



Eugene Applebaum  
College of Pharmacy  
and Health Sciences

## Curriculum

### Fall Semester—Professional Year 1

Course number	Course name and description	Credits
CLS 5560	Human Histology	4
MS 5020	Biochemical Basis of Pathophysiology Open only to students in Bachelor of Science in Pathologists' Assistant program or in Bachelor of Science in Clinical Laboratory Sciences degree program. .Prereq: BIO 1510, CHM 1030; coreq: BIO 2870 or MS 4050. Review and discussion of the structural biochemical nature of carbohydrates, lipids, proteins/enzymes, and hormones; correlation of disease and pathophysiology resulting from certain important biochemical disorders; discussions of clinical case studies. (F)	3
MS 5050	Clinical Terminology and Methodology Open only to students in Bachelor of Science in Pathologists' Assistant program. Clinical terminology and surgical methods for analysis and treatment of human disease. (S)	3
MS 5200	Medical Microbiology for the Technical Professional Open only to students in Bachelor of Science in Pathologists' Assistant program. Prereq: BIO 2200. Detailed study of commensal organisms of the human and mechanisms of resistance. Identification, by anatomical location, of organisms likely to cause infection; methods required for collection and transportation of microbiological specimens; case study analysis and presentation. (F)	3
<b>Total semester credits</b>		<b>13</b>

**Winter Semester—Professional Year 1**

Course number	Course name and description	Credits
MS 4100	<b>Medical Photography</b> Open only to students in Bachelor of Science in Pathologists' Assistant program. Theory and behavior of light and lenses; principles of exposure, color, and filters; macro- and microphotography. (W)	3
MS 5060	<b>Human Anatomy and Physiology</b> Open only to students in Bachelor of Science in Pathologists' Assistant program. Prereq: BIO 2870. Detailed systemic study of human anatomy and physiology; emphasis on cranial, thoracic, and abdominal structures. Laboratory: Laboratory: human dissection and prosecution including organ grossing. Material Fee as indicated in the Schedule of Classes (F)	4
MS 5061	<b>Vertebrate and Human Embryology for PA</b> Open only to students in Bachelor of Science in Pathologists' Assistant program. Prereq: BIO 1500, BIO 1510, MS 5060. Comparative fundamental processes in vertebrate/human systems, with human embryological correlations to clinical settings: case study analysis specific to the pathologists' assistant; clinical evaluation of pediatric pathology. Material Fee as indicated in the Schedule of Classes (W)	4
MS 5420	<b>Future Trends in Pathology Practice</b> Discussion of changing parameters of clinical and anatomic pathology practice. Trends associated with healthcare, patient care, technology, legal issues; educational methodology, licensure and accreditation issues; medical ethics and quality management in anatomic pathology. Students present research findings via PowerPoint delivery systems. (W)	2
<b>Total semester credits</b>		<b>13</b>

**Spring/Summer Semester—Professional Year 1**

Course number	Course name and description	Credits
MS 4150	<b>Histochemistry</b> Open only to students in Bachelor of Science in Pathologists' Assistant program. Study of techniques involved in the preparation of tissues prior to microscopic examination. Material Fee as indicated in the Schedule of Classes (W)	3
MS 4200	<b>Introduction to Forensic Anatomic Pathology</b> Open only to students in Bachelor of Science in Pathologists' Assistant program, or Post-Bachelor Certificate in Forensic Investigation program. Role of medical examiner, early signs of death, medical investigation of cause of death, methods for identification of remains, medicolegal aspects of forensic science, toxicology specimen techniques, legal issues in anatomic/forensic pathology. (S)	3
MS 4420	<b>Laboratory Management</b> Open only to students in Bachelor of Science in Pathologists' Assistant program. Interpersonal and technical management techniques for the laboratory setting. Quality management techniques, policies and protocols for pathologists' assistants. (W)	3
MS 5250	<b>Applied General Pathology</b> Open only to students in Bachelor of Science in Pathologists' Assistant program. Prereq: MS 4050, BIO 4630 or former BIO 5630. Principles of general pathology with special emphasis on clinical correlation, including pediatric pathology. (S)	4
<b>Total semester credits</b>		<b>13</b>

**Fall, Winter, and Spring/Summer Semesters—Professional Year 2**

Course number	Course name and description	Credits
MS 4500	<p>Clinical Autopsy Pathology</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program. Autopsy procedures, including data retention, dissection techniques, selection of tissue for microscopic examination, and methods of body restoration prior to release. Course addresses clinical Gross Anatomy Techniques and Gross Pediatric Pathology techniques. (T)</p>	6
MS 4550	<p>Clinical Histoathologic Technique</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program. Organization of a histology laboratory, proper handling of specimens for processing, available procedures and techniques. (T)</p>	3
MS 4600	<p>Clinical Forensic Pathology</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program or Post-Bachelor Certificate in Forensic Investigation program. Students in PBFi Certificate program internship must elect course for three credits in order to participate in internship at forensic sites. Pathologists' Assistant students must elect for five credits. Assisting pathologist in determining cause of death; basic methods for identifying remains with regard to age, sex, and race; techniques of photographic record keeping. (T)</p>	5
MS 4650	<p>Clinical Surgical Pathology</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program. Principles, theories, and clinical practices related to gross surgical dissections. (T)</p>	5

Course number	Course name and description	Credits
MS 4700	<p>Clinical Pathology</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program. Fundamental processes in benign and malignant hematopathology and lymphoid tissue; interpretation of clinical chemistry values, tumor markers, laboratory values, and the evolution of clinical and pathology case studies. (T)</p>	3
MS 4800	<p>Clinical Photography</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program. Techniques required to photographically record gross and microscopic specimens as presented from surgery. (T)</p>	2
MS 4850	<p>Clinical Academic Pathology</p> <p>Open only to students with senior standing in Bachelor of Science in Pathologists' Assistant program. Principles and theories of surgical diagnostic pathology and mechanisms of disease. (T)</p>	6
<b><i>Total semester credits</i></b>		<b>30</b>

**Professional program total credits: 69**