



Pharmacy History Courses in Current Turkish Pharmacy Education

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1. Introduction

Pharmacy History courses have special importance in today's pharmacy education. In addition to getting to know their profession better, students also have an opportunity to benefit from the experiences of the past, gain a different professional and intellectual perspective and understand a common heritage, strengthening their solidarity and allegiance with other colleagues.

Since a great majority of the faculties of pharmacy in Turkey do not have separate departments of pharmacy history, this course is usually taught by people with other specialties. A possible result is that huge variations exist between different faculties regarding education in the history of pharmacy. In addition, although their contents are quite different, the course is traditionally given together with pharmacy deontology and ethics under the name "History of Pharmacy and Deontology".

In light of this, this study aims to discover the precise status of education in the history of pharmacy throughout the country, from different aspects, in a historical perspective. Moreover, the place and significance of the course in Turkish pharmacy curricula will be examined in this study.

2. Materials and Methods

A survey which was sent to all twelve faculties of pharmacy in Turkey provided the main material for the study. This survey consisted of several questions, including how much credit is given for the course, in which year/term the course is taken, what the purpose of the course is, who teaches the course, what its contents are, which references are used, etc. Furthermore, in this study the commonly used books, articles and documents related to the history of pharmacy were also reviewed.

3. Pharmacy History Courses in Current Curricula

3.1. Brief History of Pharmacy in Turkey

In Turkey, the first pharmacy class was opened at *Mekteb-i Tibbiye-i Adliye-i Sahane* (Military School of Medicine) in Istanbul in 1839, during the reign of the Sultan Mahmud II. It was followed by the following pharmacy schools (1,2,4,7,8): *Mekteb-i Tibbiye-i Mulkiye-i Sahane* (Civil School of Medicine) in Istanbul (1867), *Haydarpasa Askeri Saglik Okulu* in Istanbul (1876), *Sam Tibbiye Okulu* in Damascus (1903), and *Eczaci Okulu* (School of Pharmacy) in Istanbul (1909).

After the proclamation of the Republic in 1923, the aforementioned *Eczaci Okulu* continued to serve in several different locations. The school went on to serve under the School of Medicine until the *University Reform* in 1933, at which time the existing university structure was abolished and foreign academicians who had suffered from the Nazi sanctions

were invited to educate a new generation of the republic. It was during that time that the pharmacy school was first put under the Faculty of Sciences. It returned to the Faculty of Medicine in 1944. Pharmacy education lasted three years until 1938, at which time it was changed to a four-year program.

Eventually, the first faculty of pharmacy (*Ankara University Faculty of Pharmacy*) was established in 1960 in Ankara, and was followed shortly after by others: *Istanbul University* (1963), *Hacettepe University* (1971), *Ege University* (1975), *Gazi University* (1983), *Marmara University* (1983), *Anadolu University* (1983), *Ataturk University* (1997), *Mersin University* (2000), *Inonu University* (2001), *Yeditepe University* (2001), and *Erciyes University* (2003).

3.2. Pharmacy History Courses in Turkey

The first Pharmacy Deontology course was offered during the third semester of the 1938-39 academic year and met one hour per week. (3,7). It is not clear whether the course included history of pharmacy or not. However, according to the *Istanbul School of Pharmacy Regulations 1945*, history of pharmacy and deontology courses were taught together for two hours a week during the 7th semester. (7)

Today, all faculties of pharmacy have History of Pharmacy and Deontology courses as part of their core curricula, meeting one or two hours per week during various terms. (9) Detailed information about each university has been summarized in Table 1.

Table 1. Pharmacy History and Deontology courses in the curricula of different faculties and their lecturers

UNIVERSITY	YEARS	TERM	LECTURER
ANKARA	1963-1980	5-6. midterm 1 hour/week	Şevket Yağtu
	1980-1982	5-6. midterm 1 hour/week	Assoc. Prof. Dr. Eriş Asil
	1983-1992	7-8. midterm 1 hour/week	Prof. Dr. Eriş Asil
	1992-1997	7-8. midterm 1 hour/week	Prof. Dr. Eriş Asil Assoc. Prof. Dr. Sevgi Şar
	1997-1998	7-8. midterm 1 hour/week	Prof. Dr. Eriş Asil Assoc. Prof. Dr. Sevgi Şar Assoc. Prof. Dr. Gülbin Özçelikay
	1998-2004	7-8. midterm 1 hour/week	Prof. Dr. Sevgi Şar
	2004-2007	3-4. midterm 1 hour/week	Prof. Dr. Sevgi Şar
İSTANBUL	1964-1968	5-6. midterm 1 hour/week	Prof. Dr. Bedi N. Şehsuvaroğlu
	1968-1977	7. midterm 2 hours/week	Prof. Dr. Bedi N. Şehsuvaroğlu
	1978-1982	7. midterm 2 hours/week	Prof. Dr. Emine Atabek
	1983-1985	8. midterm 1 hour/week	Prof. Dr. Arslan Terzioğlu
	1986-1995	8. midterm 1 hour/week	Prof. Dr. Ö. Turhan Baytop
	1995-1998	1. midterm 1 hour/week	Prof. Dr. Ahmet Ekinci
	1998-1999	2. midterm 1 hour/week	Prof. Dr. Ahmet Ekinci
	2001-2007	8. midterm 1 hour/week	Prof. Dr. Afife Mat
HACETTEPE	1969-1973	7. midterm 1 hour/week	Prof. Dr. Aysen Karan
	1974-1978	6. midterm 1 hour/week	Prof. Dr. Aysen Karan
	1979-1998	5. midterm 2 hours/week	Prof. Dr. İsmail Üstel
	1998-1999	6. midterm 1 hour/week	Prof. Dr. İsmail Üstel
	1999-2001	6. midterm 1 hour/week	Lect. Selen Yeğenoğlu
	2001-2002	6. midterm 1 hour/week	Prof. Dr. Erdem Aydın
	2002-2007	6. midterm 1 hour/week	Lect. Selen Yeğenoğlu
	1974-1976	7. midterm 1 hour/week	Prof. Dr. İsmail Ulutaş

EGE	1976-1980	7. midterm 1 hour/week	Dr. Ali Haydar Bayat
	1980-1982	7. midterm 1 hour/week	Assoc. Prof. Dr. Ali Haydar Bayat
	1982-1984	7. midterm 1 hour/week	Assoc. Prof. Dr. Tekant Gözler
	1984-1987	7. midterm 1 hour/week	Lect. Levent Tuğrul
	1987-1991	7. midterm 1 hour/week	Prof. Dr. Aysen Karan
	1991-1992	7. midterm 1 hour/week	Lect. Sevil AŞICI
	1992-1994	7. midterm 1 hour/week	Assoc. Prof. Dr. İkbal Sucu
	1994-1998	7. midterm 1 hour/week	Lect. Sevil AŞICI
	1998-2002	8. midterm 1 hour/week	Lect. Sevil AŞICI
	2002-2004	5. midterm 1 hour/week	Lect. Sevil AŞICI
GAZİ	2004-2007	5. midterm 1 hour/week	Lect. Bülent Kıran
	1981-1992	7. midterm 1 hour/week	Assoc. Prof. Dr. İkbal Sucu
	1992-1997	7. midterm 1 hour/week	Prof. Dr. Ekrem Sezik
	1997-1998	7. midterm 2 hours/week	Prof. Dr. Ekrem Sezik
MARMARA	1999-2007	7. midterm 2 hours/week	Prof. Dr. Ekrem Sezik
	1982-1999	7. midterm 1 hour/week	Prof. Dr. Emre Dölen
	1999-2001	8. midterm 1 hour/week	Prof. Dr. Emre Dölen
ANADOLU	2001-2007	8. midterm 2 hours/week	Prof. Dr. Emre Dölen
	1968-2000	6. midterm 1 hour/week	Prof. Dr. İhsan Sarıkardeşoğlu
	2000-2003	7. midterm 1 hour/week	Lect. Ahmet Hadi Bilaç
	2003-2004	7. midterm 1 hour/week	Lect. Müzeyyen Demirel
	2004-2005	6. midterm 1 hour/week 7. midterm 1 hour/week	Lect. Müzeyyen Demirel Lect. Lütfi Genç
ATATÜRK	2005-2007	6. midterm 1 hour/week	Lect. Lütfi Genç
	2001-2003	8. midterm 1 hour/week	Assoc. Prof. Dr. Ufuk Özgen
	2003-2004	8. midterm 1 hour/week	Prof. Dr. Sevgi Şar
MERSİN	2004-2007	8. midterm 1 hour/week	Lect. Kaan Küçükkoğlu
			Prof. Dr. Gamze Kökdil
İNÖNÜ	2003-2005	4. midterm 1 hour/week	Prof. Dr. Engin Şarer
	2005-2006	4. midterm 1 hour/week	Prof. Dr. Göknur Aktay Lect. Narin Sadıkoğlu
	2006-2007	4. midterm 1 hour/week	Prof. Dr. Göknur Aktay Lect. Narin Sadıkoğlu Lect. Arzu Karakurt
YEDİTEPE	2004-2007	5. midterm 2 hours/week	Lect. Nazlı Şencan
ERCİYES	The course has not been given yet	8. midterm 1 hour/week	-----

According to the surveys, the intended purposes of the courses vary as below:

- Understanding the concept of the history of the profession,
- Gaining a new perspective on pharmaceutical issues of the past,
- Acquiring the ability to learn lessons from the history of the profession,
- Being willing to obey ethical and deontological rules,
- Acquiring the ability to solve potential ethical and deontological problems in practice.

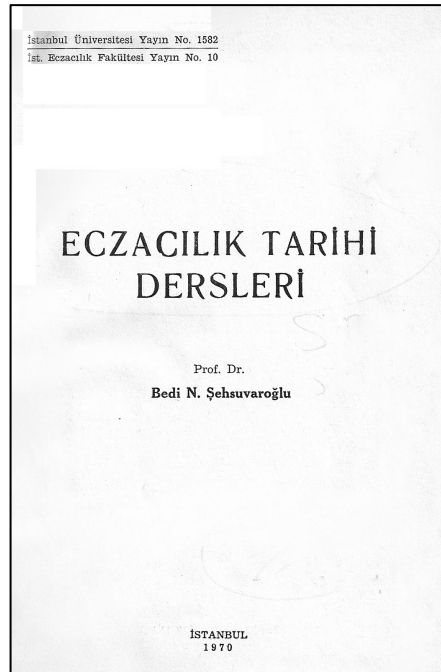
In addition, course topics are mainly divided into four different periods: *empirical*, *rational*, *medieval* and *scientific*. The contents are as follows:

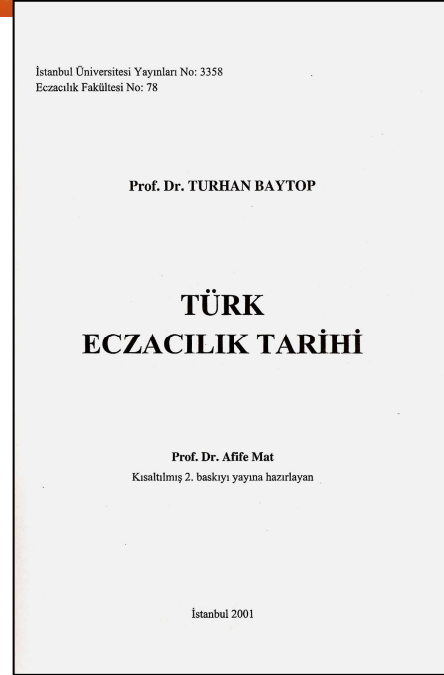
- Definitions of deontology and ethics, and their practices,
- Turkish pharmacy deontology regulations,
- Introduction to the history of pharmacy,
- Pharmacy in ancient Mesopotamia,
- Pharmacy in ancient Egypt,
- Pharmacy in ancient India,
- Pharmacy in ancient China,
- Pharmacy in ancient Greece,
- Pharmacy in ancient Rome,
- Pharmacy in Islamic period and famous physicians,
- Pharmacy in medieval Europe,
- Pharmacy in the Anatolian Seljuks,
- Pharmacy in the Ottoman Empire,
- Pharmacy in the Republic of Turkey since 1923,
- History of pharmacopoeias,
- History of pharmacy education,
- Miscellaneous facts and dates.

In some faculties, students are asked to write a research paper at the end of each term about a subject which is either assigned by their tutor or chosen by the student. These papers are usually presented in class. Although it is not very common, some tutors organize history of pharmacy museum excursions for their students.

In addition, the following books were found to be among the most used references for the course:

- Baylav, Naşid. *Eczacılık Tarihi*. İstanbul: Yörük Matbaası, 1968.
- Dölen, Emre. *Eczacılık Tarihi (Ders Notları)*. Marmara Üniversitesi Eczacılık Fakültesi Yayınları, İstanbul, 1995.
- Şehsuvaroğlu, Bedi Nuri. *Eczacılık Tarihi Dersleri*. İstanbul Üniversitesi Yayınları no 1582 Eczacılık Fakültesi Yayın no 10, İstanbul: Hüsniyat Matbaası, 1970.
- Baytop, Turhan. *Türk Eczacılık Tarihi*. Kısaltılmış 2. Baskıya Hazırlayan: Prof. Dr. Afife Mat. İstanbul Üniversitesi Yayın no 3358 Eczacılık Fakültesi no 78, İstanbul, 2001.





4. Results

The following results were obtained from this study:

1. The first History of Pharmacy course was in 1945 at the School of Pharmacy in Istanbul.
2. Today, in almost all of the twelve faculties of pharmacy in Turkey, the course is taught together with deontology, under the name: “History of Pharmacy and Deontology”. However, the name of the course was changed to “History of Pharmacy” at Marmara University Faculty of Pharmacy in 1999. At Yeditepe University Faculty of Pharmacy, the course is called “Pharmacy Deontology”.
3. Although the lecturers’ academic backgrounds and teaching materials vary greatly, the courses generally have similar contents.
4. By and large, lecturers use four main books as references: *Eczacılık Tarihi* (Baylav, 1968), *Eczacılık Tarihi Dersleri* (Sehsuvaroglu, 1970), *Türk Eczacılık Tarihi* (Baytop, 1985), and *Eczacılık Tarihi Ders Notlari* (Dölen, 1995). In addition, other miscellaneous resources are used.
5. The course is taught at Ankara University during the second year, at Hacettepe, Ege, Anadolu and Yeditepe Universities during the third year; and at Istanbul, Erciyes, Gazi, Atatürk, Marmara, Mersin and İnönü Universities in the fourth year of the five year pharmacy curricula.
6. The course generally meets one hour per week during one term. However, it meets two hours per week at Gazi, Marmara and Yeditepe Universities.
7. Despite some small differences, course content is quite similar between different faculties. The course mainly focuses on the following topics: general history of pharmacy (the separation of the profession from medicine, the progression of the profession in Europe, significant discoveries, important facts and dates, etc.), history of pharmacy during the Islamic period, and the history of pharmacy of the Anatolian Seljuks (1075-1318), the Ottoman Empire (1299-1922) and the Republic of Turkey (1923 to today).

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9. Related surveys, received from the faculties of pharmacy in Turkey.