

PATH 800A - Research**A. Bhattacharyya & Faculty (520-626-6097; abhattac@email.arizona.edu)**

3, 4 or 6 wks; maximum length of 6 wks; offered year round

Directly supervised/Non-patient care.

Maximum enrollment varies

Prerequisites: Consent of instructor and Departmental Electives Coordinator

Goals: This elective consists of involvement in a research project of special interest to the student.**Format:** As arranged between student and instructor.**Evaluation Methods:** As arranged.**PATH 810A - Anatomic Pathology****R.E. Sobonya, A.K. Bhattacharyya, E. Bracamonte, L. LeBeau, F. Lian, R. Klein, A. Prasad, R.B. Nagle, N.E. Rance, & W. Zheng (520-626-3100; rsobonya@umcaz.edu)**

4 or 6 wks; maximum length of 6 wks; offered August-May

Directly supervised/Non-patient care.

Maximum enrollment of 2

Prerequisites: Years 1 & 2 of Arizona Med and at least 12 wks of clinical clerkships

Goals: Anatomic Pathology will emphasize the following student skills: acquisition of basic medical knowledge (terminology,

classifications and methods) relating to disease in a setting of anatomic pathology; understanding basic theories, principles and problems important to this experience; problem solving and decision making, and organization and communication of data in written and oral presentations.

Format: The course is designed as a subinternship serving to acquaint the student with an overview in the broad range of anatomic pathology. Particular emphasis will be placed on clinical significance of disease. During the four (or six) weeks, instruction and participation will be emphasized in surgical pathology. Case work-ups will include the importance of gross disease description, data gathering, case evaluation, differential diagnosis, and diagnostic terminology. Optional experiences are available in several pathology sub-specialties, e.g., immunopathology, electron microscopy, data management, cytology and cytogenetics as well as the autopsy service with student observing prosection techniques and procedures. Participation in a variety of Pathology conferences will be encouraged (neuropathology, renal, gynecologic, oncology, electron microscopy, cytology, cytogenetics, immunopathology and pathology case conferences).**Evaluation Methods:** Students will be evaluated on how well they achieve mastery of the stated goals. Quality of performance in assignments will be rated by the supervisory faculty and student self-rating. Students will also fill out a course evaluation questionnaire, rating the quality of the overall elective experience. A student will fail a Pathology elective if either of the following occurs: a) The student's assignments are not completed to the satisfaction of the responsible department faculty, b) The student fails to attend all course activities except for prior excused absences approved by the responsible faculty. The department faculty reserves the right to convert such failure to a passing grade if it believes that circumstances warrant conversion. In circumstances where a student does not fail but a charge of dishonest scholastic conduct has been made in relation to the course work, the department will not issue a passing grade until the charge is resolved.**PATH 810Ba (sect 1) - Clinical Pathology (Veteran's Administration Hospital, Tucson)****R. Schifman, J. Dancer, M. Rennels, S. Renner (520-629-4629; ronald.schifman@va.gov)**

3 or 4 wks; maximum length of 4 wks; offered August-May

Directly supervised/Non-patient care.

Maximum enrollment of 2

Prerequisites: Years 1 & 2 of Arizona Med and at least 12 weeks of clinical clerkships

Goals: Clinical Pathology will emphasize the following:

1. Applying and interpreting laboratory data in solving clinical problems.
2. Appreciating relationships between basic science information and disease, e.g., biochemical aspects and pathophysiology of selected diseases or clinical states.
3. Understanding the role of the medical laboratory in clinical diagnosis and therapy.
4. Acquiring perspective on modern medical laboratory technology and laboratory cost effectiveness.
5. Learning how management and control are essential in the provision of good medical laboratory information.

Format: The course will consist of a continuous series of three or four weekly rotations selected from the following areas: medical chemistry and toxicology, hematology, microbiology, blood banking and hemotherapy, immunology and immunopathology. A student may take more than one week in a specific area. An overview of the practice of laboratory medicine will be introduced through the student's participation as a preceptor in Clinical Pathology. An understanding of laboratory test interpretation will be gained by daily participation in routine service responsibilities and current patient problem-solving activities. These may include review of: gram stain, peripheral blood and bone marrow smears; body

fluid examinations; protein and isoenzyme electrophoresis patterns; and transfusion medicine, hemotherapeutic procedures and coagulation problems. The student will also learn about laboratory medical technology, including: instrumentation, methodology and computer applications. Students are expected to arrange the dates of their three or four consecutive selections with each of the appropriate attending faculty before presenting their schedules to the Student Records Office. Each student will be expected to accomplish the goals listed above by a combination of hands-on bench work, case work-ups and regular sessions with attending faculty.

Evaluation Methods: Students will be evaluated on how well they achieve understanding and mastery of the stated goals. Quality of performance in assignments will be rated by the supervisory faculty using standard evaluation forms from the Student Records Office. Students will also evaluate the course by means of standard electives evaluation forms. A student will fail a Pathology elective if either of the following occurs: a) The student's assignments are not completed to the satisfaction of the responsible department faculty, b) The student fails to attend all course activities except for prior excused absences approved by the responsible faculty. The department faculty reserves the right to convert such failure to a passing grade if it believes that circumstances warrant conversion. In circumstances where a student does not fail but a charge of dishonest scholastic conduct has been made in relation to the course work the department will not issue a passing grade until the charge is resolved.

PATH 810Bd (sect 2) - Clinical Pathology (University Medical Center, Tucson)

D. Fuchs, L. Boyer, D. Feldman, B. De, L.M. Rimsza, C. Spier, D. Wolk (520-626-6286; dfuchs@email.arizona.edu)

3 or 4 wks; maximum length of 4 wks; offered August-May

Directly supervised/Non-patient care.

Maximum enrollment of 1

Prerequisites: Years 1 & 2 of Arizona Med and at least 12 weeks of clinical clerkships

Goals: Clinical Pathology will emphasize the following:

1. Applying and interpreting laboratory data in solving clinical problems.
2. Appreciating relationships between basic science information and disease, e.g., biochemical aspects and pathophysiology of selected diseases or clinical states.
3. Understanding the role of the medical laboratory in clinical diagnosis and therapy.
4. Acquiring perspective on modern medical laboratory technology and laboratory cost effectiveness.
5. Learning how management and control are essential in the provision of good medical laboratory information.

Format: The course will consist of a continuous series of three or four weekly rotations selected from the following areas: medical chemistry and toxicology, hematology, microbiology, blood banking and hemotherapy, immunology and immunopathology. A student may take more than one week in a specific area. An overview of the practice of laboratory medicine will be introduced through the student's participation as a preceptor in Clinical Pathology. An understanding of laboratory test interpretation will be gained by daily participation in routine service responsibilities and current patient problem-solving activities. These may include review of: gram stain, peripheral blood and bone marrow smears; body fluid examinations; protein and isoenzyme electrophoresis patterns; and transfusion medicine, hemotherapeutic procedures and coagulation problems. The student will also learn about laboratory medical technology, including: instrumentation, methodology and computer applications. Students are expected to arrange the dates of their three or four consecutive selections with each of the appropriate attending faculty before presenting their schedules to the Student Records Office. Each student will be expected to accomplish the goals listed above by a combination of hands-on bench work, case work-ups and regular sessions with attending faculty.

Evaluation Methods: Students will be evaluated on how well they achieve understanding and mastery of the stated goals. Quality of performance in assignments will be rated by the supervisory faculty using standard evaluation forms from the Student Records Office. Students will also evaluate the course by means of standard electives evaluation forms. A student will fail a Pathology elective if either of the following occurs: a) The student's assignments are not completed to the satisfaction of the responsible department faculty, b) The student fails to attend all course activities except for prior excused absences approved by the responsible faculty. The department faculty reserves the right to convert such failure to a passing grade if it believes that circumstances warrant conversion. In circumstances where a student does not fail but a charge of dishonest scholastic conduct has been made in relation to the course work the department will not issue a passing grade until the charge is resolved.

PATH 810C - Special Topics

D. Fuchs & Faculty (520-626-6286; dfuchs@email.arizona.edu)

3, 4 or 6 wks; maximum length of 18 wks; offered year round

Directly supervised/Non-patient care.

Maximum enrollment varies

Prerequisites: Years 1 & 2 of Arizona Med and prior arrangement and approval by the instructor

Goals: Opportunities will be afforded for intensive study in one of the following special topics in Pathology: cytopathology, cytogenetics, transfusion medicine, neuropathology, pulmonary pathology, hematopathology, medical chemistry, microbiology, virology, electron microscopy, renal pathology and forensic pathology.

Format: The course is open only through prior special arrangement with the department faculty member who will serve as the supervisor in the special topic area. A course will serve as a sub-internship experience with either a clinical, laboratory or research emphasis-determined by prearrangement. Students with definite goals in mind for this elective can work out a plan of study with the preceptor at the beginning of the elective.

Evaluation Methods: Students will be evaluated on how well they achieve stated goals. Quality of performance in assignments will be rated by the supervisory faculty and student self-rating. Students will also fill out a course evaluation questionnaire, rating the quality of the overall elective experience. A student will fail a Pathology elective if either of the following occurs: a) The student's assignments are not completed to the satisfaction of the responsible department faculty, b) The student fails to attend all course activities except for excused absences approved by the responsible faculty. The department faculty reserves the right to convert such failure to a passing grade if it believes that circumstances warrant conversion. In circumstances where a student does not fail but a charge of dishonest scholastic conduct has been made in relation to the course work the department will not issue a passing grade until the charge is resolved.

PATH 815A - The Clinical Practice of Telepathology and Telemedicine

A.M. Lopez & R. Weinstein (520-626-2518; alopez@azcc.arizona.edu)

3-6 wks

Directly supervised

Prerequisites: Successful completion of the 3rd year clerkship

Goals: The goal of this elective is to introduce the student to the practice of telemedicine. Telemedicine allows for patient evaluation at a distance. By allowing the patient to remain in her/his own community, telemedicine is thought to increase access to care. Although the main focus of this elective is clinical, students interested in technology assessment, economic evaluation and patient education are encouraged. Placements at rural sites are available.

Format: The elective will be conducted in didactic sessions, small group discussion and direct clinical care. Students at rural sites will be equipped with an IBM laptop computer linked to a Cannon Digital camera. While performing various duties in the multiple services offered at the regional medical center, the student will document, compile, and send cases via telephone line to the Telemedicine hub-site in Tucson, AZ. In addition, the student will participate in the multiple telemedicine exchanges performed via the level III system located within the hospital. All students interested in the elective should contact the instructor prior to registration. Housing assistance may be available.

Evaluation Methods: Faculty evaluation, research paper and presentation.

PATH 815B - Introduction to Dermatopathology

F. Lian (520-626-6241; flian@email.arizona.edu)

3 or 4 wks; offered year round

Directly supervised

Maximum enrollment of 1

Prerequisites: One month of pathology or dermatology preferred; prior approval of instructor

Goals: Upon successful completion of this elective, students will be able to: 1 - explain how skin biopsies are obtained and processed; demonstrate a basic understanding of the microscopic structure of the skin and subcutis; demonstrate a familiarity with the variety of inflammatory and neoplastic diseases of the skin and diagnose common skin tumors; explain the importance of clinicopathologic correlation in dermatopathology; explain the limitations of histopathologic evaluation of skin disease.

Format: This course is intended to be a fun and interesting introduction to dermatopathology for future dermatology or pathology residents. Students will participate in daily microscopic sign out at the double-headed teaching microscope and will observe gross dissection and processing of skin specimens in the histology laboratory. Students will also attend dermatopathology conferences weekly at University Medical Center. Interested students will have the opportunity to prepare a case report for publication.

Evaluation Methods: Students will be evaluated on their case discussions over the double headed microscope.