorized as their;

-Pharmaceutical forms : Tablets, capsules, ampoules, solutions, powders, pomades, creams, aerosols, patches

-Site of application : Topical or systemic. Some drugs may be used as a topically. Such as skin or mucosal disorder (skin burn, eczema, infection etc.) treatment. On the other hand, some drugs must be use the treatment of systemic disease. For instance, cardiac disease, hypertension, systemic infections, hormonal disease (thyroid diseases, diabetes), digestive system diseases, etc.

-Pharmacological effects : Analgesics, antibiotics, antihypertensives, cardiac stimulants, diuretics, antipsychotics, stimulants, bronchodilators, etc.

-Systemic disease : Drugs used in cardiovascular system (digoxin tablet), alimentary (gastrointestinal) tract (famodine tablet), dermatologic (silverdin cream), respiratory system (Ventolin tablet) etc.

-Chemical properties:

Inorganic Drugs : Ferrous sulphate, zinc sulphate, magnesium sulphate

Organic Drugs (synthetic, semi-synthetic or naturel): Alkaloids (atropine, morphine), Glycosides (Digoxin, digitoxin), Proteins (Insulin, Oxytocin), Esters, Amide, Alcohol, Glycerides, etc.

PHARMACY PRACTICES AT KYRENIA UNIVERSITY FACULTY OF PHARMACY CURRICULUM

1.NEPHAR (PHA) 290 Pharmacy Practice-I

2.NEPHAR (PHA) 390 Pharmacy Practice-II

3.NEPHAR (PHA) 490 Pharmacy Practice-III

4.NEPHAR (PHA) 491 Pharmacy Practice-IV

5.NEPHAR 589 Pharmacy Practice V (Teoretical)

6.NEPHAR (PHA) 590 Pharmacy Practice-V



NEPHAR 290 PHARMACY PRACTICE-I



Figure 1. NEU Faculty of Pharmacy
"SIMULATION PHARMACY" (Located at the 4th floor)

- a. It is an annual pharmacy practice, every academic year fall term, tat course must be selected and registered. Deadline for the registration to this course, will be the same as an announced date on Kyrenia University Academic Calendar. No later than this, advisors can not approve it.
- b. This Pharmacy Practice lectures will be given separately to Turkish/Turkish Cypriot students and International students by different preceptors at Faculty of Pharmacy Lecture Halls and Simulation Pharmacy.
- c. Not attended students must take this pharmacy Practice course again next year, as the same conditions.
- d. If the student's average term exams below 50 out of 100, considered unsuccessful and retake that course next year.
- e. Grade calculation is given below:

	Grade
Attendance to Fall and Spring Term Courses	%60
Fall term exam	%20
Spring term exam	%20
TOTAL	%100

NEPHAR 390 PHARMACY PRACTICE-II & NEPHAR 491 PHARMACY PRACTICE-IV

- a. Those pharmacy Practices are performed during the 3th and 4th year summer period as a one month or 20 workdays.
- b. For the practice site, during fall term, students must obtain application forms from Pharmacy Practice Coordinator personally. Approved application forms must be returned beginning of Spring Term. Without approved application forms, student shall not be allowed taking those Practices.
- c. Those Pharmacy Practice Courses should be selected by students and approved by advisors just like other spring term courses.
- d. Students who have not taken any 3rd grade or 4th grade courses, shall not be sent to NEPHAR 390 or 491 Pharmacy Practices.
- e. If the students are eligible for these Pharmacy Practice Courses, they will go for practice during the summer period. In any case, both pharmacy practice may be completed during the same summer period.
- f. Each student must obtain Pharmacy Practice Forms which will be necessary during practice, as an announced time period in Spring Term from the Pharmacy Practice Coordinator personally. Students must declare the summer practice period. Without forms, no one is allowed to go for Pharmacy Practice.
- g. Summer practice and summer school should not clash.
- h. For these practices, oral examination date will be announced at the beginning of Fall Term. Any student did not take the exams or oral exam grade was below 50 out of 100, considered as unsuccessful. That student must repeat the practice.

Grade calculation is given below:

	Grade
Student's report	%40
Oral examination	%60
TOTAL	%100

NEPHAR 490 PHARMACY PRACTICE-III

- a. It is an annual practice, registration time is 8th semester fall term. Deadline for this pharmacy Practice registration is "deadline for course registration announced on the NEU Academic Year Calendar". No later than date student should not be registered for this practice by advisors.
- b. This pharmacy practice is carried out two semesters under the supervision of preceptors at Faculty of Pharmacy and NEU Hospital Pharmacy.
- c. Grouping of the students, rotations, and grading of student success are the responsibility of preceptors. End term student grade list must be prepared and given one copy to Pharmacy Practice Coordinator and one copy to Dean's Office.
- d. Any student failed from this Pharmacy Practice, must repeat next year.

NEPHAR 490 PHARMACY PRACTICE-III

- a. This internship is coded into the 9th term system (Fall Term)
- b. Theoretical training is given by the Preceptor for 2 hours/week.
- c. An exam is held at the end of the semester.
- d. The student who takes the internship can only do her/his internship by registering for the 590 Interhip in the spring semester.
- e. For students who have to take the course for the first time in 10 semesters (Spring semester), they are allowed to go to 590 Internships in the Summer Term.
- f. The grade obtained by the student from 589 is taken into account as a certain percentage in the calculation of the overall success grade of the 590 internship.

NEPHAR 590 PHARMACY PRACTICE-V

- a. Eligibility requirements; student must complete and successful for NEPHAR 290, 390, 490 and 491 Pharmacy Practices.
- b. This Pharmacy Practice can be performed in 10th Semester or followed Summer Semester.
- c. Duration is continuously 3 months or 60 workdays.
- d. Application form must be obtained when the student go for NEPHAR 491 Pharmacy Practice from the Pharmacy Practice Coordinator as a personally.
- e. If the student eligible for this pharmacy practice or not, student and student advisor must cooperated with Pharmacy Practice Coordinator, for this situation, student and advisor are both responsible.
- f. If the student is considered as an eligible for NEPHAR 590 Pharmacy Practice, student's advisor must warn the student attending fall term theoretical NEPHAR 590 lectures. For this course, no need to register. Registration will be just prior the next Spring Term.
- g. Any student did not attend lectures or take exam, will not be allowed for going pharmacy practice. In this case, student must attend lectures and take exam again next year fall term.
- h. Student have to obtain all the Pharmacy Practice forms and documents from the Pharmacy Practice Coordinator, during the announced time period.
- i. Pharmacy Practice calendar will be announced prior the practice period. At the end of practice, examinations will be done. Any student did not take the exams or oral exam grade was below 50 out of 100, considered as unsuccessful. That student must repeat the practice. Other grades are valid for this student.
- j. Grade calculation is given below:

	Grade
Attendance to Fall term lectures	%10
Fall Term Written Exam	%20
Written Exam before oral exam	%20
NEPHAR 590 Pharmacy Practice Manual evaluation	%30
Oral exam	%20
TOTAL	%100

PHARMACY PRACTICE SITES

a. NEPHAR 290 Pharmacy Practice-I

(NEU Faculty of Pharmacy)

b. NEPHAR 390 Pharmacy Practice-II

(Community Pharmacy or Hospital Pharmacy)

c. NEPHAR 490 Pharmacy Practice-III

(At the Faculty of Pharmacy plus NEU Hospital Pharmacy)

d. NEPHAR 491 Pharmacy Practice-IV

(Community Pharmacy, Hospital Pharmacy or Pharmaceutical Industry)

e. NEPHAR 590 Pharmacy Practice-V

(Community Pharmacy or Pharmaceutical Industry).



KKTC UYRUKLU ÖĞRENCİLER İÇİN

(Only for TRNC students)

Eczacılık hizmetlerinin verilmesinde KKTC mevzuatı ve eczacılık hizmetleri bazı farklılıklar içermektedir. Aşağıda verilen bilgiler doğrultusunda öğrencilerin eğitilmeleri KKTC den preseptörler aracılığı ile verilecektir. Bununla ilgili önemli tanıtıcı bilgilerden bazıları aşağıda verilmiştir.

Eczacılık Mevzuatı:

KKTC'de eczacılık mevzuatı Fası 254 Eczacılık ve Zehirler Yasası, 4/1972 Uyuşturucu Maddeler Yasası, Kıbrıs Türk Eczacılar Birliği Yasası, İlaç ve Eczacılık Dairesi Yasası ve bu yasalar altında yürürlüğe konan çeşitli tüzük ve yönetmelikler ile düzenlenmektedir.

Adli Eczacılık Sınavı:

KKTC'de eczacı olarak kaydolunmak için, Adli Eczacılık Sınavı'nı geçmiş olmak gerekir. Adli Eczacılık Sınavı 1963 Adli Eczacılık Tüzüğü uyarınca Nisan, Ağustos ve Kasım aylarının son haftası olmak üzere senede üç defa ayrıca senede bir defa da kurulun uygun göreceği bir tarihte yapılır. Sınavlara katılmak isteyen eczacı adayları, anılan ayların 15'inden önce sınav için İlaç ve Eczacılık Dairesi'ne yazılı olarak başvuruda bulunur. Başvuru dilekçesine ek olarak tasdikli diploma kopyası ve tasdikli kimlik kartı kopyası eklenir. Sınav iki saat ve yazılı olarak yapılır. Sınavda adayların sorumlu olduğu konular şunlardır:

- Fası 254 Eczacılık ve Zehirler Yasası
- 4/1972 Uyuşturucu Maddeler Yasası
- Fası 261 İlaçların ve Gıdaların Şatışı Yasası
- Dükkan Yardımcıları Kanunu Bölüm 125
- Alkol ve Çocuk düşürmesinde Kullanılan İlaçların Satışına Mütedair Kanun
- 18/1999 Sayılı Kıbrıs Türk Eczacılar Birliği Yasası
- 58/1987 Sayılı İlaç ve Eczacılık Dairesi (Kuruluş, Görev ve Çalışma Esasları) Yasası
- Yeşil Reçeteye Tabi İlaçlar ve Uygulamalar
- Yasaklanan İlaçlar
- Eczanelerin Çalışma Düzeni, Nöbet Sistemi ve Yıllık İzin
- 1963 Adli Eczacılık Tüzüğü
- İlaç Üretimi, Ruhsatı, Tescili ve ihracı ile İlgili Tüzük
- Eczacılık ve Zehirler Tüzüğü
- Eczacılık ve Zehirler Kurulu İçtüzüğü

KKTC UYRUKLU ÖĞRENCİLER İÇİN

(Only for TRNC students)

Eczane Açabilme Koşulları:

KKTC'de eczane açabilmek için aşağıdaki koşulların yerine getirilmesi gerekir;

- 21 yaşına varmış olmak
- KKTC yurttaşı olmak
- Eczacılık Fakültesi Diploması'na sahip olmak (TC ve KKTC Üniversiteleri Eczacılık Fakültesi mezunları Adli Eczacılık Sınavı'na direk olarak girebilirler. Ancak 3. Ülkelerden mezun olanların YÖDAK tarafından diplomalarının onaylanması gerekir).
- Adli Eczacılık Sınavını geçmiş olmak ve kayıt ücretini ödemek
- Kıbrıs Türk Eczacılar Birliği'ne kayıt yaptırmak ve yürürlükteki üyelik aidatını ödemek.

Nöbet Hizmetleri:

KKTC'de eczanelerin nöbet ve çalışma usullerini düzenleyen bildiri hazırlama ve Resmi Gazete'de yayınlama yetkisi 2009 yılında Eczacılık ve Zehirler Tüzüğü'nde Yapılan bir değişiklik ile Kıbrıs Türk Eczacılar Birliği Yönetim Kurulu'na devredilmiştir. Nöbetçi eczane çalışma saatleri sabah 08.00-02.00 saatleri arasındadır. Tüm eczaneler kapattıkları zaman nöbetçi eczanelerin isim ve adreslerini içeren panolarını asmak zorundadırlar.

Stajlarda Eczane Seçimi Nasıl Olur?

Staj yapılacak eczaneyi öğrenci kendisi seçer ve eczane sorumlusu eczacı Kabul ederse onaylar. Staj yapılacak eczanedeki eczacı meslekte 5 yılını doldurmuş olmalıdır. Öğrencinin hem ilaç, hem demokozmetik ve kişisel bakım ürünleri, hem de bitkisel ürünlerin satıldığı, geniş çeşitliliği olan bir eczanede staj yapması daha çok bilgi edinmesi ve kendini geliştirmesi açısından bir avantajdır.

KKTC UYRUKLU ÖĞRENCİLER İÇİN

(Only for TRNC students)

Stajlarda Neler Öğrenilir?

Özellikle NEPHAR 390 Staj süresi boyunca öğrenciden staj yaptığı eczane ile ilgili bilgi edinmesi istenir. Eczane açılış, kapanış saatleri, nöbet sistemi, eczanede yapılan günlük rutin işler, stok kontrolü ve ecza depolarından ilaç siparişi ve temini konularında bilgisi olmalıdır. İlaçların eczanede dizilişi, eczanenin bölümleri, eczanede bulunması gereken demirbaşlar ve malzemeler bilinmelidir. Eczacı-hasta ilişkilerini gözlemlemeli, hasta profillerini değerlendirebilmeli ve reçete karşılamayı doğru şekilde yapmalıdır. NEPHAR 491 Staj süresince üstteki hususlar ve ilave olarak tarihi geçen ilaçların imhasının nasıl yapıldığı, eczanede soğuk zincir uygulaması, reçete çeşitleri, ilaç dışı ürünler tanınmalıdır. Varsa majistral ilaç yapımına iştirak etmeli, eczanede kullanılan yardımcı programları öğrenmeli ve kullanmalıdır. NEPHAR 590 Stajında ise bir eczacının tüm sorumluluklarına vakıf olmalı, tek başına bir eczacı olarak mesleğini icra edebilme deneyim ve donanımına sahip olmalıdır. Her zaman meslekle ilgili güncel yenilikleri öğrenmeye açık olmalıdır.

Staj Soru Örnekleri:

- Eczane çalışma ve nöbet saatleri nasıldır?
- Eczanede ilaçların sıralanışı neye göre düzenlenir?
- Eczane hangi bölümlerden oluşur?
- Eczanede bulunması gereken defterler nelerdir? Kayıtlar nasıl yapılır?
- Kaç çeşit etiket vardır?
- Soğuk zincir ilaçları kaç derecede muhafaza edilir? Derin dondurucuda muhafaza edilen ilaçlara örnek veriniz. Hastalara sunumu yapılırken nelere dikkat edilir?
- ACE İnhibitörleri nelerdir? En belirgin yan etkisi nedir?
- Antihipertansif ilaçlar kaç gruba ayrılır?
- Kaç çeşit diyabet tipi vardır? Diyabette kullanılan ilaçlar nelerdir?
- KKTC'de Yeşil Reçete uygulaması nasıldır? Kuralları nelerdir?
- Yeşil Reçete kapsamına giren ilaçlar nelerdir?
- Eczanede yaptığınız/yapımına yardımcı olduğunuz majistral preparatlara örnek veriniz.

KKTC UYRUKLU ÖĞRENCİLER İÇİN (Only for TRNC students)

- Farmakovijilans nedir?
- Terapötik İndeks nedir? Terapötik İndeksi dar olan ilaçlara örnekler veriniz.
- Hastaya demir içeren ilaçlar verilirken nasıl kullanması gerektiği söylenir?
- Nelere dikkat etmelidir?
- Akılcı İlaç Kullanımı nedir ve neden önemlidir?
- Eczanede bulunan nutrasötiklere örnekler veriniz.
- KKTC'de Sosyal Sigorta reçeteleri nasıl yapılır? İşlemini anlatınız.
- KKTC'de antibiyotiklerin reçete ile satılması ne zaman başlanmıştır? Reçete üzerinde bulunması gereken bilgiler nelerdir?
- Paracetamol toksisitesinde kullanılan antidot nedir?

Yukarıdaki sorular öğrencinin yapmış olduğu NEPHAR 390, 491 veya 590 Staj sınavında sorulabilen bazı örneklerdir. Öğrencilerin stajlarını yaparken kendilerini hazırlamaları ve bu tür sorulara sözlü cevaplar vererek başarılı olmasında bir rehber olması açısından önemlidir.

