

**AIHP Guidelines on Teaching History in Pharmacy Education:
Meeting "Standards 2016" of the Accreditation Council for Pharmacy Education**

The 2016 ACPE Accreditation Standard

(www.acpe-accredit.org/pdf/Standards2016FINAL.pdf):

From Appendix 1: Required Elements of the Didactic Doctor of Pharmacy Curriculum
Social/Administrative/Behavioral Sciences

History of Pharmacy

Exploration of the evolution of pharmacy as a distinct profession, the transition from a focus on the drug to a focus on the patient and the drug (including pharmacist-provided patient care), and major milestones and contributors in the evolution of pharmacy.

The Goal of the AIHP Guidelines on Teaching History of Pharmacy Education:

To guide and assist the pharmacy academy in the development of pharmacy history education that will meet the 2016 ACPE Accreditation Standard. It is understood that these guidelines can be met in a number of ways, from a distribution of the material throughout the curriculum to a portion of a single course or a stand-alone course.

Recommended History of Pharmacy Content Coverage:

A. Introduction to the Study of Pharmacy History

1. Purpose of learning the history of pharmacy¹
2. Prehistoric and ancient Western therapeutics²
3. Non-Western traditional pharmacy and therapeutics (e.g., Ayurveda, Traditional Chinese Medicine, African, Unani, Shamanism)³

B. Evolution of Pharmacy Practice

1. Separation of pharmacy profession from the medical profession
 - a. Concept of pharmacist arises in Medieval Islamic culture⁴
 - b. Edict of Frederick II, c. 1240⁵
2. Apothecary shop practice in colonial America and the Early Republic⁶
3. 1700 - 1865: In-shop manufacturer of ingredients and preparations⁷
4. 1820: 1820: Publication of first Pharmacopeia of the United States demonstrates prescription writing and filling by meeting the need for drug standardization⁸
5. 1820 - 1940: Pharmacist as compounder of prescriptions/rise of the classic American drugstore⁹
6. 1920 - 1970: Development and growth of hospital pharmacy specialty¹⁰
7. 1930 - 1965: "Count and pour" dispenser and development of the chain drug industry¹¹
8. 1965 - 1990: Clinical pharmacy era and diversification of the profession¹²
9. 1990 - 2005: Pharmaceutical Care era¹³
10. 2005 - Present: Medication Therapy Management and provider status¹⁴

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- C. Pharmacy Regulation via State and Federal Governance
 - 1. State Law Impact on the Profession and Its Practice:
 - a. Pre-1870 attempts, primarily poison sales, abortifacient restrictions and discount sales¹⁵
 - b. 1870-1900: The Model Pharmacy Act and enactment of state pharmacy laws¹⁶
 - c. 1900-present: Evolution of the pharmacy board, and pharmacy and pharmacist regulation¹⁷
 - 2. Federal Law Impact on the Profession and Its Practice:
 - a. 1848-present: Federal efforts concerned for safety in the drug production process and the drugs given to the public¹⁸
 - b. 1914-present: Federal efforts to control addictive and abused substances¹⁹
 - c. 1962-present: Federal efforts to ensure the efficacy of the U.S. drug supply²⁰
- D. Pharmacy Education
 - 1. Prior to 1821: Training through apprenticeship²¹
 - 2. 1821: The beginnings of institutional pharmacy education²²
 - 3. 1862: The Morrill Land Grants College Act stimulates development of state universities²³
 - 4. 1867-1899: State board of pharmacy examinations stimulate diverse educational endeavors²⁴
 - 5. 1868: University of Michigan - first science-based state university program²⁵
 - 6. 1907-1932: Development of pharmacy education at the B.S. level²⁶
 - 7. Development of clerkship and residency training²⁷
 - 8. 1960: Establishment of the minimum five-year B.S. degree requirement²⁸
 - 9. 1975-2004: Establishment of the minimum Pharm.D. degree requirement²⁹
- E. Growth of the Pharmaceutical Industry
 - 1. Early seeds of the industry--American Revolution: Andrew Craigie, Apothecary General, established first large-scale pharmaceutical manufacturing in the U.S.³⁰
 - 2. Post-American Revolution: Philadelphia became the center of the fledgling pharmaceutical industry³¹
 - 3. Mid-19th century: Tensions between community pharmacists and industry regarding compounding³²
 - 4. Early manufacturers: Farr & Kunzi (later named Powers & Weightman), Rosengarten & Sons, Merck & Company, Frederick Stearns, William Warner, Edward Squibb, and many others.³³

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5. 1800s: Emergence of patent medicines³⁴
 6. Early 20th century: Emergence of research & development within the pharmaceutical industry, pharmaceutical industry associations³⁵
 7. Research developments from academic-industry collaborations³⁶
 8. Mid-20th century: Rise of the generic pharmaceutical industry³⁷
 9. Late 20th century/early 21st century: Globalization, biotechnology, “blockbuster” drugs, horizontal and vertical integration³⁸
- F. Pharmacy Associations
1. Middle Ages: Pharmacy Guilds form in Europe, and gain governmental recognition and authority³⁹
 2. 1617: Society of the Apothecaries of London established with continuing overlap of professional roles in Great Britain and colonial America⁴⁰
 3. 1821: Formation of Philadelphia College of Pharmacy by local pharmacists in response to a perceived threat from the medical college in Philadelphia⁴¹
 4. 1852: American Pharmaceutical Association established as the first national association with goals of promoting a professional code of ethics and legal standards for drug quality⁴²
 5. 1898: National Association of Retail Druggists established as the first sub-specialty association of pharmacists⁴³
 6. 1942: Creation of American Society of Hospital Pharmacists as specialty organization for hospital pharmacists⁴⁴
 7. Latter 20th Century and beyond: Creation of multiple specialty national pharmacy associations, some with local counterparts at the state level⁴⁵

**Developed by the Historical Studies Committee of the American Institute of the History of
Pharmacy (AIHP); approved by the AIHP Board of Directors, February 2017**

Suggested Teaching Resources

- ¹ Zebroski, Bob. *A Brief History of Pharmacy: Humanity's Search for Wellness*. Routledge, 2015, [hereafter, **Z**], 1-3; Kremers, Edward, and George Urdang. *Kremers and Urdang's history of pharmacy*. Amer. Inst. History of Pharmacy, 1986, [hereafter, **KU**], v-vii, 387-396.
- ² **Z**, 6-27, 48-61; **KU**, 3-22
- ³ **Z**, 30-45; Shapiro, Hugh. *Medicine across cultures: history and practice of medicine in non-western cultures*. Edited by Helaine Selin. Vol. 3. Springer Science & Business Media, 2006, 1-26, 49-60, 385-395.
- ⁴ **KU**, 23-28; **Z**, 76-84.
- ⁵ **KU**, 34-36; **Z**, 65-73.
- ⁶ **KU**, 145-162; **Z**, 112-118.
- ⁷ **KU**, 181-185, 290-294; Higby, Gregory, and Elaine Stroud. *American pharmacy (1852-2002): A collection of historical essays*. Amer. Inst. History of Pharmacy, 2005, [hereafter **AP**], 1-4.
- ⁸ **KU**, 256-263.
- ⁹ **KU**, 310-315; **AP**, 5-8.
- ¹⁰ **KU**, 317-322; **AP**, 9-10; **Z**, 229-231; Elenbaas, Robert M., and D. B. Worthen. *Clinical pharmacy in the United States: transformation of a profession*. ACCP Publications, 2010, [hereafter **CP**], 134-135, 140-141, 152-153, 162.
- ¹¹ **AP**, 11-14; **KU**, 310-315; **CP**, 5-21, 29-30.
- ¹² **CP**, 23-78; **Z**, 232-236; **AP**, 12-15.
- ¹³ **CP**, 147-150, 160-161; **AP**, 16-17; **Z**, 236-237; Abood, Richard R. *Pharmacy practice and the law*. Jones & Bartlett Publishers, 2017, [hereafter **PPL**], 306-307.
- ¹⁴ **CP**, 164-165, **Z**, 237; **PPL**, 324-326.
- ¹⁵ **KU**, 213-214; **AP**, 75-76
- ¹⁶ **KU**, 214-219; **AP**, 76-78.
- ¹⁷ **AP**, 79-86.
- ¹⁸ **KU**, 219-223; **Z**, 150-152, 208-213, 215-219; **PPL**, 42-49.
- ¹⁹ **KU**, 223-225; **Z**, 213-215; **PPL**, 43-44.
- ²⁰ **PPL**, 44 -49; **Z**, 219-223.
- ²¹ **KU**, 226-232; **Z**, 160-163.
- ²² **KU**, 227-232; **AP**, 37-41; **Z**, 163-168.
- ²³ **Z**, 168-169.
- ²⁴ **KU**, 244-246; **AP**, 37-41.
- ²⁵ **KU**, 232-235; **Z**, 168-170.
- ²⁶ **AP**, 43-47; **KU**, 235-243; **Z**, 171-174.
- ²⁷ **CP**, 178-179; **Z**, 229-233; **KU**, 320-322.
- ²⁸ **AP**, 49-53; **KU**, 242-243.
- ²⁹ **CP**, 156-158; **AP**, 49-53.
- ³⁰ **KU**, 163-166; **Z**, 118-123.
- ³¹ **KU**, 326-327; **AP**, 55; **Z**, 184-186.
- ³² **AP**, 56-59; **KU**, 327-331.

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³³ **KU**, 326-335; **Z**, 185-188.

³⁴ **Z**, 136-142.

³⁵ **Z**, 188-190; **AP**, 19-23, 67-73.

³⁶ Swann, John P. "The evolution of the American pharmaceutical industry." *Pharmacy in history* 37, no. 2 (1995): 76-86.

³⁷ Dominique A. Tobbell, "'Eroding the Physician's Control of Therapy': The Postwar Politics of the Prescription," in Greene, Jeremy A., and Elizabeth Siegel Watkins. *Prescribed: Writing, filling, using, and abusing the prescription in modern America*. JHU Press, 2012, 66-90.

³⁸ Daemmrlich, Arthur A., and Mary Ellen Bowden. "A rising drug industry." *Chemical & engineering news* 83, no. 25 (2005): 28-42.

³⁹ **KU**, 34-36, 56-58, 67-71, 99-100.

⁴⁰ **KU**, 100-107; **Z**, 114-123.

⁴¹ **KU**, 189-194; **Z**, 148-150.

⁴² **KU**, 198-205; **Z**, 150-153; **AP**, 87-90.

⁴³ **KU**, 205-208; **AP**, 91-99; **Z**, 154-156.

⁴⁴ **KU**, 208-209; **Z**, 156-157; **AP**, 94-95; **CP**, 16, 132.

⁴⁵ **KU**, 209-212; **AP**, 101-108; **CP**, 72-73.