

# Pharmacy Technician Certification Programs Preparing Our Technicians for Practice

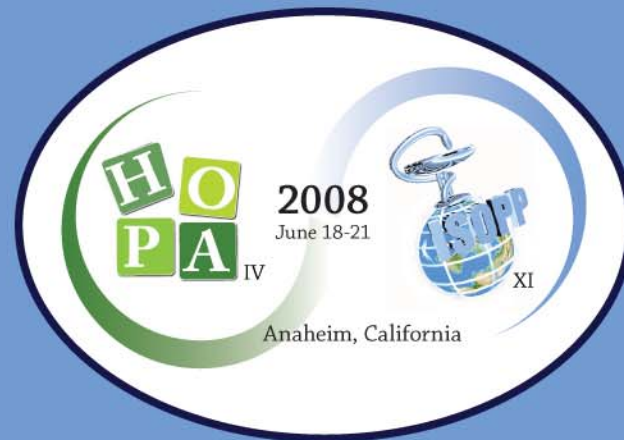
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# Disclosure

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- Lita Chew, MMedSc, BCPS, BCOP has no real or apparent conflicts of interest to report

# Learning Objectives

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- After attending the presentation, the participant will be able to
  - Discuss the value of technician certification
  - Compare and contrast the different programs
  - Prepare your own in-house program

# Pharmacy Technicians (PTs)

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- Our partners at work
- Works under the direct supervision of a licensed pharmacist, and performs many pharmacy-related functions
  - Entering Rx into system
  - Fill Rx
  - Manufacturing, including aseptic preparation
  - Drug procurement
  - Drug distribution and others

# PT Workforce

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- **USA** - Pharmacy technicians held about 285,000 jobs in 2006
  - About 71 % of jobs – in retail, either independently owned or part of a drugstore chain, grocery store, department store, or mass retailer
  - About 18 % of jobs - in hospitals
  - A small proportion - in mail-order and Internet pharmacies, offices of physicians, pharmaceutical wholesalers, and the Federal Government

# PT Workforce

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- **Canada** - no accurate est.of the number of PT in the workforce<sup>1</sup>
  - 53% in community<sup>2</sup>
  - 44% in hospital and long-term care facilities<sup>2</sup>
- **Asia** - ?

1. Moving Forward information sheet. November 2007.  
[www.pharmacyhr.ca/files/eng/Moving\\_Forward\\_Eng\\_InfoSheet\\_Nov\\_2007.pdf](http://www.pharmacyhr.ca/files/eng/Moving_Forward_Eng_InfoSheet_Nov_2007.pdf). Accessed 6/11/08.

2. The Pharmacy Technician Workforce in Canada: Roles, Demographics and attitudes. March 2007.  
[www.pharmacyhr.ca/ResearchAndReports.aspx](http://www.pharmacyhr.ca/ResearchAndReports.aspx). Accessed 6/11/08.

# Why Do We Need to 'Prepare' Our PTs?

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Changes in roles of pharmacists will require changes in the roles and capabilities of pharmacy technicians

- Pharmacist work force shortage
- Momentum for pharmaceutical care
- Momentum for safe medication use

# Preparation of PTs for Practice

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## ■ Past

- On-the-job training

## ■ Present

- Formal training program
  - Institution
  - In-house
- On-the-job training

# Training versus Education

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Applying both are vital to the learning and preparation of the technicians to become competent practitioners.

**Training** involves learning through instructions, repetition and hands-on practice until proficiency is achieved

**Education** involves deeper understanding of subject, building on explanation and reasoning, through systematic instruction and teaching

# Not to Forget...

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- Need for additional, site-specific training that focuses on local policies and procedures
- Ensure teaching commensurate with the roles they are performing
- Ensure maintenance of competence

# PT Training Programs

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- In 2002, about 247 schools and training institutions in 42 states offered a range of credentials, including associate degrees, diplomas, and certificates to pharmacy technicians<sup>1</sup>
- Pharmacy Technician Training Program Directory<sup>2</sup>

1. Rouse Michael J, et al. White Paper on pharmacy technician 2002: Needed changes can no longer wait. *Am J Health-Syst Pharm.* 2003;60:37-51.
2. American Society of Health-System Pharmacists. [www.ashp.org/s\\_ashp/technician\\_index.asp?CID=3494&DID=5428](http://www.ashp.org/s_ashp/technician_index.asp?CID=3494&DID=5428). Accessed 6/11/08.

# Accreditation Statistics

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- 106 Colleges and Schools with accreditation status
  - 90 Colleges and Schools with full accreditation
  - 10 Colleges and Schools with Candidate status
  - 6 Colleges and Schools with Pre-candidate status
- 414 Continuing Education Providers with Accreditation Status
- 39 Continuing Education Providers who also offer Certificate Programs

# Academic Training Programs

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- Formal technician training programs differ in
  - Entrance requirements
  - Duration
  - Coverage
  - Medium of instruction
- There should be a clear relationship between the nature, extent and intensity of education, training, and the scope of practice

# Academic Program – Entrance requirements

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- Variable, but needed:
  - Usually at least graduation from high school
  - Proficiency in English, maths, biology
  - Computer literacy skills, typing proficiency

# Academic Programs – Duration

## Get Your Pharmacy Technician Certification, In as Little as 12 Months! <sup>1</sup>

### An Open Field

You can enroll today and start earning your degree as a pharmacy technician. Many top quality programs work under the supervision of a pharmacist and perform functions including distribution and customer service. contin

### Community Education

Dona Ana Community College  
**PHARMACY TECHNICIAN**

**12 weeks (152 contact hours: 72 classroom and lab hours, 80 externship hours)**

**CPhT Certification Training**

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### Program Description

The Pharmacy Technician program prepares students for entry-level positions in the retail and institutional pharmacy setting. Graduates may find employment with community pharmacies, hospitals, retail pharmacies, mail-order drug companies, and insurance companies. Students will learn to prepare prescription orders under the supervision of a licensed pharmacist, perform applicable pharmacy calculations, and comply with federal

- The minimum acceptable length of the program is a matter of debate

1. Accredited Online College Degrees.com.  
[www.accredited-online-college-degrees.com/pharmacytech.htm](http://www.accredited-online-college-degrees.com/pharmacytech.htm). Accessed 6/11/08.
2. Dona Ana Community College.  
[dabcc.nmsu.edu/comed/docs/schedule.pdf](http://dabcc.nmsu.edu/comed/docs/schedule.pdf). Accessed 6/11/08.

# Academic Program – Coverage

- Standardization has been facilitated by the *Model Curriculum for Pharmacy Technician Training*
- A starting point for identifying core competencies

The screenshot displays the ASHP website's navigation and content for Technician Training Program Accreditation. The header includes the ASHP logo with the tagline "TOGETHER WE MAKE A GREAT TEAM", a search bar, and links for "Sign In", "Shopping Cart", and "Your Profile". The main navigation menu contains buttons for "About Us", "News", "Member Center", "Advocacy", "Practice and Policy", "Meetings", "Continuing Education", "Accreditation", and "Bookstore". The breadcrumb trail reads "Home > Accreditation > Technician Training".

The left sidebar features an "ACCREDITATION" section with a list of links: "What's New", "Residency Accreditation", "Technician Training Program Accreditation", "» Pharmacy Technician Training Program Directory", "» Accreditation Regulations and Standards", and "» Starting a Pharmacy Technician Training Program".

The main content area is titled "Technician Training Program Accreditation" and includes a sub-section "Accreditation Regulations and Standards" with two PDF links: "Regulations on Accreditation of Pharmacy Technician Training Programs (PDF)" and "Accreditation Standard for Pharmacy Technician Training Programs (PDF)". Below this is a section "Starting a Pharmacy Technician Training Program" with three PDF links: "Model Curriculum for Pharmacy Technician Training, 2nd Edition", "Developing and Maintaining Up-To-Date Training for Pharmacy Technicians (PDF)", and "Redesigning Technician Training to Accommodate More Students and Enhance Learning (PDF)".

# PTEC Recommended Pharmacy Technology Program Content

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- Introduction to Pharmacy and the Healthcare System
- Pharmacy Law and Ethics
- Pharmacology, including:
  - Anatomy & Physiology
  - Prescription & OTC Medications
  - Chemistry
  - Microbiology
- Pharmacy Operations including:
  - Drug Distribution Systems
  - Records Management & Inventory Control
  - Ambulatory & Institutional Practice

# PTEC Recommended Pharmacy Technology Program Content

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- Compounding, including:
  - Aseptic Technique
  - Non-Sterile Compounding
- General Education, including:
  - Medical Terminology
  - Interpersonal Relations
  - Communications
  - Computers / Keyboarding
- Problem Solving and Critical Thinking
- Experiential Training
  - A least 320 hours must be devoted to experiential contact, excluding laboratory hours. The experience should be obtained in multiple situations exposing the student to the broadest range of experience available to the training program

# Academic Program – Accreditation

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## ■ Accreditation is voluntary

- While absence of accreditation cannot be assumed to imply poor quality, accreditation by a reputable agency should provide students and members of the public with a reasonable assurance that the program is of a satisfactory standard
- If a training program is not accredited, personal references from graduates and employers of graduates can be a mean to gauge the quality of (the outcomes of) a program

# Academic programs – Medium of instruction

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- Classroom with/without externship
- On-line
- Home study

# Comparing and Contrasting

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- Curriculum accreditation
- Credentials
- Course structure
  - Prerequisites
  - Didactic training
  - Laboratory training
  - Experiential training
- Class size
- Class schedule - daytime, evening, distance learning +/- weekend labs?
- Duration
- Cost

# How to Prepare Your Own Program

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- A starting point – visit [www.rxptec.org](http://www.rxptec.org)
  - The Pharmacy Technician Educators Council (PTEC), an association representing pharmacy technician educators

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  - Microbiology



- Pharmacy Operations including:
  - Drug Distribution Systems
  - Records Management & Inventory Control
  - Ambulatory & Institutional Practice

# PTEC Recommended Pharmacy Technology Program Content

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- General Education, including:

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MODEL CURRICULUM FOR  
PHARMACY TECHNICIAN TRAINING

SECOND EDITION

Developed Collaboratively by:

American Association of Pharmacy Technicians  
American Pharmaceutical Association  
American Society of Health-System Pharmacists  
National Association of Chain Drug Stores  
Pharmacy Technician Educators Council



American Society of Health-System Pharmacists®  
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# ASHP Model Curriculum for Pharmacy Technician Training

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- Goals divided into 2 main areas
  - Major areas of job responsibility (15)
  - Foundation **knowledge, skills and attitude** (20)
- 35 goals – outcome competency; usually not measurable
- Objectives – “*what must trainee do?*”; measurable
- Instructional objectives – “*what would trainee need to know/be able to do to accomplish this objective?*”; measurable

# ASHP Model Curriculum for Pharmacy Technician Training

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- Major areas of job responsibility
  - Goal 2: Receive and screen prescription /medication orders for completeness and authenticity
    - OBJ 2.1 (Analysis ) When presented with a prescription/medication order, accurately and efficiently assess for completeness
      - IO 2.1.1 (Knowledge) State the components of a complete prescription /medication order including prescription/medication orders for controlled substances
      - IO 2.1.2 (Knowledge) When given an abbreviated instruction for medication use, state the full wording of the instruction

# ASHP Model Curriculum for Pharmacy Technician Training

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- Foundation knowledge, skills and attitude
  - Goal 12: Maintain pharmacy equipment and facilities
    - OBJ 12.1 (Application) Clean laminar flow biological safety cabinets using approved technique
      - IO 12.2.1 (Comprehension) Explain the logic of each step in the proper procedure for cleaning a laminar flow biological safety cabinet

# PSS Certified Pharmacy Technician Course

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- This part-time course is designed to prepare trainees to perform duties of the Pharmacy Technician in community and hospital pharmacies
- The course includes
  - Didactic training (173 hours)
  - Laboratory training (aseptic and non-sterile compounding)
  - Experiential training - trainees are given a workbook to complete as part of the on-job-training at their work place (10 months)
- Course Duration - 12 months
  - Part-time, two nights per week

# Course Summary

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- Pre- course briefing
  - Introduction to Pharmacy and the Healthcare System
- Module 1      Basic Dispensing Skills
- Module 2      Drug Compounding
- Module 3      Drug Distribution, Inventory and Purchasing
- Module 4      Basic Pharmacology and Pharmacotherapy
- Module 5      Communication and Patient Handling Skills
- Module 7      First Aid
- Module 8      Pharmacy Automation & Technology
- Module 9      Drug Information Skills
- Module 10     Drug Development and Phases of Clinical Trials

# PSS Certified Pharmacy Technician Course

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- Trainees will be assessed through their workbook, theory and practical tests
  - Theory assessments are based on examinations in the form of structured and multiple-choice questions
  - Lab assessments are based on practical tests at the end of lab modules
  - Workbook assessments are based on trainee's supervisor comment and counseling points during dispensing
- The passing grade for all assignments and tests is 60%

# PSS Certified Pharmacy Technician Course

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- The Certified Pharmacy Technician Course **Certificate** will be awarded to trainees:
  - who have obtained an overall passing grade of at least 60%
  - who have achieved a minimum of 75% attendance during didactic training

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**Start of a New Journey...**

# NCC In-House Training Program

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- On-the-job training schedule
  - Part 1 – Operational (6 weeks)
  - Part 2 – Cytotoxic Reconstitution Skills (10 weeks)
  - Training assessments
- Learning portfolio – knowledge-based

# Measuring Success

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## ■ Pharmacist work force shortage

- Have we reduced the Rx : pharmacists ratio
- Have we reduced workload pressures on pharmacists?
- Have we improved work schedule for pharmacists?
- Have we improved professional satisfaction for pharmacists?

# Measuring Success

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- **Momentum for pharmaceutical care**
  - Have we increased patient counseling time?
  - How we increased clinical activities/ services?
  - Have we improved patient therapy outcome/reduce incidence of negative outcome?
  - Have we avoided economic costs resulting from negative outcome?
  - Was there an increase in number of prescribing/ drug interventions?

# How Do We Measure Success?

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- **Momentum for safe medication use**
  - Was there a reduction in checking requiring pharmacists' intervention to ensure medication safety?
  - Was there an increase in ADR reporting?
  - Was there a decrease in number of near misses / errors?
  - Were we involved in a work quality improvement project?

# Moving Forward...

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- **White paper on pharmacy technicians 2002**
  - PTs recognized as an integral part of the vision and mission pharmacy profession
  - PTs to have well defined roles, responsibilities, and competencies
  - PTs to receive accredited training and education
  - PTs to have credentials to reflect their competence
  - PTs to be regulated so that their roles, responsibilities and credentials can be assigned

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- U.S. Department of Labor. Bureau of Labor Statistics  
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[www.ashp.org/s\\_ashp/cat2cn.asp?CID=3608&DID=5743](http://www.ashp.org/s_ashp/cat2cn.asp?CID=3608&DID=5743)
- 2007 PSS Certified Pharmacy Technician Course Outline
- 2008 NCC in-house Training program