PAA - PATHOLOGISTS' ASSISTANT

PAA 5020 Applied General Pathology Cr. 2

Fundamental principles of pathology with a focus on their practical application in clinical settings. Students will develop a comprehensive understanding of disease mechanisms, including cellular injury, inflammation, neoplasia, genetic and hemodynamic disorders, infectious diseases and systemic disorders involving the immune and cardiovascular systems as well as those resulting from environmental influences. Emphasis will be placed on the integration of histopathological techniques, diagnostic tools, and clinical correlations. Offered Spring/Summer.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

PAA 5050 Clinical Terminology and Methodology I for the Pathologists' Assistant Cr. 2

Clinical and medical terminology specific to the pathologists' assistant practice along with associated methodologies used in surgical and autopsy pathology in the second year of the program. Introduction to laboratory grossing methodologies of human organ system of simple pathologic and non-pathologic specimens. Offered Spring/Summer. Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

Fees: \$100

PAA 5051 Clinical Terminology and Methodology II for the Pathologists' Assistant Cr. 2

Clinical and medical terminology specific to the pathologists' assistant practice along with associated methodologies used in surgical and autopsy pathology in the second year of the program. The laboratory component of the course is designed to familiarize students with surgical procedures, the most common surgical specimens received at the bench, and the manner in which such specimens are grossed, inked, sectioned, dictated, and submitted to histology. The use of simulation laboratory sessions for practice of grossing techniques and methodologies of simple to medium complexity specimen(s) will emphasize the step-wise grossing, safety, and dictation of given pathological specimens. Offered Fall.

Prerequisite: PAA 7060 with a minimum grade of B Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

Fees: \$100

PAA 5052 Clinical Terminology and Methodology III for the Pathologists' Assistant Cr. 2

Clinical and medical terminology specific to the pathologists' assistant practice along with associated methodologies used in surgical and autopsy pathology in the second year of the program. The laboratory component continues to familiarize students with surgical procedures, grossing methodologies, and procedural inking, sectioning, and sampling of medium to high complexity of human organ tissues in a simulation gross room laboratory environment, emphasizing the step-wise grossing, safety, and dictation of given pathological specimens. Offered Winter. Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

Fees: \$100

PAA 5100 Medical Photography and Techniques in Pathology Cr. 2

Theory of the behavior of light and selection of appropriate lenses; principles of exposure, color, and filters; macro- and microphotography. Adjustment of clinical photographs and student photographs corrected by Adobe Photoshop Professional resulting in a student Eportfolio. Offered Spring/Summer.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

Fees: \$100

PAA 6060 Human Embryology and Pediatric Pathology Cr. 2

Embryological basis of pediatric and childhood diseases along with adult presentations. Human embryological correlations to clinical settings: case study analysis specific to the pathologists' assistant and clinical evaluation of pediatric pathology. Recognition of anatomical presentations with embryological development in normal and diseased states. Offered Fall.

Prerequisite: PAA 7060 with a minimum grade of B **Restriction(s):** Enrollment is limited to students with a major, minor, or concentration in Pathologists'Assistant Program.

PAA 6150 Histochemistry for the Pathologists' Assistant Cr. 4

Study of techniques specific to the Pathologists' Assistant involved in the preparation of tissues prior to microscopic examination and processing inclusive of embedding, sectioning, preparing frozen sections and performing routine and special stain on a variety of tissues. Offered Winter

Prerequisites: PAA 6560 with a minimum grade of B **Restriction(s):** Enrollment is limited to students with a major in

Pathologists'Assistant Program.

Fees: \$200

PAA 6420 Laboratory Management and Quality Management in Anatomic Pathology Cr. 2

Interpersonal and technical management techniques for the clinical and anatomic pathology laboratory settings. Quality management techniques, policies, protocols and best practices for the pathologists' assistant. Safety mandates and protocols as applied to anatomic and surgical pathology. Discussion and analysis of governmental mandates covering laboratory improvement (CLIA). Offered Spring/Summer.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

PAA 6560 Human Histology and Clinical Correlations I Cr. 2

Characteristics and identification of human tissue microanatomy. Functional interpretation of human microstructure. Introduction to tissue classification and frozen sections, as well as the examination of normal and abnormal stained tissue sections prepared from a variety of organ systems allowing for clinical correlations in patient case presentations. Offered Spring/Summer.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program.

Fees: \$100

PAA 6561 Human Histology and Clinical Correlations II Cr. 3

Characteristics and identification of human tissue microanatomy. Continued appreciation and differentiation of normal and abnormal tissue microscopy in stained tissue sections prepared from a variety of organ systems, with application of clinical correlations in patient case presentations. Offered Fall.

Restriction(s): Enrollment is limited to Graduate level students.

Fees: \$100

PAA 7060 Human Anatomy and Physiology for Pathologists' Assistants Cr. 3

Detailed comprehensive review of human anatomy and physiology as it pertains to the pathologists' assistant practice. Offered Spring/Summer. **Restriction(s)**: Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

Fees: \$350

PAA 7061 Human Anatomy and Physiology II for the Pathologists' Assistant Cr. 3

Part two of a detailed comprehensive review of human anatomy and physiology as it pertains to the pathologists' assistant practice with comprehensive examination of anatomical organs and organ systems through the use of human cadaveric prosections, 3D models, computer software applications, medical imaging, and clinical correlations as it pertains to the pathologists' assistant scope of practice. Offered Fall.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

Fees: \$100

PAA 7062 Neuroanatomy for the Pathologists' Assistant Cr. 2

Prerequisite: PAA 7060 with a minimum grade of B

Comprehensive review of human central nervous system anatomy linking structure to function at the clinical and neurobiological level. Integration of neurocranium and viscerocranium structures with clinical presentations as it pertains to the Pathologists' Assistant practice will be reviewed in detail in the cadaver laboratory. Offered Winter.

Prerequisite: PAA 7061 with a minimum grade of B **Restriction(s):** Enrollment is limited to Graduate level students.

Fees: \$100

PAA 7063 Advanced Human Gross Anatomy Cr. 3

Laboratory based course with hands-on dissection of the human body organized around a regional approach to anatomy for the current, or prospective, applied and/or health science student. Students should have completed a previous Anatomy lecture and laboratory course. Offered Winter

Restriction(s): Enrollment is limited to Graduate level students.

Fees: \$400

PAA 7200 Introduction to Forensic Pathology Cr. 2

This introductory graduate-level course provides a foundational understanding of forensic pathology, focusing on the principles and practices involved in determining cause and manner of death. Students will explore the role of forensic pathology within the medicolegal system, key concepts in death investigation, and the classification of natural and unnatural deaths. Emphasis is placed on understanding the interplay between clinical pathology and forensic investigation, including the integration of toxicology, histology, and imaging in forensic casework. Offered Fall.

Prerequisites: PAA 7060 with a minimum grade of B

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level

students. **Fees:** \$350

PAA 7205 Forensic Pathology and Autopsy Techniques for the Pathologists' Assistant Cr. 2

This course is the second in a three-part series designed to provide an in-depth understanding of forensic pathology and autopsy techniques. It emphasizes the theoretical foundations and practical applications of postmortem examination processes in clinical and forensic pathology settings. Students will explore advanced topics in external examination, evisceration, and organ block removal, with a focus on identifying, analyzing, and interpreting findings in various medico-legal contexts. Offered Winter.

Prerequisite: PAA 7060 with a minimum grade of C and PAA 7061 with a minimum grade of C

Restriction(s): Enrollment is limited to Graduate level students.

PAA 7210 Introduction to Autopsy Pathology Techniques Laboratory Cr. 1

This laboratory-based course provides comprehensive hands-on training in the application of autopsy techniques essential for performing postmortem examinations in both hospital and medical examiner settings. The curriculum emphasizes hands-on experience with external examinations, evisceration, and block dissection procedures tailored to adult, perinatal, and pediatric decedents. Students will develop skills in identifying anatomic pathology, documenting findings, and correlating gross observations with clinical and forensic contexts. Offered Winter. Prerequisites: PAA 7060 with a minimum grade of B, PAA 7061 with a minimum grade of B and PAA 7251 with a minimum grade of B Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7250 Clinical Pathology I Cr. 2

In-depth exploration of systemic pathologies impacting various organs and organ systems. Topics include disorders of red blood cells and bleeding, diseases of the blood vessels and heart, as well as conditions affecting the skin, bones, head and neck, eyes, joints, and soft tissue tumors. The course integrates advanced concepts in molecular diagnostics, infectious diseases, and pathological microscopy, offering a comprehensive understanding of the mechanisms and diagnostic approaches to these conditions. Offered Spring/Summer.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7251 Clinical Pathology II Cr. 3

Continuation of PAA 7250. This graduate-level clinical pathology course examines systemic diseases affecting the lung, gastrointestinal tract, liver and gallbladder, endocrine system, and pancreas. The curriculum emphasizes the integration of molecular diagnostics, infectious disease mechanisms, and pathologic microscopy to provide a comprehensive understanding of these organ systems and their pathological processes. Offered Fall.

Prerequisite: PAA 7060 with a minimum grade of B and PAA 7250 with a minimum grade of B

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7252 Clinical Pathology III Cr. 3

Continuation of 7251. This graduate-level clinical pathology course explores systemic diseases impacting the peripheral nerves and skeletal muscles, central nervous system (CNS), kidneys, lower urinary tract, male and female genital systems, breast, and placenta. The course integrates advanced concepts of molecular diagnostics, infectious diseases, and pathologic microscopy to provide a comprehensive understanding of the pathology and diagnostic approaches for these organ systems. Offered Winter.

Prerequisite: PAA 7060 with a minimum grade of B and PAA 7061 with a minimum grade of B and PAA 7251 with a minimum grade of B Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7300 Elective Independent Study in Clinical, Core and Forensic Pathology Cr. 1-4

Remedial independent study in a core subject area involving clinical pathology and/or forensic autopsy pathology that fulfills cognitive assessments, content specific assignments or projects, indicative of preclinical entry-level expectations of the program. Offered Every Term. Restriction(s): Enrollment is limited to Graduate level students.

PAA 7420 Future Trends in Pathology Practice and Education Methodology Cr. 1

Group discussion of trends associated with healthcare, patient care, technology, legal issues, education methodology, licensure and accreditation issues; medical ethics, safety, medicolegal, and quality management in anatomic, surgical and autopsy pathology are covered. Presentations lead to recommendations for future best practices in a variety of pathology settings. Students present research findings via PowerPoint and in a seminar format. Offered Winter.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7650 Surgical Pathology I Cr. 8

Application of principles, theories, and clinical practices related to grossing (simple) surgical dissections that address NAACLS competency levels associated with adult and pediatric surgical pathology techniques, specimen photomicrography, as well as develop techniques in the proper handling of specimens for histological processing through varied techniques within a modern instrumental histology laboratory by following quality management techniques, safety mandates, and protocols as applied to anatomic and surgical pathology. Offered Spring/Summer.

Prerequisite: PAA 5050 with a minimum grade of B and PAA 7060 with a minimum grade of B and PAA 7250 with a minimum grade of B and PAA 7251 with a minimum grade of B and PAA 7252 with a minimum grade of B

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

Fees: \$250

PAA 7651 Surgical Pathology II Cr. 10

Application of principles, theories, and clinical practices related to grossing (simple to complex) surgical dissections that address NAACLS competency levels associated with adult and pediatric surgical pathology techniques, specimen photomacrography and photomicrography, as well as develop techniques in the proper handling of specimens for frozen sectioning and histological processing through varied techniques within a modern instrumental histology laboratory, by following quality management techniques, safety mandates, and protocols as applied to anatomic and surgical pathology. Offered Winter.

Prerequisite: PAA 5050 with a minimum grade of B and PAA 7060 with a minimum grade of B and PAA 7250 with a minimum grade of B and PAA 7251 with a minimum grade of B and PAA 7252 with a minimum grade of B and PAA 7650 with a minimum grade of B Restriction(s): Enrollment is limited to students with a major in

Pathologists'Assistant Program; enrollment is limited to Graduate level students.

Fees: \$250

PAA 7652 Surgical Pathology III Cr. 9

Application of principles, theories, and clinical practices related to grossing (medium to high complexity) surgical dissections that address NAACLS competency levels associated with adult and pediatric surgical pathology techniques, specimen photomacrography and photomicrography, as well as develop techniques in the proper handling of specimens for frozen sectioning and histological processing through varied techniques within a modern instrumental histology laboratory, by following quality management techniques, safety mandates, and protocols as applied to anatomic and surgical pathology. Offered Winter. **Prerequisite:** PAA 7651 with a minimum grade of B

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

Fees: \$250

PAA 7700 Forensic and Clinical Autopsy Pathology Cr. 5

Application of principles and technical procedures that address NAACLS competency levels associated with adult and pediatric autopsy as it relates to postmortem examination, dissection and evisceration techniques, toxicology specimen collection and processing, photomicrography of the body and of pertinent findings during the external and internal examination, as well as approaches associated with determining, and reporting, the cause, manner, and mechanism of death. Offered Every Term.

Prerequisite: PAA 6060 with a minimum grade of B and PAA 7060 with a minimum grade of B and PAA 7200 with a minimum grade of B Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

Fees: \$150

PAA 7890 Surgical and Forensic Pathology Seminar I Cr. 1

Clinically based seminar course that integrates principles, theories, clinical practices and techniques relevant to grossing simple to mid-complexity surgical specimens. The course integrates evidence of ethical considerations to the pathologists' assistant practice, interprofessional activity, professional development and activism attained in the course of the program. Offered Fall.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7891 Surgical and Forensic Pathology Seminar II Cr. 2

Clinically based capstone seminar course reviewing clinical and anatomical pathology and the application of principles, theories, clinical practices as it relates to surgical and forensic pathology, and in the research project of a clinical-based surgical specimen that highlights the complexity of the specimen and addresses contemporary issues to the pathologists' assistant practice as a result of said research. The course culminates with portfolio evidence of entry-level skills in the grossing of simple to complex surgical specimens, in the performance of clinical and forensic autopsies and with a board-style competency examination. Offered Winter.

Restriction(s): Enrollment is limited to students with a major in Pathologists'Assistant Program; enrollment is limited to Graduate level students.

PAA 7900 Elective Clinical in Surgical and/or Forensic Pathology Cr. 1-5 Remedial clinical rotation in surgical pathology or forensic autopsy pathology that fulfills cognitive assessments, content specific assignments or projects, and entry-level expectations of the program. Offered Every Term.

Restriction(s): Enrollment is limited to Graduate level students.

PAA 7901 Elective Independent Study in Surgical and/or Forensic Pathology Cr. 1-5

Remedial independent study in surgical pathology and/or forensic autopsy pathology that fulfills cognitive assessments, content specific assignments or projects, indicative of entry-level expectations of the program. Offered Every Term.

Restriction(s): Enrollment is limited to Graduate level students.