

# CPA-Clinical Pathologist Assistant

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## **CPA 605. Advanced Statistics and Data Analysis for Laboratory Medicine. 3 Hours.**

Application of advanced statistical principles to laboratory data analysis; emphasis on statistical software selection to aid in data analysis; quality control processes for laboratory analyses, selection, and implementation; application to evidence based medicine practice.

## **CPA 606. Clinical Laboratory Management in the Health Care Setting. 3 Hours.**

Applications of management principles, concepts and policies to the clinical laboratory setting; regulatory and compliance issues in clinical laboratory services, including CLIA 88, Medicare/Medicaid Reimbursement, coding, JCAHO, CAP, OSHA, and quality assurance.

## **CPA 607. Evidence Based Literature Analysis for Laboratory Professionals. 3 Hours.**

Advanced analysis of research-oriented processes, with an emphasis on evidence-based review and synthesis of applicable literature. Principles of effective scientific communication are also addressed.

## **CPA 608. Laboratory Quality Diagnostic Algorithms. 3 Hours.**

Economic, social, regulatory, and professional issues affecting the delivery of cost-effective, quality clinical laboratory services; use of laboratory services in clinical decision making; alternative laboratory service delivery models and mechanisms that promote cost efficiency, appropriate utilization, quality and patient access; use of practice guidelines, critical or clinical pathways, algorithms and reflex testing, direct access testing, evidenced-based practice, and outcomes measurements.

## **CPA 609. Patient Assessment, Consultation and Interprofessional Communication. 3 Hours.**

Introduction to performing patient assessments based on medical history and physical examinations. Proper communication to include navigation of conflict resolutions with medical doctors, nurses, and advanced practice providers.

## **CPA 650. Advanced Hematology, Hemostasis, and Coagulation Therapy. 3 Hours.**

Advanced topics in physiology, disease states, laboratory determinants for red blood cells, white blood cells, platelets, and coagulation; advanced topics in anticoagulation treatments and monitoring.

## **CPA 651. Advanced Transfusion Medicine and Transplantation. 3 Hours.**

Advanced topics in blood products, blood group systems, immunology, physiology and pathophysiology, serologic and molecular testing, transfusion practice, and transplantation.

## **CPA 652. Advanced Clinical Chemistry. 3 Hours.**

Advanced topics in carbohydrates, lipids, heme derivatives, enzymes, proteins, electrolytes, hormones, and vitamins.

## **CPA 653. Advanced Clinical Bacteriology, Parasitology, and Infectious Diseases. 3 Hours.**

Advanced topics in specimen collection and processing, bacterial organisms, antibiotic testing and resistance patterns, fungi, parasites, mycobacteria, and technical methods.

## **CPA 654. Pharmacology and Toxicology for the Laboratory Professional. 3 Hours.**

Clinical application of pharmacology in the management of patients, including frequently prescribed drugs; basic principles of pharmacodynamics, pharmacokinetics, and drug reactions; pertinent physiology and dosing schedules, therapeutic effects, and adverse reactions.

## **CPA 690. CPA Clinical Internship. 5 Hours.**

Exposure to experiences outside the clinical laboratory and issues encountered when dealing with physicians, nurses, and other healthcare professionals. Ability to integrate classroom knowledge into the clinical pathology setting.

## **CPA 698. Clinical Pathologist Assistant/Non-thesis Project. 1-4 Hour.**

Clinical pathology research project which is advisor-guided, student-directed, and designed to support and enhance the student's ability to apply their graduate experience and achieve tangible outcomes.