



## Glossary of Terms Used in Pharmaceutical Education

(Compiled by the 1989/90 AACCP Academic Affairs Committee)

**CLINICAL SCIENTIST** — (scientifically educated and trained clinician) individuals who can relate their specialized scientific knowledge to the development of the practice skills required to provide effective, efficient, and needed patient services (*Pharmacists for the Future, 1975*); individuals capable of relating their specialized scientific knowledge to solve research problems using human subjects or patients.

**COURSEWORK (Professional)** —

**Basic Sciences** — coursework in general and organic chemistry, physical and biological sciences, and mathematics. (*American Council on Pharmaceutical Education, 1984*)

**General Education** — coursework in behavioral, social, and humanistic areas of knowledge, including English. (*American Council on Pharmaceutical Education, 1984*)

**Biomedical Sciences** — coursework including anatomy, physiology, microbiology, immunology, biochemistry, pathology, and biostatistics.

**Pharmaceutical Sciences** — pharmaceutical/ medicinal chemistry, pharmaceutics, biopharmaceutics, pharmacokinetics, pharmacognosy/natural products chemistry, pharmacology, toxicology, and pharmacy administration (i.e., health care economics, practice management, communications, laws and ethical principles pertaining to practice, and the social and behavioral sciences in pharmacy).

**Clinical Sciences** — clinical applications based on

the biomedical and pharmaceutical sciences such as

instruction in clinical and practice foundations, disease processes, clinical pharmacology and therapeutics, and drug information and literature evaluation. (*American Council on Pharmaceutical Education, 1984*)

**DESIGNATIONS — (P.D./D.Ph.)** designations for the title "doctor of pharmacy," as awarded by a non-degree granting institution.

**DIFFERENTIATION** —

**Differentiated Pharmacist** — a practitioner who practices a part of pharmacy which is determined by the activities carried on in one of the subsystems of pharmacy; a pharmacist characterized by the common denominator of drug knowledge and the "special" knowledge and skill required by his/her particular role. (*Pharmacists for the Future, 1975*)

**Specialty** — a recognized area of practice characterized by a significant and clear public health demand; a demonstrated societal need; a reasonable number of individuals who devote most of the time of their practice to the specialty area; specialized knowledge and functions; organized education and training programs; and transmissible knowledge. (*Board of Pharmaceutical Specialties, 1989*)

**Certification** — the process of credentialing practitioners for specialized practice.

**Undifferentiated Pharmacist** — a practitioner possessing the common denominator of drug knowledge required for licensure in the profession.

*(Pharmacists for the Future, 1975)*

**EDUCATION** — the development of a person by fostering knowledge, wisdom, character, or general competence through a formal course of study or instruction.

**GRADUATE DEGREE** — a postprofessional degree. (See Postprofessional Degree).

**POSTGRADUATE EDUCATION AND TRAINING PROGRAMS** — a structured and systematic educational and training experience which generally occurs after licensure and which is directed toward some predetermined educational outcome relative to the knowledge and skills required for the delivery of pharmaceutical services. *(American Association of Colleges of Pharmacy, 1986)*

**External/Nontraditional Degree Programs** — academic degrees awarded upon completion of academic work and other requirements in a manner and format not considered as traditional by the awarding institution. *(American Association of Colleges of Pharmacy, 1986)*

**Certificate Programs** — structured and systematic postgraduate educational and training experiences for pharmacists that are generally smaller in magnitude and shorter in time than degree programs, and that impart knowledge, skills, attitudes, and performance behaviors designed to meet specific pharmacy practice objectives. Certificate programs provide practitioners the opportunities to acquire new knowledge and skills to enhance their practices or to pursue alternate pharmacy career paths. *(American Association of Colleges of Pharmacy, 1989)*

**Residency Programs** — an organized, directed, postgraduate training program in a defined area of pharmacy practice. Residency programs are typically twelve months or longer in duration. *(American Association of Colleges of Pharmacy, 1987)*

**General Hospital** — in the general practice of hospital pharmacy. *(see ASHP Standards, 1989)*

**Clinical** — in clinical pharmacy practice. *(see ASHP Standards, 1989)*

**Specialty** — in a specialized area of pharmacy practice. *(see ASHP Standards, 1989)*

**Community Pharmacy** — a standardized, postgraduate education and training experience that provides for the development of advanced knowledge and skills in the delivery of pharmaceutical services that emanate from a community pharmacy setting. *(American Pharmaceutical Association, 1984)*

**Training Program** — offered by a variety of sponsors including pharmaceutical organizations, pharmacy schools, pharmacy employers (corporate and independent), and manufacturers. A training program offers unique opportunities for practitioners to learn new skills, sharpen existing skills, and to render new services. It can be distinguished from a residency program in that the training program is job specific, provides for continued employment of the trainee, is of shorter duration, and is at a salary usually equivalent to an entry-level salary. *(American Association of Colleges of Pharmacy, 1986)*

**Fellowship Program** — a directed, highly individualized, postgraduate program designed to prepare the participant to become an independent researcher. A fellowship program is typically 24 months in duration or longer. *(American Association of Colleges of Pharmacy, 1987)*

**Clinical Programs** — focus on individuals possessing the doctor of pharmacy (Pharm.D.) degree.

**Continuing Education Programs** — a process, founded in educational principles, which enables the pharmacist to expand and update his/her knowledge base. *(American Council on Pharmaceutical Education, 1989)*

**POSTPROFESSIONAL DEGREE** — a degree such as master of science (M.S.), doctor of philosophy (Ph.D.) or post baccalaureate doctor of pharmacy (Pharm.D.) awarded for successful completion of a program of study subsequent to receiving an entry-level professional degree. Other post professional degrees (i.e., MBA) may also be offered in conjunction with a pharmacy college/school.

**Doctor of Pharmacy (Pharm.D.)** — students who already hold the baccalaureate in pharmacy degree may be admitted to postprofessional doctor of pharmacy programs; the combined period of study is usually longer than six academic years.

**Master of Science (M.S.)** — a graduate degree satisfying the requirements set forth by the pharmacy program and/or the graduate school.

**Doctor of Philosophy (Ph.D.)** — the highest academic degree conferred by a university; usually earned by spending several years in advanced study of a specialized field, and by writing an acceptable dissertation.

#### **PRACTICE EXPERIENCE** —

**Internship/Externship (General)** — any experience in a supervised pharmacy practice program in which the intern/extern experientially learns, under the preceptorship of a licensed (registered) pharmacist, to perform those functions required of a licensed (registered) pharmacist.

**Internship** — Internship refers to extracurricular, non-academic pharmacy practice experiences which students may be engaged in to satisfy state board of pharmacy licensure requirements which may exist and/or to provide enhancement of their professional development prior to licensure. (*American Council on Pharmaceutical Education, 1989* - see Accreditation Standards and Guidelines, Eighth Edition).

**Clerkship and Externship** — Clerkships and externships refer to experiential activities which are a component of the professional curricula. Academic credit is awarded for the clerkship and externship. The clerkship involves interprofessional activities as well as non-simulated experiences in patient care with emphasis upon all aspects of drug therapy. Clerkship experiences are acquired primarily in patient care settings where the character of practice involves the provision of clinical services. Externships involve interprofessional as well as non-simulated experiences which encompass a comprehensive range of contemporary practice activities including the distributive, dispensing and management functions of pharmacy practice. Externship experiences are acquired primarily in community pharmacies and hospital pharmacies. (*American Council on Pharmaceutical Education, 1989* - see Accreditation Standards and Guidelines, Eighth Edition).

**Nontraditional Externship/Clerkship** — Programs

with the respective characteristics described above, but not necessarily in patient-care settings. These experiences may also be simulated.

**PROFESSIONAL DEGREE** — The baccalaureate in pharmacy (B.S. or B.Pharm.) or the doctor of pharmacy (Pharm.D.) degree awarded for successful completion of a pharmacy program.

**First Professional Degree/Entry-Level Degree** — these two terms are synonymous and refer to the baccalaureate in pharmacy (B.S. or B.Pharm.) or the doctor of pharmacy (Pharm.D.) degree awarded for successful completion of a pharmacy program. The awarding of a first professional degree/entry-level degree enables an individual to sit for the licensure examination.

**Baccalaureate in Pharmacy** — the curriculum usually requires a five academic year program of study. (*American Council on Pharmaceutical Education, 1989* - see Accreditation Standards and Guidelines, Eighth Edition).

**Doctor of Pharmacy** — the curriculum usually requires six academic years to complete degree requirements and an intervening baccalaureate in pharmacy degree is generally not awarded. Students who already hold the baccalaureate in pharmacy degree may be admitted to doctor of pharmacy programs; the combined period of study is usually longer than six academic years. In such instances admission and/or curricular requirements provide assurances that all programmatic expectations for a first professional degree in pharmacy have been satisfied. (*American Council on Pharmaceutical Education, 1989* - see Accreditation Standards and Guidelines, Eighth Edition).

**TRAINING** — the development of certain skills in an art, profession or occupation.