

■ GENERAL CATALOG

■ UNIVERSITY OF CALIFORNIA SAN FRANCISCO

1988 - 89 GENERAL CATALOG ■ UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

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■ UCSF

UCSF

University of California, San Francisco... A Health Sciences Campus

COURSES

This chapter is a compendium of the courses of instruction offered by the University of California, San Francisco.⁸ Courses are arranged in numerical order under alphabetically listed subject headings. As these headings do not in every case correspond to a department, the responsible department or other instructional unit is indicated at the end of the course description for each course. Abbreviations used for these departments or instructional units are spelled out in the list below.

Inquiries about individual courses should be addressed to the indicated department or instructional unit for information that is not included here, nor in the separately published bulletins of the four schools or of the Graduate Division. These bulletins, available from the respective schools or the Graduate Division, indicate, for example, the place of various courses in the different established curricula. Faculty rosters may also be found in the bulletins of the four schools.

Course Description—Course information is arranged in two paragraphs with periods separating items. The first paragraph includes course number, title, units in parentheses, session offered, prerequisite, format and breakdown of hours per week, and instructor in charge. The second paragraph describes the course content, followed by department or other instructional unit.

Course Numbers—All courses are numbered accord-

ing to the following system: 100 series = upper division professional course, 200 and 300 series = graduate academic course, and 400 series = postdoctoral professional course. The meanings of the second (tens) and first (units) digits vary among the schools. A detailed explanation of course numberings is available from the office of the dean of each school. The symbol § following the units designates a course approved for credit toward a graduate academic degree.

Sessions—Su = summer term, SS = summer session, F = fall quarter, W = winter quarter, Sp = spring quarter.

DEPARTMENTS AND OTHER INSTRUCTIONAL UNITS

ANATOMY	Department of Anatomy, School of Medicine.
ANESTHESIA	Department of Anesthesia, School of Medicine.
BIOCHEM	Department of Biochemistry and Biophysics, School of Medicine.
CL PHARM	Division of Clinical Pharmacy, School of Pharmacy.
DENT PUB HLTH	Department of Dental Public Health and Hygiene, School of Dentistry.
DERMATOL	Department of Dermatology, School of Medicine.

⁸Additional courses are offered by the Schools under their programs of Continuing Education (see "Addresses" section).

EPID INTL HLTH	Department of Epidemiology and International Health, School of Medicine.	OB GYN RS	Department of Obstetrics, Gynecology and Reproductive Sciences, School of Medicine.	SOC BEH SC	Department of Social and Behavioral Sciences, School of Nursing.
FAM CM MED	Division of Family and Community Medicine, School of Medicine.	OPHTHALMOL	Department of Ophthalmology, School of Medicine.	STOMATOLOGY	Department of Stomatology, School of Dentistry.
FAM HLTH	Department of Family Health Care Nursing, School of Nursing.	ORTHO SURG	Department of Orthopaedic Surgery, School of Medicine.	SURGERY	Department of Surgery, School of Medicine.
GR DEVEL	Department of Growth and Development, School of Dentistry.	OTOLARYN	Department of Otolaryngology, School of Medicine.	UROLOGY	Department of Urology, School of Medicine.
HIST HL SC	Department of History of Health Sciences, School of Medicine.	PATHOLOGY	Department of Pathology, School of Medicine.	HOSPITALS	
LAB MED	Department of Laboratory Medicine, School of Medicine.	PEDIATRICS	Department of Pediatrics, School of Medicine.	AB	Alta Bates Hospital, Berkeley.
MED INF SC	Section of Medical Information Science, School of Medicine.	PHARM CHEM	Department of Pharmaceutical Chemistry, School of Pharmacy.	AS	Atascadero State Hospital, Atascadero.
MEDICINE	Department of Medicine, School of Medicine.	PHARMACOL	Department of Pharmacology, School of Medicine.	C	Children's Hospital of San Francisco, San Francisco.
MENT HLTH COM ADM	Department of Mental Health, Community, and Administrative Nursing, School of Nursing.	PHARMACY	Department of Pharmacy, School of Pharmacy.	CHMC	Children's Hospital Medical Center of Northern California, Oakland.
MICROBIOL	Department of Microbiology and Immunology, School of Medicine.	PHYS THER	Curriculum in Physical Therapy, School of Medicine.	CHS	Community Hospital of Sonoma, Santa Rosa.
NEURO SURG	Department of Neurological Surgery, School of Medicine.	PHYSIOL NURS	Department of Physiological Nursing, School of Nursing.	CM	Ernest V. Cowell Memorial Hospital, Berkeley.
NEUROLOGY	Department of Neurology, School of Medicine.	PHYSIOLOGY	Department of Physiology, School of Medicine.	CSP	Center for Special Problems, San Francisco
		PSYCHIATRY	Department of Psychiatry, School of Medicine.	DCH	Davis Community Hospital, Davis.
		RADIOLOGY	Department of Radiology, School of Medicine.	FCH	Fresno Community Hospital and Medical Center, Fresno.
		RESTOR DENT	Department of Restorative Dentistry, School of Medicine.	FR	French Hospital Medical Center, San Francisco.
				GS	Good Samaritan Hospital of Santa Clara Valley, San Jose.
				H	Highland General Hospital, Oakland.
				K	Kaiser Foundation Hospital, San Francisco.
				KHDV	Kaweah Delta District Hospital, Visalia.
				KP	Kaiser Foundation Hospital, Oakland.
				KSSF	Kaiser Foundation Hospital, South San Francisco.
				L	Letterman Army Medical Center, San Francisco.
				LPPI	Langley Porter Psychiatric Institute, San Francisco.
				MG	Marin General Hospital, Greenbrae.

MHLB	Memorial Hospital Medical Center of Long Beach, Long Beach.	UC	University of California Hospitals and Clinics, San Francisco (includes Long, Moffitt, and Ambulatory Care Center).
MM	Mills Memorial Hospital, San Mateo.	UCD	University of California, Davis.
MZ	Mt. Zion Hospital and Medical Center, San Francisco.	UCI	University of California Irvine Medical Center, Orange.
NAT	Natividad Medical Center, Salinas.	UCLA	UCLA Center for Health Sciences, Los Angeles.
NRMC	Naval Regional Medical Center, Oakland.	UCSD	University Hospital, University of California Medical Center, San Diego.
NS	Napa State Hospital, Imola.	VA	Veterans Administration Medical Center, San Francisco.
OC	O'Connor Hospital, San Jose.	VAF	Veterans Administration Medical Center, Fresno.
P	Peralta Hospital, Oakland.	VAM	Veterans Administration Medical Center, Martinez.
PH	Peninsula Hospital and Medical Center, Burlingame.	VAPA	Veterans Administration Medical Center, Palo Alto.
PMC	Pacific Medical Center, San Francisco.	VASD	Veterans Administration Hospital, San Diego.
RDMC	Ralph K. Davies Medical Center, San Francisco.	VMC	Valley Medical Center of Fresno, Fresno.
RLA	Rancho Los Amigos Hospital, Downey.		
S	Stanford University Medical Center, Palo Alto.		
SCC	Santa Clara Valley Medical Center, San Jose.		
SFGH	San Francisco General Hospital Medical Center, San Francisco.		
SGH	Scenic General Hospital, Modesto.		
SHH	Silas B. Hays Army Community Hospital, Fort Ord.		
SJ	San Joaquin General Hospital, Stockton.		
SM	Samuel Merritt Hospital, Oakland.		
SMC	Seton Medical Center, Daly City.		
SRM	Santa Rosa Memorial Hospital, Santa Rosa.		
SS	Sonoma State Hospital, Eldridge.		
SSF	Shriners Hospital for Crippled Children, San Francisco.		
STA	St. Agnes' Hospital and Medical Center, Fresno.		
STF	St. Francis Memorial Hospital, San Francisco.		
STL	St. Luke's Hospital, San Francisco.		
STM	St. Mary's Hospital and Medical Center, San Francisco.		

ANATOMY

100A. Systemic Regional & Devel Anat. (5) § F. Lecture 3 hours. Lab 6 hours.

Sutherland and Staff

The gross structure of the human body is studied by means of dissection, demonstration, X-ray, surface, developmental, and cross-sectional anatomy with special reference to the functional aspects of the structures examined. ANATOMY

100B. Systemic Regional and Devel Anat. (4) § W. Lecture 2 hours. Lab 6 hours.

Sutherland and Staff

The gross structure of the human body is studied by means of dissection, demonstration, X-ray, surface, developmental, and cross-sectional anatomy with special reference to the functional aspects of the structures examined. ANATOMY

100C. Systemic Regional & Devel Anat. (5) § SS. Lecture 3 hours. Lab 6 hours.

Sutherland and Staff

The gross structure of the human body is studied by means of dissection, demonstration, X-ray, surface, developmental, and cross-sectional anatomy with special reference to

the functional aspects of the structures examined. ANATOMY

103. Nervous System: Form & Funct. (4-6) § Sp. Prerequisite: Consent of instructor required for graduate students. Lecture 5 hours. Lab 3 hours.

H. Ralston, Stryker and Staff

The structure and function of the mammalian nervous system studied in lectures, conferences, demonstrations, and laboratories, with emphasis on the human nervous system and its organization. Intended for students in the School of Medicine and as an introductory course for graduate students. ANATOMY

103.01. Neuroanatomy. (2) SS3. Prerequisite: Completion of course prerequisites for admission to the University and the Curriculum in Physical Therapy. Open only to students enrolled in the Curriculum, or consent of program director. Lecture 1 hour. Lab 3 hours.

Garoutte

The structural organization and function of the central nervous system are presented through lecture and laboratory study of models, wet and dry demonstration. Special emphasis accorded to clinical functional correlations. ANATOMY

107. Neuromuscular Physiology. (2) W. Prerequisite: Completion of course work in summer and fall. Open only to students enrolled in the Curriculum or consent of program director. Lecture 2 hours.

Garoutte

A study of the physiology of striated muscle and peripheral nerve in relationship to controlling mechanisms within the nervous system. ANATOMY

115. Histology. (3) § W. Lecture 2 hours. Lab 3 hours.

Martin and Staff

A study of the microscopic structures of the tissues and organs of the human body by means of lectures, demonstrations, and microscope slides. Functional aspects of the structures are stressed. Intended for students in the School of Pharmacy. ANATOMY

116. Gross Anatomy. (3) § Sp. Lecture 2 hours. Lab 3 hours.

Sutherland

A study of the macroscopic structure of the human body by means of lectures and dissections. Functional aspects of the structures are stressed. Intended for students in the School of Pharmacy. ANATOMY

117A. Gross & Regional Anatomy. (2) F. Prerequisite: Admission to the School of Dentistry. Lecture 2 hours.

Fisher

The gross structure and developmental anatomy of the thorax and abdominal regions are studied by means of lectures. The functional significance of the structures is emphasized. STOMATOLOGY

117B. Head & Neck Anatomy. (4) W. Prerequisite: First-year Dentistry standing. Lecture 2 hours. Lab 6 hours.

Fisher

The gross anatomy of the head and neck is studied by lectures and dissection. Clinical applications and functions of importance to the dentist are emphasized. STOMATOLOGY

117C. Neuroanatomy. (2) W. Prerequisite: First-year Dentistry standing. Lecture 1 hour. Lab 3 hours.

Fisher

The structure and function of the nervous system studied by means of lectures, laboratory exercises, and demonstrations. STOMATOLOGY

118. General Histology. (4½) § F. Lecture 4 hours. Lab 2 hours.

R. H. Kramer

The microscopic structure of tissues and organs of the body are studied with histophysiological considerations. STOMATOLOGY

150.01. Gross & Regional Anatomy. (1½ per week) § Su, F, Sp. Prerequisite: Program must be approved by department and adviser during quarter previous to enrollment.

Asling

Individual or group dissection; advanced review of gross anatomy. Intended as a block elective course for advanced medical or graduate students. ANATOMY

156A. Gross & Regional Anatomy. (3) F. Prerequisite: Admission to Dental Hygiene curriculum, School of Dentistry. Lecture 1 hour. Lab 6 hours.

Fisher

The gross structure of the thorax and abdominal regions studied by means of lectures and demonstration with reference to the functional aspects of the structures studied. STOMATOLOGY

156B. Head & Neck Anatomy. (3) W. Prerequisite: Dental Hygiene students. Lecture 2 hours. Lab 3 hours.

Fisher

The gross anatomy of the head and neck is studied by lectures and demonstrations. Clinical applications and functions of importance to the dental hygienist are emphasized. STOMATOLOGY

156C. Neuroanatomy. (2) W. Prerequisite: Dental Hygiene standing. Lecture 1 hour. Lab 3 hours.

Fisher

The structure and function of the nervous system studied by means of lectures, laboratory exercises, and demonstrations. STOMATOLOGY

170. Advanced Head & Neck Anatomy. (1-5) Sp. Prerequisite: General histology, gross anatomy of the head and neck, and oral histology. Lecture 1 hour. Lab 0-12 hours.

R. D. Coleman

Designed for postgraduate specialty certificate students enrolled in the clinical specialty training programs in the School of Dentistry. Seminar presentation and demonstrations of head and neck anatomy are correlated with their application to clinical dentistry. STOMATOLOGY

170.02. Survey of Congenital Defects. (2) Sp. Prerequisite: Gross anatomy and consent of instructor. Lecture 2 hours.

McKenzie

This course is designed to provide physical therapists with information on the more common human congenital defects. Environmental and genetic factors that produce malformations are considered and possible mechanisms discussed. ANATOMY

170.09. Language of Anatomy. (1) § Su, F, W. Prerequisite: Concurrent enrollment in Anatomy 100. Lecture 1 hour.

Asling

A three-component elective, fostering vocabulary-building in anatomical terminology, reflecting history of medical and cultural themes influencing development of anatomical nomenclature, and through student oral reports on eponymic terms, introducing some major figures in anatomy. ANATOMY

171. Applied Anatomy. (1½) Sp. Prerequisite: Enrollment in post-graduate specialty program. Lecture ½ hour. Lab 3 hours.

Ryder

Course covers anatomy as it relates to anesthesia and periodontal surgery. STOMATOLOGY

172. Clin Anat through Cross-Section. (2) § Sp. Prerequisite: Anatomy 100. Not open to first-year medical students. Lecture 1 hour. Lab 3 hours.

Asling

Clinically oriented survey of human anatomy through analysis of representative cross-sections of the body. Course provides an anatomical background for understanding computed tomograms. Student will pre-

pare and keep an anatomy atlas usable in radiologic tomography. ANATOMY

198. Supervised Study. (1-5) § Su, F, W, Sp.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. ANATOMY

199. Laboratory Project. (1-5) § Su, F, W, Sp.

Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. ANATOMY

201. Radiat Effects on Genes & Chrom. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

S. Wolff

Concepts and mathematics of target theory relating to damage of genetic apparatus. Biophysical and biochemical studies on induction of intragenic and intergenic mutations that give insight into the structure of chromosomes and the interaction of radiation with biological material. ANATOMY

202. Organ Culture Methods. (1) § W. Prerequisite: Basic courses in biology; a course in histology is recommended. Lecture 1 hour.

J. Elias

The course will discuss the advantages of organ culture methods in studying problems in embryology, endocrinology, pathology, and physiology, and in assessing the effects of hormones, nutritional substances, and carcinogens. ANATOMY

203. Techniques in Cell Biology. (3) § Sp. Prerequisite: Consent of instructor. Lecture 3 hours. Offered in alternate years. Offered 1988-89.

S. Rosen, Werb

Course introduces the literature and provides training in topics such as lipid, carbohydrate, peroxidase, general enzyme histochemistry, and ultrastructural cytochemistry; immunoelectrophoresis; immunoelectron microscopy; cell fractionation. Content of course will vary from year to year depending upon students' needs and interests. ANATOMY

204. Cytogenetic Techniques. (3) § Sp. Prerequisite: Consent of instructor. Lab 6 hours.

S. Wolff

Course covers instruction in various methods of chromosome banding as well as cell cycle analysis by autoradiography. ANATOMY

217. Adv Head & Neck Anatomy for Dent. (2-6) § Sp. Prerequisite: Anatomy 117A-B or equivalent and consent of instructor. Lecture 2 hours. Lab 0-12 hours.

R. D. Coleman

A critical analysis of selected topics and methods in head and neck anatomy. Topics are correlated with appropriate laboratory experience and are presented by students, staff, and guests. STOMATOLOGY

220. Anatomy Seminar. (1) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour. Staff

Students, staff, or guests present selected topics concerned with current research in anatomy for criticism and discussion. ANATOMY

225. Experimental Neuroanatomy. (4) § SS1, SS2. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 6 hours. Lecture and lab full time for 2 weeks. Offered in alternate years. Not offered 1988-89.

M. LaVail, Ralston, J. LaVail, Basbaum

Lectures and laboratory projects on the principles and experimental methods of analyzing the neural organization of the central and peripheral nervous systems. Topics include neurocytology, axon transport, neural degeneration, immunocytochemistry, autoradiography, electron microscopy, quantitative data acquisition methods, and photomicrography. ANATOMY

230. Developmental Biology. (3) § F. Prerequisite: Biochemistry 245 and 246 or consent of instructor. Lecture 3 hours.

Calarco, Pedersen

Principles of development presented with an emphasis on cell and molecular research approaches. Topics to be included are early development, cell-cell interactions, and terminal differentiation. Lectures and student discussions of current and classical research approaches. ANATOMY

231. Devel of Cellular & Molec Biol. (3) § W. Prerequisite: Consent of instructor. Lecture 3 hours. Offered in alternate years. Offered 1988-89.

Calarco

Molecular and cellular events relating to differentiation and development. A variety of developmental phenomena will be surveyed and related, where possible, to genetic and epigenetic control mechanisms. ANATOMY

233. Mammalian Chimeras & Mosaics. (2) § Sp. Prerequisite: Consent of instructor. Lecture 2

hours. Offered in alternate years. Offered 1988-89.

Pedersen

Course focuses on procedures for producing mammalian chimeras and the use of chimeras in analysis of development. Topics to be covered include analysis of parthenogenesis, cell commitment, differentiation, growth control, neoplasia, germ cells, and reproduction. ANATOMY

235. Developmental Neurobiology. (1-3) § W. Prerequisite: Consent of instructor. Lecture 1-3 hours. Offered every three years. Offered 1988-89.

J. LaVail, M. LaVail, L. Reichardt

Principles involved in the structural and functional development of the nervous system as well as detailed consideration of the development of several specific regions of the mammalian central nervous system. Lectures, student presentations, and discussions of classical and current literature. ANATOMY

250. Research. (1-8) § F, W, Sp. Staff

ANATOMY

273. Biolog Scanning Electron Micros. (1) § W. Prerequisite: Consent of instructor. Lecture 1 hour. Lab 2 hours for three sessions. Enrollment limited.

J. Long and Staff

Principles of scanning electron microscopy including tissue preparative techniques and applications. Laboratory sessions include participation in preparing and viewing biological specimens. ANATOMY

298. Thesis. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree. ANATOMY

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. ANATOMY

300. Practicum in Teaching. (1-4) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Training in teaching in a course offered by the Department of Anatomy under the supervision of instructor in charge. Laboratory teaching, presentation of lecture material, experience in setting up and correcting of

examinations, and participation in course are included. ANATOMY

400. Clin Anat through Cross-Section. (2) Su, Sp. Prerequisite: Open to house staff members of UC hospitals. Lecture 1 hour. Lab 3 hours.

Asling, Ross

Clinically oriented survey of human anatomy through analysis of representative cross-sections of the body. Course provides an anatomical background for understanding computed tomograms. Student will prepare and keep an anatomy atlas usable in radiologic tomography. ANATOMY

ANESTHESIA

110. Anesthesia Core Clerkship. (3) Su, F, W, Sp. Prerequisite: Medicine 130, 131A-B-C, Physiology 100, Pharmacology 100A-B, and Psychiatry 130.

Staff

Instruction and experience in operating room anesthesia including preoperative and postoperative evaluation and care. Cardiopulmonary resuscitation and care of the unconscious patient are stressed. The course is given at SFGH, UC, VA, C, FR, and AB hospitals. ANESTHESIA

140.01. Advanced Anesthesia Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Anesthesia 110.

Drasner

Instruction and experience in cardiopulmonary resuscitation, care of the unconscious patient, and treatment of pain problems. Rotation through UC, SFGH, and VA. Attendance at the teaching conferences of the department. ANESTHESIA

140.02. Off-Campus Clerkship. (1½ per week) § Su, F, W, Sp. Prerequisite: Anesthesia 110.

R. D. Miller

Clinical clerkships in approved hospitals by special arrangement and approval of the chairperson of the department. ANESTHESIA

140.03A. Intensive Care Clerkship-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Anesthesia 110, Medicine 110, and Surgery 110.

Schlobohm, Luce, Katz, Schecter
Clinical clerkship on techniques of intensive care with primary emphasis on respiratory, cardiovascular, and renal pathophysiology. Patient population includes adult and pediatric patients with medical and surgical illnesses, a significant percentage of whom have been severely traumatized. ANESTHESIA

140.03B. Intensive Care Clerkship-UC. (1½ per week) Su, F, W, Sp.

Prerequisite: Anesthesia 110, Medicine 110, and Surgery 110.

Cohen, Matthay

Clinical clerkship on techniques of intensive care with primary emphasis on respiratory, cardiovascular, and renal pathophysiology. Patient population includes adult and pediatric patients with medical and surgical illnesses, a significant percentage of whom have undergone cardiac surgery. ANESTHESIA

140.04. Anesthesia Obstetrical Clerkship. (1½ per week) Su, F, W. Prerequisite: Anesthesia 110, Obstetrics and Gynecology 110, and consent of instructor.

M. Rosen

Course covers anesthesia and analgesia for vaginal delivery and cesarean section. Emphasis is placed on effects of anesthetic techniques and drugs on normal physiologic changes in labor and delivery, placental transfer of drugs, and resuscitation of the newborn. ANESTHESIA

140.05. Anesthesia for Ambulatory Surgery. (1½ per week) Su, F, W, Sp. Prerequisite: Anesthesia 110.

Bogetz, Orkin

Introduces the medical student to the operation of and the anesthetic management of patients in a hospital-based ambulatory surgery facility. Students work closely with anesthesia faculty and residents and assume a greater role in managing the anesthetic for the unit's patients. ANESTHESIA

150.01. Anesthesia Research Project. (1½ per week) Su, F, W, Sp. Prerequisite: Third- or fourth-year status and consent of instructor.

Glaser

Students conduct research projects under guidance of faculty members. Projects must be approved by instructor involved in supervising student. Students may initiate or become involved in established research programs under faculty guidance. ANESTHESIA

160.01. Basic CPR. (½) F, W, Sp. Lecture 1 hour. Lab 2 hours.

Cohen, Cahalan, Strong

Two-week CPR skills course training students in basic life support skills; cardiac compression and ventilation, management of airway obstruction, and assessment of need to initiate or terminate CPR. Sessions include presentations by Anesthesiology faculty and skills practice for students. ANESTHESIA

178. General Anesthesiology. (6) Sp. Prerequisite: Interns and residents. Clinic.

Hamilton and Staff

Course covers the systemic effects of the various muscle relaxants, seda-

tives, and stimulants and the administration of general anesthetic agents. ANESTHESIA

199. Laboratory Project. (1-5) Su, F, W, Sp.

Eger

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. ANESTHESIA

400. Anesthesia Staff Conference. (2) F, W, Sp.

R. D. Miller

Course includes didactic lectures in sciences basic to the specialty of anesthesia, as well as case reviews, clinical discussions, and seminars on current medical literature in anesthesia. ANESTHESIA

450. Anesthesia Clinical Work. (1½ per week) Su, F, W, Sp. Required during first year of residency, and during either second or third year.

R. D. Miller

Residents are responsible for anesthetic care and management of patients in the operating rooms and outpatient departments, under immediate supervision of the staff. Preoperative and postoperative evaluation of patients, oxygen therapy, and resuscitation are covered. ANESTHESIA

460. Special Assignment. (1½ per week) Su, F, W, Sp. Elective for residents during either second or third year.

UC Eger

Assignments include instruction in anesthesia for children, problems related to open heart surgery, cardiology, and opportunity for research in related fields. ANESTHESIA

ANTHROPOLOGY

200. Off-Campus Study. (0) § F, W, Sp. Prerequisite: Approval of the graduate adviser. Open only to students enrolled in the graduate program in Medical Anthropology.

Staff

Full-time graduate study in the Medical Anthropology program through the intercampus exchange or consortium program. EPID INTL HLTH

205A-B. Intro to Sociocultural Aspects. (3-4, 3-4) § F, W. Prerequisite: Intended primarily for doctoral students in medical anthropology, and others at graduate standing with consent of instructor. Lecture 3 hours, plus 3 hours independent study for 4 units. Required for and open only to first-year students in the UCSF Ph.D. Program in Medical Anthropology. Two-quarter course.

Justice

Seminar in the history and theory of social anthropology as applied to problems of health and illness. Major concepts and problems will be illustrated through critical review of selected research literature. EPID INTL HLTH

206A-B. Intro to Biomedical Anthropology. (3-4, 3-4) § F, W. Prerequisite: Consent of instructor. Lecture 3 hours, plus 3 hours independent study for 4 units. Open only to first-year students in the intercampus Program in Medical Anthropology. Required for students in the UCSF Ph.D. Program in Medical Anthropology. F. Dunn (F), Flander (W)

Survey of the biocultural areas of medical anthropology; anthropology in relationship to biomedicine and human biology. EPID INTL HLTH

211A-B-C. Research Training Seminar. (3-4, 3-6, 3-6) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours, plus 3 hours independent study for 4 units. Required for and open only to second-year students in the intercampus Ph.D. Program in Medical Anthropology.

Ablon, Mitteness, Clark

Fundamentals of anthropological research design and methods through lectures, readings and field assignments. EPID INTL HLTH

212A-B-C. Research Apprenticeship. (2-5, 2-5, 2-5) § F, W, Sp. Prerequisite: Consent of instructor. Lab 6-15 hours.

Staff

Students work with individual faculty members in ongoing research projects. Each student will work on supervised data collection and analytical tasks, and a broader range of research activities, such as problem formulation, grant preparation, sampling, and research design and execution. EPID INTL HLTH

215. Life History Methods. (2-3) § F, W, Sp. Seminar 2-3 hours.

Ablon

Review of theoretical and methodological literature on anthropological life histories and the uses of life history materials. Classic life histories and newer works will be read and examined for the methodologies and analyses utilized. EPID INTL HLTH

216. Research Design. (3) § F, W. Lecture 2 hours. Lab 3 hours.

Nydegger

Workshop format, utilizing student research interests. Topics include model building; problem formulation; design of research strategies; evaluation of sampling methods;

operationalization of concepts; special problems for qualitative data. Course is preparatory for anthropological statistics. EPID INTL HLTH

217. Statistics. (2) § F, W, Sp. Lecture 2 hours. Lab 3 hours. Mitteness

Introduction to statistical methods for the social sciences: measurement, selected data characteristics, probability theory, statistical models, descriptive statistics, the general linear model, analysis of qualitative data. Emphasis is on understanding fundamental assumptions and procedures of statistical methods relevant to anthropology. EPID INTL HLTH

218. Computer Methods. (3-4) § Sp. Lecture 3 hours. Lab 0-3 hours. Staff

An introduction to data processing methods most commonly used by medical anthropologists. Topics covered in lecture and laboratory demonstrations include: how a computer works, data form design, keypunching, use of SPSS and HMD program packages and interpretation of computer output. EPID INTL HLTH

220. Departmental Seminar. (0) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour. Staff

Students, staff, or guest lecturers present selected topics based on their current work. EPID INTL HLTH

221A-B. History & Theory of Anthropology. (3-3) § F, W. Prerequisite: Consent of instructor. Generally limited to students in anthropology. Lecture 3 hours. Staff

A review of the history and development of anthropology and its major theoretical approaches. Lectures, discussion, and readings focus on major issues, trends, personalities, and present concerns in the field. EPID INTL HLTH

222A-B-C. Writing Skills. (1-3, 1-3, 1-3) § F, W, Sp. Prerequisite: Open to Medical Anthropology graduate students only. Lecture 1-3 hours. Course may be repeated for credit. Staff

Students submit papers for editorial comment and advice on style, organization, grammar, syntax, and proper scholarly form. Course includes lectures, informal group discussions on problems encountered in writing papers, and some assigned and recommended readings. EPID INTL HLTH

225. Contemporary Issues. (2-4) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, plus 3 or 6 hours independent study for 3 or 4 units.

M. Clark

Introduction to selected controversies and current issues in medical anthropology, including sociology; sociocultural impact of high technology medicine; abortion, euthanasia and the right to life; status of research on the etiology of mental disorders; advocacy, praxis and the social scientist. EPID INTL HLTH

226. Stigmatized Health Conditions. (2-3) § F, W, or Sp. Lecture 2-3 hours.

Ablon, G. Becker

Examination of social attributes of stigma to such conditions as deafness, alcoholism, obesity, dwarfism, mental and physical disabilities. Self-help groups organized around such conditions will be examined. Guest speakers who have experienced these conditions will contribute to the course. EPID INTL HLTH

227. Community Resources for Health & Mental Health. (3-4) § Sp. Seminar 2-3 hours. Variable field observations.

Ablon

This course will survey the range and categories of indigenous community resources for health and mental health. Informal and formal community organizations, therapeutic self-help groups, voluntary associations, and alternative healing modalities will be analyzed for their functions as health and mental health resources. EPID INTL HLTH

230. Culture & Personality. (2-3) § F. Prerequisite: Consent of instructor. Lecture 2 hours, plus 3 hours independent study for 3 units.

Kiefer

Exploration of the relationship between culturally conditioned ways of perceiving, thinking, and communicating, and individual behavior and personality development. Application of cultural and personality findings in medical and nursing settings. EPID INTL HLTH

231. Ethnopsychiatry. (2-3) § F, W or Sp. Prerequisite: Consent of instructor. Lecture 2 hours, plus 3 hours independent study for 3 units.

M. Clark, Hartog

Course examines principles of healing systems in the treatment of mental disorder including folk healing, cross-cultural comparisons, research methods, and impli-

cations for community psychiatry. Students study local examples of folk healers or folk healing institutions. EPID INTL HLTH

233. Anthropology of Aging. (2-3) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, plus research project for 3 units.

Kaufman

Cross-cultural approaches to roles, statuses, and problems of aged populations. Cultural factors influencing the condition and adaptation of the aged in American society. Topics to be covered include cultural attitudes and values, social relationships, and health problems. EPID INTL HLTH

234. Culture & Symbolic Systems. (2-3) § F. Prerequisite: Anthropology 230A or equivalent, or consent of instructor. Lecture 2 hours, plus 3 hours independent study for 3 units.

Staff

Symbolic expressive behavior is considered from psychocultural life-cycle and psychoanalytic perspectives. Various projective systems are analyzed: psychological tests, dreams, folklore, myths, religious rituals, altered states of consciousness, and healing procedures. EPID INTL HLTH

235. Cross-Cultural Aspects of Childhood. (3) § F. Prerequisite: Consent of instructor. Open to students in medicine, nursing and graduate departments. Lecture 2 hours, plus research paper.

Mitteness, Barker

Review of child development, child rearing and family dynamics in various non-Western cultures and in selected ethnic subcultures of the United States; from historical, psychological, and anthropological perspectives. EPID INTL HLTH

236. Women & Sex Roles. (3) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

Staff

An examination of the significance of gender in the social organization and culture of non-Western and contemporary societies, including both cross-cultural study of economic, political, and religious systems, and in-depth discussion of specific ethnographic areas. EPID INTL HLTH

239. Comparative Family Systems. (3) § F, W or Sp. Prerequisite: Consent of instructor. Lecture 2 hours, plus 3 hours independent study.

Ablon

Anthropological approaches to family study. Structure and dynamics of varying family systems exam-

ined, emphasizing changing family forms and ways family life style and values contribute to modes of coping with stress, illness, and crises. EPID INTL HLTH

245. Development in Late Adulthood. (3) § F, W, Sp. Lecture 2 hours. Lab 3 hours.

Kayser-Jones

Course covers developmental theory and research in aging. Emphasis is on anthropological and sociological studies, but biological and psychological perspectives are included. Current issues in aging with emphasis on implications for health care are discussed. EPID INTL HLTH

246. Comparative Medical Systems. (2-3) § Sp. Prerequisite: Consent of instructor. Lecture 2-3 hours. Staff

Popular medicine in the Third World with emphasis on how people use indigenous and biomedical health care resources. Theories of health and disease, social and symbolic dimensions of healing, and relevance of traditional medicine for health maintenance and primary health care. EPID INTL HLTH

247. Contemporary American Society. (3) § F, W or Sp. Prerequisite: Consent of instructor. Lecture 2 hours, plus 3 hours independent study.

Ablon

A review of anthropologically oriented research on basic American values, social organization, and ethnicity. Emphasis is on socio-economic diversity and changing institutions, values, and life styles. EPID INTL HLTH

248. Group Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Groups of two or more collaborate on special problems in anthropology under the direction of faculty. Students may select areas related to their long-term interest and future research program. EPID INTL HLTH

249. Directed Reading. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Independent study. EPID INTL HLTH

250. Research. (1-8) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

EPID INTL HLTH

251. Social Gerontology. (2-4) § W or Sp. Prerequisite: Consent of

instructor. Lecture 2 hours, plus 3 or 6 hours independent study for 3 or 4 units.

Staff

An overview of the theoretical, empirical, and applied literature on the social processes of aging in this country. Special emphasis on health-related problems and the delivery of services to the elderly. EPID INTL HLTH

252. Culture & Health Policy. (3) § F, W, Sp. Seminar 3 hours. Justice

Combining the perspectives of anthropology and health policy, the course will examine the effect of culturally-linked beliefs and values on utilization of health services and the impact of health policies on medical care in the United States and other countries. EPID INTL HLTH

260. Epidemiology & Med Anthro. (2-4) § Sp. Prerequisite: Training in epidemiology and consent of instructor. Lecture 2 hours plus 3 or 6 hours independent study for 3 or 4 units.

F. Dunn, Janes

Individual or small group directed reading and discussion of epidemiological and medical ecological perspectives, methods, and findings relevant to the field of medical anthropology. EPID INTL HLTH

297. Special Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Independent study. EPID INTL HLTH

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. EPID INTL HLTH

BIOCHEMISTRY

100. Human Metabolism. (5) W. Prerequisite: Interdepartmental Studies 100: Cell and Tissue Biology or consent of instructor. Lecture 4 hours. Conference 2 hours. Colby

Lectures and conferences in the metabolism of carbohydrates, lipids, amino acids, and nucleotides, with emphasis on physiologic regulation. Primarily for medical students. BIOCHEM

110A-B. Cellular Structure & Function. (4-4) § F, W. Lecture 4 hours.

Colby

Lectures in biochemistry include aspects of cell physiology and cellular

ultrastructure, with emphasis in the area of connective and mineralizing tissues. Fundamental knowledge is presented in the context of its applicability to clinical health sciences. Primarily for dental students. BIOCHEM

112A-B. Cellular Structure & Function. (4½-4½) F, W. Lecture 4 hours. Conference 1 hour. Colby, Benson

Lectures and conferences in biochemistry including aspects of cell physiology and cellular ultrastructure, with some emphasis in the area of drug metabolism. BIOCHEM

150.01. Research in Biochemistry. (1½ per week) F, W, Sp. Prerequisite: Consent of instructor. Staff

Research in biochemistry. BIOCHEM

198. Supervised Study. (1-5) § Su, F, W, Sp. Colby

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. BIOCHEM

199. Laboratory Project. (1-5) § Su, F, W, Sp. Prerequisite: Consent of instructor. Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. BIOCHEM

200A. Structure of Macromolecules. (3) § Sp. Prerequisite: Calculus, physical chemistry, organic chemistry, and an advanced course in biology. Lecture 3 hours.

Agard

Fundamental principles governing the behavior of, and modern techniques for study of biological macromolecules. Topics covered include thermodynamics (entropy, equilibrium, cooperative interactions). Kinetics and catalysis: structure and function of macromolecules—DNA, membranes, proteins by X-ray and electron optics. Kinetics and structure of cooperative enzymes and systems of biological control. BIOCHEM

200B. Light & Electron Microscopy. (1½) § Sp. Prerequisite: Calculus, physical chemistry, organic chemistry, and an advanced course in biology are highly desirable. Lecture 2 hours. Lab 3 hours. Offered in alternate years. Offered 1988-89. Biochemistry 200B alternates with 200C.

Sedat, Agard

This course will emphasize the basics of light and electron micros-

copy as applied to cell and structural biology. Topics to be included are bright and dark field, polarization, DIC and fluorescent microscopy, STEM, three-dimensional tomography, and 2D and 3D electron crystallography. **BIOCHEM**

200C. Chromosome Structure & Function. (1½) § Sp. Prerequisite: Calculus, physical chemistry, organic chemistry, and an advanced course in biology are recommended. Lecture 3 hours for one-half quarter.

Sedat
Structure and function of chromosomes in eukaryotes will be discussed in depth, beginning with basic underlying experiments and leading to the most recent proposals for structure. Emphasizes both theoretical and experimental approaches to this area of cell and molecular biology. **BIOCHEM**

200E. Enzymology. (3) § F. Prerequisite: Calculus, physical chemistry, organic chemistry, introductory biochemistry, and an advanced course in biology, or consent of instructor. Lecture 3 hours. Offered in alternate years. Offered 1988-89.

Santi, Kenyon
Biochemically important chemical transformations from the physical organic point of view, emphasizing catalytic mechanisms pertinent to enzyme reactions, and to the development of enzyme model systems. Intermolecular forces and enzyme substrate interactions. Techniques of investigating enzyme mechanisms and kinetics. **BIOCHEM**

201A-B. Biological Regulatory Mechanisms. (3, 1½) § F, W. Prerequisite: Calculus, physical chemistry, organic chemistry, introductory biochemistry and an advanced course in biology. Lecture 3 hours.
Yamamoto

Discussion of the discovery of principles forming the foundation of molecular biology and recent advances in rapidly developing areas of the field. Topics covered include RNA transcription, protein translation, DNA replication, control mechanisms, and genome structure and organization. **BIOCHEM**

202. Computation & Data Analysis. (3) § F, W. Prerequisite: Consent of instructor. Lecture 3 hours.

Martinez
Computer-aided mathematical methods for extracting information from numerical and non-numerical data. Elements of error analysis, parameter estimation, equation solving, signal analysis and word processing, with applications at the research level. Supportive instruc-

tion in a structured programming language. **BIOCHEM**

203. Introduction to Biomathematics. (3) § Sp. Lecture 3 hours.

Martinez
Mathematical modeling of enzyme kinetics, metabolic and hormonal control mechanisms, cooperative interactions of macromolecules, diffusion, passive and active transport, membrane models, excitation and conduction, flow, irreversible thermodynamics. Course offers experience in problem formulation and reading of current literature. **BIOCHEM**

210. Special Topics. (0-5) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1-5 hours.

Staff
Discussion of selected areas in biochemistry, biophysics, and biomathematics. **BIOCHEM**

215. Laboratory Rotation. (3) § F, W, Sp. Prerequisite: Consent of instructor. Lab 9 hours.

C. Guthrie
A laboratory rotation course to familiarize new departmental graduate students with various approaches to biochemical and biophysical research. **BIOCHEM**

220. Selected Topics. (0) § F, W, Sp. Lecture 1 hour.

Alberts
Lectures and discussion on topics of current interest in biochemistry and biophysics. **BIOCHEM**

221. Selected Topics. (0-1) § F, W, Sp. Lecture 1 hour.

Staff
Presentations of selected topics in biochemistry by graduate students in the Department of Biochemistry. **BIOCHEM**

240. Macromolecule Struc & Dynamics. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Offered in alternate years. Offered 1988-89.

A. R. Cooke, Stroud
Consideration of the structure, dynamics and function of macromolecules along with a treatment of the methods used to probe aspects of molecular organization and dynamics. Emphasis will be on modern E.M., X-ray and fluorescence, and magnetic resonance methods. **BIOCHEM**

242. Protein Crystallography. (3) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours. Offered in alternate years. Offered 1988-89.

Stroud
Principles of X-ray crystallography applicable to protein structure analysis will be presented in a course

oriented toward research level understanding of the field. Course will involve group participation and some experimental work. **BIOCHEM**

246. Cell & Developmental Biology. (3) § Sp. Prerequisite: Calculus, physical chemistry, organic chemistry, and an advanced course in biology are recommended. Lecture 3 hours.

Kirschner, G. Martin
Modern aspects of cell biology and development with emphasis on structure-function relationships and multicellular organization. **BIOCHEM**

250. Research. (1-8) § F, W, Sp. Staff

297. Special Study. (1-3) § F, W, Sp. Staff

Reading and conferences for properly qualified students under the direction of a member of the staff. **BIOCHEM**

298. Thesis. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff
For graduate students engaged in writing the thesis for the master's degree. **BIOCHEM**

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff
For graduate students engaged in writing the dissertation for the Ph.D. degree. **BIOCHEM**

BIOENGINEERING

190. Diff Equations for Biomed Use. (3) § F. Prerequisite: Introductory calculus. Lecture 3 hours.

Glantz
Course covers description of biomedical processes such as cardiovascular physiology, pharmacokinetics, instrumentation with ordinary differential equations, direct methods to solve equations and interpret the results; linearity origins of exponential, natural logarithm, sine and cosine functions; eigenvalues, time constants, and half-times.

192. Laplace & Fourier Transforms. (3) § W. Prerequisite: Bioengineering 190 or equivalent. Lecture 3 hours.

Glantz
Course covers Laplace transform and numerical solutions of differential equations; Fourier transform and spectral analysis of biological signals; impulse, step, and fre-

quency response; introduction to curve fitting; examples from pharmacokinetics and common laboratory instrumentation.

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor and academic adviser. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

200. Off-Campus Study. (0) § F, W, Sp.
Glantz
Full-time study in bioengineering at another location through the UCSF/UCB Graduate Group in Bioengineering.

210. Radioactivity Applications. (3) § Sp. Lecture 3 hours.

Perez-Mendez
Basic physics of radioactivity and alpha, beta, gamma, and fission processes. Interactions of radiation with matter, basic radiation detectors for counting and determining energies of charged particles, neutrons, and gammas. Counting statistics and radiation protection. Applications in biology, chemistry, engineering.

220. Bioengineering Seminar. (1) § F. Seminar 2 hours.

Baumrind
Presentation and discussion of student and faculty research in progress.

221. Orthopaedic Mechanics & Materials. (2) § W. Lecture 2 hours.

Skinner
This course is intended to introduce the student to the mechanics of several joints in the human body, to acquaint the student with common biomaterials (and their properties) used in orthopaedics, and to discuss these uses with respect to joint mechanics and joint displacement.

249. Group Studies. (1-8) § F, W, Sp. Prerequisite: Graduate standing. Staff

Advanced study in various subjects through seminars on topics to be selected each year, informal group studies of special problems, group participation in comprehensive design problems, or group research on complete problems for analysis and experimentation.

250. Research. (1-8) § F, W, Sp. Prerequisite: Graduate standing. Staff

280. Clin Aspects of Bioengineering. (2) § Sp. Prerequisite: Consent of instructor. Lecture 1½ hours. Lab 1½ hours.

Litt

Aspects of bioengineering will be explored within the context of clinical realities. Important clinical issues relevant to bioengineering will be reviewed to help the student appreciate the potentials and pitfalls of contemporary technologies. The course will convene each week for one and one-half hours of lecture, and one and one-half hours of clinical and laboratory experience. Throughout the course there will be contact with scientists, physicians, nurses, technicians, and patients. The course will familiarize bioengineering students with clinical activities at UCSF and teach them to rapidly identify important medical issues that require advanced bioengineering support.

297. Special Study. (1-8) § Su, F, W, Sp. Staff

Reading and conferences for properly qualified students under the direction of a member of the staff.

298. Thesis. (0) § Su, F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff
For graduate students engaged in writing the thesis for the master's degree.

299. Dissertation. (0) § Su, F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff
For graduate students engaged in writing the dissertation for the Ph.D. degree.

BIOMATERIALS

156. Dental Materials Survey. (1) Sp. Lecture 1 hour. Lab 1 hour.

Bertolotti
An introduction for the dental hygienist to the basic concepts associated with selected dental materials. Emphasis is placed on the use and manipulation of materials commonly used in the practice of dentistry. **RESTOR DENT**

BIOMATHEMATICS⁹

180. Algebra & Calculus for Biomed. (3) § Su. Prerequisite: Consent of instructor.

Licko
Mathematical concepts and processes for planning, representation, and analysis in biomedical research. Review of algebraic operations, equations, matrices, and graphs. Introduction to functions,

sequences, convergence, derivatives, integrals, and infinite series. Applications to growth, binding, enzyme kinetics, tracer studies, population dynamics. **BIOCHEM**

190. Biolog Modeling through Diff Eqn. (3) § F. Prerequisite: Biomathematics 180 or equivalent. Lecture 2 hours. Lab 3 hours.

Licko
Development of intuitive notions regarding differential equations. Quantitative and qualitative aspects of differential equations are explored by analog, digital, and analytic techniques. Applications to selected problems in compartmental analysis, enzyme and drug kinetics, and metabolic and biological control dynamics. **BIOCHEM**

193A-B-C. Adv Calculus & Diff Equations. (3-3-3) § F, W, Sp. Lecture 3 hours.

Martinez
Ordinary differential equations. Systems of algebraic and differential equations. Laplace transform, matrix, algebra, vectors. Partial differential equations, boundary value problems. Applications to problems of physiology, pharmacology, biochemistry, and biophysics. **BIOCHEM**

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Martinez and Staff
Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the division. **BIOCHEM**

214. Endocrine Dynamics. (3) § W. Prerequisite: Biomathematics 193A-B-C or equivalents, or consent of instructor.

Licko
Review of relevant parts of compartmental and tracer analysis and control theory. Analysis of dynamics of secretory process, distribution, binding and metabolism of hormones, and hormonal control. Differential equations and both analog and digital computers are utilized throughout the course. **BIOCHEM**

BIOPHYSICS¹⁰

200. Off-Campus Study. (0) § W. Prerequisite: Approval of the graduate adviser. Open only to students enrolled in the graduate program in Biophysics. Staff

¹⁰The Graduate Group in Biophysics is an interdisciplinary group offering a Ph.D. in Biophysics. For details, refer to the Graduate Division Bulletin.

⁹See Biochemistry 202 and 203.

Full-time graduate study in the biophysics program through the inter-campus exchange or consortium program.

201. Cellular Biophysics. (3) § F. Prerequisite: Biochemistry 200A. Lecture 3 hours.

Cooke, Papahadjopoulos, Rothman
Topics covered: membrane structure and dynamics; transport and permeability; cellular motion and muscle contraction; cell energetics; DNA replication and information transfer; cell cycles.

203. Mending Human Genes. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

Cleaver
Introduction to eukaryotic DNA repair mechanisms. Emphasis is on cells damaged by UV light, ionizing radiation, and chemical carcinogens. The genes involved in regulating repair in various inherited diseases involving mutagenesis, carcinogenesis, and aging will be described.

207A. Image Cytometry: Theory, Methods & Applications. (2) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Mayall, Chew
Introduction to quantitative microscopy, electronic imaging; digital image processing; feature extraction; measurement of individual objects; statistical analysis and validation of data; research and clinical applications of image cytometry.

207B. Image Cytometry: Theory, Methods & Applications. (3) § Sp. Prerequisite: Successful completion of 207A. Lab.

Mayall, Chew
One-week practicum to introduce image cytometric systems of Laboratory for Cell Analysis (CAS 100, TAS Plus, QUIPS). Students will complete a small project in which they apply image cytometry to a problem of biological or clinical relevance.

210. Radiation Biophysics. (3) § F. Prerequisite: Consent of instructor. Lecture 3 hours.

Deen
Three hours of lecture and discussion per week. Interaction of electromagnetic radiation with matter; radiation chemistry; molecular lesions induced by radiation; damage and repair in mammalian cells; interaction of radiation and other agents in mammalian cells.

215. Laboratory Rotation. (3) § Su, F, W, Sp. Prerequisite: Consent of instructor. Lab 9 hours.

Deen
A laboratory rotation course to acquaint first-year Biophysics students

with the various approaches to biophysical research. Students will rotate through 3-4 labs.

220. Biophysics Seminar. (3/4) § F, W, Sp. Lecture 1½ hours bi-weekly.

Mendelson
Guest lecturers and reports of research by faculty and students of the Graduate Group in Biophysics.

250. Research. (1-8) § F, W, Sp. Staff

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff
For graduate students engaged in writing the dissertation for the Ph.D. degree.

See Also:
Biochemistry 200A
Chemistry 260
Biostatistics 183

BIOSTATISTICS

171. Introduction to Linear Algebra. (3) § F. Prerequisite: One year of college-level mathematics. Lecture 3 hours.

Beal
This course provides a general introduction to linear algebra. The main topics to be covered are: linear equations, matrices, vector spaces, linear transformations, determinants, eigenvalues and eigenvectors. Understanding of the contents of theorems will be emphasized; understanding of proofs will not be emphasized. The course can be helpful to people planning to take courses in linear statistical methods or applied linear mathematical methods, as well as provide information useful for many advanced courses in mathematics. EPID INTL HLTH

183. Intro to Statistical Methods. (4) § Su, Sp. Lecture 4 hours.

Hoffman, Glantz
Course stresses application of methods, including analysis of variance, simple linear regression, and simple chi-square tests. Intended for those who may need to use elementary statistics in their work; not as preparation for 200-level courses. EPID INTL HLTH

185A. Probability & Statistics. (4) § W. Prerequisite: Working knowledge of algebra. Lecture 4 hours.

G. Fein
Biostatistics 185A and 185B are conceptually oriented introductory courses that prepare the students for 200-level course work. Topics covered include roles of statistical ideas and methods, descriptive statistics, probability, random variables, sam-

pling, estimation, confidence intervals, and hypothesis testing, primarily concerning population means. EPID INTL HLTH

185B. Probability & Statistics. (4) § Sp. Prerequisite: Completion of Biostatistics 185A; working knowledge of algebra. Lecture 4 hours.

G. Fein
Continuation of Biostatistics 185A. Course covers one- and two-factor analysis of variance, linear regression analysis with one and two independent variables, elementary nonparametric methods, simple chi-square tests, and other topics. EPID INTL HLTH

187. Statistical Theory & Practice. (5) § F. Prerequisite: Previous course in introductory statistics. Lecture 4 hours. Lab 2 hours.

Paul
Review of basic statistical theory, sampling, descriptive statistics, and probability. Presentation of confidence intervals, hypothesis testing, one- and two-factor analysis of variance, correlation, simple linear regression, and chi-square tests. A preparation for more advanced work. EPID INTL HLTH

191. Clinical Trials & Life Tables. (3) § Sp. Prerequisite: Biostatistics 183 or equivalent or permission of the instructor. Lecture 3 hours. Offered in alternate years.

Hauck
Will cover the design, operation, and analysis of clinical trials. Specific topics will include: basic trial designs, methods for treatment assignment, sample size determination, methods for the analysis of life tables. EPID INTL HLTH

198. Supervised Study. (1-5) § Su, F, W, Sp. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. EPID INTL HLTH

201. Analysis of Qualitative Data. (3) § F. Prerequisite: Biostatistics 185A-B or Biostatistics 187 or permission of instructor. Lecture 3 hours.

Hauck
Course will focus on data analysis of studies in which summary statistics are rates and proportions. Topics include sample size, measures of association, chi-square tests, methods for matched and stratified data, and introduction to multivariate methods (log-linear and logit analyses). EPID INTL HLTH

210A. Regression Analysis & ANOVA. (4) § W. Prerequisite: Biosta-

tics 185A-B or equivalent. Lecture 3 hours. Lab 3 hours.

Heilbron
Course covers the uses of multivariable regression techniques, focusing on the choice of technique and interpretation of results rather than on mathematical development of the methods. Design of experiments is stressed with appropriate emphasis on power analysis. EPID INTL HLTH

210B. Regression Analysis & ANOVA. (4) § Sp. Prerequisite: Biostatistics 185A-B, Biostatistics 210A or equivalent. Lecture 3 hours. Lab 3 hours.

Heilbron
This course continues the material and approach of Biostatistics 210A. Topics include analysis of variance and covariance (primarily from a regression standpoint), repeated measures analysis of variance. EPID INTL HLTH

213. Multivariate Methods. (4) § F. Prerequisite: Biostatistics 210A and 210B or equivalent. Lecture 3 hours. Lab 3 hours. Offered in alternate years. Not offered in 1988-89.

Heilbron
Course covers classical multivariate methods such as canonical correlation, multivariate analysis of variance, principal components, and discriminant analysis. Emphasis is on application and interpretation of these procedures with real data. EPID INTL HLTH

225. Selected Topics. (2 or 3) § F, W, Sp. Lecture 2 or 3 hours. Lab 0 or 3 hours.

Staff
Course will cover topics such as statistical methods for failure time data, time series, statistical methods for epidemiology. EPID INTL HLTH

250. Research. (1-8) § F, W, Sp. Staff
EPID INTL HLTH

297. Special Study. (1-3) § F, W, Sp. Conference 1-3 hours.

Staff
Reading and conferences for qualified students under the direction of a member of the staff. EPID INTL HLTH

CELL BIOLOGY

215. Laboratory Rotation. (3) § F, W, Sp. Prerequisite: Consent of instructor. Lab 9 hours.

Staff
A laboratory rotation course to familiarize new departmental graduate students with various approaches to cell biology research. BIOCHEM

245. Cell and Developmental Biology. (3) § W. Prerequisite: Calculus, physical chemistry, organic chemistry, and an advanced course in biology are highly desirable. Lecture 3 hours.

White, Hudspeth, Miechison
Modern aspects of the biochemical basis of cell biology and development will be examined with emphasis on spatial organization and morphogenesis. BIOCHEM

247. Specialized Topics in Cell Biology. (2) § Sp. Prerequisite: Cell Biology 245. Lecture 2 hours.

Werb, Damsky
Cell biology of the extracellular matrix in 1988. Topics will change annually. BIOCHEM

250. Research. (1-8) § SS1, SS2, Su, F, W, Sp. Prerequisite: Consent of instructor.

Staff
BIOCHEM

CHEMISTRY

112. Intro to Organic Chemistry. (0) F. Prerequisite: Completion of 8 units of organic chemistry. Lecture 1 hour. Lab 4 hours.

Craig
Survey of basic organic chemistry—structure and reactivity; an introductory study of the nomenclature, stereochemistry, spectroscopy, and reactions of the major organic compounds of carbon, including aromatic compounds. PHARM CHEM

113. Organic Chemistry. (3) F, Sp. Prerequisite: Chemistry 112 or passing grade in the Chemistry 112 equivalency examination. Lecture 3 hours.

Ketcham, Castagnoli
A continuation of the study of compounds of carbon including some aromatic, hydro-aromatic, and heterocyclic compounds. PHARM CHEM

115. Physical Chemistry. (5) F. Prerequisite: Chemistry 5 or equivalent laboratory course in quantitative analysis and differential and integral calculus. Lecture 4 hours. Conference and demonstration 3 hours.

Shetlar
Elementary physical chemistry with emphasis on thermodynamics. PHARM CHEM

116. Physical Chemistry. (2) W. Prerequisite: Chemistry 115 or equivalent. Lecture 1½ hours. Conference and demonstration 1½ hours.

T. James
Elementary physical chemistry with emphasis on chemical kinetics. PHARM CHEM

117. Organic Chemistry Laboratory. (2) Sp. Prerequisite: Chemistry 112 or passing score in Chemistry 112 equivalency examination, Chemistry 113 or concurrent enrollment in Chemistry 113, or consent of instructor. Lecture 1 hour. Lab 4 hours.

Ketcham
Laboratory experiments in identification and quantification of organic substances. PHARM CHEM

151. Physical Chemistry. (1-3) Sp. Prerequisite: Consent of instructor. Lecture 1-3 hours.

Kuntz
Selected topics at an introductory level, which vary from year to year. Past topics included structure of nucleic acid and proteins, quantum chemistry, and spectroscopy. PHARM CHEM

158. Physical Chemistry Laboratory. (1) Sp. Prerequisite: Chemistry 115 and 116. Lab 3 hours.

Kuntz
Laboratory exercises in spectroscopy. PHARM CHEM

165. Organic Chem-Analytical Meth. (4) § F. Prerequisite: Chemistry 113. Lecture 1 hour. Lab 9 hours.

Ketcham
A study of the reactions of organic compounds by applying a system of qualitative analyses to the determination of characteristic groups. PHARM CHEM

198. Supervised Study. (1-5) F, W, Sp. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHARM CHEM

199. Laboratory Project. (1-5) F, W, Sp. Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PHARM CHEM

202. Advanced Organic Chemistry. (3) § Sp. Prerequisite: Chemistry 113, 116, and 165 or equivalent. Lecture 3 hours.

Oppenheimer
A study of the detailed processes associated with organic reactions. PHARM CHEM

203. Advanced Organic Chemistry. (3) § W. Prerequisite: Chemistry 113, 115, and 165 recommended. Lecture 3 hours.

Ortiz de Montellano

Physical organic chemistry; the structure of molecules and its relationship to mechanisms of reaction. PHARM CHEM

205. Advances in Synthetic Methods. (2) § F. Prerequisite: Chemistry 113 and 165 or equivalent. Lecture 2 hours.

J. Craig

Recent advances in synthetic methods, comprising specific oxidizing agents, specific reducing agents, and other specific reagents. PHARM CHEM

208. Advanced Organic Chemistry. (3) § Sp. Prerequisite: Chemistry 113 and 165 or equivalent. Lecture 3 hours.

Craig, Whitney

Terpenes and steroids. Occurrence, chemistry, stereochemistry and structure function relationships of natural products such as carotenoids, fat-soluble vitamins and steroids, and their precursors. PHARM CHEM

209. Chemistry of Heterocyclics. (3) § Sp. Prerequisite: Chemistry 113 and 165 or equivalent. Lecture 3 hours.

J. Craig, Kenyon

A survey of the main nitrogen, oxygen, and sulfur-containing heterocycles. PHARM CHEM

260. Advanced Physical Chemistry. (4) § W. Prerequisite: Two quarters of physical chemistry or consent of instructor. Lecture 4 hours.

Dill

Molecular thermodynamics. PHARM CHEM

261. Advanced Physical Chemistry. (2) § Sp. Prerequisite: Chemistry 260 or equivalent. Lecture 2 hours. Shetlar

Theory and applications of chemical kinetics. PHARM CHEM

262. Advanced Physical Chemistry. (4) § F. Prerequisite: Chemistry 151 or equivalent. Knowledge of differential equations recommended. Lecture 4 hours.

Kollman

Quantum mechanics and applications to molecular problems. PHARM CHEM

263. Biophysical Chemistry. (3) § Sp. Prerequisite: Chemistry 260 or consent of instructor. Lecture 3 hours.

Dill

Basic principles of biophysical chemistry. Properties of biomolecules and macromolecules, and physical principles of experimental methods including scattering, hydrodynamics, sedimentation, gels, chromatography. PHARM CHEM

CLINICAL DENTISTRY

409. Clinical Dentistry. (0-10) F, W, Sp. Clinic 0-30 hours.

Staff

Responsibility for patient dental care in the wards and comprehensive clinic under the direction of the attending staff. Dental consultations and treatment are coordinated with medical care. Residents take histories and perform physical examinations, laboratory tests, and dental treatment. STOMATOLOGY

CLINICAL PHARMACY

110. Orientation. (2) F. Conference and field observation 3-4 hours.

R. Levin

An introduction to the scope of pharmaceutical practice including field trips to and participation in various settings where the pharmacist and patient interact. CL PHARM

130. Therapeutics. (6) F. Prerequisite: Successful completion of all required first- and second-year courses or consent of instructor. Lecture 5 hours. Conference 2 hours.

Koo, Kapusnik

Orientation to selected areas of medical practice, the clinical evaluation and comparison of drugs used in these areas, and the bio-pharmaceutics of drug combinations and products. CL PHARM

131. Therapeutics. (6) W. Prerequisite: Clinical Pharmacy 130 or consent of instructor. Lecture 5 hours. Conference 2 hours.

L. Hart, A. F. Wong

Continuation of Clinical Pharmacy 130. CL PHARM

132. Therapeutics. (7) Sp. Prerequisite: Clinical Pharmacy 131 or consent of instructor. Lecture 6 hours. Conference 2 hours.

Dong, Stagg

Continuation of Clinical Pharmacy 131. CL PHARM

133. Nutrition. (3) Sp. Prerequisite: Third-year standing. Lecture 3 hours.

McSweeney

Clinical aspects of nutrition in ambulatory and institutional practice with emphasis on special needs of different populations. Nutritional supplements, enteral and parenteral products will be discussed as they apply to these populations. CL PHARM

134. Topics in Pharmacy Administration. (2) Sp. Prerequisite: Third- or fourth-year standing. Lecture 2 hours.

Kishi

Survey of major world health problems, and programs and agencies concerned with their control. Relationships of pharmacy to topics such as emergency medical services, communicable diseases, nutrition, sanitation, occupational health, maternal and child hygiene, mental health, and public health administration. CL PHARM

135A. Drug Information Orientation. (1½) Su, F, W, Sp. Prerequisite: Third-year standing. Concurrent or subsequent enrollment in Clinical Pharmacy 130, 131 or 132.

L. Hart

Orientation to clinical services including patient interview techniques and monitoring; training and actual experience in literature retrieval, analysis and dissemination of drug information. CL PHARM

135B. Drug Information Orientation. (½) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 135A.

L. Hart

Continuation of Clinical Pharmacy 135A. CL PHARM

148A. Inpatient Clinical Clerkship. (9) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and Clinical Pharmacy 130 series comprehensive examination. Clinic 40 hours per week for six weeks.

Flaherty and Staff

Supervised clinical pharmacy experience in an inpatient setting. Students develop and explore their roles in an interdisciplinary health care team, take medication histories, monitor drug therapy, provide patient education, and research patients' specific drug information questions. CL PHARM

148B. Inpatient Clinical Clerkship. (9) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A. Clinic 40 hours per week for six weeks.

Flaherty and Staff

Continuation of Clinical Pharmacy 148A. CL PHARM

148.01A. Inpatient Clerkship-UCSD. (9) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and Clinical Pharmacy 130 series comprehensive examination. Clinic 40 hours per week for six weeks.

Adler and Staff

Supervised clinical pharmacy experience in an inpatient setting. Students develop and explore their roles in an interdisciplinary health care team, take medication histories, monitor drug therapy, provide patient education, and research patients' specific drug information questions. CL PHARM

148.01B. Inpatient Clerkship-UCSD. (9) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 148A. Clinic 40 hours per week for six weeks.

Adler and Staff

Continuation of Clinical Pharmacy 148.01A or Clinical Pharmacy 148A. CL PHARM

148.02A. Inpatient Clerkship-UCI & MHLB. (9) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and Clinical Pharmacy 130 series comprehensive examination.

Shimomura and Staff

Supervised clinical pharmacy experience in an inpatient setting. Students will develop and explore their roles in an interdisciplinary health care team, take medication histories, monitor drug therapy, provide patient education, and research patients' specific drug information questions. CL PHARM

148.02B. Inpatient Clerkship-UCI & MHLB. (9) F, W, Sp. Prerequisite: Clinical Pharmacy 148.02A.

Shimomura and Staff

Continuation of Clinical Pharmacy 148.02A. CL PHARM

148.03A. Inpatient Clinical Clerkship-UCD. (9) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work and the comprehensive examination. Clinic 40 hours per week for 6 weeks.

Sauer and Staff

Supervised clinical pharmacy experience in an inpatient setting. Students will develop and explore their roles in an interdisciplinary health care team, take medication histories, monitor drug therapy, provide patient education, and research patient-specific drug information questions. CL PHARM

148.03B. Inpatient Clinical Clerkship-UCD. (9) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148.03A. Clinic 40 hours per week for 6 weeks.

Sauer and Staff

A continuation of Clinical Pharmacy 148.03A. CL PHARM

149. Ambulatory Externship/Clerkship. (13) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and Clinical Pharmacy 130 series comprehensive examination.

A. Leeds and Staff

Supervised clinical experience in an outpatient setting. Students develop and explore their roles in an interdisciplinary health team, take medication histories, monitor drug therapy, and provide patient education.

Experience in community pharmacies. CL PHARM

149.01. Ambulatory Externship/Clerkship-UCSD. (13) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and Clinical Pharmacy 130 series comprehensive examination.

Weibert and Staff

Supervised clinical experience in an outpatient setting. Students develop and explore their roles in an interdisciplinary health team, take medication histories, monitor drug therapy, and provide patient education. Experience in community pharmacies. CL PHARM

149.02A. Amb Externship/Clkshp-UCI & MHLB. (6½) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and Clinical Pharmacy 130 series comprehensive examination.

Shimomura and Staff

Supervised clinical experience in an outpatient setting. Students develop and explore their roles in an interdisciplinary health team, take medication histories, monitor drug therapy, and provide patient education. Experience in community pharmacies. CL PHARM

149.02B. Amb Externship/Clkshp-UCI & MHLB. (6½) F, W, Sp. Prerequisite: Clinical Pharmacy 149.02A.

Shimomura and Staff

Continuation of Clinical Pharmacy 149.02A. CL PHARM

149.03. Ambulatory Externship/Clerkship. (13) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year courses and comprehensive examination. Clinic 40 hours per week for 12 weeks.

Sauer and Staff

Supervised clinical experience in an ambulatory care setting. Students develop and explore their roles in an interdisciplinary health team, take medication histories, monitor drug therapy and provide patient education. Experience in community pharmacies. CL PHARM

155.10. Pharmacy Systems. (3) F, W, Sp. Prerequisite: Third-year standing or higher. Lecture 1 hour. Conference and special project 6 hours.

Herfindal

Orientation to inpatient and outpatient pharmacy systems. Projects in design, justification and implementation of distribution systems, such as unit dose, intravenous additive services, computer applications, will

be the major grading criteria. CL PHARM

155.20. Drug-Induced Disease Problems. (3) F, W, Sp. Prerequisite: Pathology 135. Third-year standing or higher. Lecture 2 hours. Special project 4 hours.

Tong

The phenomena of iatrogenic diseases will be studied with major emphasis on their significance, pathology and management. Assessment of collection and analytic methods of adverse drug reaction information and evaluation of literature will be considered. Special projects will be assigned. CL PHARM

155.30. Infectious Diseases Topics. (3) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor. Lecture and seminar 3 hours.

Guglielmo

Course provides students with intensive, systematic approaches to management of patients with selected infectious diseases. Emphasis is on controversies in management. Infectious diseases in specialized circumstances also included. CL PHARM

155.40. Seminar in Intraprofessional Communications. (1) F. Prerequisite: Second-, third-, or fourth-year standing and consent of instructor. Lab 2-3 hours. Seminar 1 hour. Conference 1 hour.

Levin

Preceptorship for Clinical Pharmacy 110 conferences. One sophomore and one junior preceptor per conference will be responsible for conducting oral presentations. One senior per conference will be responsible for taking students on tours of clerkship sites. CL PHARM

155.50. Oncology Seminar. (2) F. Prerequisite: Fourth-year pharmacy students in good standing; graduate nursing students in the oncology program. Seminar 2 hours.

Ignoffo

Discussion in detail of topics in oncology that focus upon the pharmacologic management of various neoplastic disorders or cancer-induced problems. CL PHARM

157.10. Pharmacy Services Administration. (1-8) F, W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Shimomura, W. E. Smith

Course provides students with an overview of management and increases their awareness of major components of pharmacy services administration. CL PHARM

170. Group Studies. (1-4) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Group studies of selected topics in clinical pharmacy. CL PHARM

170.01. Geriatric Pharmacy. (2) F, W, Sp. Lecture 2 hours.

Lipton

The medical and social problems associated with the geriatric population will be reviewed, with emphasis on the use of medications and the role of the pharmacist in providing care for this patient population. CL PHARM

170.05. Issues Facing Women in Pharmacy. (2) Sp. Seminar 2 hours.

Kimble, Sauer

Through lecture and discussion, issues facing women in pharmacy will be explored. Specific topics to be addressed include career planning and management; balance or career and personal life; job vs. career commitment; part-time work options; and issues related to increasing numbers of women entering the profession. CL PHARM

170.08. Current Topics in Cancer. (2) Sp. Lecture 2 hours.

Ignoffo

This interdisciplinary course is designed to provide a framework of concepts and skills about preventive medicine, focusing on cancer prevention. CL PHARM

170.60. Pharmacist & Critical Care. (1½) Sp. Prerequisite: Fourth-year standing and basic life support certification. Lecture 1 hour plus project.

Kayser

This course provides an introduction to the basic principles of critical care pharmacology and therapeutics. CL PHARM

175.01. Inpatient Pediatrics-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Bolinger

Students participate in the activities of the Inpatient Pediatric Service. Activities include routine review of patients' charts, monitoring patients' response to drug therapy; attendance at conferences, seminars and rounds; and participation in selected therapeutic consultations. CL PHARM

175.02. Renal Medicine-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Gambertoglio

Students participate in the activities of the Renal Medicine Service, in-

cluding patient monitoring, attendance at conferences, seminars and rounds, and application of pharmacokinetics to drug therapy. Where appropriate, students prepare detailed consultations regarding individual patient therapy. CL PHARM

175.03. Infectious Diseases-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Guglielmo

Students review Infectious Disease Service therapeutic consultations and evaluate patients' response to recommended therapy by following chart records and by direct interviews. Students attend conferences, seminars and rounds. Special projects assigned. CL PHARM

175.04. Clinical Pharmacokinetics-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter

Students participate in the clinical service of the Clinical Pharmacokinetics Laboratory. Course includes reviewing drug levels, selecting patients to be monitored, preparation and presentation of reports, attendance at seminars, and experience in leading one. CL PHARM

175.07. Neonatal ICU-UC. (1-8) SS1, SS2, Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required coursework. Consent of instructor.

A. Wong

Participate in activities of Neonatal ICU, including patient monitoring, rounds, drug consultation, and utilization. Patients are primarily premature and newborn infants with congenital heart defects. Work under supervision of clinical pharmacist in management of these patients. CL PHARM

175.21. Pediatrics-SFGH. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

R. Levin

Students participate with pediatric staff dealing with problems frequently encountered in general pediatric medicine, in addition to those which afflict children from low income, overcrowded and substandard conditions. Activities include rounds, conferences and participation in special projects. CL PHARM

175.22. Infectious Diseases-VAM. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Rose, Erb, Gee

Students gain experience on the Infectious Disease Consult Service.

Activities include rounds, medication consultations and provision of pharmacokinetic monitoring. CL PHARM

175.24. Psychiatric Medicine-NS. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Cohen

Students observe, interview, evaluate drug therapy, interact with patients in acute phases of psychiatric disorders, accompany unit physicians to court, attend interdisciplinary team conferences, and make specific comments on drug therapy. CL PHARM

175.25. Inpatient Medicine-VA. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Korman and Staff

Experience in various medical services at VA. Activities include interviewing patients, monitoring drug therapy, consultation with house staff, and participation in conferences, seminars and rounds. Special projects assigned. CL PHARM

175.26. Infectious Diseases-SFGH. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149 and consent of instructor.

Kapusnik, Mills

Students round with SFGH Infectious Diseases Consultation Service; evaluate antibiotic selection and monitor patients' therapy for efficacy and toxicity; serve as drug consultants to the medical staff on the service. (A special project relating to some aspect of infectious diseases and its therapy will be completed.) CL PHARM

175.27. Burn Unit-STF. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Winter, Damato, Jansen

Students work in Burn Unit Satellite, monitoring patients' wound cultures, antibiotic therapy and drug serum levels, renal function, nutritional status and pain management. Student is involved with patient from surgical intervention through rehabilitation. CL PHARM

175.30. Clinical Toxicology Pharmacology-SFGH. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and the comprehensive exam. Consent of instructor.

Winter, Olson

Students, in an interdisciplinary setting, assess clinical problems relating to the selection, pharmacodynamics and therapeutic merits of

drugs and drug products. Activities include participation in rounds and conferences, collaboration on selected consultations, and retrieval and evaluation of drug literature. CL PHARM

175.31. Clinical Pharmacology-S. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Kondo

Students participate in the activities of the Division of Clinical Pharmacology. Activities include utilization of computerized patient drug profiles to monitor adverse drug reactions, and participation in conferences and seminars. Special projects assigned. CL PHARM

175.33. Inpatient Family Practice-SFGH. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Dong

Students participate in the activities of the Family Practice Inpatient Service. Students will be responsible for drug surveillance, drug monitoring, management consultations, and patient education. A minimum of two patient-specific drug consultations is required. CL PHARM

175.34. Psychopharmacology-AS. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149 and consent of instructor.

Winter, Raleigh, O'Brien

Provides student opportunity to follow patients from admission until housed on treatment unit. Initial reasons for prescribing medication, acute illness, and in some cases, resolution of psychiatric symptoms will be observed by student. CL PHARM

175.37. Inpatient Psychiatry-VA. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Winter, Buffum and Staff

Students participate on the inpatient acute care psychiatric ward. Activities include monitoring and interviewing patients, participation in team meetings, conferences, and pharmacy medication classes, presenting inservice programs to psychiatric staff. CL PHARM

175.39. Oncology/Nutrition-STF. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149 and consent of instructor.

Winter, Jacobs

Work on oncology unit monitoring patients on chemotherapy, nutrition support, pain control, and antibiotic therapy. Gain in-depth knowledge of role of clinical pharmacist in a private hospital oncology unit. CL PHARM

175.40. Thyroid-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Dong

Students participate in the activities of the Thyroid Clinic, including patient monitoring, attendance at conferences and seminars. Work under supervision of the clinical pharmacists and physicians in the chronic management of selected patients. CL PHARM

175.41. Dermatology-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132, and Pharmacy 155. Consent of instructor.

McCart

Experience in various subspecialty areas in the Dermatology Clinic. Students take medication histories, and instruct patients on proper medication usage. They participate in conferences, seminars and rounds, and provide therapeutic consultations where appropriate. Special projects assigned. CL PHARM

175.42. Ob-Gyn-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Ruggiero

Experience in various subspecialty areas in the Obstetrics and Gynecology Clinic. Students work with other health professionals and students in the clinic, participating in conferences and seminars. Prepare detailed consultations regarding drug therapy where appropriate. CL PHARM

175.43. Diabetes-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

M. Kimble

Students participate in the activities of the Diabetes Clinic, including patient education, drug therapy consultation and management, and attendance at conferences and seminars. At option of student, a special project may be undertaken in addition to regular clinic activities. CL PHARM

175.45. Anticoagulation-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Kayser

Students participate in the activities of the Anticoagulation Clinic. Special project is required, the subject of which shall be chosen by the student, with the consent of the preceptor. CL PHARM

175.46. Hematology/Oncology-UC. (1-8) Su, F, W, Sp. Prerequisite:

Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Stagg

Students participate in the daily activities of the Hematology-Oncology and/or Oncology Clinics. Special project is required. CL PHARM

175.47. Rheumatology-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

A. L. Leeds

Students participate in the activities of the Rheumatic Disease and/or Arthritis Clinics. Special project is required, the subject of which shall be chosen by the student, with the consent of the preceptor. CL PHARM

175.60. Ross Valley Pharmacy Clerkship. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, and 132. Consent of instructor.

Winter, Lofholm

Students interview patients, maintain medication records, explain medication usage to patients, and answer drug therapy questions generated by physicians, pharmacists and patients in a pharmacy located within a group medical practice. CL PHARM

175.61. Co-op Pharmacy Clerkship. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Kamil, Olayos

Students take patient medication interviews, explain medication usage to patients, and answer drug therapy questions generated by physicians, pharmacists and patients in a community pharmacy setting. CL PHARM

175.63. Sunset Mental Hlth Clin Clkshp. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, T. Wong, S. Kaufman, Bernstein, Baker

Students work with the clinical pharmacist to evaluate psychiatric patients' response to drug therapy, and present consultations reviewing overall patient therapeutic management in weekly seminars. CL PHARM

175.64. Haight Heroin Detox Unit Clkshp. (1-8) Su, F, W, Sp. Prerequisite: Consent of instructor.

Winter, Inaba, Hayner

Students work as co-therapists under the supervision of the clinical pharmacist and physicians to develop individual therapy plans for drug detoxification. Where needed, students develop detailed drug information reports appropriate to specific patient care. CL PHARM

175.65. Monteagle Pharmacy Ckshp. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Scheidtmann, Arauzo, Stein-Larson

Practical experience in a hospital-owned community pharmacy offering progressive patient-oriented services, including drug monitoring, establishment and maintenance of medical profiles, patient counseling, drug information and inservice education. CL PHARM

175.68. Senior Medication Education Prog. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, L. Eng

Students provide patient education and consultation to seniors and senior providers. Students will be able to utilize their skills, knowledge, and on-site training to prevent and intervene in geriatric drug misuse problems. CL PHARM

175.70. Skilled Nursing Facility Ckshp. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Winter, Nico, Rhoades, Fickle

Students gain experience in both the skilled nursing facility and Pharmaceutical Services Pharmacy. Activities include evaluating drug therapy and other consultant roles in skilled nursing facility service, participation in unit dose medication system, and researching drug information. Special project required. CL PHARM

175.79. Home Care Services. (1-8) SS1, SS2, Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required coursework. Consent of instructor.

Winter, Alexander

Students participate in Home Health Care Services, including fluid compounding, patient monitoring, multi-disciplinary meeting, interacting with nurses in the home setting, patients both pre- and post-discharge and with physicians in their office setting to become familiar with all aspects of home specialty care. CL PHARM

175.80. Parenteral Nutrition. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

McSweeney

Students participate in IV fluid therapy selection and preparation, and monitor patients receiving intravenous medications. Conferences are held on topics related to problems in the use of intravenous fluid

therapy in various disease states. CL PHARM

175.82. IV Additives Clerkship-VA. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Korman, Wong and Staff

An introduction to the administrative, professional and technical aspects of establishing and maintaining IV additive service. Students will participate in workshops and conferences. CL PHARM

175.83. IV Additives & Unit Dose-VAM. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Erb, Carr, Lopez, J. Gee
Students participate in centralized IV admixture and unit dose systems of distribution, with involvement in the decentralized clinical activities, including patient profile reviews. CL PHARM

175.84. Drug Utilization Review-VAM. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Erb, J. Gee

Students participate in establishing and presenting the protocol for a drug utilization review. Students will complete the study during the rotation, and present results to the physicians and other disciplines involved. CL PHARM

175.87. Drug Utilization Review-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

McCart

Students design a drug utilization review. After receiving introductory material about purpose and value of such studies, students gather, evaluate, and interpret data for a final written report suitable for publication. CL PHARM

175.90. Drug Information Clerkship-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

L. Hart

Advanced experience in drug information retrieval and analysis. Activities include participation in conferences, seminars and selective teaching assignments in Clinical Pharmacy 135. Special projects assigned. CL PHARM

175.91. Drug Information Clerkship-AB. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and 135. Consent of instructor.

Winter, Miller and Staff

Experience in collection, evaluation and dissemination of drug information in a community-based drug in-

formation service. Activities include answering drug information requests from community practitioners. CL PHARM

175.93. Cost Control & Qlty Assurance. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Hirschman, Padelford

Students observe and participate in a business-professional environment to understand the role of such an organization in delivery of optimal, cost-effective health care. Special emphasis on delivery of pharmaceutical services. CL PHARM

175.94. Drug Information-S. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Winter, Tatro

Participate in activities of drug information service, including answering drug-related questions, writing a newsletter and drug review. Work under supervision of the director for drug information. CL PHARM

175.99. Clinical Pharmacy Practice. (0) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required coursework and consent of instructor.

Winter

Supervised clinical pharmacy experience. Students develop and explore their roles in an interdisciplinary health care team, take medication histories, monitor drug therapy, provide patient drug education and research patient's specific drug information questions. CL PHARM

176.01. Nephrology-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the Renal Consult Service, Hemodialysis Unit and in the Renal Clinic with the medical and nursing staff. A special project selected by the student will be required. CL PHARM

176.02. Pulmonary Medicine-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the activities of the Pulmonary Medicine Consult Service, Chest Clinic and Asthma Clinic associated with the Pulmonary Division at University Hospital. CL PHARM

176.03. Neonatal Care-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the nursery's morning work rounds, attending

high risk infant transportation and delivery. Students will read and evaluate current neonatal literature, and provide drug-related information to medical staff and parents. CL PHARM

176.04. Pediatrics-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the activities of the Inpatient Pediatric Service. Activities include routine review of patients' charts, monitoring patients' response to drug therapy, attendance at conferences, seminars and rounds, and participation in selected therapeutic consults. CL PHARM

176.05. Psychiatry-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the Inpatient Psychiatric Service. A special project will be required, the subject of which shall be chosen by the student, with the consent of the preceptor. CL PHARM

176.40. Anticoagulation-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

Weibert and Staff

Students participate in the services of the anticoagulation clinic at University Hospital under the guidance of a clinical pharmacist. CL PHARM

176.41. Hematology/Oncology-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler, P. Lee

Students participate in the activities of the Hematology-Oncology Consultation Service. Activities include review of patients' charts, monitoring patients' response to drug therapy, attendance at conferences, seminars, rounds and clinics, participation in therapeutic consultations and a special project. CL PHARM

176.42. Hypertension-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

Weibert and Staff

This hypertension clerkship is an outpatient, six-week elective requiring students to become actively involved in one clinic day per week, as well as in one student-preceptor conference per week. CL PHARM

176.80. IV Additives & Fluid Ther-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the activities of the Intravenous Additive Service

at University Hospital. A special project will be required, the subject of which shall be chosen by the student, with the consent of the preceptor. CL PHARM

176.81. Poison Information-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

Manoguerra and Staff

Students participate in the services provided by the Poison Information Center for San Diego County, including receiving calls concerning ingestions and treatments, and seminars for the public and various school groups. CL PHARM

176.82. Anticoagulation-VASD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

D. Adler and Staff

Students participate in the services of the Anticoagulation Clinic under the guidance of a clinical pharmacist. CL PHARM

176.83. Drug Information-UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01.

P. Anderson

Students participate in the services provided by the Drug Information Service including receiving drug information requests, researching and writing formal responses. CL PHARM

178.69. Skilled Nurs Facility-Pharmacare. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Sauer, Menet

Student participates in clinical and dispensing activities of pharmacy practice concerned with long-term care patients located within skilled nursing facilities throughout Sacramento area. CL PHARM

185.05. Oncology-UC. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Ignoffo

Students attend work rounds, house staff management rounds and teaching conferences; learn techniques utilized in caring for patients with hematologic or solid tumors. Emphasis on acute care of cancer patient: anti-emetic and pain control; hyperalimentation; treatment of hypercalcemia and infections. Project. CL PHARM

185.06. Cardiothoracic Surgery-UC. (1-8) F, W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Guglielmo

Students are responsible for patient interviewing, monitoring, rounds, and drug consultation. Patients are primarily pediatric with congenital heart defects and adults undergoing

aorta-coronary bypass grafts and cardiac valve replacement. CL PHARM

185.20. Vallejo General Hospital Ckshp. (1-8) Su, F, W, Sp. Prerequisite: Fourth-year standing and Clinical Pharmacy 148 or 149.

Hazlet, Winter

The clerkship stresses the integration of dispensing and clinical practice in a prime community hospital. Students will make daily didactic and/or patient presentations to pharmacy staff members. A project is required. CL PHARM

185.22. Pediatrics-CHMC. (1-8) Su, F, W, Sp. Prerequisite: Completion of all first-, second-, and third-year course work and consent of instructor.

Winter, Lundergan, Rockwood

Students will participate in the activities of the In-Patient Pediatric Service at Children's Hospital, Oakland. Emphasis will be placed on the development of clinical skills in pediatric pharmacy, with a limited exposure to the development of essential administrative skills. CL PHARM

185.23. Medicine-SRM. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Dennis, Sobel

Students attend rounds, interview patients and take medical histories, monitor and evaluate drug therapy, anticipate and identify drug therapy problems, provide patient with specific information to health team members, provide drug and health information to patients, document clinical services. CL PHARM

185.25. Brookside Hospital Clerkship. (1-8) F, W, Sp. Prerequisite: Completion of all first-, second-, and third-year required course work.

Winter, Levin, Millice

Students participate in various clinical activities, including patient monitoring (antibiotics, nutritional support, pharmacokinetics), patient education and drug information. CL PHARM

185.28. Psychiatric Care Unit-STF. (1-8) SS1, SS2, Su. Prerequisite: Completion of all first-, second-, and third-year required course work and successful completion of the comprehensive examination.

Winter, Closson

The student will participate in an interdisciplinary team approach to psychiatric care, including drug therapy monitoring, daily interdisciplinary patient care rounds and patient evaluation. CL PHARM

185.29. Intensive Care—STF. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, and 132. Consent of instructor.

Winter, Gatterer, Jansen

Students work with clinical pharmacist in ICU, monitoring patient drug therapies throughout intensive illness course. Diseases of patients include acute failure of any physiologic system including cardiovascular, renal, hepatic, neurologic, and pulmonary. CL PHARM

185.33. Drug Information Service—VAM. (1-8) F, W, Sp. Prerequisite: Fourth-year standing.

Winter, Lopez, Gee

Students participate in the activities of the drug information center including providing consultation on drug therapy questions, evaluation of the medical literature, and preparation of a written project suitable for publication. CL PHARM

185.34. Inpatient Clinical Pharmacy. (1-8) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required course work and the comprehensive examination.

Winter, Garich, Inouye

The student will work with the clinical pharmacist and will be involved in the care of critically ill patients with multiple medical problems (i.e., sepsis, multiple organ failure) to provide optimal drug therapy by proper drug selection, avoiding drug interactions, and monitoring therapeutic outcomes. CL PHARM

185.36. Nutrition Support—Queen's Medical Center. (1-8) F, W, Sp. Prerequisite: Completion of all first-, second-, and third-year required course work and successful completion of the comprehensive examination.

Winter, Garich, Schanzenbach

The student will work with the nutrition support pharmacist and will be involved in the care of patients receiving parenteral nutrition to provide optimal therapy by maximizing nutritional supplementation with regard to the patient's specific disease state. CL PHARM

185.38. Alcoholism & Poly-Drug Abuse—OC. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149A and 149B. Consent of instructor.

Winter, Furtado, Icazo

Detoxification and management of alcoholism and poly-drug abuse. Emphasis on methods of acute detoxification and support services in rehabilitation of patients, including responsibilities of health care team members and consideration of phys-

ical and psychological consequences. CL PHARM

185.66. Women's Health Center. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Winter, Inaba, Dillon, Langden

Students participate in functions of family planning-gynecological clinic, including management and handling of pharmaceuticals, monitoring BCP users under NP supervision, and participating in special projects. CL PHARM

185.67. Extended Care—Marin Cnty. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Winter, Robertson

Students interview patients, monitor drug therapy, provide nursing inservice education, provide drug information consultations to physicians, and conduct drug utilization and adverse drug reaction studies. Students continuously document activities and findings and submit a written report. CL PHARM

185.70. Consultant Practice in Extended Care. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and the comprehensive exam. Consent of the instructor.

Winter, Pratt, Henrietta

Students will participate in drug regimen and internal nutrition reviews, nursing inservices and medication distribution reviews, and conduct medication administration error audits and special projects. Students may also be involved with the development of laptop computer consulting and nutritional and pharmacokinetic consults. CL PHARM

185.71. Jail Medical Services—SF. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Winter, Kubo-Hendriks, Lum

Students gain experience managing medical problems of adult and adolescent patients at three jail sites; participate in daily clinic, medical screening, patient monitoring, conferences. Optional administrative or clinical project. CL PHARM

185.72. Outpatient Forensic Psychiatric Service—CSP. (1-8) F, W, Sp. Prerequisite: Completion of Clinical Pharmacy 130, 131, 132 and consent of instructor.

Winter, Leung

Students participate in the activities of an outpatient forensic mental health clinic including drug therapy monitoring, patient education and counseling, drug utilization re-

views, medication clinics, medication groups, and inservice conferences. They will work under the supervision of faculty in the ongoing management of selected mentally disturbed criminal-justice patients. CL PHARM

185.75. Hospice—SFGH (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second- and third-year required coursework and the comprehensive exam. Consent of instructor.

Winter, Echaves

Students will participate in patient home visits as a member of the Hospice Committee at San Francisco General Hospital to determine the efficacy of drug therapy and assess medication compliance. CL PHARM

186.06. Clinical Pharmacokinetics—UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149 and/or consent of instructor.

D. Adler, J. Lane

Discussion and review of pharmacokinetic principles in drug therapy relating to clinical cases at UCSD, including computer modeling, specific consults, and lectures to medical and nursing staff. A special project is assigned. CL PHARM

186.07. Burn and Trauma Center—UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149 and/or consent of instructor.

D. Adler, P. Anderson

Participation in activities of Burn Unit including patient drug therapy monitoring, developing antibiotic therapy dosing recommendations, observing surgical and burn care procedures, conferences, seminars, and staff support conferences. Pharmacy conference and special project assigned. CL PHARM

186.59. Medical Specialties—UCSD. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148.01A or 149.01. Consent of instructor.

D. Adler and Staff

Exploration of the potential service roles of clinical pharmacists in various medical specialty settings. CL PHARM

187.01. Oncology—MHLB. (1-8) W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Shimomura, Diamant, Towne

General orientation to the most frequently occurring diseases of oncology and hematology. Emphasis on developing working knowledge of chemotherapeutic agents. Emphasis on application of chemotherapy to oncologic diseases, preparation and administration of agents, side effects and toxicity, applicable phar-

macokinetic calculations. CL PHARM

187.02. Pharmacokinetics—MHLB. (1-8) Su, F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Shimomura, Ambrose

Participation in all aspects of clinical pharmacokinetics service including information, consultations, and drug dosing regulations, under approved protocols. Involvement in analysis and evaluation of serum drug levels, particularly in patients with altered drug disposition. CL PHARM

187.03. Anticoagulation—MHLB.

(1-8) W, Sp. Prerequisite: Clinical Pharmacy 148A and consent of instructor.

Shimomura, R. Cook

Participation in application of heparin and warfarin guidelines, which involve dosage adjustment, clinical assessment, data collection, medical audit. Students learn about management of patients with thromboembolic diseases through conferences, selected readings and clinical participation. CL PHARM

187.04. Pediatrics—MHLB. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Shimomura, Hodding, Folli, Rivers

Participation in patient care rounds, monitoring case presentations, pharmacokinetic evaluations, literature research, and CPRs in neonatal and pediatric patients. Major pediatric disease states and appropriate drug therapy will be reviewed daily. Six to ten hours of medical seminars each week. CL PHARM

187.05. Psychiatry—UCI. (1-8) W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Shimomura, Plon

Active involvement with patients and staff in acute care mental health facility. Students interview, interact with, and monitor patients. Thorough background into various forms of mental disorders, treatment and role of pharmacist will be presented. CL PHARM

187.06. Pediatrics—UCI. (1-8) W, Sp. Prerequisite: Clinical Pharmacy 148A or 149. Consent of instructor.

Shimomura, Zenk

Students participate in activities of neonatal intensive care unit and inpatient pediatric services, monitoring patients, attending rounds and conferences. Emphasis will be on acute inpatient pediatric medicine and neonatology under supervision

of pediatric clinical pharmacist and pediatricians. CL PHARM

187.07. Ophthalmology—UCLA. (1-8) W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Shimomura, S. Gardner

Students participate in the activities of the Jules Stein Eye Institute, which include patient monitoring, attendance at conferences and seminars, and dispensing of ocular medications. Students work under the supervision of the pharmacist preceptor in learning the management of common diseases of the eye. CL PHARM

187.08. Emergency Room—UCI. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Shimomura, R. Thomas

Students participate in activities of emergency room and become familiar with the role of the pharmacist in this setting. Emphasis is on managing emergency conditions such as drug overdose, diabetic ketoacidosis, trauma, and cardiac arrhythmia. CL PHARM

187.09. Fairview State Hospital Ckshp. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Shimomura, Shukur

Students observe and participate in activities of the pharmacy and developmental services at the hospital. Emphasis is on diagnosis and management of neurological and genetic diseases such as seizure disorders and mental retardation. CL PHARM

187.10. Long-Term Care Facilities. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131 and 132. Consent of instructor.

Shimomura, Tobias

Students observe and participate in monitoring geriatric patients in several long-term care facilities. Students will gain appreciation of the role of the consultant pharmacist and learn how to adjust drug therapy and dosages for geriatric patients. CL PHARM

187.11. Medicine at La Habra Com Hosp. (1-8) F, W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Shimomura, Kitayama, Levesque

Students participate in rounds with clinical pharmacists. They are involved in monitoring TPN solutions, screening patients with positive culture results to assure appropriate antimicrobial selection and dosage, adjusting serum levels of selected agents. CL PHARM

187.20. Psychopharmacology—Patton. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Shimomura, Luna

Students exposed to psychopharmacology and participate in clinical pharmacy activities of a state psychiatric hospital; become familiar with federal and state regulations affecting pharmacy practice in skilled nursing, intermediate care, and acute psychiatric care facilities. CL PHARM

187.21. Presbyterian Intercommunity Clin. Pharmacokinetics. (1-8) Su, F, W, Sp.

Shimomura, Zeisler

Students will acquire the basic knowledge in applied pharmacokinetics necessary to provide consultative assistance to the physicians in developing an appropriate drug dose regimen. Emphasis will be placed on integrating knowledge of patients' problems with the knowledge of the drug's kinetic and pharmacologic properties. CL PHARM

187.60. Home Care—Pharm Enterprises Inc. (1-8) F, W, Sp. Prerequisite: Clinical Pharmacy 130, 131, 132 and consent of instructor.

Shimomura, Martinez, Henry

Students round with health care team in hospitals, extended care facilities, and homes. Involved with monitoring total parenteral nutrition, chemotherapy, pain management, antibiotic therapy, and related services for home care patient. CL PHARM

187.61. Foster Infusion Care. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required coursework.

Shimomura, Campbell

Students will be exposed to various aspects of a home care pharmacy including pre-discharge patient assessment, patient training and education, manufacturing of parenteral solutions and home delivery, and patient follow-up visits. CL PHARM

187.65. FHP-HMO Clinical Pharmacy Clerkship. (1-8) F, W, Sp. Prerequisite: Completion of all first-, second-, and third-year required course work.

Shimomura, Giambone, Ponedal

Students participate in providing clinical pharmacy services in an HMO setting. Activities include attending inpatient service rounds, providing clinical services to ambulatory patients and providing inservice education classes and preparing pharmacy and therapeutic committee drug reviews. CL PHARM

187.80. Drug Information—MHLB. (1-8) F, W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Shimomura, Towne, Schweigert
Students will be provided the opportunity to develop the skills required to work in a drug information service, which includes organization and retrieval of drug information, drug literature evaluation, and effective verbal and written communication. *CL PHARM*

187.81. IV Additives—UCI. (1-8) F, W, Sp. Prerequisite: Fourth-year standing and consent of instructor. **Shimomura, Ming**

Students participate in the activities of an intravenous additive service in a large university teaching hospital. Students will learn about aseptic technique, compatibility and stability of drugs in intravenous solution, total parenteral nutrition, prefilled syringe programs, home hyperalimentation and piggybacks. *CL PHARM*

187.82. Drug Information—UCLA. (1-8) W, Sp. Prerequisite: Fourth-year standing and consent of instructor.

Shimomura, Vrabel

An on-line experience in a drug information center serving a large multidisciplinary teaching hospital. Through a series of experience modules, in addition to day-to-day information requests received by the center, students will be expected to demonstrate competence in drug literature evaluation and drug information retrieval skills. *CL PHARM*

187.83. IV Additives—UCLA. (1-8) W, Sp. Prerequisite: Fourth-year standing and consent of instructor. **Shimomura, Casselman**

Clerkship provides an opportunity for students to develop and use skills relating to all areas of a centralized IV additive service. Students will make routine case presentations regarding patients receiving different types of intravenous therapy, including parenteral nutrition. *CL PHARM*

188.01. Oncology—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work and consent of instructor.

Sauer and Staff

A supervised clinical pharmacy experience in inpatient and outpatient settings which allows students to develop skills in clinical pharmacy settings involved with oncology practice. Through observation and performance, students will develop and explore their roles as clinical pharmacists. *CL PHARM*

188.02. Psychiatric Medicine—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work, Clinical Pharmacy 148 or 149 and consent of instructor.

Sauer and Staff

Students participate on the UCD Medical Center inpatient acute care psychiatric ward. Activities include monitoring and interviewing patients, participation in team medical rounding, conferences, and pharmacy medication classes. Students will also present inservice program(s) to the psychiatric staff and pharmacy staff. *CL PHARM*

188.03. Poison Information—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work, Clinical Pharmacy 148 or 149 and consent of instructor.

Sauer and Staff

Students participate in poison control center activities, e.g., answering phone, poison histories, monitoring patients, and giving poison prevention talks to the public and health care professionals. *CL PHARM*

188.04. Neonatal Intensive Care—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year classes and consent of instructor.

Sauer and Staff

Students will become members of Neonatal Intensive Care Team, attend rounds, conferences, monitor and evaluate drug therapy, and provide drug therapy-related consultation. *CL PHARM*

188.05. Medical Intensive Care—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work, Clinical Pharmacy 148 and consent of instructor.

Sauer and Staff

The student will work with pharmacist in the Medical Intensive Care Unit (MICU) and satellite pharmacy providing both clinical and distributive pharmacy services. Students will be exposed to drug therapy as it relates to different disease states seen in the unit. *CL PHARM*

188.06. Surgical Intensive Care—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work, Clinical Pharmacy 148 or 149 and consent of instructor.

Sauer and Staff

The student will be placed as a liaison from the Department of Pharmacy to the Surgical Intensive Care

Unit. He/she, under the supervision of a pharmacist, will assume responsibility for the pharmacologic management of critically ill patients. *CL PHARM*

188.07. Gastroenterology-Clinical Nutrition—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work, Clinical Pharmacy 148 and consent of instructor.

Sauer and Staff

The clerkship affords the student an extensive experience in clinical pharmacy services to the Gastroenterology and Clinical Nutrition services at UCD Medical Center. The student will manage patients requiring parenteral nutrition and become an integral member of the Gastroenterology Consult Team. *CL PHARM*

188.08. Microcomputer Applications in Pharmacy Practice—UCD. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year course work and consent of instructor.

Sauer and Staff

The student will identify and develop a solution for a problem in pharmacy practice that can be resolved by the use of microcomputers. In addition, the student will review the utility of various software used in pharmacy practice. *CL PHARM*

188.09. Drug Utilization Review—UCD. (1-8) Su, F, W, Sp. Prerequisite: Fourth-year standing, completion of Clinical Pharmacy 148 or 149.

Sauer and Staff

Upon familiarization with the literature, the student will design and conduct a drug utilization review and present the results to the Hospital Pharmacy and Therapeutics Committee. *CL PHARM*

188.10. Infectious Diseases—UCD. (1-8) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required course work and comprehensive examination.

Sauer, King

Students will be active participants in the UCD Medical Center Infectious Diseases Consult Service. They will work closely with the Infectious Disease Pharmacist, evaluating antibiotic selection, monitoring therapy and providing drug information. A project will be completed during the rotation. *CL PHARM*

188.20. Oncology/Sutter Community Hospitals. (4-8) F, W, Sp. Prerequisite: Fourth-year standing only. **Sauer, Spencer, Jue**

A supervised clinical pharmacy experience in inpatient and outpatient settings which allows students to develop clinical skills involved with oncology, nutritional support, and hospice. Through observation and performance, the students will develop and explore their roles as clinical pharmacists. *CL PHARM*

188.21. Cardiology Inpatient Clerkship. (1-8) Su, F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required coursework and consent of instructor.

Sauer, Jue, Keil, Hall, Spencer

A supervised clinical pharmacy experience in an inpatient setting which allows students to develop skills in clinical pharmacy involved with cardiology. Through observation and performance, students will develop and explore their roles as clinical pharmacists. *CL PHARM*

188.30. OPTION Care. (1-8) F, W, Sp. Prerequisite: Completion of all first-, second-, and third-year required course work.

Sauer, Fox

Student(s) will participate in selected areas of a home health care pharmacy. Students will develop skills in areas of parenteral and enteral nutrition, diabetic training, ostomy appliance applications, and durable medical equipment services in a home setting and a skilled nursing facility (convalescent hospital) setting. *CL PHARM*

188.31. Pharmacy Consultation: Skilled Nursing Facility. (1-8) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required course work and the comprehensive examination.

Sauer, DiGiambattista

The student will work in the long-term care setting. This includes learning federal and state regulations mandating frequency of drug regimen reviews and pharmacy systems operations. Projects may be DUR, inservices to nursing personnel or a newsletter. *CL PHARM*

188.32. Medical Arts Parenteral Services, NMC Inc. (1-8) F, W, Sp. Prerequisite: Successful completion of all first-, second-, and third-year required courses and the comprehensive examination.

Sauer, Okamoto, Dager

Pharmacy students will participate in various operations within a home health care pharmacy. Subject areas include TPN, enteral nutrition, and home antibiotic therapy. Clinical monitoring of such patients will be emphasized. *CL PHARM*

188.40. Veterinary Medicine—UCD (1-8) Su, F, W, Su. Prerequisite:

Successful completion of all first-, second-, and third-year required coursework and consent of instructor.

Sauer, Enos, Martin

The student will participate in the clinical and dispensing activities of a pharmacy practice involved in veterinary medicine. Through observation and performance, students will explore the role of the clinical pharmacist in the care of large and small animals. *CL PHARM*

198. Supervised Study. (1-5) F, W, Sp. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. *CL PHARM*

450. Pharmacy Clinical Work. (8-12) F, W, Sp. Prerequisite: Resident standing.

Herfindal, Kishi and Staff

Residents provide pharmacy service to patients in the wards and outpatient clinics including taking drug use histories, preparing and monitoring medication profiles, providing drug use information and consultation, and related activities. In addition, there are administrative and teaching responsibilities. *CL PHARM*

451. Drug Information. (5) Su, F, W, Sp. Prerequisite: Resident standing and approval of program director.

Herfindal, Hart

Residents provide drug information and consultative services on request. Activities include literature searches, preparing reports and other communications, and teaching and administrative responsibilities involving the Drug Information Analysis Service. *CL PHARM*

452. Administration. (5) Su, F, W, Sp. Prerequisite: Resident standing and approval of program director.

Herfindal, Kishi and Staff

Residents are responsible for carrying out assignments related to the administration of a modern hospital pharmacy service. Activities include preparation of budgets, supervision and development of staff, program planning and related administrative assignments. *CL PHARM*

453. Research. (1-5) Su, F, W, Sp. Prerequisite: Resident standing and approval of program director.

Herfindal, Kishi and Staff

Research programs are arranged with appropriate faculty members on an individual basis. *CL PHARM*

COMMUNITY DENTISTRY

168. Community Health Methods. (2) W. Lecture 1 hour. Lab 3 hours. **Silverstein**

Dental hygiene students work in the North Oakland community with the Children and Youth Project staff. Students are assigned to area schools where oral screening is done. Students also make home visits. *DENT PUB HLTH*

CRANIOFACIAL ANOMALIES

170.21. Craniofacial Function. (2) F. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry programs or consent of instructor. Lecture 2 hours. **A. Miller**

This course emphasizes those properties of the neuromuscular system that modify the craniofacial morphology and structure. *GR DEVEL*

171. Diagnosis & Treatment. (2) F, W, Sp. Lecture 1 hour. Seminar and clinic 3 hours. **Chierici, Vargervik**

Diagnostic, preventive, and corrective methods relative to patients with congenital malformations of the orofacial region are discussed. *GR DEVEL*

171.22. Craniofacial Anomalies. (2) W, Sp. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry programs or consent of instructor. Lecture 2 hours. **Vargervik**

Demonstration of various types of craniofacial anomalies, assessment of growth and development of abnormal and normal craniofacial structures, diagnosis and evaluation of the more common anomalies and associated impaired functions and therapeutic needs of the individual patient. *GR DEVEL*

186.01. Abnormal Orofacial Development. (1) F, W, Sp. Prerequisite: Fourth-year standing or consent of instructor. Seminar and clinic 3 hours. **Chierici, Vargervik**

The pathogenesis of jaw deformities, dental malocclusions, and speech disorders associated with congenital malformation is discussed. Instruction in diagnosis and preventive and corrective treatment methods is given in the clinic. *GR DEVEL*

DENTAL AUXILIARY UTILIZATION

120. Use of Dental Auxiliaries. (½) Sp. Prerequisite: General Dentistry 111. Lecture 1 hour for one-half of quarter. **Ino**

Classroom instruction and demonstrations in the effective use of the dental assistant. DENT PUB HLTH

180B. Advanced Concepts. (1) W. Prerequisite: Dental 4 and Dental Hygiene 2 students. Lecture 1 hour.

Silver, Ino

Advanced management of resources in the dental practice will be presented. The resources to be discussed are auxiliary personnel, time and directed effort. DENT PUB HLTH

180C. Practice Management. (1/2) Sp. Prerequisite: Dental 4 and Dental Hygiene 2 students. Lecture 5 hours.

Weitzel

A five-lecture course concentrating on business problems which immediately impact on the practitioner entering private practice. It will focus on efficient and effective strategies in allocation of time, money, clinical effort, business effort (front office), and outside consultant effort. DENT PUB HLTH

DENTAL HEALTH EDUCATION

150A. Intro to Dental Health Education. (2) F. Lecture 2 hours.

Ishida

An introduction to theories of learning and educational methodology as applied to clinical practice of dental hygiene. Development and implementation of individualized preventive programs for dental patients are emphasized. DENT PUB HLTH

160. Community Dental Health. (2) W. Prerequisite: Dental Health Education 150A. Lecture 2 hours.

Tobin

Explores alternative, non-clinical roles for dental hygienists while introducing the student to program planning, implementation, evaluation, and financing theories. Students are given the opportunity to develop program planning and evaluation skills with a selected community dental health education field project. DENT PUB HLTH

161. Curriculum Planning & Design. (3) F. Lecture 3 hours.

M. Walsh

Analysis of theories and research in education emphasizing teaching strategies, evaluation methods, and principles of curriculum development for use in planning educational programs in schools of dental hygiene. Includes a field study for application and evaluation of selected teaching interactions. DENT PUB HLTH

198. Supervised Study. (1-5) F, W, Sp. Prerequisite: Dental Health Education 150A-B, 160A-B, and Biostatistics.

Francisco

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. DENT PUB HLTH

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Dental Health Education 150A-B and 160A-B. Lecture 1 hour. Lab 0-12 hours.

Francisco

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. DENT PUB HLTH

DENTAL HYGIENE

109. Clinical Dental Hygiene. (1-2) SS. Prerequisite: Dental Hygiene 155A-B, 159, and approval of the chairperson of the division. Clinic 3-6 hours.

Staff

Course provides additional clinical dental hygiene experience before entry into the second-year clinic. DENT PUB HLTH

150A-B-C. Introduction to Dental Hygiene. (2-2-2) F, W, Sp. Lecture 2 hours.

Heckman

Role of dental hygienist in dentistry studied; emphasis on objectives and principles of preventive periodontal treatment procedures. Various procedures and their rationale are integrated as related to clinical skills. Introduction to anatomy, physiology and pathology of oral cavity is included. DENT PUB HLTH

152. Introduction to Research. (1) Sp. Prerequisite: To be taken concurrently with Dental Public Health and Hygiene 121. Lecture 1 hour.

Poupard

Concomitant with Dental Public Health and Hygiene 121, each student will prepare an annotated bibliography on a research topic of choice. DENT PUB HLTH

155A-B. Intro to Clinical Dental Hygiene. (2-2) F, W, F: Lab 3 hours. Clinic 3 hours. W: Lab 6 hours.

Heckman

Laboratory and clinical experiences in patient evaluation, record keeping, case presentation and instrumentation techniques for providing prevention-oriented dental hygiene treatment. DENT PUB HLTH

155.01A-B. Clinical Dental Hygiene Seminar. (0-2, 0-2) F, W. Heckman

Clinical laboratory seminar to discuss clinical procedures and patient management following Dental Hygiene 155A-B. DENT PUB HLTH

159. Clinical Oral Prophylaxes. (2) Sp. Prerequisite: Dental Hygiene 155A-B. Clinic 6 hours.

Heckman

Continuation of clinical experiences from Dental Hygiene 155-A-B with emphasis on improved proficiency in all areas. DENT PUB HLTH

159.01. Clinical Dental Hygiene Seminar. (1/2) Sp. Seminar 1 hour given in alternate weeks.

Heckman

Clinical seminar to discuss patient management and clinical procedures. DENT PUB HLTH

160B-C. Jurisprudence & Office Mgmt. (1, 2) W, Sp. Lecture 1 hour W; 2 hours Sp.

Kerner

Introduction to the ethical, legal and professional responsibilities of the dental hygienist. Emphasis on the California Dental Practice Act, malpractice prevention and professional organizations. Integrated topics include practice management and career planning. DENT PUB HLTH

161. Orientation to Dentistry. (2) W. Prerequisite: Dental Hygiene 151. Lecture 2 hours.

Poupard

Continuation of Dental Hygiene 151. Course includes tooth transplantation and implantation, orthodontics, oral surgery, craniofacial anomalies, maxillofacial rehabilitation, and removable and fixed prosthodontics. DENT PUB HLTH

162A. Research Design. (2) F. Prerequisite: Dental Hygiene 152, Dental Public Health and Hygiene 121. Lecture 2 hours.

Poupard

Fundamentals of research design and the scientific method. Each student will expand her/his experiences from Dental Hygiene 152 and prepare a research protocol. DENT PUB HLTH

162B-C. Research Design. (0-4) W, Sp. Prerequisite: Dental Hygiene 162A. Lecture 1 hour.

Poupard

Continuation of Dental Hygiene 162A. Implementation of a research project and preparation for publishing, table clinic or poster session. DENT PUB HLTH

169A-B-C. Adv Clinical Dental Hygiene. (3-5-5) F, W, Sp. Prerequisite: Dental Hygiene 155A-B, 155.01A-B and 159. Concurrent enrollment in Dental Hygiene

169.01A-B-C. Clinic 9 hours F; 15 hours W, Sp.

Kerner

Advanced clinical dental hygiene techniques including periodontal maintenance therapy, pain control, and soft tissue curettage in cases of moderate to advanced stages of periodontal disease. DENT PUB HLTH

169.01A-B-C. Clinical Seminar. (0-1, 0-1, 0-1) F, W, Sp. Prerequisite: Concurrent enrollment in Dental Hygiene 169A-B-C. Lecture variable.

Walsh

Lecture and seminar in clinic policies and procedures, dental hygiene treatment planning, periodontal maintenance therapy, clinical photography and related topics. Students will give case presentations during winter and spring quarters. DENT PUB HLTH

188. Advanced Clinical Functions. (2) F. Lecture 1 hour. Lab 3 hours.

Hannebrink

Study of the anatomical, physiological, pharmacological, and periodontal aspects of the administration of local anesthetics, nitrous oxide-oxygen sedation, and performance of soft-tissue curettage. Students obtain didactic and clinical experiences in these functions. DENT PUB HLTH

189. Independent Study. (0-4) F, W, Sp. Prerequisite: Second-year standing in dental hygiene and consent of instructor.

Poupard

Students select an area of interest for independent study or research. These may include clinical, community, educational, institutional, or other areas. DENT PUB HLTH

189.01. Mobile Clinic. (0-3) SS. Clinic variable.

R. Miller

Clinical experience in mobile dental clinics. DENT PUB HLTH

189.02. Community Health Clinic. (0-2) F, W, Sp. Prerequisite: Winter or spring quarter standing of first-year dental hygiene curriculum; or fall, winter or spring quarter standing of second-year dental hygiene curriculum.

Walsh

One-half unit of credit for every five three-hour visits made to off-campus clinics or institutions. Objective is to secure community experience and involvement. This elective is above the required eight visits to off-campus clinics and institutions. DENT PUB HLTH

199. Laboratory Project. (1-5) F, W, Sp. Lecture 1 hour. Lab 0-12 hours.

Walsh

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. DENT PUB HLTH

201A-B-C. Current Topics I. (1-1-1) § F, W, Sp. Seminar 1 hour.

Walsh, Ishida

A seminar series for dental hygiene students enrolled in the Master's Program in Oral Biology with a special track in Dental Hygiene. Included are issues and research related to dental hygiene in a systematic manner. Current literature will be critically reviewed by students under faculty supervision, by faculty, or guest lecturers. DENT PUB HLTH

202. Curriculum Theory and Design in Dental Hygiene. (3) § F. Lecture 3 hours.

Walsh

Analysis of theories and research in education, with an emphasis on curriculum development, teaching strategies and evaluation methods for use in planning educational programs in schools of dental hygiene. DENT PUB HLTH

203A-B-C. Current Topics II. (1-1-1) § F, W, Sp. Prerequisite: DH 201A-B-C. Seminar 1 hour.

Walsh, Ishida

A seminar series for dental hygiene students enrolled in the Master's Program in Oral Biology with a special track in Dental Hygiene. Included are issues and research related to dental hygiene in a systematic manner. Current literature will be critically reviewed by students under faculty supervision, by faculty, or guest lecturers. DENT PUB HLTH

301. Teaching Practicum in Dental Hygiene Education. (1) § F, W, Sp. Prerequisite: Dental Hygiene 202. Lab 3 hours.

Walsh

Practical teaching experiences in selected dental hygiene courses under the supervision of dental hygiene faculty members. DENT PUB HLTH

DENTAL JURISPRUDENCE

180. Dental Jurisprudence. (1) W. Lecture 1 hour.

F. Bradley

The course broadens student insight into the legal problems and obligations of dental practice. DENT PUB HLTH

DENTAL PUBLIC HEALTH AND HYGIENE

110. Research Design. (1) Sp. Prerequisite: Dental Public Health and Hygiene 111. Lecture 1 hour.

Wycoff and Staff

Basic principles of biostatistics. Introduction to concept of experimental reliability. Sampling techniques, indexes, independent and dependent variables. Critical review of research papers in preventive dentistry. DENT PUB HLTH

111. Problems in Dental Practice. (1) F. Lecture 1 hour.

Wycoff and Staff

Survey course designed to introduce the student to current social and professional problems in dentistry. Topics include identifying patient, community, national, and professional needs and how they are met. DENT PUB HLTH

112. Ethics in Dentistry. (1) Sp. Prerequisite: Dental Public Health and Hygiene 116 and concurrent enrollment in Dental Public Health and Hygiene 110. Lecture 1 hour.

Pollick and Staff

Basic principles of bioethics. Issues of informed consent, refusal, withholding, withdrawing treatment, costs and benefits, confidentiality, veracity, paternalism in the professional/client relationship. Codes of ethics, peer review, ethical dilemmas. Ethics in dental school. DENT PUB HLTH

116. Epidemiology & Preventive Dentistry. (1 1/2) F. Lecture 1 hour. Lab 2 hours.

Pollick and Staff

Lectures and lab in preventive dentistry; plaque control; diet analysis, fluoride history; evaluation indices; dental health and disease in children; data analysis; dental screening in San Francisco schools; dental health education. DENT PUB HLTH

120. Behavioral Sciences. (1) W. Lecture 1 hour.

Gelbert

Introduction to the basic concepts, theories, and findings of the social sciences. Emphasis is on the application of these concepts and modes of reasoning to pressing social problems and the delivery of health services. DENT PUB HLTH

121. Dental Practice Management. (1) Sp. Prerequisite: Dental Public Health and Hygiene 110, 111, 112, 116, 120. Lecture 1 hour.

Pollick and Staff

Dental practice management and the influence of non-dental activities on dental care. Basic principles of practice management. Role of den-

tal auxiliaries. Financial arrangements, legal responsibilities, internal marketing. Emphasis will be placed on objective methods of system analysis and using the dental school environment as a case study. DENT PUB HLTH

150. Dental Morphology. (2) F. Prerequisite: Concurrent enrollment in Dental Hygiene 150A. Lecture 2 hours.

Wong

The development and form of deciduous and permanent dentition and occlusion. Study of individual tooth and arch form to interarch relationships as well as endodontic morphology. DENT PUB HLTH

175. Dental Public Health Practice & Clinic. (1-9) Su, F, W, Sp. Prerequisite: Postgraduate standing and permission of instructor.

Silverstein and Staff

To provide the dental public health residents with the opportunity to participate in the Family and Preventive Dental Service. They will learn about marketing strategies, computer billing services, office management, expanded function dental auxiliaries, and the delivery of preventive dental services. DENT PUB HLTH

180. Multidisciplinary Geriatric Care. (1½-4) F, W, Sp. Seminar 4 hours. Conference 2 hours (optional). Field work 2 hours.

Badner, Rodgers, Becker

A seminar and clinical rotation in which the students function as members of a multidisciplinary health care team. The students evaluate geriatric patients and formulate comprehensive treatment plans. Seminar topics include functional assessment, home assessment, social resources and dental management. DENT PUB HLTH

189. Research Methods and Design in the Behavioral Sciences: Seminar and Practice. (1) F, W, Sp. Seminar 1 hour.

Gerbert, Wycoff

A seminar course designed to provide an overview of research designs, data collection strategies, methods of collecting and interpreting data, and assessment of threats to validity. Hypothesis development, protocol preparation, and grant writing will also be included. DENT PUB HLTH

DENTAL TECHNIC

185. Intro to Basic Dental Technics. (2) SS4. Lab 18 hours for three weeks.

Hoskins

Technical orientation to the basic technics taught in the first year of dentistry such as morphology, pros-

thodontics, biomaterials, operative dentistry. RESTOR DENT

DERMATOLOGY

First-Year Coordinated Instruction—Medicine 131A-B-C. Lecture demonstrations and section work devoted to the supervised examination of patients.

Core Clerkship—Family and Community Medicine 110 includes lectures and case demonstrations on the examination and diagnosis of dermatological diseases. This includes instruction in physical diagnosis, history-taking, and diagnostic and therapeutic procedures.

140.01. Advanced Dermatology Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Odom

Activities of students are determined after an initial interview with the instructor. Emphasis is placed on routine outpatient and inpatient care and research methods, according to individual interest. DERMATOL

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Wintroub

Clinical clerkship in approved hospitals by special arrangement and approval of the dean and chairperson of the department. DERMATOL

140.03. Advanced Dermatology Clerkship—Fresno. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and consent of instructor.

Hamlin

Activities of students are determined after an initial interview with the instructor. Emphasis is placed on routine outpatient and inpatient care and research methods, according to individual interest. DERMATOL

140.04. Inpatient Dermatology. (1½ per week) Su, F, W, Sp. Prerequisite: Dermatology 140.01.

Odom, Wintroub, Resnick

Four-week block rotation. Students will work with inpatient Dermatology resident and share primary responsibility for inpatients, hospital consultations and psoriasis day care center patients. DERMATOL

140.05. Advanced Clinical Dermatology. (1½ per week) Su, F, W, Sp. Prerequisite: Dermatology 140.01.

Odom, Wintroub, Resnick

Students will function as clinical clerks with primary responsibility for patients seen in an outpatient clinical setting. Responsibilities will include diagnosis, patient manage-

ment, and therapy of common cutaneous diseases. Course duration is four weeks. DERMATOL

150.01. Dermatology Research. (½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Wintroub

A research project under the direction of a member of the faculty. DERMATOL

160.01. Clinical & Research Clerkship. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

Wintroub

Activities of students are determined after an initial interview with the instructor. Emphasis is placed on routine outpatient and inpatient care and research methods, according to individual interest. DERMATOL

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Wintroub

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. DERMATOL

400. Staff Conference. (2) F, W, Sp. Wintroub and Staff

Residents prepare and present case histories of patients at conferences, making reference to appropriate literature, special studies and laboratory work. Conferences include discussions of new developments and research investigation by staff members and faculty from other UC departments and other universities. DERMATOL

401. Dermatopathology. (2) Su, F, W, Sp. Lecture 2 hours.

LeBoit

Lectures and demonstrations of the histopathology of skin diseases with special emphasis on correlation with clinical findings. Activities include the study of microscopic sections and discussions of material presented. DERMATOL

402. Dermatological Literature. (1) F, W, Sp. Seminar 1 hour.

Maibach and Staff

Seminar covers recent literature in dermatology. Included is assigned reading with required reports which are evaluated by members of the faculty. DERMATOL

403. Specialty Seminar. (2) F, W, Sp. Seminar 2 hours.

Wintroub and Staff

Seminars include discussions, required reading, and reports on dermatology and related basic sciences such as embryology, mycology, histopathology, and parasitology in relation to dermatologic conditions; and

oncology as it relates to the skin. DERMATOL

404. Clinical Evaluation. (1) F, W, Sp. Seminar 1 hour.

Wintroub and Staff

Seminar involves the evaluation of recent clinical cases of special interest. Cases are presented by the faculty and resident staff. DERMATOL

405. Research. (3) Su, F, W, Sp. Lab 9 hours.

Wintroub

Instruction in the conduct of research projects dealing with electron microscopy, biology, biochemistry, and immunology of the skin under normal and pathological conditions. DERMATOL

406. Related Science Seminar. (10) Su, F, W, Sp. Seminar 1 hour.

Wintroub and Staff

In-depth discussion of the sciences basic to an understanding of the function and dysfunction of skin, including anatomy, physiology, microbiology, pharmacology, biochemistry, genetics, and pathology. Over a three-year period, course covers all aspects of basic sciences relevant to dermatology. DERMATOL

407. Cutaneous Microbiology. (2) Su, F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Aly

Course is designed to familiarize dermatology residents with the techniques of isolation and identification of dermatophytes, skin bacteria, and viruses. Occasional lectures on specialized topics are given. DERMATOL

450. Clinical Care Clerkship. (10) Su, F, W, Sp.

K McGinley, PHS Fasal, Hoke, UC Conant, SFGH Gellin, VA Tuffanelli

Residents, under supervision, are responsible for patient care in the wards and outpatient clinic. Duties include history-taking, physical examinations, and consultations. In addition, the senior resident has certain administrative, teaching, and clinical responsibilities. DERMATOL

451. Clinical Care Clerkship. (1½ per week) Su, F, W, Sp.

J. H. Epstein

Residents, under supervision, are responsible for patient care in the wards and outpatient clinic. Duties include history-taking, physical examinations, and consultation. In addition, the senior resident has certain administrative, teaching, and clinical responsibilities. DERMATOL

452. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Wintroub

Assistant residents work at off-campus hospitals, in the United States and other countries, approved by the dean and the chairperson of the department. Course includes training in clinical and investigative dermatology. DERMATOL

ENDOCRINOLOGY¹¹

150.01. Research. (1½ per week) F, W, Sp. Prerequisite: Consent of instructor.

R. Weiner

Individual research in endocrinology supervised by members of the faculty in the Interdisciplinary Group in Endocrinology. PHYSIOLOGY

198. Supervised Study. (1-5) § Su, F, W, Sp. Prerequisite: Consent of instructor.

Ganong and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHYSIOLOGY

199. Laboratory Project. (1-5) § Su, F, W, Sp. Prerequisite: Consent of instructor.

Ganong

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PHYSIOLOGY

201. Hormone Structure & Function. (3) § Sp. Prerequisite: Basic course in biochemistry recommended. Consent of instructor. Lecture 3 hours.

Papkoff

Examination of the chemical nature of the endocrines: the methods employed for purification, characterization, structural determination and synthesis. The relationship of molecular structure to biological activity will be studied, as well as comparative and evolutionary aspects. PHYSIOLOGY

202. Mechanisms of Hormone Action. (3) § Sp. Prerequisite: Physiology 101 and/or Human Biology 200A and 200B, or Biochemistry 100A-B, or consent of instructor. Lecture 2 hours plus independent study.

¹¹Courses in Endocrinology are offered through various departments. For further information regarding any of them, contact instructor in charge or Dr. Zach Hall, Chairperson, Department of Physiology, Interdisciplinary Program in Endocrinology.

Nissenson, Bourne

Course covers classical and current literature concerning known and speculative mechanisms of hormone action. Major topics are: G proteins, adenylate cyclase, Ca⁺⁺ as a second messenger, oncogenes, growth factors, and steroid hormone action. PHYSIOLOGY

203. General Endocrinology. (5) § F. Prerequisite: Consent of instructor.

Dallman, R. Weiner

A survey of the principles of endocrinology focusing on experimental approaches. The course includes lectures, reading of the primary literature and a laboratory problem. PHYSIOLOGY

209. Molecular Endocrinology. (4) § W. Prerequisite: Knowledge of biochemistry. Will not be given for less than 5 students. Offered in alternate years. Not offered 1988-89. Lecture 4 hours.

Eberhardt, W. Miller

Application of recombinant DNA to study endocrine systems. Topics include basic molecular biology, cloning methods, RNA and DNA analysis, gene structure, and experimental design. Objective is to provide a working knowledge of molecular approaches to endocrine problems. PHYSIOLOGY

210. Clinical Endocrinology Seminar. (1) § F, W, Sp.

Bikle

Clinical and basic seminar in endocrinology presented in a format which provides both lecture and discussion. Emphasis is placed on clinical applications of research at the frontier of modern endocrinology. PHYSIOLOGY

217. Communication of Research. (1) § Sp. Seminar 2 hours.

Nissenson

Objective of the course is to enhance students' abilities to effectively present results of their research findings. Students will have the opportunity to strengthen their written and oral communication skills by presenting abstracts as well as formal seminars. PHYSIOLOGY

224. Neuroendocrinology. (4) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour. Conference 1 hour. Course will not be offered for fewer than four students.

R. Weiner, P. Goldsmith, Dallman

Mechanisms for regulation of endocrine function by the central nervous system and the influence of hormones on the nervous system are considered in view of anatomi-

cal, biochemical, physiological, and behavioral data. **PHYSIOLOGY**

250. Research. (1-8) § F, W, Sp. Staff
PHYSIOLOGY

EPIDEMIOLOGY AND INTERNATIONAL HEALTH

100. Medical Parasitology. (2) Sp. Prerequisite: Microbiology 100 (without parasitology) or equivalent, or concurrent enrollment. Lecture 2 hours.

Heyneman

An introduction to protozoa and helminths and human diseases they produce. Parasite epidemiology and life cycles, diagnosis, clinical aspects, treatment, and control are considered in lectures, films, and Kodachrome slides. Laboratory demonstrations keyed to lectures are displayed throughout the week. **EPID INTL HLTH**

101. Fundamentals of Epidemiology. (3) Sp. Lecture 2 hours. Seminar 1 hour.

Ernster, Petrakis

Basic epidemiologic and biostatistical methods. Emphasis is on the design of clinical trials and studies to investigate disease etiology, methods for evaluating screening and diagnostic tests, skills for critical review of the medical literature, and assessment of patient risk factors for use in clinical practice. **EPID INTL HLTH**

140.02A. Clinical Clerkship Abroad. (1½ per week) Su, F, W, Sp. Prerequisite: Nine months of clinical work and Epidemiology and International Health 150.01, or consent of instructor.

R. Goldsmith, Braveman

Clinical clerkship elective in a developing country. Students provide patient care at a medical school, provincial hospital, or rural health clinic for eight to twelve weeks. Arrangements may be made to participate in a public health or research program abroad. **EPID INTL HLTH**

140.02B. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of chairperson of department.

Petrakis and Staff

Clerkships in clinical epidemiology in off-campus settings. **EPID INTL HLTH**

140.03. Leprosy. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and consent of instructor.

Gelber

An introductory course in the diagnosis and care of leprosy patients. Selected readings will be discussed

on the clinical presentation, therapy, and immunology of leprosy. Additional time on the service, with increasing clinical responsibility, may be arranged. **EPID INTL HLTH**

140.04. Refugee Screening Clinic-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110, Pediatrics 110, and consent of instructor.

De Lay

Diagnosis and treatment of refugees from culturally diverse populations. Clinical experience with variety of tropical diseases and medical problems in family practice associated with these cultures. Guided reading and possible attendance at Tropical Medicine-Diseases Clinics, UCSF, and Leprosy Clinic, SMC. **EPID INTL HLTH**

150.01. Medicine in Developing Countries. (1½ per week) W. Prerequisite: Epidemiology and International Health 100 or consent of instructor.

R. Goldsmith

Two-week block elective on the recognition and treatment of diseases of tropical and developing countries. The course is designed to prepare students for clerkships abroad in developing countries. Presentation format includes lectures, seminars, films, laboratory sessions, and supervised independent study. **EPID INTL HLTH**

150.02. Research Abroad. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

F. Dunn and Staff

Research abroad, usually in a developing country, under supervision of a member of the Epidemiology and International Health faculty. Guidance is available principally for epidemiological studies and for research in tropical medicine, medical parasitology, medical anthropology, and topics in international health. **EPID INTL HLTH**

160.01. Cancer Epidemiology. (1-2) W. Prerequisite: Epidemiology and International Health 101 or consent of instructor. Lecture 1 hour. Optional term paper for 2 units.

Petrakis and Staff

Survey and discussion of milestone papers in the knowledge of the epidemiology of the major sites of cancer. Emphasis is on etiological and methodological aspects and applications to prevention. **EPID INTL HLTH**

170.05. Intro to International Health. (2) W. Lecture 2 hours.

F. Dunn and Staff

Lectures and discussion to survey the history, organizational struc-

ture, major activities and topics that comprise the field of international health. **EPID INTL HLTH**

170.07. Leprosy Laboratory Project. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

Gelber

A laboratory research problem of leprosy under the guidance of a member of the staff of the Leprosy Research Unit at Seton Medical Center. The unit's major research areas are the pharmacology, immunology, and chemotherapy of leprosy in animals and man. **EPID INTL HLTH**

170.08. International Health Policy. (2) Sp. Lecture 2 hours.

P. Lee, F. Dunn, J. Justice

Lectures and discussions to examine topics and issues in international health at the level of policy. **EPID INTL HLTH**

170.09. Psychiatric Epidemiology. (1-2) F. Prerequisite: Training in epidemiology and consent of instructor. Lecture 1 hour. Optional term paper for 2 units.

F. Dunn

Survey of epidemiological and medical ecological approaches—historical and contemporary—to understanding of psychiatric disorders. **EPID INTL HLTH**

170.10. Occupational Epidemiology. (1-2) W. Prerequisite: Epidemiology and International Health 101 or 190. Seminar 1 hour. Optional term paper for 2 units.

Mustacchi

Seminars on selected topics in occupationally-related diseases with specific emphasis on their epidemiologic, preventive, and compensation aspects. Discussion, with examples, of the concept of disability and of the physician's basic role and responsibilities in determining its level. **EPID INTL HLTH**

180.01. Tropical Medicine Clinics. (1-2) § Su, F, W, Sp. Prerequisite: Epidemiology and International Health 100 and six months of clinical experience. Clinic 4-8 hours.

R. Goldsmith, Frierson and Staff

Examination and treatment of patients in the Tropical Medicine Clinics under staff supervision. The clinics operate in conjunction with the Infectious Diseases Service; patients seen have both parasitic and other infectious diseases. **EPID INTL HLTH**

180.04. Research Design. (2-3) § Sp, SS1, F, W. Prerequisite: Consent of instructor. Seminar 2 hours. Optional term paper for 3 units.

Hulley

Primary readings on diverse clinical topics from the recent literature will be discussed. The objective is to enhance skills in interpreting and designing clinical research. Major themes are the difficulty of demonstrating cause and effect, and the challenge of guiding health policy. **EPID INTL HLTH**

180.05. Maternal & Child Hlth-Devel Cntr. (1-2) § Sp. Lecture and discussion 1 hour. Optional term paper for 2 units.

Arnhold

Lectures and discussion to review major factors affecting maternal and child health in developing countries, including the impact of poverty, nutrition, infectious diseases, immunization, organization of ambulatory care, setting of priorities, and utilization of local people as health auxiliaries. **EPID INTL HLTH**

180.07. Environmentally Induced Disease. (1) Sp. Lecture 1 hour.

Tarcher

A lecture series on the cause, diagnosis, treatment and prevention of environmentally induced disease. Topics include pesticides, hazardous wastes, indoor and outdoor air pollution, water pollution, susceptible populations, and the relationship of nutrition to environmentally induced disease. **EPID INTL HLTH**

180.08. Epidemiology. (2) § Sp. Seminar 2 hours, plus student presentation.

A. R. Moss

Topics in epidemiology and epidemiological methods from the public policy point of view, including risks associated with low level radiation, and environmental and occupational carcinogenesis. Other topics may include the decline of heart disease and the politics of environmental epidemiology. **EPID INTL HLTH**

186. Tropical Medicine Lectures. (1) § Sp. Lecture 1 hour.

R. Goldsmith

Lectures, case histories, and films emphasizing diagnosis and treatment of tropical diseases including malaria, amebiasis, cholera, typhoid, schistosomiasis, leprosy and arbo-virus infections, plus a review of opportunities for clinical clerkships abroad in developing countries. **EPID INTL HLTH**

190. Introduction to Epidemiology. (3) § F, W, Sp. Lecture 3 hours.

Staff

Introduction to the principles and methods used in epidemiology. Elements of research study design, critical analysis of journal articles, and application of epidemiological

methods to common health risks in populations will be included. **EPID INTL HLTH**

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Library research and directed reading under supervision of a member of the faculty. **EPID INTL HLTH**

199. Laboratory Project. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

A laboratory research project under direction of a member of the faculty. **EPID INTL HLTH**

FAMILY AND COMMUNITY MEDICINE

110. FM Core Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Completion of 20 weeks of clinical clerkship including Medicine 110.

Werdegar, Rodnick, D. Mitchell

Students function as family/primary physicians in ambulatory settings at affiliated residency programs. Family Practice: at SFGH, CHS in Santa Rosa, NAT in Salinas, VMC in Fresno, and SHH at Fort Ord. Primary Care Internal Medicine: at UC, SFGH, and MZ. **FAM CM MED**

140.01A-B-C-D. Advanced Family Practice. (1½ per week) A, B, C, and D are offered in all of the following quarters: Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Schott, Patinkin, Weaver, Slater, Rodnick

A = VMC in Fresno; B = NAT in Salinas; C = CHS in Santa Rosa; D = other sites. Comprehensive inpatient and outpatient experience in family practice. Students assume sub-intern responsibility for patient care. Community assignments may be individually arranged. **FAM CM MED**

140.02. Community Health Programs. (1½ per week) Su, F, W, Sp. Prerequisite: Determined by student's clinical experience. Consent of instructor.

Barbaccia and Staff

Elective clinical experience for four or more weeks in various community health projects in California and out of state as well. Programs include Indian Health Service, Diabetic Summer Camp, Asian Health Service, and varied neighborhood clinics. **FAM CM MED**

140.03. Preventive Medicine Field Work. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year

standing in School of Medicine and consent of instructor.

Petitti

The student will be assigned to participate four days a week in patient care with a physician who emphasizes the integration of preventive medicine into clinical practice. One day of directed reading supervised by a member of the faculty. **FAM CM MED**

140.04. Family Practice Preceptorship. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Rodnick

Students work with a family physician, alternatively general internist or general pediatrician, in the office, observing the practice and performing duties as training permits. Experience will teach common health problems and primary care in a community. Rural preceptorships are encouraged. **FAM CM MED**

140.05A-B-C-D. Social Medicine. (1½ per week) F, W, Sp, Su. Prerequisite: Consent of instructor.

Barbaccia

Field work experience or research germane to social medicine individually arranged with consideration to student's major area of interest. **FAM CM MED**

140.06A-B-C. Rehabilitation Medicine. (1½ per week) A, B, and C are offered in all of the following quarters: Su, F, W, Sp. Prerequisite: Consent of instructor.

L. Crain

A = San Francisco Bay Area; B = Fresno; C = other sites. Students are assigned to rehabilitation facilities for two to four weeks. Emphasis will be on the selection of patients who are suitable for rehabilitation and the interprofessional approach to rehabilitation. **FAM CM MED**

140.07. Adv Family Prac Preceptorship. (1½ per week) Su, F, W, Sp. Prerequisite: Advanced medical school standing and consent of instructor.

Rodnick

Students select from several urban or rural sites. Experience provides students the opportunity to participate in the care of patients and their families at the physician's practice, local hospital, and emergency room. **FAM CM MED**

140.30A-B-C. Family Practice Clerkship. (1½ per week) A, B, and C are offered in all of the following quarters: Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Patinkin

A = NAT in Salinas; B = SHH at Fort Ord; C = other sites. Course strengthens students' clinical skills and exposes them to hospitals with family practice residency programs. Provides opportunity to participate in health care in rural and/or underserved areas. FAM CM MED

140.40. Adv Inpatient Fam Med Clkshp. (1½ per week) Su, F, W, Sp. Prerequisite: Senior medicine clerkship.

R. Goldschmidt, M. Johnson

The Family Practice Inpatient Service at SFGH employs the family practice approach to hospitalized adult patients with diverse medical problems. Students function as members of the multidisciplinary inpatient team at a junior intern level. Attending rounds are held daily. FAM CM MED

140.51. Emergency Medicine—VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110, Obstetrics and Gynecology 110, Pediatrics 110 and Surgery 110. Knopp

Students receive practical training in emergency medicine, in emergency prehospital care, and also in the care of the critically ill and injured patient in the emergency room. Daily emergency medicine case conferences and weekly conferences augment clinical experience. FAM CM MED

140.60A-B-C-D. Clinical Geriatrics. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Neurology 110 and consent of instructor. Barbaccia, Werdegard and Staff

A = San Francisco; B = Fresno; C = St. Mary's; D = Other. Students supervised by attending staff are assigned patients in clinical settings; outpatient departments, adult day centers, nursing homes, acute hospital; also home care. Students will attend multidisciplinary case conferences, didactic sessions, geriatrics consultation rounds. FAM CM MED

140.70. Primary Care Clerkships Abroad. (1½ per week) Su, F, W, Sp. Prerequisite: Conversational command of language of country of placement and consent of instructor.

Braveman, Drickey, Goldsmith, Petitti

A 4-12 week elective involving placement at a supervised primary care training and/or service site abroad. Placements will be made according to student interest and language capability, and according to availability of appropriately su-

pervised sites, mainly in Latin America. FAM CM MED

150.01. Research. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Rodnick, Barbaccia and Staff

Clinical epidemiology, health services, or behavioral science research approaches are applied in the study of selected areas in family medicine or community health. FAM CM MED

160.01. Community Medicine Field Work. (1½-3) Su, F, W, Sp. Prerequisite: Medical student standing. Consent of instructor. Field work 4-8 hours.

Barbaccia

Non-block assignments to community health agencies where students have patient contact. Students choose an aspect of the agency's program for analysis. FAM CM MED

160.02. Family Practice Continuity. (2) Su, F, W, Sp. Prerequisite: Consent of instructor. Course must be taken for one full academic year.

R. Goldschmidt

Course will provide students the opportunity to follow a small number of patients and families in non-scheduled time during any medical school year. Attempts will be made to select families of special interest to the student; e.g., prenatal, adolescent, geriatric, minority. FAM CM MED

160.03. Family Practice Preceptorship. (1-3) Su, F, W, Sp. Prerequisite: Medical student standing. Consent of instructor. Field work 4-12 hours.

Rodnick

Non-block assignment with a family physician in a private office or community clinic for a minimum of four hours a week. Pre-clinical students observe their preceptors in order to gain an introduction to family care. FAM CM MED

160.04A. Introduction to Sports Medicine. (2) F. Prerequisite: Medical students only. Lecture 2 hours.

Renner

Athletic medicine ranging from youth athletics to senior participation. Emphasizes evaluation and prevention of injury, conditioning, and rehabilitation, directed at the community. Course consists of lectures and optional field work. FAM CM MED

160.04B. Advanced Sports Medicine. (2) W. Prerequisite: Family and Community Medicine 160.04A. Medical students only.

Lecture 2 hours. Lab optional 1 hour.

Renner

Diagnosis, treatment, and rehabilitation of specific athletic injuries organized by anatomical areas, basically of the non-elite athlete. Emphasis on non-surgical treatment per European and American techniques using community resources and prompt surgical referral when necessary. FAM CM MED

160.05. Mission Community Hlth Elective. (1-3) Su, F, W, Sp. Prerequisite: Consent of instructor. Lab 2-6 hours. Field work 2-8 hours.

D. Sanchez, D. Fink

Explores health care attitudes, health problems and health care resources in the multi-ethnic Mission Area of San Francisco. Students receive clinical assignments in one or more community health and social service agencies. Field experience is analyzed in seminars and tutorials. FAM CM MED

160.07. Family Health & Care. (2) F. Seminar 2 hours.

Ransom, Braveman, Segal

Introductory principles of family medicine are discussed in class and discussion groups led by family physicians and family psychologists. Preceptorships with family physicians in private offices and community clinics. Each student will interview a family and present a case report. FAM CM MED

170.01A-B-C. Special Issues in Health Care. (0-3) A, B, and C are offered in all of the following quarters: Su, F, W, Sp. Prerequisite: Consent of instructor. Lecture and reading 1-3 hours.

Werdegard and Staff

Explores in systematic (lecture/readings/discussion) format new issues in health care or special content areas related to family and community health. Topics are developed and prepared according to faculty student interests. FAM CM MED

170.02. Elderly Community Programs. (2) W. Lecture 1 hour. Conference 2 hours. Enrollment limited.

Barbaccia, Robinson, Weiss

This course offers the student a survey of the aged in San Francisco. Lectures cover the socio-demographic, cultural, and health status factors of the city's aged. On-site conferences are held at representative programs and facilities serving the aged. FAM CM MED

170.03. Developmental Disabilities. (2-5) Su, F, W, Sp. Prerequisite: Consent of instructor. Field work 4-8 hours.

L. Crain

Resource overview with reading assignments correlated with field observations of the spectrum of community and institutional services, including comprehensive diagnostic, therapeutic, and counseling services for children and adults with developmental disabilities. FAM CM MED

170.04. Rehabilitation in Primary Care. (2) Su, F, W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours.

Byl, Berrol

Course exposes medical and other health science students to the principles of rehabilitation and common therapeutic strategies. Emphasis will be on the development of a basic theoretical foundation on which the student can build clinical rehabilitation skills in practice. FAM CM MED

170.05. Rehabilitation Medicine. (1-5) F, W, Sp. Prerequisite: Consent of instructor. Field work 4-8 hours.

L. Crain

Through individualized arrangements, course provides an introduction to the broad spectrum of rehabilitation services for children and/or adults with chronic or disabling diseases. FAM CM MED

170.07. Communication with Latino Patients. (2) F, W, Sp. Prerequisite: Medical student status. Lecture 2 hours. Lab 1 hour.

Braveman, Koreck, Vasquez-Vega

A practical course designed to develop basic skills in overcoming cultural and linguistic barriers to health care for Spanish-speaking persons. FAM CM MED

171. Computers and Problem Solving with Applications to Health Care. (2) W. Medical students only. Lecture 2 hours.

Rodnick

The nature of information processing; concepts of problem solving with the digital computer; representation of information within a computer system; introduction to programming and systematic programming methodology; examples of present and potential applications of computer systems to the medical environment. FAM CM MED

172A. Legal Medicine—Basic Concepts. (2) F. Lecture 2 hours.

Tennenhouse

Fundamental legal principles and procedures affecting medical practice, with emphasis on medical neg-

ligence; the physician's role in the litigation process; the areas of medical practice which most frequently involve litigation; and practical measures to minimize the risk of lawsuit. FAM CM MED

172B. Legal Medicine—Practical Aspects. (2) W. Lecture 2 hours.

Tennenhouse

Fundamental legal principles and procedures affecting medical practice, with emphasis on medical negligence; the physician's role in the litigation process; the areas of medical practice which most frequently involve litigation; and practical measures to minimize the risk of lawsuit. FAM CM MED

173. Family Practice Seminar. (1) W, Sp. Seminar 1 hour.

J. Cook

Exploration of various aspects of primary care as related to family medicine. A practicing family physician leads discussion of topics developed by the students. Introduction to the practical aspects as well as the issues and demands of family practice. FAM CM MED

174. Family Medicine Concepts. (2) W. Seminar 2 hours.

Rodnick

An exploration of the comprehensive role of the family physician in providing longitudinal health care. Students will learn to recognize priorities in patient care, with an emphasis on the patient as a whole person. FAM CM MED

175.01. Meaning of Being a Physician. (1-3) F, W, Sp. Prerequisite: Consent of instructor. Seminar 1-3 hours.

Guttentag

Exploration of the theoretical premises of Western physicianship; relationship to other disciplines, such as theology and man's spiritual dimension, and other cultural attitudes; trendiness of the holistic approach; dynamics of patient-physician relationship; operational concepts such as the clinical entity. FAM CM MED

175.02. Theoretical Problems of Medicine. (1-3) F, W, Sp. Prerequisite: Consent of instructor. Seminar 1-3 hours.

Guttentag

Seminar on selected writings and of topics discussed in Family and Community Medicine 175.01. FAM CM MED

180. Intro to Social & Preventive Med. (1-2) F. Lecture and seminar 1-2 hours.

Barbaccia

Lectures and seminars introduce entering students to social, political, economic and environmental

factors influencing health of the community and provision of care. Topics include preventive health care, health behavior and formulation of policy. FAM CM MED

181. Clinical Preventive Medicine. (2) Sp. Prerequisite: Second-year standing in the School of Medicine. First-year medical students with consent of instructor. Lecture 1 hour. Seminar 1 hour.

Petitti

Lecture-seminar on the basic concepts of preventive medicine, the integration of preventive medicine into clinical practice, the evaluation of preventive strategies in medical care, and the role of the practicing physician in influencing policies on prevention. FAM CM MED

184. Contemporary Issues in Latino Health. (2) Sp. Prerequisite: Medical student status. Seminar 2 hours.

Braveman, Sanchez, Koreck

An introduction to demographic, political/economic, anthropologic and sociologic issues of importance for the health of diverse Latino subcultures in the US. FAM CM MED

185. Health Care Systems. (3) Sp. Lecture 1 hour. Seminar 2 hours.

Lecture-seminar format is used to cover most aspects of the organization and function of the health care system and its subsystems, including manpower, hospitals, ambulatory care, planning regulation and control, economics, government programs and health services research. FAM CM MED

198. Supervised Study. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

Werdegard and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. FAM CM MED

475.01. Western Medical Attitude. (1) F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour.

Guttentag
An exploration of the theoretical premises on which Western medicine rests: its relationship to other disciplines, the structure of patient-physician relationships, its operational concepts, such as optimal versus inadequate or superfluous examination, the concept of the clinical entity. FAM CM MED

475.02. Theoretical Problems of Clin Med. (1) F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

Guttentag

Seminar on selected writings and of topics discussed in *Family and Community Medicine* 475.01. FAM CM MED

GENERAL DENTISTRY

109.01. Community Dentistry Rotation. (0-9) F, W, Sp. Prerequisite: Certification of competency by the various departments in the school. Seminar 3 hours. Clinic 24 hours. Wycoff, Sinclair, M. Garcia
Multi-component rotation including seminars, patient group presentations, specialty grand rounds and comprehensive patient care. Supervised clinic and seminar experience in community setting. Students develop and explore their roles as members of the health care team and learn to meet community needs. DENT PUB HLTH

GENETICS¹²

200A. Principles of Genetics. (3) F. Lecture 3 hours.

Kornberg, Herskowitz

In-depth analysis of genetic mechanisms in selected prokaryotes, eukaryotes. Topics include genetic exchange (conjugation, generalized and specialized transduction, transformation), recombination (general, site-specific, "illegitimate"), mapping, mutagenesis (induction and consequences), mobile genetic elements, gene expression, meiotic and mitotic segregation, allelism, position effects. BIOCHEM

215. Laboratory Rotation. (3) F, W, Sp. Lab 9 hours.

Guthrie

A laboratory rotation course to familiarize first-year students with various approaches to research. Students are required to rotate through three different laboratories in at least two subject areas, and give an open seminar at the end of each quarter. BIOCHEM

220. Current Topics. (½) F, W, Sp. Prerequisite: Consent of graduate adviser in genetics. Seminar.

Herskowitz and Staff

Students will lead a discussion on a topic of special interest in genetics. A different faculty member will act as adviser each week. This is a required course each quarter for first- and second-year students in genetics. BIOCHEM

224. Advanced Human Genetics. (1½) Sp. Lecture 1½ hours. Offered in alternate years. Not offered 1988-89.

Epstein, Kan, Cox, Gitschier, Packman, Wolff

Course covers topics in current human genetics research, including molecular approaches to the mapping of human chromosomes, molecular analysis of mutant human genes, use of restriction fragment length polymorphisms for linkage analysis and diagnosis, effects of chromosome imbalance, gene therapy, and environmental mutagenesis. BIOCHEM

250. Research. (1-8) Su, F, W, Sp. Staff
BIOCHEM

HEALTH SCIENCES EDUCATION

200. Intro to Teaching Health Science. (1) F. Prerequisite: Consent of instructor. Lecture 2 hours.

Lem

The course focuses on instructional techniques and strategies useful for the beginning instructor. Emphasis is placed on teaching professional students in the School of Pharmacy. Open to graduate students, residents and new faculty. PHARMACY

230. Selected Topics. (2) F, W, Sp. Project required. Lecture 2 hours.

Rosinski

Consideration of principles of learning, including individual student differences, techniques of instruction, and approaches to evaluation of student progress. Individual teaching plans are developed and critiqued. Emphasis is placed on the graduate and professional school student as a learner. MEDICINE

310. Eval of Clinical Performance. (2) F, W, Sp. Prerequisite: Consent of instructor. Seminar 3 hours.

Rosinski

A seminar to review and develop objective techniques in assessing the clinical performance and competence of students and practitioners. Techniques will be developed and validated for a number of clinical disciplines. MEDICINE

HISTORY OF HEALTH SCIENCES

150. History of Pharmacy. (2 or 3) F. Lecture 2 hours; term paper (optional) for 3 units.

Sadee

Emphasis is on the historical development of pharmacy, its relationship to other health professions, and the personalities who significantly contributed to the advancement of health care. HIST HL SC

150.01. Issues in American Medical Practice. (3) F, W, Sp. Prerequisite: Third- or fourth-year stand-

ing and consent of instructor. Seminar 3 hours. Research project required.

Risse

Two-week non-clinical block devoted to reading, library research, discussions and presentations on the historical development of topics considered central to the practice of medicine: character of scientific medicine, role of technology, medical ethics and malpractice, corporate medicine, and the physician-patient relationship. HIST HL SC

170.01. Historical Perspectives in Medicine. (1-3) F, W, or Sp. Lecture 1 hour. Optional seminar, conference, or independent study 1-2 hours.

Risse

Course intends to develop a sense of historical perspective and the ability to assess present issues in the light of past experience. Readings and visual aids will focus on the scientific and social aspects of the health sciences. HIST HL SC

180. Topics in the History of Dentistry. (2-4) W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour. Seminar 1 hour. Term paper, independent study optional.

Staff

Presentation and historical analysis of issues and problems considered critical in the evolution of modern dentistry. Among the subjects to be considered are the relationship with other health professions, medical technology, and social policy. HIST HL SC

198. Supervised Study. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Risse and Staff

Historical research and/or directed reading under supervision of a faculty member with approval of the department chairperson. HIST HL SC

200A. Introduction to Medical History. (2-4) F. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour (optional). Term paper (optional).

Risse

General survey chronologically arranged from prehistory to the Renaissance. This course examines the changing burden of disease across cultural and geographic boundaries and presents broad conceptual developments that in each period influenced the evolution of medical knowledge and professional activities. HIST HL SC

200B. Introduction to Medical History. (2-4) W. Prerequisite: Consent of instructor. Lecture 2

hours. Seminar 1 hour (optional). Term paper (optional).

Risse

Continuation of the general survey from the Renaissance to the end of the eighteenth century with special emphasis on the mechanical revolution in medical thought and the medicalization of European society. HIST HL SC

200C. Introduction to Medical History. (2-4) Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour (optional). Term paper (optional).

Risse

Continuation of the general survey from the nineteenth century to the present, examining in detail the emergence of scientific medicine, germ theory, medical technology, and twentieth-century therapeutics. HIST HL SC

201A. Health and Plagues: Ecology and History. (3-4) F. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour. Term paper (optional).

Risse

General overview of health conditions across cultural and geographic boundaries from prehistory to the Renaissance, including leprosy and the Black Death. The focus will be on factors, both biological and social, responsible for the shifting ecology of disease. HIST HL SC

201B. Health and Plagues: Ecology and History. (3-4) W. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour. Term paper (optional).

Pressman

Continuation of the general overview of health conditions in prominent past societies from the Renaissance to the Industrial Revolution, with emphasis on topics such as the appearance of syphilis, the transmission of epidemic disease to America, decline of plague. HIST HL SC

201C. Health and Plagues: Ecology and History. (3-4) Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour. Term paper (optional).

Risse

Last segment of the general overview of health conditions in prominent past societies from the nineteenth century to the present with emphasis on the effects of industrialization on urban health, and the epidemiological transitions from acute infections to chronic degenerative diseases. HIST HL SC

203. Literature of the Health Sciences: History & Bibliography. (2-4) F. Prerequisite: Consent of in-

structor. Lecture 1 hour. Seminar 1 hour. Term paper, independent study optional.

Zinn

Survey of health sciences literature illustrated by works from the library's special collections. Introduction to historical and modern reference works and bibliographic methods including computer-assisted access. HIST HL SC

204. Historical Research & Writing: Methods & Approaches. (3-4) Prerequisite: Consent of instructor. Seminar 2 hours. Weekly reports for 1-2 units.

Risse

Introduction to medical historiography. Among the topics to be discussed are the intellectual and social history of medicine, history of disease, feminine perspectives, oral and psychohistory. HIST HL SC

207. Brain & Mind in Medical History. (2-3) W. Prerequisite: Consent of instructor. Seminar 2 hours. Term paper (optional).

Schiller

Introduction to the history of neurological concepts. HIST HL SC

208. How to Be a Physician. (2-3) F, W, Sp. Seminar 2 hours. Term paper (optional).

Guttentag

Exploration of the theoretical premises of Western physicianship; relationship to other disciplines such as theology, and man's spiritual dimension and other cultural dynamics of patient-physician relationship; operational concepts such as the clinical entity. HIST HL SC

209. How to Be a Physician. (2-3) F, W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Term paper (optional).

Guttentag

Extended reading and conferences of History of Health Sciences 208. HIST HL SC

210. Topics in the History of Nursing. (2-3) Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Term paper (optional).

Risse, Flood

Selected topics in nursing history since the time of Florence Nightingale examined within the context of professional education, women's roles, and health care. HIST HL SC

215. Clinical Medicine Since 1750. (2-4) Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour (optional). Term paper (optional).

Risse

Clinical developments in Europe and America with emphasis on di-

agnostic and therapeutic procedures. The course examines both patients and professionals within the scientific, behavioral, and social contexts of medical practice. HIST HL SC

220. Selected Topics. (2-3) F, W, or Sp. Prerequisite: Consent of instructor. Lecture 1 hour. Seminar 1 hour. Term paper (optional).

Staff

Seminar allowing individual staff or guest lecturers to present selected topics in the history of the health sciences based on their current research and publications. HIST HL SC

250. Research. (1-8) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Supervised independent research, including presentations and criticism of research sources, methods, and papers. HIST HL SC

252. Women, Health, & Healing. (2-4) F, W. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour (optional). Term paper (optional).

Staff

Historical perspectives on women's health status as patients, providers, and reformers with a focus on nineteenth- and early twentieth-century developments in the US and Great Britain. HIST HL SC

297. Special Study. (1-4) F, W, Sp. Prerequisite: Consent of instructor. Seminar 1-2 hours. Term paper/independent study (optional).

Staff

Supervised independent study intended to provide directed reading in subject matter not covered in scheduled seminar offerings. HIST HL SC

298. Thesis. (0) F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree. HIST HL SC

299. Dissertation. (0) F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. HIST HL SC

HOSPITAL DENTISTRY

170. Emergency Medical Care. (1) W. Prerequisite: Postdoctoral or fourth-year standing. Seminar 2 hours.

¹²See also Biochemistry course offerings.

R. Lim

The course is designed to stimulate group discussion on the principles of emergency medical care. Topics include transportation, disaster planning, triage, cardiopulmonary resuscitation, management of shock, head and neck injuries, as well as special problems related to dentistry. **STOMATOLOGY**

171. Physical Diagnosis. (2) Su. Prerequisite: Enrollment in a postgraduate specialty program or consent of instructor. Lecture 2 hours.

Zier

Designed to prepare the oral surgeon to conduct a physical examination as a preliminary evaluation before performing oral surgical procedures. Techniques of examination are demonstrated and practiced in the classroom; examination of pathologic conditions is conducted at bedside. **STOMATOLOGY**

172. Oral Biology Conferences. (1) W. Prerequisite: Postdoctoral standing.

Silverman, Ware and Staff

Conferences include case presentations by interns and residents, and seminars covering selected subjects in oral biology relevant to clinical and preventive dentistry. **STOMATOLOGY**

HUMAN DEVELOPMENT AND AGING

200. Off-Campus Study. (0) F, W, Sp. Prerequisite: Approval of graduate adviser. Staff

Full-time graduate study in the Human Development and Aging program through the intercampus exchange or consortium program. **PSYCHIATRY**

201A-B-C. Fundamental Theories & Methods. (1-4) F, W, Sp. Prerequisite: Consent of instructor. Seminar 4 hours.

Bliwise, Lieberman, Rosow, Kiefer Psychological and sociological theories and methods in the study of the human life cycle. Topics include models of development, life course, adult socialization, age stratification, intergenerational issues, cognition, historical and demographic perspectives, personality, stress, transitions, age-comparative coping, and psychopathology. **PSYCHIATRY**

203. Prob Formulation & Res Design. (3) F, W, Sp. Prerequisite: Consent of instructor.

Rosow

Students work on their own research interests in terms of problem formulation, research design, and/

or operationalization. Emphasis dependent upon individual student needs. **PSYCHIATRY**

204. Personal Development. (2) F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Kiefer Representative works from behavioral science literature and world poetry and prose are brought together in the study of personality development in adult life. Compares insights from the two fields on how the developing person copes with social, historical, and psychological challenges. **PSYCHIATRY**

205. Data Analysis. (3) F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

Rosow

Students either provide their own or use accessible data from ongoing research projects. Emphasis is on training in data organization, analysis, and research report writing. **PSYCHIATRY**

207. Methods of Survey Research. (3) F, W. Prerequisite: Consent of instructor. Lecture 3 hours, plus field work.

Pearlin

Course covers the major tasks of survey research. Topics such as conceptual specification, the development of indicators and measures, the construction of questionnaires, sampling, field testing, interviewing, and analysis are covered. **PSYCHIATRY**

208. Psychosocial Change in Adulthood. (3) F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

Fiske

An advanced course for students familiar with social sciences and clinical studies of adult change. Emphasis will be on in-depth critiques of stage, process, stress, adaptation, and other conceptual models. **PSYCHIATRY**

210. Socialization to Old Age. (3) F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

Rosow

A seminar on adult socialization theory, with prospective socialization to an aged role as a special concern. Major issues involve norms for older people, the structure of socialization situations, and the pressure of variables normally affecting socialization in earlier status transitions. **PSYCHIATRY**

220. Pro-Seminar. (1) F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, given in alternate weeks.

Staff

Students, staff, or guest lecturers present selected topics, based on their current research. **PSYCHIATRY**

222. Sources & Mediators of Stress. (2) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Enrollment limited.

Pearlin

Course presents current theories and research dealing with sources of stress and its mediation. It will examine the conditions and experiences that act as stressors in people's lives, the behaviors used to cope with stressors, the nature and functions of social support systems, and the health consequences of these factors. **PSYCHIATRY**

227. Biological Aspects of Aging. (2-3) W. Prerequisite: Consent of instructor. Lecture 2 hours. Independent study 3-4 hours.

Ellman

Physiological, biochemical, neurological, and anatomical changes occurring with aging are discussed. Important questions include the possible relationships to functional behavior of these changes in humans and the relevance of internal changes to psychological states. **PSYCHIATRY**

230. Research Project Seminar. (6) F, W, Sp. Prerequisite: Graduate standing in Human Development and Aging Program, or consent of instructor. Seminar 4 hours. 6 hours additional research work.

Bliwise, Rosow and Staff Students are required to conduct individual research project. Seminar is organized around methodological issues including reliability, validity and development of scales and measures, and specific problems related to formulation of goals of the studies and collection and analyses of data. **PSYCHIATRY**

249. Special Studies. (2-8) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Students select special problems to investigate on an individual or collaborative basis. These studies may be conducted through readings, the collection and analysis of empirical data, or the development of conceptual analyses or methodologies. **PSYCHIATRY**

250. Research. (1-8) F, W, Sp. Staff **PSYCHIATRY**

299. Dissertation. (0) F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. **PSYCHIATRY**

HUMAN SEXUALITY

159. Human Sexuality. (1½) § Sp. Lecture 1½ hours. Offered in alternate years. Offered 1988-89.

R. Day

Social, behavioral, and clinical aspects of human sexuality are covered in a series of lectures. Lectures will present didactic material. **PHARMACY**

INTERDEPARTMENTAL STUDIES

100. Cell & Tissue Biology. (10) § F. Lecture 7 hours. Lab 4 hours. Conference 2 hours.

Colby, Wissig, Michaeli

Course covers the basic principles of molecular and cell biology, as well as the microscopic organization of cells, tissues, and organs with emphasis on relationships of structure and function. The histology of endocrine and reproductive systems is covered in a separate course. Intended for students in the School of Medicine and for beginning graduate students. **ANATOMY & BIOCHEM**

135. Reproduction Growth & Devel. (3) § F. Lecture 3 hours.

Ballard, Parer

Course is designed to trace the biological mechanisms concerned with conception, development of the fertilized ovum through embryonic and fetal life, and postnatally to the mature individual. **OB GYN RS**

LABORATORY MEDICINE

140.01. Clinical Pathology. (1½ per week) § Su, F, W, Sp. Prerequisite: One year of medical school and consent of instructor.

Gottfried

Laboratory sessions and seminars on aspects of clinical chemistry, hematology, microbiology, blood banking, and radioisotopes are held in the clinical laboratories at UC and SFGH. **LAB MED**

140.05. Clinical Pathology-VMC. (1½ per week) § F, W, Sp. Prerequisite: Medicine 110 and consent of instructor.

M. Fisher, Sobenes

Clerkship in laboratory medicine including indications for tests, problems of collection and performance, interpretation of data to assist clinicians in rendering diagnoses and following therapy. Topics include clinical chemistry, radioisotopic pathology, hematology, immunology and serology, blood banking, microbiology, mycology, parasitology. **LAB MED**

140.06. Laboratory Medicine in Fresno. (1½ per week) § Su, F, W, Sp. Prerequisite: Medicine 110.

Beland, L. Mann

Utilization of different laboratory settings, organizations, and approaches by pathologists in hospitals throughout the Fresno community. Included is coverage of traditional areas of clinical pathology in addition to such specialized areas as cytogenetics and therapeutic drug monitoring. **LAB MED**

150.01. Laboratory Medicine-UC. (1½ per week) § Su, F, W, Sp. Prerequisite: Medicine 110.

Kurtz

An intensive four-week seminar series, using patient data, designed to increase the student's ability to choose and interpret laboratory tests in a variety of clinical settings. The scope of tests discussed includes hematology, blood banking, clinical chemistry, and microbiology. **LAB MED**

160.01. Radionuclides. (2) § Su, F, W, Sp. Prerequisite: One year of medical school. Lecture 1 hour. Clinic 4 hours.

Pollycove

Basic laboratory course in nuclear medicine. Clinical participation in the diagnosis of patients receiving radionuclides in the outpatient clinics and in the wards. **LAB MED**

160.02. Sexually Transmitted Diseases. (2) § W. Lecture 2 hours.

G. Brooks

Course covers biological and clinical aspects of the syndromes and agents of sexually transmitted diseases, including herpes, chlamydia, gonorrhea, syphilis, vaginitis, AIDS, and others. This is an elective course oriented toward medical students. **LAB MED**

170.01. Clinical Pathology-SFGH. (2) § Su, F, W, Sp.

Gottfried

Laboratory sessions and seminars on aspects of clinical chemistry, hematology, microbiology, blood banking, and radioisotopes are held in the clinical laboratories at SFGH. **LAB MED**

400. Clinical Pathology Seminar. (2) § Su, F, W, Sp.

Marton, Gottfried, Nicoll

Residents prepare summaries of selected clinical cases which present problems in correlation of clinical and laboratory data. Residents and faculty discuss relevant literature with special reference to technical aspects of laboratory procedures and interpretation of results. **LAB MED**

452. Cytometry & Cell Analysis. (3) § W. Lecture 3 hours.

Mayall, Fulwyler

Course introduces the theory and techniques of image cytometry, flow cytometry, and flow sorting, and surveys the research and clinical applications of these powerful techniques for the analysis of individual cells. **LAB MED**

MEDICAL INFORMATION SCIENCE

199. Laboratory Project. (1-5) § F, W, Sp. Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. **MED INF SC**

201. Content & Format of Information. (2) § W. Prerequisite: Medical Information Science 290 or equivalent. Lecture 2 hours.

Whiting-O'Keefe

Consideration of the uses of medical information and its content, organization, and format to serve these uses. Particular emphasis is on the medical record systems (both computerized and manual) as a medium of medical information communication. **MED INF SC**

202. Development of Medical Information Systems. (2) § Sp. Prerequisite: Medical Information Science 201. Lecture 2 hours.

Starkweather

A review of past, present, and future medical information systems. Methods of design and development. Advantages of specific hardware and software choices. The use of existing tools and modular elements. Assessment of user needs in different settings. Meeting user needs for control and integration of computer-based services. **MED INF SC**

210A. Systems Programming. (4) § F. Prerequisite: Consent of instructor. Lecture 3 hours. Lab 3 hours.

Wasserman

Introduction to computer system architecture and organization; operating systems; programming languages and their design. **MED INF SC**

210B. Software Engineering. (4) § W. Prerequisite: Medical Information Science 210A or equivalent, or consent of instructor. Lecture 3 hours. Lab 3 hours.

Wasserman

Language processors; software engineering concepts; specification and design of software systems; and software reliability. **MED INF SC**

222. Systems Analysis of Medical Care. (4) § W. Lecture 4 hours. **Stimson**

Introduction to use of operations research and systems analysis as aids to design, management or evaluation of medical care systems. Application of operations research techniques to hospitals and other health care facilities is studied within a systems framework. MED INF SC

225. Design of Systems. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

Blois

The design of previous medical information systems is examined. Successful components of the systems will be studied in depth, with respect to cost, performance, and acceptability. Field trips to existing systems will be made. MED INF SC

235. Pattern Recognition in Medicine. (2) § F. Lecture 2 hours.

Hudson

This course will analyze various techniques of pattern recognition including parameter estimation, Bayes classifiers, linear and non-linear discriminants, supervised and unsupervised learning, clustering, and dimensionality reduction. These techniques will be illustrated as they apply to medical classification problems involving categorization into two or more classes. MED INF SC

240. Data Base Management. (3) § Sp. Prerequisite: Medical Information Science 210B or equivalent, or consent of instructor. Lecture 3 hours.

Staff

Course covers techniques for logical and physical data base organization, data independence, models of data, approaches to large scale data base management, security and privacy, data description languages, and query languages. MED INF SC

247. Introduction to Med Info Sci. (2) § F, W, Sp. Seminar 2 hours.

Blois

Course covers the treatment of a number of fundamental concepts which form the basis of information science, such as the nature of information and communication, and the problem of representation of knowledge. MED INF SC

250. Research. (1-8) § F, W, Sp. Staff

MED INF SC

290. Selected Topics. (1-6) § F, W, Sp. Lecture 1 hour. Lab 0-15 hours.

Staff

Selected topics in medical information science. Subjects chosen will range from special topics in information science to hardware, software, and systems studies. MED INF SC

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. MED INF SC

MEDICINE

110. Medicine Core Clerkship—UC-SFGH-VA-MZ-VAF-VMC-L. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and 132A-B-C. Open to UCSF students only.

UC Papadakis, SFGH Haber, VA Tierney, MZ Woeber, VAF/VMC Freeman, L Miller

Students are part of the ward team with the house staff and faculty. Bedside instruction in history-taking, physical diagnosis, selected seminars in general medicine including the psychiatric aspects of medicine, and presentations and demonstrations of relevant cases. MEDICINE

111. Mechanisms of Disease. (1½ per week) Sp. Prerequisite: Fourth-year standing in medical school.

Kane

An in-depth study of the mechanisms involved in serious disease processes. Emphasis on acquisition of basic science information by physicians and on the logical development of nosology and planning of intervention based on principles drawn from basic science. MEDICINE

112. Responsibilities of Med Prac. (1½ per week) Sp. Prerequisite: Medicine 110 and Surgery 110.

Lo

Course will discuss economic forces, ethical and legal issues, social and cultural factors, and governmental policies affecting medical practice. It will define professional responsibilities in the context of these influences and the resulting forms and trends in medical practice. MEDICINE

131A-B-C. Intro to Clinical Medicine. (1-2-3) F, W, Sp. Prerequisite: First-year standing or consent of instructor. Lecture 1 hour Sp. Section work 2 hours F, W; 4 hours Sp.

B. Lewis

Interdepartmental instruction in: interviewing skills and techniques; basic physical examination and interpretation of symptoms relating to locomotor system, eye, ear, upper respiratory tract, and skin; and social responsibilities of medical practice. Lectures, clinical demonstrations, conferences, preceptorship in ambulatory care setting. MEDICINE

132A-B-C. Intro to Clinical Medicine. (8-8-3) F, W, Sp. Prerequisite: Anatomy 100, 102, and 103; Biochemistry 100A-B; Medicine 131A-B-C; Microbiology 100A and 100B (may be taken concurrently); Pathology 101, 102, and 103 (may be taken concurrently); Physiology 100 and 101; or consent of instructor. Lecture 5 hours, F, W; 1 hour Sp. Lab 2 hours F. Section work 4 hours F, Sp; 6 hours W.

B. Lewis

Continuation of interdepartmental course on pathophysiology of disease and techniques of collecting and assessing clinical data, including history-taking, examination of the patient, and use of laboratory tests. Lectures, demonstrations, bedside work, laboratories, conferences, and independent study. MEDICINE

140.01. Acting Internship—UC-VA-MZ-L-VAF-VMC-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Completion of Medicine 110.

UC Papadakis, VA Tierney, MZ Woeber, L Miller, VAF/VMC Freeman, SFGH Haber

Students are assigned patients on the staff and private wards. They are supervised by attending and resident staff. They present patients on ward rounds, assist with procedures, and attend specialty conferences where their patients are involved. MEDICINE

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and approval of third- and fourth-year coordinator.

Papadakis

Clinical clerkships in off-campus hospitals approved by the department chairperson, third- and fourth-year coordinator and the dean. MEDICINE

140.03. Adv Medicine Clerkship CRI—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and 131A-B-C.

Shuman and Staff

On Clinical Cancer Chemotherapy Service, students work up patients, present them to attending staff and at conferences, do daily procedures, and write orders under supervision. MEDICINE

140.04. Infectious Diseases—VA. (1½ per week) Su, F, W, Sp. Prerequisite: Completion of Medicine 110 and Surgery 110.

Jensen, Tager

Clinical elective with inpatients and outpatients at VA. Students will see consults with clinical infectious disease fellow. Introduction to clinical microbiology and hospital epidemiology is included. MEDICINE

140.05. Cardiology—PMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Gregoratos

Students participate in various clinical cardiological activities and attend related teaching conferences and patient rounds. They are instructed in electrocardiographic interpretation and participate in daily ECG teaching sessions. MEDICINE

140.07. Oncology—SFGH. (1½ per week) F, W, Sp. Prerequisite: Medicine 110.

Volberding

Students will evaluate patients with malignant diseases under the supervision of oncology fellows and attending physicians. Students will see oncology patients in outpatient clinic and on the inpatient consultation service. In addition to a broad exposure to a wide range of malignant diseases, the students will be allowed to participate in the outpatient evaluation of patients with AIDS and Kaposi's sarcoma. MEDICINE

140.08. Gastroenterology—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Ockner

Students examine hospitalized and ambulatory patients, participate in their care, and present case summaries to supervising gastroenterology fellows and attending physicians. They attend all rounds and teaching conferences and may observe performance of various diagnostic and therapeutic procedures. MEDICINE

140.09. Cardiology—MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and 140.01 or equivalent senior ward medicine experience. Consent of instructor.

Mailhot, E. Cohen, Paley

Students work up patients, follow through diagnostic procedures, phonocardiograms, echocardiograms, stress electrocardiograms, nuclear cardiology, and angiographic studies. Instruction in diagnosis of heart disease, pathophysiology of heart disease, heart sounds and therapy. Attendance at depart-

mental conferences. Reading assigned. MEDICINE

140.10. Pulmonary Medicine—MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and

140.01 or equivalent senior ward medicine experience. Consent of instructor.

Addison

Consultative service including diagnostic pulmonary problems, Intensive Care Unit consultations. Fiberoptic bronchoscopy and physiologic evaluation. Students will work up patients and follow them on a daily basis, discussing all aspects of their care with pulmonary residents and attending physician. MEDICINE

140.11. Hematology/Oncology—C. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

R. Cohen

Under supervision of attending and house staff, students review pathology and relevant clinical laboratory data, interpret bone marrow slides, and work up and present patients on the wards and outpatient clinics. Participate in conferences and seminars. MEDICINE

140.12. Geriatrics—VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Loneragan

Serving on the Geriatric Evaluation Unit team, students will have supervised patient contact covering biology of aging, changes in organ function and manifestation of disease in the elderly; pharmacokinetics of aged patients; psychosocial and rehabilitative aspects of care of the elderly. MEDICINE

140.13. Care of the Patient with AIDS at SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Completion of core clinical clerkships. Fourth-year standing.

Abrams, Clement, Kaplan

Supervised by the attending physician, students will participate in the management of both inpatients and outpatients with HIV-related disease on the AIDS consult service and 1-2 days per week in the AIDS clinic. Participation in educational conferences encouraged. MEDICINE

140.16. Hematology—SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Embury

Students work under supervision of fellows and faculty; review relevant clinical laboratory data; interpret bone marrow slides; see hematology patients in the outpatient clinic and the inpatient consultation service. Emphasis is on sickle cell disease,

other hemoglobinopathies, and coagulation problems. MEDICINE

140.18. Gastroenterology—VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

T. Boyer

Students share consultations with GI fellows; work up patients on wards; see patients in outpatient; attend endoscopies; attend rounds and conferences. MEDICINE

140.19. Cardiology—VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Karliner

Students share consultations and on-call with cardiology fellows; work up patients on wards; interpret electrocardiograms and Holter monitor studies; attend rounds and conferences. MEDICINE

140.20. Infectious Disease—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Locksley

Students work up and present patients under the direct supervision of the infectious disease resident. Patients are presented at attending rounds and infectious disease conferences. MEDICINE

140.21. Private Practice. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110. Approval of third- and fourth-year coordinator. Student must make arrangements with private-practice physician.

Papadakis

Working experience with an internist on clinical faculty as he/she makes rounds in various private hospitals and at UC, sees patients in private office and on house calls, does follow-up studies, and reads electrocardiograms. MEDICINE

140.22A. Pathophysiology-Cardiovascular. (6) W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Minimum class size 12; maximum class size 20.

Sebastian, Dohrmann

Pathophysiology of prototype cardiac diseases. Students learn decision making, technology application, critical literature analysis. Lectures, assigned reading, preceptor groups, workshops (heart sounds, chest X-ray, ECG interpretation, CPCs, and case discussions). Group discussion of students' research of controversial topics. MEDICINE

140.22B. Pathophysiology-Hematology. (6) F, Sp. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110.

Siperstein, Slesinger, Dallman, Ries

Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22C. Pathophysiology-Renal Disease. (6) F, Sp. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Enrollment limited. Sebastian, Sleisenger

Intensive review of renal physiology and pathophysiology. Two seminars per day. Two-volume syllabus of journal articles provided. Students participate in discussions and learn to evaluate literature critically. **MEDICINE**

140.22D. Pathophysiology-Oncology. (6) F, W, Sp. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110.

Siperstein, Sleisenger, L. Epstein
Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22E. Pathophysiology-Derm/Inf Disease. (6) F. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110.

Siperstein, Sleisenger

Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22F. Pathophysiology-Therapeutics. (6) W. Prerequisite: Medicine 110 or Pediatrics 110 or Surgery 110. Minimum class size 15; maximum class size 30.

Sebastian, Benowitz

Emphasis on applied pathophysiology and clinical therapeutics. Lectures and case-oriented workshops presenting the principles of therapeutics with application to specific therapy of common cardiovascular, respiratory, gastrointestinal and infectious diseases as well as diabetes. **MEDICINE**

140.22G. Pathophysiology-Immunology. (6) W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Enrollment limited. Sebastian, Sleisenger, Stobo

Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22H. Pathophysiology-Neurology. (6) Sp. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110.

Siperstein, Sleisenger, I. Diamond

Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22I. Pathophys-Endocrine Metabolism. (6) F, Sp. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110.

Sebastian, Strewler

Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22 J. Pathophys-Gastroenterology. (6) W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Enrollment limited.

Sebastian, Boyer, Sleisenger

Overall emphasis on prototypes of disease in organ systems demonstrating fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. **MEDICINE**

140.22K. Pathophysiology-Pulmonary. (6) F, W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Enrollment limited.

Sebastian, Sleisenger, Golden

Emphasis on prototypes of disease in organ systems demonstrating

fundamental biochemical or physiological defects. Lectures cover background material and general concepts. Students participate in discussions, workshops, and seminars, are assigned topics for presentation, and are encouraged to develop ability to evaluate literature critically. Reading lists. **MEDICINE**

140.22L. Pathophysiology-Nutrition. (6) W. Prerequisite: Medicine 110, Pediatrics 110 or Surgery 110. Enrollment limited.

Sebastian, Sleisenger, Baron

Emphasizes biochemical and physiological concepts that determine nutritional management of problems in clinical medicine. Students attend lectures, participate in discussions and develop an independent ability to critically evaluate research literature in nutrition and apply information to management of specific clinical problems. **MEDICINE**

140.23. Endocrine Metabolism-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Baxter, Karam

Students based at Moffitt Hospital, twelfth floor south, act as assistants to residents and to endocrine fellows for consultations as well as for hospitalized endocrine patients; attend endocrine and metabolic clinics and seminars, and teaching exercises of endocrinology and metabolism, including Medicine Grand Rounds. **MEDICINE**

140.24. Rheumatology & Immunology-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Sack

Familiarization with clinical manifestations, rheumatic disease therapy, immunologic disorders. Participation in in/outpatient clinics. Basic immunologic principles as related to clinically apparent immunologic dysfunction. Assignment of pertinent literature, lectures, and introduction to principles and practice of various immunologic testing. **MEDICINE**

140.25. Renal Disease-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Humphreys

Students work up and follow up patients with a wide variety of renal and electrolyte disturbances, and see outpatients in a weekly Renal Clinic. Cases are discussed with attending physicians daily. Students also attend weekly Journal Club, Renal Grand Rounds, and Chief of Service Rounds. **MEDICINE**

140.26. Critical Care-MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Uhley, Woerber

Primary emphasis is on the management of critically ill patients in Coronary Care Unit and Intensive Care Unit. Includes teaching in the use of monitoring equipment, cardioversion, and related aspects of critical care medicine. **MEDICINE**

140.27. Cardiopulmonary-C. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Keroes

Students attend rounds in the Coronary Care Unit; receive instruction in cardiology, stressing electrocardiography; may work in the pulmonary function laboratory, and attend all regular teaching conferences and seminars. **MEDICINE**

140.28. Infectious Disease-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

J. Mills

Course includes active consultation service averaging three new consultations per day. Daily patient rounds; weekly combined infectious diseases/pediatrics mini-rounds and infectious diseases intercity rounds. Two half-day infectious diseases clinics per week. Reading and library research. **MEDICINE**

140.29. Hematology-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Shuman

Students work up and present patients in the wards and outpatient clinics, participate in conferences and seminars, and learn the laboratory procedures applicable to their patients. **MEDICINE**

140.30. Endocrine Metabolism-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Biglieri, Schambelan

The Endocrine-Metabolic Service provides daily house staff/fellow-supervised consultations, three weekly clinics, biweekly rounds with senior staff, conferences on current research. Emphasis on clinical investigation of endocrine disorders in the General Clinical Research Center. **MEDICINE**

140.31. Coronary Care-VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110. Fourth-year standing or consent of instructor.

A four-week cardiology elective or Medicine 140.01 is recommended.

Tierney

Students work as interns in the Coronary Care Unit and attend all

regular teaching conferences and seminars. **MEDICINE**

140.32. Coronary Care-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110. Fourth-year standing or consent of instructor. A four-week cardiology elective or Medicine 140.01 is recommended.

N. Goldschlager

Students work as interns in the Coronary Care Unit and attend all regular teaching conferences and seminars. **MEDICINE**

140.33. Coronary Care at Moffitt/Long. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110, fourth-year standing or consent of instructor. A four-week cardiology elective or Medicine 140.01 is recommended.

Chatterjee

Students work as interns in the Coronary Care Unit and attend all regular teaching conferences and seminars. **MEDICINE**

140.34. Renal Disease-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Cogan

The student will join the renal team and participate under supervision in evaluation and treatment of patients with renal disease or disorders of fluid, acid-base, or electrolyte balance. Emphasis is placed on pathophysiology, history-taking, physical examination, and treatment. **MEDICINE**

140.35. Cardiology-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Cheitlin, Rapaport, N. Goldschlager, Morelli, Dohrmann, Sung

Students see patients in consultation on wards and clinics, read electrocardiograms, review cases with cardiac consultant, and attend all seminars and conferences. **MEDICINE**

140.36. Emergency Medicine-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Schumaker

Students serve 40 hours per week as externs working and sharing responsibilities with residents and interns. Lectures and emergency medicine conferences are held but emphasis is on bedside instruction. **MEDICINE**

140.37. Emergency Medicine-H. (1½ per week) S, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Simon

Students serve 40 hours per week as externs working and sharing responsibilities with residents and in-

terns. Lectures and emergency medicine conferences are held daily. Emphasis is on bedside instruction. **MEDICINE**

140.39. Pulmonary Disease-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Boushey

Students examine patients in Chest Clinic, on the wards and in RCU, and present them at ward rounds, pulmonary function and radiology conferences. They participate in pulmonary function testing and do assigned reading. **MEDICINE**

140.41. Gastroenterology-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110. Limited to fourth-year students.

Cello

Students are responsible for evaluation and presentation of gastrointestinal patients on medical and surgical wards. Work-ups are thoroughly discussed with gastroenterology staff. Students may also observe GI techniques including sigmoidoscopy, colonoscopy, endoscopy, liver biopsy. Conferences held weekly in conjunction with Surgery, Pathology and Radiology. **MEDICINE**

140.42. Toxicology & Occup Med-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

C. Becker

Students evaluate patients in hospital and clinic settings, as well as consultations from SF Bay Area Poison Control Center. Students participate in patient-oriented rounds with special emphasis on toxicology, occupational medicine, drug overdose, drug abuse, and alcoholism, as well as treatment of cardiovascular and gastrointestinal diseases. **MEDICINE**

140.43. Rheumatology & Immunology-VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Seaman

A four- to twelve-week introduction to rheumatology and immunology, offering both clinical and laboratory experience. The student will participate in inpatient and outpatient care and take part in didactic and practical aspects of the research program. **MEDICINE**

140.45. Endocrine Metabolism-VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and consent of instructor. Enrollment limited. Priority given to UCSF students.

Siperstein, Arnaud

An introduction to the diagnosis and treatment of endocrine-metabolism diseases. Areas covered are those endocrinopathies involving the

major endocrine glands, as well as diabetes mellitus and hyperlipemias. Patients will be examined and treated in both the inpatient and outpatient services. **MEDICINE**

140.46. Pulmonary Medicine-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year medical student in good standing. **J. Murray, Hopewell, Sheppard**

Pulmonary disease, including clinical manifestations, basic pathophysiology, use and limitations of diagnostic studies and treatment. Experience will be gained by seeing patients on wards and through a series of ongoing conferences, ward rounds and review sessions under close faculty supervision. **MEDICINE**

140.52. Renal Disease-VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Pollock

Clerkship in clinical nephrology. Lectures, rounds, conferences, renal biopsy review. Patients with acute and chronic renal disease, acute and chronic dialysis patients, patients with fluid and electrolyte problems. Renal grand rounds, journal club, nephrology research, and renal pathophysiology conferences weekly. **MEDICINE**

140.53. Infectious Disease-MZ. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

L. Drew, Mintz

Clinical and laboratory experience providing integrated approach to infectious diseases. Emphasis on learning techniques in diagnostic microbiology (e.g., Gram stains, bacterial and viral cultures), and correlating these findings with clinical diagnosis and patient management. Clinical and laboratory research available. **MEDICINE**

140.55. Advanced Medicine Clerkship-C. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110. Limited to fourth-year students.

Busch

Students, teamed with a resident, will evaluate and share in the care of patients admitted to an acute care hospital. Experience includes history-taking, physical examination, therapeutic plan, and progress notes. Attendance at daily teaching rounds and conferences. **MEDICINE**

140.56. Geriatric Medicine-MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Feigenbaum, H. Brownstein

Offers the opportunity for participation in various medically-oriented

geriatric programs. Assignment to health care teams seeing patients at home, at MZ Geriatric Day Care Center, Geriatric Inpatient Assessment and Rehabilitation Unit; in-hospital consultations, and participation in multidisciplinary geriatric assessment. Supervision under MZ faculty and fellows in geriatric medicine. **MEDICINE**

140.57. Cardiology-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Deedwania

Students see patients in the coronary care unit, wards and clinics at the University of California Teaching Facility at Fresno. They will develop and implement treatment plans with the consultant, read electrocardiograms, and attend all seminars and conferences. **MEDICINE**

140.58. Pulmonary Disease-VAF. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

P. Baylor

Students on Chest Service will have primary care responsibilities for medical inpatients under supervision of the Physician Director of the Respiratory Care Service. Instruction on topics such as the use of respirators, arterial blood gas sampling and techniques. **MEDICINE**

140.59. Adv Medicine Clerkship KTU-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

Amend, Vincenti

Rotation through an active renal transplant service including clinical immunology, clinical renal pathophysiology, renal diagnosis such as X-ray, biopsy, scan. The student's experience in the care of inpatients and outpatients will encompass other internal medical problems as well. **MEDICINE**

140.60. Rheumatology-VMC & VMF. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

Bertken

Experience with rheumatic diseases and chronic musculoskeletal pain including arthritides and collagen-vascular disorders as seen in clinics. Develop skills in history-taking, physical examination, selection and interpretation of diagnostic procedures, approaches to management, including drug therapy. Supervision by division chief and faculty. **MEDICINE**

140.61. Advanced Medicine Clerkship-VAF. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

R. Freeman

Assignment to team with first- and second-year resident; rounds with attending faculty four to five times weekly; attend daily noon conferences; increase skills in history-taking, physical examination, write-ups, and oral presentation. Experience in writing orders counter-signed by resident. **MEDICINE**

140.62. Emergency Medicine-MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Savitsky

Emergency room experience providing acute care to a mixed inner city and middle class population. Students see medical emergencies, minor trauma, and acute problems in a variety of disciplines including gynecology, ophthalmology, ENT, and orthopaedics. Attendance at specialty conferences encouraged. **MEDICINE**

140.63. Advanced Medicine Clerkship-KP. (1½ per week) Su, F, W, Sp.

Connolly

Fourth-year elective rotation for one month on medical wards at Kaiser Foundation Hospital in Oakland. Students will be integrated into the residency training program and will be involved in the care of hospitalized patients in an urban community prepaid health plan hospital. **MEDICINE**

140.64. Cardiology-UC. (1½ per week) F, W, Sp. Prerequisite: Medicine 110.

D. Perloff, Scheinman

Instruction in interpreting electrocardiograms as well as other diagnostic procedures used in cardiology, such as echocardiography, exercise testing, use of radioisotopes, electrophysiologic, hemodynamic, and radiologic studies. Students regularly attend cardiac and hypertension clinics, cardiology conferences and rounds. **MEDICINE**

140.66. Internal Medicine-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

Freeman

Students assigned to teams with first- and second-year residents, rounds with attending faculty, participation in daily conferences. Emphasis on pathophysiology of disease processes, management of acute medical problems. Refine skills in history-taking, physical examination, write-ups, presentations, techniques of diagnostic procedures. **MEDICINE**

140.68. Infectious Disease-VMC & VAF. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Libke

Management of common and unusual infectious diseases. May include use of anti-microbials in presence of impaired renal or hepatic function, treatment of infection in immunologically compromised host, etc. Participation in patient evaluation, treatment follow-up, ward rounds, conferences. Microbiology laboratory can be arranged. **MEDICINE**

140.69. Cardiology-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Grayson

Participation with house staff in patient care on CCU, ICU, medical wards, outpatient clinics. Introduction to invasive and non-invasive diagnostic procedures, techniques of management in care of hospitalized and ambulatory patients. Attend ECG interpretations, CCU rounds, consults, and teaching conferences. **MEDICINE**

140.70. Hematology, Oncology-VMC & VAF. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing and Medicine 110.

Stolberg

Students participate in the work-up of hospitalized patients and follow up progress of patients in specialty clinics seen in consultation by hematology oncology staff. Clinical experience is augmented by reading program, slide review sessions, tumor board meetings and specialty conferences. **MEDICINE**

140.71. Pulmonary Disease-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or consent of instructor.

Lohne, Hirasuna

Evaluation and management of adult patients with respiratory diseases, supervised by house staff and faculty. Pulmonary Medicine section. Emphasis on physical examination of chest, interpretation of X-ray, arterial blood gases, pulmonary function studies. Gain familiarity with respirators and other aspects of respiratory care. **MEDICINE**

140.72. Gastroenterology-VAF. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing and Medicine 110.

Gitlin

Participation in evaluation of patients with gastrointestinal problems (gastroscopies, ERCP, colonoscopies, liver biopsies, peritoneoscopy, bowel biopsies) on wards and in outpatient clinic. Experience includes demonstration of investigation (acid perfusion and others), weekly clinical conference, liver his-

tology, and tutorial discussion sessions. **MEDICINE**

140.73. Rheumatology & Immunology-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

I. Goldstein, H. D. Perez

Students will be assigned inpatients and outpatients for work-up and management under the supervision of fellows and attending physicians. Students also will participate in clinical rounds, clinical conferences, research seminars and journal clubs. **MEDICINE**

140.74. Medical Consultation-SFGH. (1½ per week) Su, F, W, Sp.

Cooke

Clerkship in Medical Consultation at SFGH. Also includes a half-day clinic in which preoperative medical evaluations are performed for patients about to undergo elective surgery. **MEDICINE**

140.75. Inpatient Medicine-K. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and fourth-year standing.

Fessel

Students based at Kaiser Foundation Hospital serve as clinical clerks. They examine patients, participate in ward rounds, and attend teaching seminars and conferences of the Department of Medicine. **MEDICINE**

140.77. Endocrinology/Diabetes-Fresno. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110.

Snyder, Shipp

Students gain extensive experience in care of patients with diabetes and other endocrine disease through active participation in special diabetes inpatient units, ward consultations, diabetes and endocrine clinics, and patient educational programs located at Valley Medical Center and in the community. **MEDICINE**

140.78. Critical Care Medicine-VMC. (1½ per week) Su, F, W, Sp.

Hirasuna, Bachenberg

Students participate in the management and evaluation of critically ill patients in the Medical Intensive Care Unit. This includes the interpretation of laboratory results, blood gases and chest X-rays and the use of mechanical ventilation and hemodynamic monitoring. Supervision is by full-time faculty with senior Medicine residents. **MEDICINE**

150.01. Research in Medicine. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of faculty member in charge of student's research pro-

ject and approval of third- and fourth-year coordinator.

Papadakis

Students continue previously initiated research projects under the guidance of faculty members. **MEDICINE**

150.03. Cancer Viruses. (1½ per week) Su, F, W, Sp. Prerequisite: Basic course in microbiology.

J. A. Levy

Tissue culture techniques and animal experimentation will be used to demonstrate the role of viruses in animal malignancies and autoimmune disease. Research serves as a model system for studying similar disorders in man. **MEDICINE**

160.03. Clinical Skills Seminar. (1) W, Sp. Prerequisite: Second-year standing or consent of instructor. Lecture 1 hour.

B. Lewis, Z. Frazier

Skills laboratory seminar designed to create a working relationship between medical and nursing students, using teaching and acquisition of clinical and communication skills as the interactive mode. Bed-side skills for direct patient care will be taught and practiced. **MEDICINE**

160.04. Med Science & Clinical Problems. (2) Su, F, W, Sp. Prerequisite: Third-year standing and enrollment in the Medical Scientist Training Program. Lecture 1 hour. Seminar 1 hour.

D. Cox

The course is designed to develop a historical perspective of what and how clinical problems can be approached in a basic medical research laboratory and to develop, by example, an analytical approach relating basic medical research to clinical medicine. **MEDICINE**

160.05. Clinical Occupational Medicine. (1-5) F, W, Sp.

La Dou, Garb

Clinical demonstrations and case presentations representative of occupational and environmental disease. **MEDICINE**

170.01. AIDS-HIV 1988: Overview & Update. (1½) W. Lecture 1 hour. **Papadakis, Bartnof**

A preclinical multidisciplinary survey course in lecture format on the biomedical, clinical, and social manifestations of the pandemic caused by the human immunodeficiency virus. The course includes lectures by twenty UCSF subspecialists and two panels: SF Systems of Care and Persons with AIDS/ARC. **MEDICINE**

170.04. EKG Fundamentals-VA. (1) Su, F, W, Sp. Prerequisite:

Medicine 132A-B-C. Lecture 1 hour.

M. Goldman

Instruction in basic electrophysiologic principles and interpretation of electrocardiograms. MEDICINE

170.05. EKG Interpretation. (1) W. Prerequisite: Medicine 131A. Lecture 1 hour.

Rapaport

Review of physical principles of electrocardiography and clinical application of electrocardiographic interpretation. MEDICINE

170.07. Non-Invasive Lab Cardiology. (1) Sp. Prerequisite: Medicine 170.05.

Rapaport

Fundamentals of non-invasive laboratory cardiologic procedures will be discussed. Techniques and role of echocardiography, stress electrocardiography, Holter monitoring, phonocardiography, systolic time intervals, vectorcardiography, apexcardiography and other areas will be covered. MEDICINE

170.09. Current Topics in Med Science. (2) Su, F, W, Sp. Lecture 2 hours.

Cox, Nestle

Focus on research interests of UCSF faculty. Provides broad introduction to campus research, practice in reading and analyzing research publications. Speaker's talk includes discussion of personal background, present research, background description on research area, and discussion of future research plans. MEDICINE

170.10. Intro to Occupational Medicine. (1) W. Lecture 1 hour.

La Dou

Practice of occupational medicine as related to the prevention, recognition, and treatment of disease and injuries resulting from employment. Interaction of economic, political and social forces bearing on worker health problems. Effects of the enterprise on the community and consumer. MEDICINE

170.11. Environmental Medicine. (1-5) F, W. Seminar 1-5 hours.

La Dou

Tutorial concerned with environmental medical problems. MEDICINE

170.12. Introduction to Geriatric Medicine. (1½-2) W. Lecture 1½-2 hours.

Feigenbaum

Course covers the physiology and psychology of normal aging, health care problems of the elderly, including confusional states. Techniques of rehabilitation medicine, use of medications, health care policies,

multidisciplinary geriatric health care teams, and sexuality in old age are reviewed. MEDICINE

170.15. Art and Science of Health Services Research. (2) F. Prerequisite: Graduate training in applied health services research, e.g., public health, medical sociology, health economics, preventive medicine.

Luft

This course covers issues from the design and writing of grant proposals to choice of data, analytic techniques, presentation of results, publication strategies, and project management. Students should be involved in a dissertation or major project. MEDICINE

180. Industrial Toxicology. (2) § Su, F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Osterloh

To provide understanding of basic principles of toxicology as related to work environment and workers' health. Emphasis is on chemicals including heavy metals and pesticides, methods of surveillance, principles of acute and chronic toxicity testing. Includes lectures, student presentations, and discussion. MEDICINE

180.02. Theory of Biomedical Ethics. (1-2) § W. Prerequisite: Graduate standing and consent of instructor. Seminar 2 hours. Paper required for 2 units.

Atchley

A brief introduction to Bioethics, followed by a case-oriented approach to the understanding and use of those basic bioethical principles necessary to understand and resolve frequently encountered bioethical dilemmas in medical practice. MEDICINE

188.01. Nation's Health. (2) § F, W, or Sp. Lecture 2 hours.

P. Lee and Staff

Course will address health policy issues related to the health status of the population, the determinants of health, and health care. Jointly offered with Sociology 160 and Sociology 220. MEDICINE

188.02. Health Policy Research Seminar. (1-2) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1-2 hours. Seminar ½ hour.

P. Lee, Halfon

An introduction to the application of policy research methods to current policy issues; an interdisciplinary seminar. MEDICINE

188.03. Economics of Health. (2) § F, W, or Sp. Lecture 2 hours.

P. Lee, Luft

This course will demonstrate how basic economic concepts and tools

can be applied to problems in the health care system. Specifically: measurement of output; demand for care, insurance, and incentives; supply of physicians' services; health sector planning; and an alternative view of the system. MEDICINE

198. Supervised Study. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor preceptor and approval of third- and fourth-year coordinator.

Papadakis

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. MEDICINE

199. Laboratory Project. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor preceptor and approval of third- and fourth-year coordinator.

Papadakis

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. MEDICINE

200. Health & Aging. (2-4) § W, Sp. Prerequisite: Graduate standing. Consent of instructor. Lecture 2-4 hours.

P. Lee, H. Lipton

Examines the health status of the aged in the U.S. in light of relevant biological, behavioral, sociocultural and environmental factors. Social, cultural and economic factors affecting the organization, financing, and delivery of health care to the aging population are examined. MEDICINE

400. Medical Staff Conferences. (2) F, W, Sp.

UC R. K. Root, SFGH Rapaport, VA Sleisenger

Interns and residents prepare and present case histories of patients at medical staff conferences including references to the literature, laboratory work, and special studies. Faculty members and visiting professors discuss the cases and present new developments to their respective fields. MEDICINE

401. Interdept Clinical Correlation. (4) F, W, Sp.

R. K. Root

A series of discussions is conducted in the various subspecialties of internal medicine. Students take an active part in the presentation and discussion of the problems involved, including reference to the literature, clinical demonstrations, and directed student participation. MEDICINE

402. Medical Literature Seminar. (1½) F, W, Sp.

VA Sleisenger

Seminars on recent literature in internal medicine, with assigned reading, required reports, and evaluation of presented material by interns, residents, and faculty. MEDICINE

403. Specialty Seminar. (2) F, W, Sp.

R. K. Root

Seminars are conducted in the fields of gastroenterology, hematology, cardiology, electrocardiology, endocrinology, chest diseases, psychosomatic medicine, arthritis and rheumatic diseases, infectious diseases, and radiology. Library research, occasional formal reports and patient presentations are required. MEDICINE

404. Specialty Seminar. (4) F, W, Sp.

SFGH H. Williams and Staff

Seminars are conducted in cardiology, hematology, gastroenterology, infectious diseases, metabolic diseases, and pathology, involving discussions, required reading, and reports. MEDICINE

405. Specialty Seminar. (4) F, W, Sp.

VA Sleisenger

Seminars are conducted in cardiology, electrocardiology, hematology, gastroenterology, radiology, fluid and electrolyte balance, endocrinology and pathology, involving discussions, required reading, and reports. Elective seminars include a chest disease conference, joint medical and surgical conference, tumor board, dermatology conference, and neuropsychiatry conference. MEDICINE

406. Research Elective. (1-10) Su, F, W, Sp.

UC R. K. Root, SFGH H. Williams, VA Sleisenger

Research programs are arranged with appropriate faculty members on an individual basis. MEDICINE

407. Clinicopathological Conference. (1) F, W, Sp.

SFGH H. Williams, VA Sleisenger

Residents take an active part in the presentation and discussion of problems connected with the correlation of clinical manifestations of disease with postmortem studies. Conferences include reference to the literature, clinical demonstrations, and laboratory work. MEDICINE

408. EKG Interpretation. (2) Su, F, W, Sp.

Sokolow

Seminars (individual instruction) for residents in medicine and trainees in cardiology by cardiac consultants in the interpretation of all electrocardiograms and phonocardiograms taken at UC. MEDICINE

450. Clinical Medicine. (10) Su, F, W, Sp.

SFGH H. Williams, UC R.K. Root Residents are responsible for the care of patients under the direction of the attending staff, and participate in student teaching. Third-year, senior and chief residents provide teaching and consultation service in the hospitals and outpatient clinics. MEDICINE

451. Clinical Medicine-MZ. (10) Su, F, W, Sp.

Woerber

Residents are responsible for the care of patients under the direction of the attending staff, and participate in student teaching. Senior residents provide teaching and consultation service in the hospital and outpatient clinics. MEDICINE

452. Clinical Medicine. (1½ per week) Su, F, W, Sp.

VAF Rosenstiel

Residents are responsible for patient care under the direction of the attending staff, including history-taking, physical examinations, laboratory tests, and consultations. The chief resident, in addition, has certain responsibilities involving the residents, and consults for all other hospital services. MEDICINE

460. Clinical Primary Care. (1½ per week) Su, F, W, Sp.

Crede and Staff

Interns in the Primary Care Track of Internal Medicine are responsible for patient care in a multispecialty primary care clinic. Other rotations include those common to the regular Medicine Internship Program as well as related clinical services such as Dermatology, Neurology. MEDICINE

461. Clinical Primary Care. (1½ per week) Su, F, W, Sp.

Crede and Staff

Residents in the Primary Care Track of Internal Medicine are responsible for patient care in a multispecialty primary care clinic. Other rotations include those common to the regular Medicine Internship Program as well as related clinical services such as Dermatology, Neurology. MEDICINE

490. Clinical Medicine. (1½ per week) Su, F, W, Sp.

SFGH H. Williams

Interns rotate through medical wards and emergency hospital. Under the supervision of the attending staff, they are responsible for the care of patients, including history-taking, medical work-ups, laboratory tests, and consultation. MEDICINE

491. Clinical Medicine. (1½ per week) Su, F, W, Sp.

SFGH H. Williams

A modified "straight" medical internship consisting of eight to nine months service in general medicine, chest, and the emergency rooms, with three to four months spent in other hospital services. MEDICINE

495. Clinical Medicine. (1½ per week) Su, F, W, Sp.

UC R. K. Root

Interns are responsible for the care of patients under the direction of the attending staff, and participate in student teaching. MEDICINE

MICROBIOLOGY AND IMMUNOLOGY

100A. Medical Immunology. (2) Sp. Prerequisite: Biochemistry 100A-B. Lecture 2 hours. Equivalent to Microbiology 121 and 190A.

J. Goodman

Lectures on the fundamentals of immunology. Small group seminars on patient-related problems in this field. MICROBIOL

100B. Medical Microbiology. (6) F. Prerequisite: Biochemistry 100A-B. Lecture 4 hours. Lab 3 hours. Conference 1 hour. Equivalent to Microbiology 190B.

W. Levinson

Pathogenesis of infection by bacteria, fungi and viruses. Essentials of diagnosis, treatment, and epidemiology of diseases. Laboratory demonstrations and exercises of essential medical skills. Problem-solving exercises and small group seminars involving clinical cases. MICROBIOL

116. Microbiology and Immunology in Dentistry. (6) W. Lecture 4 hours. Lab 6 hours.

Felton, DeFranco

Comprehensive presentation of microorganisms including bacteria, fungi, viruses; fundamentals of infection and resistance, immunology, disinfection, sterilization, and antimicrobial agents. Laboratory studies and demonstrations on indigenous oral flora and applications of microbiology to dentistry. MEDICINE

120. Microbiology in Pharmacy. (3) Sp. Lecture 3 hours.

Lucero

Fundamentals of microbiology for pharmacy students with emphasis on mechanisms of disease production by bacteria, fungi and viruses. Antibiotics, mode of action and genetics, toxins, indigenous flora, hospital infections, immunization. MICROBIOL

121. Immunology. (2) Sp. Prerequisite: Biochemistry 120A-B. Re-

quired course for students in the School of Pharmacy. Lecture 2 hours.

Brodsky

Lectures on the fundamentals of immunology, drugs in hypersensitivity and immunosuppression. MICROBIOL

127. Microbiology Laboratory. (2) § Sp. Prerequisite: Concurrent enrollment in Microbiology 120. Lab and conference 4 hours.

Lucero

Morphology, physiology, and immunology techniques used in laboratory diagnosis of selected bacterial diseases. Antibiotic susceptibility, disinfection, and sterility exercises. Demonstration on virology. MICROBIOL

150.01. Microbiology Research. (1½ per week) Su, F, W, Sp. Prerequisite: Microbiology 100A and 100B and consent of instructor.

Staff

Research in microbiology; block elective for fourth-year students. MICROBIOL

170.01. Medical Problem-Solving. (2) F, W, Sp. First-year medical students only. Conference 2 hours. Library research 2 hours.

Levinson

Small-group medical problem-solving conference using real clinical cases as a springboard for exploration of underlying issues in basic and clinical sciences. The emphasis is on pathophysiological reasoning, independent learning, and working in a group. Teaching is Socratic and minimally directive. MEDICINE

190A. Med Immunology-Grad Stdn's. (2) § Sp. Prerequisite: Biochemistry 100A-B. Lecture 2 hours for nine weeks. Equivalent to Microbiology 100A and 121.

J. Goodman

Lectures on the fundamentals of immunology. Small group seminars on patient-related problems in this field. MICROBIOL

190B. Graduate Medical Microbiology. (6) § F. Prerequisite: Biochemistry 100A-B. Lecture 4 hours. Lab 3 hours. Conference 1 hour.

W. Levinson

Pathogenesis of infection by bacteria, fungi, and viruses. Essentials of diagnosis, treatment, and epidemiology of diseases. Laboratory demonstrations and exercises of essential medical skills. Problem-solving exercises and small group seminars involving clinical cases. MICROBIOL

198. Supervised Study. (1-5) § Su, F, W, Sp. Prerequisite: Consent of instructor.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. MICROBIOL

199. Laboratory Project. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. MICROBIOL

203. Cellular Immunology. (3) F. Prerequisite: General knowledge of immunology and biochemistry. Lecture 3 hours. Offered in alternate years. Offered 1988-89.

DeFranco, J.W. Goodman

Course covers chemical and genetic basis of immunogenicity, properties of immunocompetent cells, cell interactions in the immune system, and regulatory circuits. MICROBIOL

204. Immunology of B Cells. (3) § F. Prerequisite: General knowledge of immunology. Lecture 3 hours.

Grosschedl

Course will cover the molecular biology of immunoglobulins and the cellular properties of the humoral immune system. MICROBIOL

208. Molec Biology of Animal Viruses. (3) § Sp. Prerequisite: General knowledge of nucleic acid structure and chemistry and multiplication of viruses. Lecture 1½ hours. Seminar 1½ hours. Offered in alternate years. Offered 1988-89.

Varmus, Ganem, J.M. Bishop, Levintow

The nature of viruses: dynamics of virus-cell interaction with emphasis on animal virus systems, control of expression of virus-specific information in lytic and temperate infection, and role of viruses in malignant transformation of cells. MICROBIOL

209. Special Topics in Immunology. (1-3) § F, W, Sp. Conference 1 hour.

J.W. Goodman and Staff

Small group tutorial in which topics and correlative reading will be selected by students for discussion with individual faculty members. MICROBIOL

210. Research Problems in Mycology. (1-5) § F. Prerequisite: Microbiology 100A, 100B and 206. Lab and conference.

Halde

Participation in research problems in a mycology laboratory. This is not a structured laboratory methods course, but rather a practical research experience involving basic research with pathogenic fungi. MICROBIOL

215. Laboratory Rotation. (2-4) § F, W, Sp. Prerequisite: Consent of instructor. Lab 6-12 hours.

DeFranco, Ganem

Laboratory research for one quarter with a departmental faculty member to familiarize new graduate students with experimental approaches to microbiological or immunological problems of current interest. MICROBIOL

220. Selected Topics Seminar. (1) § F, W, Sp. Seminar 1 hour.

Staff

General microbiology; individual research of advanced graduate students, invited speakers and staff members. Reviews of special topics and journal articles by advanced students. MICROBIOL

221. Graduate Research Seminar. (1) § Sp. Seminar 1 hour.

N. Craig, DeFranco

Seminar series in which graduate students present their thesis research. MICROBIOL

250. Research. (1-8) § F, W, Sp.

Staff

MICROBIOL

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. MICROBIOL

NEUROLOGICAL SURGERY

Core Clerkship—Neurology 110. Students serve as clinical clerks in the inpatient and outpatient clinics.

140.01. Advanced Neurosurgery Clerkship. (1½ per week) Su, F, W, Sp.

C.B. Wilson

The student will become a member of the house staff, attending ward rounds, working up patients, assisting at operations, and taking night call on rotation with a resident. Limited to one student per hospital. NEURO SURG

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110.

Pitts, P. Weinstein

Clinical clerkship in approved hospitals by special arrangement, and approval of the dean and chairper-

son of the department. NEURO SURG

198. Supervised Study. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. NEURO SURG

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Pitts

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. NEURO SURG

400. Staff Conference. (2) Su, F, W, Sp.

C.B. Wilson

Residents, under supervision, prepare and present case histories of ward patients including laboratory work, X-ray studies, special investigation and reference to the literature. Discussion is led by the faculty with participation by visitors. NEURO SURG

402. Clinicopathological Conference. (2) Su, F, W, Sp.

R. Davis, C.B. Wilson

Residents discuss clinicopathological aspects of cases, and their correlation with the literature and special studies. Faculty and visitors discuss developments in related fields. Second-year residents organize conferences and participate in gross autopsies on patients from the Neurological Surgery Service. NEURO SURG

403. Literature Review. (1) Su, F, W, Sp.

Pitts

Recent literature in neurology and neurological surgery is presented. Discussion by members of the faculty in attendance and by visitors from other schools interested in this and related fields. NEURO SURG

450. Clin Neurological Surgery—UC. (10) Su, F, W, Sp.

C.B. Wilson

Residents, under supervision, are responsible for patient care in the wards and outpatient clinics including history-taking, physical examinations, laboratory tests, and consultations. In addition, the senior resident has certain administrative, teaching, and clinical responsibilities. NEURO SURG

451. Clin Neurological Surgery—SFGH. (10) Su, F, W, Sp.

Pitts

Residents are responsible for the care of patients, under the direction

of the attending staff, including history-taking, physical examinations, laboratory tests, and consultations. In addition, the senior resident has certain teaching and administrative responsibilities required by the attending staff. NEURO SURG

453. Clin Neurological Surgery—VA. (10) Su, F, W, Sp.

P. Weinstein

Residents are responsible for diagnosis and care of patients in wards and clinics and performance of studies and selected neurosurgical procedures under supervision of the attending staff. They also present patients at conferences and attend seminars and rounds at UC. NEURO SURG

490. Clin Neurological Surg—SFGH & VA. (1½ per week) Su, F, W, Sp.

Pitts, P. Weinstein

Interns rotate through neurological surgery wards. Under the supervision of the attending staff, they are responsible for the care of patients, including history-taking, neurologic examinations, laboratory tests, diagnostic procedures, and consultation. NEURO SURG

NEUROLOGY

Second-Year Coordinated Instruction—Medicine 132A-B-C. Lecture-demonstrations and section work devoted to the supervised examination of patients.

110. Neurology-Neurosurg Core Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 132A-B-C. Concurrent enrollment in Psychiatry 135.

Layzer

Students are assigned patients for study under supervision of attending and resident staffs. They attend work rounds, attending rounds, grand rounds, conferences and lecture-seminars, emphasizing diagnosis and management of common clinical problems and psychiatric aspects of neurology. NEUROLOGY

140.01. Acting Internship Neurology. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110. Approval of the chairperson of the department.

R. Fishman

Students serve as acting interns on the inpatient services or on the consult service. Attendance at departmental clinical rounds, seminars, and conferences is required. NEUROLOGY

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110.

R. Fishman

Clinical clerkship in approved hospitals by special arrangement and approval of the dean and the chairperson of the department. NEUROLOGY

140.03. Neurology Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110 and consent of instructor.

R. Fishman, Goodin

Students serve as clinical clerks in the outpatient clinics. Attendance at departmental clinical rounds, seminars, and conferences is required. Prior arrangements must be made. NEUROLOGY

140.04. Child Neurology. (1½ per week) Su, F, W, Sp. Prerequisite: Pediatrics 110, Medicine 110, and Neurology 110.

Berg

Participation in child neurology activities, both inpatient and outpatient, and all regularly scheduled conferences of the Child Neurology Division. Study of the developing nervous system and diseases of the nervous system affecting infants, children and adolescents. NEUROLOGY

140.05. Advanced Neurology Clerkship—SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110 and consent of instructor.

R. Simon

Students serve as clinical clerks in the outpatient clinics and on the consultation service. Attendance at all departmental clinical rounds, seminars, and conferences is required. Prior arrangements must be made. NEUROLOGY

140.06. Advanced Neurology Clerkship—VA. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110 and consent of instructor.

Faden

Students serve as clinical clerks in the outpatient clinics and on the consultation service. Attendance at departmental clinical rounds, seminars, and conferences is required. Prior arrangements must be made. NEUROLOGY

140.07. Advanced Neurology Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Neurology 110.

Advanced students will have the opportunity to broaden and enrich their clinical neurology experience and expertise. Opportunity will be given to participate in didactic and case conference presentations. The opportunity exists for subspecialty clinical experience (e.g., behavioral neurology, neuromuscular disease). NEUROLOGY

140.08. Pain Mechanisms and Management—UC. (1½ per week) Su, F, W. Prerequisite: Neurology 110

and consent of instructor. Enrollment limited.

Fields, Barbaro, McKay

Diagnosis, medical and surgical management of patients with chronic pain. Students will participate in conferences and rounds of the multidisciplinary pain service at UCSF's Parnassus campus. Direct patient contact will be under supervision of attending physicians (neurologists, neurosurgeons, anesthesiologists, psychiatrists). Students will learn to do sensory examinations and simple local anesthetic nerve blocks. They will learn pain management for acute post-operative patients, cancer pain, neuropathic pain, headache, low back pain. They will be expected to identify major psychological aspects of acute and chronic pain. NEUROLOGY

150.01. Neurology Research. (1½ per week) Su, F, W, Sp. Prerequisite: Anatomy 103.

R. Fishman

Opportunities for research in one of the departmental laboratories by arrangement with the chairperson of the department. NEUROLOGY

150.02. Neuropathology. (1½ per week) F, W, Sp. Prerequisite: Anatomy 103 and Pathology 102.

R. L. Davis, Baringer

Tissue pathology of diseases of the nervous system will be explored in greater depth in the postmortem room and by gross and microscopic techniques. NEUROLOGY

150.03. Medical Aspects of Disability. (2) F. Seminar 2 hours.

Berrol, Byl, Barnes

Diagnosis, medical management, and psychosocial sequelae of the major disabling conditions including spinal cord injury, closed head injury, cerebral palsy, multiple sclerosis, chronic pain, muscular dystrophy, congenital pediatric problems. Focus on disabling conditions and review of sexual issues and therapeutic interventions. NEUROLOGY

198. Supervised Study. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

R. Fishman and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. NEUROLOGY

199. Laboratory Project. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

R. Fishman and Staff

A laboratory research project under direction of a member of the faculty

with the approval of the chairperson of the department. NEUROLOGY

400. Neuroscience Seminar. (1½ per week) Su, F, W, Sp.

R. Fishman, I. Diamond

Seminars covering selected subjects in the basic sciences relevant to neurology including neuroanatomy, neurochemistry, neurophysiology, and neuropathology. NEUROLOGY

401. Grand Rounds. (1) Su, F, W, Sp.

R. Fishman

Conference includes resident preparation and presentation of patient case histories including reference to the literature, laboratory work, and special studies. Faculty members and visiting professors from other universities discuss new developments in their respective fields. NEUROLOGY

402. Neurological & Neurosurgical Path. (1) Su, F, W, Sp.

R. Davis

Course involves the presentation and discussion of clinical histories and pathologic findings in selected cases of neurologic interest and histopathologic study, and discussion of surgical and postmortem specimens from neurological and neurosurgical patients. NEUROLOGY

403. Neuropathology Research. (1-10) Su, F, W, Sp. Prerequisite: Second- and third-year residents.

R. L. Davis

Course involves pathologic and clinicopathologic research into various aspects of neuropathology. Specific subjects of research are chosen in conjunction with members of the staff. NEUROLOGY

407. Neuroradiology. (1) F, W, Sp.

D. Norman

Neuroradiologic techniques and interpretations are reviewed in detail with particular emphasis on X-rays of the skull and spine, pneumoencephalography, myography and arteriography. NEUROLOGY

411. Neurology Research. (5-13) Su, F, W, Sp.

R. Fishman

Clinical and basic research in neurological disease. After consultation, assignments to one of the several departmental laboratories will be possible. NEUROLOGY

412. Neuropathology Research. (10) Su, F, W, Sp.

VA Faden

Specific projects in experimental pathology of the nervous system may be undertaken by direct arrangement. Techniques include neurohistology, histologic autoradiography,

and electron microscopy. NEUROLOGY

450. Clinical Neurology-UC-SFGH-VA. (10) Su, F, W, Sp.

R. Fishman

Residents are responsible for the care of patients under the direction of the attending staff, and participate in student teaching. They serve on the inpatient, outpatient and consultation services. NEUROLOGY

453. Clinical Electroencephalography. (1½ per week) Su, F, W, Sp.

Aminoff

Residents learn interpretation of electroencephalograms under the supervision of experienced electroencephalographers. They interpret electroencephalograms on patients they have seen clinically, with individual instruction available as required. Instruction is accredited by the Board of Qualification of the American Electroencephalographic Society. NEUROLOGY

454. Clinical Electromyography. (1½ per week) Su, F, W, Sp.

Aminoff

Students learn the application of electromyography in the diagnosis of patients seen in the wards and in the outpatient clinic, with individual instruction as required. NEUROLOGY

456. Clinical Neuropathology. (1½ per week) Su, F, W, Sp.

Malamud

Residents spend three months or more performing supervised autopsies and pathologic studies of brain, nerve and muscle. NEUROLOGY

458. Clinical Pediatric Neurology. (1½ per week) Su, F, W, Sp.

Berg

Course offers experience in the diagnosis and management of children with acute and chronic neurological disorders. Outpatient clinics are held weekly for pediatric convulsive disorders and behavioral and learning problems of the schoolchild. NEUROLOGY

460. Clinical Neuro-Ophthalmology. (4½) Su, F, W, Sp.

W. Hoyt

Residents participate in clinical evaluation of patients in preparation for rounds. Clinical teaching in neuro-ophthalmology. NEUROLOGY

NEUROSCIENCE

201. Principles of Neuroscience. (4) § F. Prerequisite: Admission to Neuroscience Program or permission of instructor. Lecture 2 hours. Conference 2 hours.

Hall and Staff

A one quarter introductory course emphasizing the basic principles of cellular, molecular, and integrative neuroscience. The course will provide a general background in neuroscience by intensively treating selected topics that illustrate the questions and methods of modern neurobiology. PHYSIOLOGY

215. Laboratory Rotation. (4) § F, W, Sp. Prerequisite: Consent of instructor. Lab 12 hours.

Reichardt

A laboratory rotation course to familiarize new departmental graduate students with various approaches to neurobiological research. PHYSIOLOGY

220. Selected Topics. (1) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

Z. Hall

Topic in neurobiology is selected such as development, anatomy and physiology of the visual system, biochemistry of membranes. Pertinent papers from the recent literature are read and discussed. Each student must participate regularly and present one seminar per quarter. PHYSIOLOGY

222. Advanced Cellular Neurobiology. (3) § Sp. Prerequisite: Neuroscience 201A-B-C and consent of instructor. Seminar 3 hours.

Staff

Given each year in the spring quarter on a rotating basis. Representative topics include neurobiology of peptides, ion channels, sensory transduction. Seminar format with students reading and presenting papers from the current literature. PHYSIOLOGY

224. Advanced Neurochemistry. (3) § W. Prerequisite: Neuroscience 201A-B-C and consent of instructor. Seminar 3 hours.

Staff

Given each year in the winter quarter on a rotating basis. Representative topics include neuroimmunology, molecular neurobiology, cell surface in development. Seminar format with students reading and presenting papers from the current literature. PHYSIOLOGY

226. Advanced Integrative Neurobiology. (3) § F. Prerequisite: Neuroscience 201A-B-C and consent of instructor. Seminar 3 hours.

Staff

Given each year in the fall quarter on a rotating basis. Representative topics include the visual system, pain, the auditory system, higher functions of the nervous system. Seminar format with students reading and presenting papers from the current literature. PHYSIOLOGY

230. Experimental Neurobiology. (5) § SS. Prerequisite: Consent of instructor. Lecture and lab.

Y-N Jan

Laboratory course designed to acquaint students with electrophysiology and anatomical methods used in studying peripheral and central nervous systems. Techniques included are extra- and intracellular recordings, iontophoresis, dye injection, tracing of neuronal pathways. PHYSIOLOGY

250. Research. (1-8) § Su, F, W, Sp. Prerequisite: Consent of instructor. Laboratory.

Staff

PHYSIOLOGY

299. Dissertation. (0) § Su, F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. PHYSIOLOGY

NURSING

103. Introduction to Nursing. (7) F. Prerequisite: Admission to Articulated B.S./M.S. Program. Lecture 2 hours. Lab 15 hours.

C. West

Introduction to nursing and nursing process: fundamental nursing, terminology, facts, trends, and their application in nursing practice. PHYSIOL NURS

104. Nursing of Adults. (9) F. Prerequisite: Admission to Articulated B.S./M.S. Program. Lecture 2 hours. Lab 21 hours.

C. West

Application of the nursing process to the physiological, psychological and sociological aspects of regulating response mechanisms to stress. PHYSIOL NURS

105. Maternal-Child Nursing. (9) F. Prerequisite: Admission to Articulated B.S./M.S. Program. Lecture 2 hours. Lab 21 hours.

M. Savedra

Application of principles and theories to nursing care given during the life processes of reproduction, nurturance and development, and alterations due to stressors during pregnancy and child development from birth to adolescence. FAM HLTH

106. Psychiatric Mental Hlth Nursing. (9) F. Prerequisite: Admission to Articulated B.S./M.S. Program. Lecture 2 hours. Lab 21 hours.

J. Lipson

Principles and dynamics of personality and family development. Application of the nursing process with clients who have coping problems

resulting from stressors in selected developmental or situational crises. MENT HLTH COM ADM

122. Physiol Processes-The Life Span (3-5) § F. Lecture 3-5 hours.

M. Muwaswes

Examines content in regulation, sensation, protection, and motion as they relate to adaptive mechanisms in man at the cellular level. PHYSIOL NURS

124. Professional Nursing Practice. (1) F. Prerequisite: Admission to Articulated B.S./M.S. Program. Lecture 1 hour.

B. Holaday

Course provides an introduction to the basis for professional practice and problems related to role change and resocialization in academia. Emphasis will be on use of theoretical approaches as the basis for providing nursing care. MENT HLTH COM ADM

127. Adaptation in Acute Illness. (5) F. Prerequisite: Admission to Articulated B.S./M.S. Program. Nursing 129 or concurrent enrollment. Lecture 2 hours. Lab 3 hours. Seminar 2 hours.

C. West

Course describes and explores concepts related to the nursing care of the acutely ill patient. Description of behaviors, measurements and nursing actions appropriate to the concepts will be compared and contrasted across a variety of acute illnesses. PHYSIOL NURS

128. Intro to Research & Theory. (3) W. Lecture 2 hours. Seminar 1 hour.

J. Norbeck

Introduces basic research concepts, language, process, logic, and methods for various types of research as well as the meaning and use of nursing theory. Engages students in skills of intellectual craftsmanship including effective reading, thinking, and writing to improve research consumership. MENT HLTH COM ADM

129. Health Assessment. (3) F. Lecture 2 hours. Lab 3 hours.

C. Gilliss

Course presents a basis for health assessment of clients within an adaptation-developmental model of nursing. Emphasizes data collection through history, physical examination, clinical studies, and identification of stressors altering health status. Laboratory for integration of theory and skill mastery. FAM HLTH

131. Psychosocial Adaptation. (4) W. Lecture 2 hours. Lab 4 hours. Conference 2 hours.

P. Underwood

Course presents a knowledge base for understanding assessment of intervention with persons demonstrating psychosocial responses to actual or potential health problems. Interviewing and communication techniques are presented as an integral part of both assessment and intervention. MENT HLTH COM ADM

132. Care of Aged & Chronically Ill. (3) § W. Lecture 3 hours.
C. Harrington

Nurse's role in health promotion and meeting special needs of the elderly and chronically ill. Demographic issues, functional assessment, alternatives for providing long-term care, and case management in acute, long-term, and community care settings will be covered. FAM HLTH

133. Family Health Care. (3) W. Prerequisite: Nursing 129. Lecture 2 hours. Lab 1 hour. Conference 2 hours.

J. Ventura
Course deals with the healthy family as the primary unit of health care management. Nursing process applied to promoting family health is emphasized, utilizing the adaptation-developmental framework. Community involvement with a family is an integral part of the course. FAM HLTH

135. Leadership in Nurs-Client Sys. (3) § Sp. Lecture 2 hours. Seminar 1 hour.

Staff
Course provides opportunity to develop a professional nursing role in a health care system appropriate to the student's area of interest. Knowledge and skill basic to the professional nursing leadership role are the foci of the course. MENT HLTH COM ADM

137. Community Health Nursing. (8) Sp. Prerequisite: Nursing 124. Lecture 3 hours. Lab 15 hours.

Staff
Application of nursing, family, and community health theory to community health settings, focusing on assessing, planning, implementing, and evaluating nursing care with families, groups, and the community. Health planning and public policy will be examined. MENT HLTH COM ADM

155. Clinical Uses of Drugs. (3) F, W, Sp. Lecture 3 hours.

N. Okamoto
Course deals with commonly used drugs, with emphasis on classification, use, rationale for choice, mode of action, and significant side effects. PHYSIOL NURS

181. Law & Nursing Practice. (2) § Sp. Lecture 2 hours.

D. Tennenhouse
Course surveys fundamental and critical current issues in law with respect to the theory and practice of nursing. Emphasis is on legal contingencies encountered in the everyday practice of nursing in both hospital and community settings. PHYSIOL NURS

187. Scientific Writing. (1) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour. Enrollment limited.

J. Grout
Course reviews bibliographic search methodology, the style of scientific writing, American Psychological Association (APA) editorial format, and composition of the introductory paragraph. PHYSIOL NURS

189. Survey of Human Sexuality. (3) § F, W, Sp. Lecture 3 hours.

T. Ayres
Theories and concepts of femininity, masculinity, and sexuality throughout the life cycle. Exploration of the wide range of human sexual behavior. Content includes sexual response, common sexual dysfunction and therapy, masturbation, homosexuality, and sexuality in some health conditions. FAM HLTH

197. Group Independent Study. (1-5) F, W, Sp. Lecture and lab variable.

Staff
Groups of two or more collaborate in clinical investigation and studies of special problems related to nursing and health sciences, under the direction of faculty. Students may select study topics related to areas of interest.

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff
Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

199. Laboratory Project. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff
A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department.

201. Curriculum & Program Development. (3) § F, Sp. Prerequisite: M.S. standing or consent of instructor. Lecture 1 hour. Seminar 2 hours.

N. Okamoto
Course reviews educational principles, nursing models, and conceptual framework for curriculum and

program development to enable students to analyze, critique, and develop curricula and programs for schools of nursing and health delivery systems. PHYSIOL NURS

202A. Theory Development. (3-4) § F. Prerequisite: Doctoral standing. Lecture 3 hours.

A. Meleis
Examines philosophically and analytically the nature of theory and relationship between philosophy, theory, and science. Provides knowledge and experience in all stages of theory development, exploration and critique of epistemological and historical ideas in nursing; scholarly exchange toward independent discovery. MENT HLTH COM ADM

202B. Prototype Theories in Nursing. (3-4) § W. Lecture 3 hours.

S. Laffrey
Comparative study and critical analysis of major prototype theories from which conceptions of nursing are derived. Emphasis is placed on systems, symbolic interaction, developmental exchange, and adaptation level theories. MENT HLTH COM ADM

202C. Theories & Conceptual Framework. (3-4) § Sp. Prerequisite: Doctoral standing. Lecture 3 hours.

A. Meleis
Comparative study and critical analysis of major conceptual models and theories in nursing. Considers relationship congruency of models to prototype theories; system, interaction, developmental, adaptation level theories. Examines the implication of nursing theories and models for practice and research. MENT HLTH COM ADM

203. Consultation Theory & Process. (2-3) § W, Sp. Lecture 2 hours. Lab 0-3 hours.

D. Oda
Course provides a study of theories and concepts of consultation as a facilitating process relevant to nurses working in primary, secondary, and tertiary prevention services. Emphasis will be on consultation strategies. Optional laboratory for theory testing. MENT HLTH COM ADM

204. Hospice: Implications for Nursing. (3) § F. Prerequisite: Consent of instructor. Seminar 3 hours.

I. Martinson
Course explores history, function, and models of hospice care. Supportive physical/psychosocial nursing interventions to promote symptom control and family coping during end-stage of life are covered with special emphasis on AIDS. Research, legal, ethical issues, and

nursing implications are discussed. FAM HLTH

206. Nsg Mgt of Adult Psych Cond. (3) § W, Sp. Prerequisite: Nursing 227 and 219 or equivalent, and consent of instructor. Lab 3 hours. Seminar 2 hours.

P. Underwood
Seminar is designed for graduate psychiatric nursing students to examine and discuss various theories and practice approaches to the nursing management of psychiatric conditions in adults. MENT HLTH COM ADM

207. Clin Nsg Phen: Physio. (3-5) § SS1, SS2, SU, F, W, Sp. Prerequisite: Doctoral standing. Lab 3-9 hours. Seminar 2 hours.

Staff
Advanced study of the theory and research in the care of patients with physiological disruption and/or illness. In-depth examination of patient problems, assessment and management in the student's selected specialty area. Seminar with clinical laboratory. PHYSIOL NURS

208A. Nsg Theory & Practice: Concept Description. (3) § F. Prerequisite: Doctoral standing. Seminar 3 hours.

V. Carrieri
Using clinical rounds and seminar approaches, concepts related to major biological phenomena are examined and described from theoretical, clinical and empirical perspectives. Concepts of interest to nursing are selected from health-illness states observed in patients in acute care setting. PHYSIOL NURS

208B. Nsg Theory & Practice: Concept Measurement. (3) § W. Prerequisite: Doctoral standing. Nursing 208A or consent of instructor. Seminar 3 hours.

V. Carrieri
Seminar focuses on the measurement of concepts relevant to physiological processes. Students critically analyze existing quantitative and qualitative instruments used to measure the concepts. Exemplary concepts may include sleep, dyspnea, pain, immobility, cachexia. PHYSIOL NURS

208C. Nsg Theory & Practice: Concept Testing. (3) § Sp. Prerequisite: Doctoral standing. Nursing 208A and 208B or consent of instructor. Seminar 3 hours.

V. Carrieri
Seminar focuses on the development and testing of instruments used to measure the concept selected by the student for study. The student will conduct a pilot study to determine

the validity, reliability and utility of the instruments. PHYSIOL NURS

209. Social Support: Theory, Res & Meth. (2-4) § W, Sp. Prerequisite: Doctoral standing. Seminar 2 hours. Independent study optional 3 or 6 hours for 3 or 4 units.

J. Norbeck
Analysis of the literature relating social support to various health and adjustment outcomes with emphasis on conceptual and methodological issues. Students will develop a focused review of the social support literature relevant to their research and/or clinical interests. MENT HLTH COM ADM

210. Family Therapies (3) § W. Lecture 3 hours.

S. Weiss
Course offers a critical examination of theories guiding therapeutic work to enhance family mental health. Diverse theoretical perspectives for assessment and intervention with troubled families will be analyzed, including structural, strategic, and communication frameworks as well as psychoeducation. MENT HLTH COM ADM

211A. Introduction to Research. (3) § F. Prerequisite: Elementary statistics or equivalent. Lecture 3 hours.

W. Holzemer
Lectures and small group sections present an overview of the research process including the styles of researchers, the research attitude, logic, ethics, philosophy, and tools of science. PHYSIOL NURS

211.01B. Patient-Family Teaching Critique. (3) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

J. Hallburg
Course critiques studies in patient-family teaching with the intent to develop research consumerism. Emphasis on attitudes, insights, and abilities crucial to the appreciation, appraisal, and utilization of research in the health sciences. FAM HLTH

211.02B. Maternal-Child Nursing Critique. (3) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

M. Savedra
Critique of studies in maternal-child nursing with the intent to develop research consumerism. Emphasis on attitudes, insights, and abilities crucial to the appreciation, appraisal, and utilization of research in the health sciences. FAM HLTH

211.03B. Survey of Health Status Research. (2-3) § F, W, Sp. Prerequisite: Consent of instructor.

Lecture 2 hours. Lab 3 hours. Enrollment limited. Preference given to community health nursing specialist students.

S. Laffrey
Students will critically examine research on health status at the individual, group and societal levels. Emphasis is on the concept of health status, measurement methods, and implications of research approaches and findings for nursing practice. MENT HLTH COM ADM

211.04B. Death in Childhood Res Critique. (3) § W. Prerequisite: Nursing 211A and consent of instructor. Seminar 3 hours.

I. Martinson
Critique of studies related to the professional management of death, childhood development of the concept of death, children's response to death in the family, death anxiety in fatally ill children, and impact of death of a child on the family. FAM HLTH

211.06B. Neuroscience Research Critique. (3) § Sp. Seminar 3 hours.

R. Sisson
This course presents the scholarly process of critiquing research in neuroscience nursing. The foci are: evaluation of the research process, assimilation of the scientific basis for this specialty, and examination of implications of empirical findings for neuroscience nursing. PHYSIOL NURS

211.07B. Crit of Onc Nursing Studies. (3) § Sp. Prerequisite: Consent of instructor. Seminar 3 hours.

M. Dodd, P. Halliburton
Presentation of the scholarly process of critiquing published research in oncology nursing. Emphasis will be on evaluation of the research processes utilized by investigators, and the implications of empirical findings for oncology nursing practice. PHYSIOL NURS

211.08B. Critique of Management Research. (3) § W, Sp. Prerequisite: N211A or consent of instructor. Lecture 3 hours.

S. Neidlinger
The course provides a critical analysis of studies which examine organizational behavior and administrative practice. The emphasis is on attitudes, insights, and abilities crucial to appreciation, appraisal, and utilization of research in management. MENT HLTH COM ADM

211.09B. Research Critique: Critical Care. (3) § Sp. Prerequisite: N211A. Seminar 3 hours.

Course critiques research studies related to the nursing assessment, its plan, and therapy of acutely ill patients with multi-system failure. Students will learn to appreciate, evaluate, and integrate research findings into their clinical practice. **PHYSIOL NURS**

211.12B. Occup Hlth Res-Critical Review. (3) § W, Sp. Prerequisite: Nursing 211A or consent of instructor. Lecture 2 hours. Lab 3 hours.

K. Crabtree

Critical analysis of studies exploring the relationship of the workplace to health of the worker. Emphasis is on appraisal of relevant scientific literature, identification of research methods, and development of research proposals in occupational health nursing. **MENT HLTH COM ADM**

211.14B. Psychiatric Helpseeking Critique. (3) § F, W, Sp. Prerequisite: N211A or instructor's consent. Lab 3 hours. Seminar 2 hours.

L. Chafetz

This course will critique research in psychiatric illness behavior and helpseeking. It will focus on developing research consumerism with emphasis on attitudes, insights, and abilities crucial to the appreciation, appraisal, and utilization of research in the health sciences. **MENT HLTH COM ADM**

211.20B. Critique-Perinatal & Pediatric. (3) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

S. Ferketich, D. Affonso

Critique of studies reflects physiological or situational stressors in the high-risk perinatal and pediatric patient. Course will facilitate the appreciation, appraisal, and integration of research findings into clinical practice. **FAM HLTH**

211.21B. Cardiopulmonary Res Critique. (3) § W, Sp. Prerequisite: Nursing 211A or consent of instructor. Lecture 2 hours. Lab 3 hours.

N. Stotts

Critique of cardiopulmonary research with the intent to develop research consumerism, with emphasis on attitudes, insights, and abilities crucial to the appreciation, appraisal, and utilization of research in the health sciences. **PHYSIOL NURS**

211.22B. Qlty Patient Care Res Eval. (3) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

V. Carrieri

Course critiques research studies in quality of patient care, emphasizing

the utilization of a systematic critique process, methodologies employed in evaluation programs, and identification of major problems in patient care evaluation research. **PHYSIOL NURS**

211.23B. International/Cross-Cultural Nursing Research. (3) § W, Sp. Prerequisites: N211A or doctoral admission. Seminar 2 hours. Conference 1 hour.

J. Lipson

Seminar focuses on critical analysis of studies in selected areas of international cross-cultural health and nursing. Emphasis is on high risk groups and situational stressors. **MENT HLTH COM ADM**

211.24B. Institutional Care of the Aged. (3) § W. Prerequisite: N211A. Seminar 2 hours. Field work 1 hour.

J. Kayser-Jones

Seminar focuses on critiquing research studies in the institutional care of the elderly using a theoretical, historical, and cross cultural approach. **PHYSIOL NURS**

211.51C. Res Methodologies for Clinical Nursing Questions. (3) § W. Prerequisite: Nursing 276 or consent of instructor. Lecture 2 hours. Lab 3 hours.

N. Stotts

Course applies research methodology to clinical nursing questions: formulation of clinical questions, experimental and quasi-experimental design, instrumentation, introduction to data analysis, including statistical methods and computer usage. **PHYSIOL NURS**

211.52C. Visual Data Study of Human Behav. (3) § Sp. Prerequisite: One course in research methods. Graduate standing and consent of instructor. Lab 3 hours. Seminar 2 hours.

B. Highley

The use of still photography in the study of human behavior as it relates to health care. Includes the history of photography's impact on social and health policy, and explores issues related to design, sampling, and content analysis. **FAM HLTH**

211.53C. Illness Management Research. (3) § F, W, Sp. Prerequisite: Nursing 211A, or graduate course on research methods in social science, or consent of instructor. Lecture 2 hours. Lab 3 hours. Course may be repeated for credit.

L. Reif

Methods for conducting exploratory studies on social-psychological and organizational factors which affect the management of illness and delivery of health services. Problem

identification, collection and analysis of data, and presentation of findings and policy implications of research are included. **PHYSIOL NURS**

211.54C. Data-Gathering Methods. (3) § W, Sp. Prerequisite: One course in research design. Seminar 3 hours.

Staff

Course will focus on selection and construction of data-gathering tools in nursing research. Validity, reliability and utility are discussed. Computer coding and conducting a pilot study are included. **PHYSIOL NURS & FAM HLTH**

212A. Evol of Psychoanalytic Theory. (2) § F, Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

P. Underwood

This advanced seminar, open to graduate students, focuses on theory as an approach to understanding human behavior rather than as an approach to treatment. Emphasis is on evolution of theory and use of psychoanalytic concepts in nursing research. **MENT HLTH COM ADM**

212B. Social Issues in Psych Nursing. (2) § W, Sp. Prerequisite: M.S. students may take this course if they have completed N227A. Lecture 2 hours.

L. Chafetz

This course will examine historical and current literature, focusing on social factors and mental illness related to the severely ill in urban environments and public psychiatric treatment settings. The emphasis is on implications for nursing research and practice. **MENT HLTH COM ADM**

213.01. Topics in Physiology-Sleep. (2) § W, Sp. Prerequisite: Consent of instructor. Lab 1½ hours. Seminar 1½ hours. Course may be repeated for credit.

Staff

Course explores knowledge of sleep-wake cycles, physiology in and out of sleep, sleep disorders, biological rhythms, and methods in polysomnography. Applications to nursing will be made. **PHYSIOL NURS**

214. Community-Based Long-Term Care. (3) § W, Sp. Prerequisite: Graduate status or permission of instructor. Lecture 2 hours. Lab 3 hours.

L. Reif

Course analyzes empirical research and theory dealing with noninstitutional approaches to long-term care. Examination of patient characteristics and needs, models of service delivery, factors affecting service utilization, and nurses' roles in

provision and management of community-based long-term care. **PHYSIOL NURS**

215A. Health in the Community. (3) F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

D. Oda

Course provides exploration of theories, concepts and principles pertaining to the practice of community health nursing with focus on positive health factors and interaction within families, groups and communities. **MENT HLTH COM ADM**

215B. Community Health Planning. (3) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

M. Duffy

Exploration of analytic planning models applicable to community health services. Utilization of the community as a basis for planning and delivery of health care. Emphasis is on the role of the community nurse in health planning. **MENT HLTH COM ADM**

216. Interventions-Nurs Work Stress. (2) § F. Prerequisite: Graduate standing. Seminar 2 hours.

A. Baldwin

Course will help to enable students to evaluate the recent research and current models of nursing work stress. From this base, students will critically select strategies for assisting and intervening in nursing stress situations. **PHYSIOL NURS**

217. Psychosocial Care of Hospitalized Children. (3) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

M. Tesler

Course explores theory related to the psychosocial experiences of illness and hospitalization for children and their families. Focus is directed to minimizing trauma and promoting growth. Concurrent practicum recommended. **FAM HLTH**

218A. Phenomena Common to the Nursing Care of Ill or Injured. (3-4) § F. Prerequisite: Nursing 276. Prior or concurrent enrollment in physiology or consent of instructor. Lecture 1 hour. Seminar 2 hours. Lab optional 3 hours for 4 units.

N. Stotts

Knowledge is organized around phenomena common to ill or injured individuals across the life span. Concepts such as stress, healing, clotting, infection, consciousness, pain and coping will be examined from a theoretical and clinical perspective. **PHYSIOL NURS**

218.01B. Concepts in Cardiac Surgical Nsg. (3) F, W. Prerequisite: Consent of instructor. Cardiac

physiology and pathophysiology. Seminar 3 hours.

P. Skov

Course analyzes the needs of cardiovascular surgical patients. Physiologic and pathophysiologic mechanisms and surgical interventions are explored. Issues in clinical management are discussed from the theoretical perspective, and compared and contrasted with clinical practice. **PHYSIOL NURS**

218.02B. Concepts in Neuroscience Nursing. (3) § W. Prerequisite: N218A. Lecture 3 hours.

R. Sisson, M. Muwaswes

Course explores phenomena which are commonly experienced by patients with a neurological diagnosis from a theoretical, scientific, and clinical practice perspective. Emphasis is on nursing interventions. **PHYSIOL NURS**

218.03B. Concepts in Acute Peds Nursing. (3) § F, W. Prerequisite: Pediatric pathophysiology and N218A. Seminar 3 hours.

S. Ferketich, M. Tesler

Course analyzes concepts related to the management of acutely ill pediatric patients. The theoretical basis of management is evaluated, compared, and contrasted with clinical practice. **FAM HLTH**

218.04B. Concepts in Adult Medical Nursing. (3) W. Prerequisite: N218A. Seminar 3 hours.

Staff

Course analyzes the needs of the medical patient. Physiologic and pathophysiologic mechanisms and appropriate treatments are explored. Issues in clinical management are discussed from the theoretical perspective, and compared and contrasted with clinical practice. **PHYSIOL NURS**

218.05B. Concepts in Oncology Nursing. (2) W. Prerequisite: N218A. Lab 2 hours, Seminar 1 hour.

Staff

Course analyzes the needs of the cancer patient. Physiologic and pathophysiologic mechanisms are explored from the theoretical perspective and compared and contrasted with clinical nursing practice. **PHYSIOL NURS**

218.06B. Concepts in Critical Care Nursing. (3) W. Prerequisite: N218A. Seminar 3 hours.

Staff

Course analyzes the needs of the critically ill patient. Physiologic and pathophysiologic mechanisms and appropriate treatments are explored. Issues in clinical management are discussed from the theoretical perspective, and compared and con-

trasted with clinical practice. **PHYSIOL NURS**

218C. Current Therapeutics. (1-5) § F. Prerequisite: Physiology, Nursing 218A and 218B. Seminar 1-5 hours.

N. Stotts, C. West

Course investigates the theoretical basis of selected therapies commonly used with the ill or injured. Therapeutic aspects of interventions as well as side effects will be explored. Recent research will be used as the basis for discussion. **PHYSIOL NURS**

218D. Illness or Injury Rehabilitation. (2-3) § W. Prerequisite: Graduate standing. Nursing 218A. Seminar 2 hours. Lab optional 3 hours.

C. West

Examines the theoretical basis for rehabilitation of patients following physical illness or injury. Nursing therapies which promote optimal adaptation and development are evaluated utilizing relevant research as a base. Clinical laboratory optional. **PHYSIOL NURS**

219. Psychosocial Assessment. (3) § W. Lecture 2 hours. Conference 1 hour.

L. Chafetz

This course critically examines diagnosis of the psychosocial human responses and standard psychiatric disorders. Emphasis is on the use of assessment tools (i.e., Mental Status Examination, Psychiatric History, DSM-III-R, and PND-I) across diverse clinical areas and with clients throughout the life span. **MENT HLTH COM ADM**

220.01. Adv Sem in Nursing Research. (3) § F, W, Sp. Prerequisite: Successful completion of the qualifying examination and/or consent of instructor. Course may be repeated for credit. Seminar 3 hours.

H. Wilson

This seminar guides doctoral students in the design and conduct of research in specialty areas in cross-cultural and international nursing and mental health and community nursing. **MENT HLTH COM ADM**

220.02. Adv Sem in Nursing Research. (3) § F, W, Sp. Prerequisite: Successful completion of the qualifying examination. Course may be repeated for credit. Seminar 3 hours.

S. Gortner

A seminar which guides students in the design and conduct of research in specialty areas in family health care nursing. **FAM HLTH**

220.03. Adv Sem in Nursing Research. (3) § F, W, Sp. Prerequisite: Successful completion of the qualifying examination. Seminar 3 hours.

V. Carriero

A seminar which guides students in the design and conduct of research in specialty areas in physiological nursing. PHYSIOL NURS

221. Pathophysiology of Cancer. (3) § Sp. Prerequisite: Admission to graduate program and graduate-level physiology of the cell. Audits by permission only. Lecture 2 hours. Seminar 1 hour.

N. Lovejoy, I. Moore

Theories of carcinogenesis, the natural history of representative cancers and the mechanisms of action of certain therapeutic agents will be discussed. The clinical relevance for nursing of the associated pathophysiological changes will be emphasized. PHYSIOL NURS

222A. Principles of Nurse-Midwifery. (4) § F. Prerequisite: Enrollment in Nurse-Midwifery specialty. Lecture 3 hours. Lab 3 hours.

M. Barger

Course critically analyzes scientific principles underlying selected obstetric and gynecologic diagnostic and therapeutic procedures in the management of health care of women throughout the childbearing cycle. FAM HLTH—UCSD

222B. Nurse-Midwifery Management. (4) § W. Prerequisite: Enrollment in Nurse-Midwifery specialty. Lecture 4 hours.

V. Lops

Course expands the theoretical knowledge base of the normal physiology of pregnancy. Emphasis is placed on the intrapartum period with facilitation of normal processes and patient teaching. FAM HLTH—UCSD

222C. Complex Probs in Nurse-Midwifery. (4) § Sp. Prerequisite: Enrollment in Nurse-Midwifery specialty. Lecture 4 hours.

V. Lops

Course explores the theoretical concepts and principles applied to the management of pathophysiological and psychosocial issues complicating the birthing process. Issues of professional practice, adjustment to primary care role, and medical collaboration and consultation are considered. FAM HLTH—UCSD

223. Mental Health and Aging. (3) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

C. Deitrich

Course focuses on assessment and management of common mental health problems of the older adult.

Factors contributing to mental health or illness, adaptive behaviors, specific psychopathologies, and the similarity of presenting features of physical and mental illness are explored. PHYSIOL NURS

224. Pediatric Clinical Therapeutics. (4) § F. Prerequisite: Course given in conjunction with N245 (Pediatric Critical Care Assessment). Lecture 4 hours.

M. Lynch

Course provides a conceptual approach to examine pathophysiological phenomena identified in the pediatric critical care population. The inter-relationships of human responses, symptoms, processes, stressors, and interventions will be discussed specific to alleviating the phenomena identified in this population. FAM HLTH

225. Behavioral Issues in Fam Hlth. (1) § Sp. Prerequisite: Consent of instructor. Seminar 2 hours every other week.

F. Dreier

Seminar deals with advanced critical analysis and application of family, cultural and behavioral theories leading to clinical intervention in family primary care. FAM HLTH

226A. Chronic Illness & Nursing. (3) § F. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

J. Hallburg

Course offers a study of problems related to long-term illness. Explores the interrelationship of various cultural, psychosocial, and pathophysiological factors involved in chronic illness. Field experience included. FAM HLTH

226B. Chronic Illness & Nursing. (3) § W. Prerequisite: Nursing 226A or consent of instructor. Lecture 2 hours. Lab 3 hours.

J. Hallburg

Course further explores the complexities involved in the illness careers of patients with chronic illness and their families, including the implications for nursing. Course analyzes the interrelationship of various cultural, psychosocial, and pathophysiological factors involved in long-term illness. Field experience included. FAM HLTH

227A. Theories of Psych Conditions. (2) § F, W, Sp. Lecture 2 hours.

J. Lipson

This lecture-seminar will emphasize the comparative study and analysis of selected psychological and sociological theories of major psychiatric conditions. Both research findings and clinical data will be reviewed. MENT HLTH COM ADM

227B. Theories of Psych Conditions. (2) § F, W, Sp. Prerequisite: Consent of instructor or enrollment in the psychiatric/mental health specialty area. Lecture 2 hours.

H. Wilson

This lecture-seminar will emphasize the comparative study and analysis of selected biological theories of major psychiatric conditions. Both research findings and clinical data will be reviewed. MENT HLTH COM ADM

228. Statistical Analysis Critique. (3) § F. Prerequisite: Basic statistics course. Open to doctoral students only, others by permission of instructor. Lecture 3 hours.

S. Ferketich

The course emphasizes the critique of the statistical analysis of nursing research. Statistical tests are evaluated by using the criteria of logical consistency between research question, design, statistical method, and conclusions; power of the test; and underlying mathematical assumptions. FAM HLTH

229. Comparative Research Methods. (2) § W. Prerequisite: Admission to the doctoral program or consent of instructor. One quarter of theory (N 202 or N 290) and research (N 278) desirable. One quarter of theory, Nursing 202A, 202B, 202C or 290.01, 290.02, 290.03 and research. Nursing 278 recommended. Seminar 2 hours.

S. Gortner

Underlying assumptions as well as design, measurement, and analytic issues pertinent to nursing research will be compared for various research methods. The advantages and disadvantages of approaches such as historical, descriptive, correlational, epidemiological, experimental, and action research will be examined. FAM HLTH

230. Cardiovascular Pathophysiology. (3) § W. Lecture 3 hours.

P. Skov

Course is a study of pathophysiology, diagnosis and treatment of major cardiovascular disorders that provide the basis for the nursing management of this population. Emphasis is on the acute phase of illness. PHYSIOL NURS

231. Cardiac-Pulm-Renal Pathophysiol. (4) § Sp. Prerequisite: Three units graduate-level organ system physiology or consent of instructor. Lecture 4 hours.

B. Wold

A study of cardiac, pulmonary, and renal pathophysiology applicable to nursing care of the critically ill adult-patient. PHYSIOL NURS

232. Clinical Pharmacology in Primary Care. (3) § F, W, Sp. Prerequisite: Consent of instructor. Limited to nurse practitioner students. Lecture 3 hours.

S. Echaves

Course introduces the clinical application of pharmacology and therapeutics to the medical management of patients. Focus is on common medications used in primary care. Emphasis is placed on integration of drug therapy as one component of therapeutic management. MENT HLTH COM ADM

233. Analysis of Visual Data. (2) § F. Prerequisite: Nursing 211.52C (Visual Data: Study of Human Behavior). Lecture 2 hours.

B. Highley

Emphasis is placed on the content analysis of photographs used as data source in research. Criteria measures for analysis will be explained through student's own data. FAM HLTH

234.01. Specialty Research Seminar. (3) § Sp. Prerequisite: Doctoral standing or consent of instructor. Seminar 3 hours.

N. Stotts

Course evaluates research in the student's area of specialization. Emphasis is on critique of the design, methodology, and findings. Synthesis of the evaluation of studies results in the identification of major research questions in the field of study. PHYSIOL NURS

234.02. Specialty Research Seminar. (3) § Sp. Prerequisite: Doctoral standing or consent of instructor. Seminar 3 hours.

J. Hallburg

Course evaluates research in the student's area of specialization. Emphasis is on critique of the design, methodology, and findings. Synthesis of the evaluation of studies results in the identification of major research questions in the field of study. FAM HLTH

234.03. Specialty Research Seminar. (3) § Sp. Prerequisite: Doctoral standing or consent of instructor. Seminar 3 hours.

K. Crabtree

Course evaluates research in the student's area of specialization. Emphasis is on critique of the design, methodology, and findings. Synthesis of the evaluation of studies results in the identification of major research questions in the field of study. MENT HLTH COM ADM

235A. Child Mental Health Counseling I. (2) § F. Seminar 2 hours.

S. Weiss

Course addresses client-centered and psychodynamic theories underlying individual counseling with children. Emphasis will be on therapeutic play and on counseling as a prevention strategy involving collateral work with the child's psychosocial environment. MENT HLTH COM ADM

235B. Child Mental Health Counseling II. (2) § W. Prerequisite: N235A. Seminar 2 hours.

S. Weiss

Course covers cognitive, behavioral, and gestalt theories of child mental health counseling. Theories of group counseling will also be examined, including methods based on play, activity, and interview. MENT HLTH COM ADM

235C. Child Mental Health Counseling III. (2) § Sp. Prerequisites: N235A&B. Seminar 2 hours.

Course focuses on mental health counseling of children in situational crises. Particular emphasis is placed upon crises associated with loss, divorce, and physical illness. Termination of the counseling relationship is also addressed. MENT HLTH COM ADM

236. Expectant Parent Group Education. (2-3) § Sp. Prerequisite: Consent of instructor. Lab 3 hours. Seminar 2 hours.

D. Affonso

Theoretical sessions are related to methodology and techniques of conducting expectant parent education groups. Exploration of content relevant to concerns of expectant parents encompassing childbearing and early child rearing experiences. Concurrent practicum recommended, but not required. FAM HLTH

237. Health Assessment through Life. (3-4) § Sp. Prerequisite: Department of Family Health Care Nursing students. Approval by F.O.R. Concurrent practicum required. Lecture 2-3 hours. Lab 3 hours.

D. Goldman

Course presents theoretical principles of health assessment throughout the life cycle. Areas to be covered include methodologies of data gathering and data analysis essential to comprehensive health assessment of all groups. Laboratory experience provides application and integration of theory. FAM HLTH

238A. Infant & Child Development. (3) § F. Prerequisite: Consent of instructor. Lecture 3 hours.

B. Holaday

Course covers major theories and research findings dealing with the physical, intellectual, and emotional development of the child from

birth through school age. FAM HLTH

238B. Adolescent Development. (3) § W. Prerequisite: Consent of instructor. Lecture 3 hours.

M. Savedra

Course explores relevant theory, literature, and research findings dealing with normal development during the adolescent period. FAM HLTH

239. Adult Development: Young and Middle Adulthood. (3) § Sp. Prerequisite: Graduate standing, Child Development, and consent of instructor. Lab 3 hours. Seminar 2 hours.

R. Mercer

This seminar, using an anthropological, sociological, and psychological perspective, will cover developmental theory and research from young adulthood through the middle adult years. Current issues in young and middle adulthood will be discussed with an emphasis on implications for health care. FAM HLTH

240A. Family Primary Care I. (5) § Sp. Prerequisite: Enrollment in Family Nurse Practitioner Program and Nursing 237. Lecture 5 hours.

B. McLain

Theories, concepts and knowledge for comprehensive assessment and management of common health and illness conditions throughout the life cycle will be presented. Emphasis will be on primary care of the family unit. FAM HLTH

240B. Family Primary Care II. (4-5) § F. Prerequisite: Consent of instructor. Lecture 4 hours.

S. Carroll

Theories, concepts, and knowledge for comprehensive assessment and management of selected episodic, stable chronic illness and related health conditions throughout the life cycle will be presented. Emphasis will be on primary care of the family unit. FAM HLTH

240C. Family Primary Care III. (4-5) § W. Lecture 4 hours.

S. Carroll

Theories, concepts, and knowledge for comprehensive assessment and management of special problems in family primary care will be presented. Emphasis will be on care of the family unit. FAM HLTH

241A. Collaborative Role Development. (1) § Sp. Prerequisite: Consent of instructor and concurrent enrollment in primary care clinical residency. Seminar 1 hour.

B. McLain, E. Osborn

Seminar deals with critical analysis of issues and research related to

collaboration in primary care. *Emphasis is on history and philosophy of primary care, role change, and models of collaborative practice.* FAM HLTH

241B. Collaborative Role Development. (1) § F. Prerequisite: Consent of instructor and concurrent enrollment in primary care clinical residency. Seminar 1 hour.

B. McLain

Seminar deals with critical analysis of issues and research related to collaboration in primary care. Emphasis is on interaction, role negotiation, power, and the client as a member of the team. FAM HLTH

241C. Collaborative Role Development. (1) § W. Prerequisite: Successful completion of N 241.01A (Role Development in Primary Care) or N 241A/B (Collaborative Role Development) and concurrent primary care clinical residency (N 404.01, N 405, or N 406). Lecture 2 hours every other week.

B. McLain, J. Saxe

Bi-weekly seminars deal with critical analyses of issues and research related to collaboration in primary care. Emphasis is on joint practice frameworks and practice management, marketing the nurse practitioner role, and legal/professional issues. MENT HLTH COM ADM

241.01A. Role Development in Primary Care. (1) § F. Prerequisite: Successful completion of concurrent primary care clinical residency (N 404/405) or consent of the instructor. Lecture 2 hours every other week.

J. Saxe

Bi-weekly seminars offer the student clinical specialist/nurse practitioner the opportunity to discover strategies for promoting role development and role satisfaction via discussions of pertinent issues and research. Emphasis is on role adjustment, role stress, and scope of practice. MENT HLTH COM ADM

241.01B. Professional Development in Primary Care. (1) § Sp. Prerequisite: Successful completion of preceding N 240.01A course work, concurrent primary care clinical residency (N 404/405) or consent of the instructor. Lecture 2 hours every other week.

J. Saxe

Bi-weekly seminars offer the student nurse practitioner the opportunity to discover strategies for promoting professional practice. Emphasis is on standards, evaluation, and the evolution of the nurse practitioner's practice. MENT HLTH COM ADM

242. Current Trends in Individual Psychother Modalities. (2) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours.

Seminar is designed for graduate students in psychiatric nursing to examine and discuss theories and practice approaches of various individual psychotherapeutic modalities in current use. MENT HLTH COM ADM

243. Trends in Group Psychother Modalities. (2) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours.

B. Furuta

Seminar is designed for graduate students of psychiatric nursing to examine and discuss theories and practice of various group modalities in current use. MENT HLTH COM ADM

244A. Res Sem: Indiv, Fam, or Comm. (2-4) § F. Prerequisite: Completion of first-year requirements for the Ph.D. program in nursing or consent of instructor. Lecture 2 hours, Independent study 0-6 hours.

M. Duffy, C. Gilliss

Nursing 244A-B-C prepares students for original research through consideration of content methods and issues in an area of specialization. Nursing 244A focuses on evaluation of a content area and generation of research questions within it. MENT HLTH COM ADM

244B. Res Sem: Indiv, Fam, or Comm. (2-4) § W. Prerequisite: Nursing 244A or consent of instructor. Lecture 2 hours, Independent study 0-6 hours.

C. Gilliss, M. Duffy

Nursing 244A-B-C builds upon prior research content to prepare students to develop and defend a plan for original research. Nursing 244B focuses on identification of research questions and criticism of design/methods in the students' areas of interest. FAM HLTH

244C. Res Sem: Indiv, Fam, or Comm. (2-4) § Sp. Prerequisite: Nursing 244B or consent of instructor. Lecture 2 hours, Independent study 0-6 hours.

C. Gilliss, M. Duffy

Nursing 244C builds upon prior research content in the Ph.D. program to prepare students for original research through consideration of content, methods, and issues in the students' areas of interest. PHYSIOL NURS

245. Pediatric Critical Care Assessment. (2) § F. Prerequisite: Course given in conjunction with

N 224 (Pediatric Clinical Therapeutics). Lecture 2 hours.

M. Lynch

Course focuses on the assessment of manifestations of pathophysiological phenomena in the pediatric critical care population. This assessment provides baseline data for management decisions and nursing care interventions. FAM HLTH

246. Contemporary Parenting. (3) § F, Sp. Lab 3 hours. Seminar 2 hours.

M. Tesler

Course explores the evolving parent-child relationship. Focus is on adaptive tasks to manage environmental and interpersonal variables influencing the development of the parenting role. Nursing functions that support role acquisition and mastery are discussed. FAM HLTH

247A. Pediatric Family Study. (1) § W. Prerequisites: N246, N279A, and enrollment in Pediatric Primary Care Program. Lab 2-3 home visits per quarter. Seminar 2 hours.

B. Durand, M. Zweiback

Seminar focuses on family development in the first year of life with emphasis on parental concerns, childrearing practices, growth and development, nutritional issues and family responses to pediatric primary care experience. Examines nurse's role in provision of primary care. FAM HLTH

247B. Pediatric Family Study. (1) § Sp. Prerequisites: N246, N247A, and N279A. Lab 2-3 home visits per quarter. Seminar 2 hours.

B. Durand, M. Zweiback

Seminar focuses on family development in the first year of life with emphasis on parental concerns, childrearing practices, growth and development, nutritional issues, and family responses to pediatric primary care experience. Examines nurse's role in provision of primary care. FAM HLTH

248. Group Independent Study. (1-6) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1-6 hours.

Staff

Groups of two or more collaborate in clinical investigations and other studies of special problems in nursing and health sciences under the direction of faculty. Students may select areas related to their long-term interests and future research or clinical program.

249. Independent Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Individual study with emphasis on special problems in nursing. Students may select areas of study which are related to their area of interest or future goals.

250. Research. (1-8) § F, W, Sp. Prerequisite: Admission to doctoral study and consent of instructor.

Staff

Course offers students an opportunity to engage in research with selected faculty.

250.01. Research Rotation. (1-6) § S, F, W, Sp. Prerequisite: Completion of first year of doctoral study and consent of adviser. Lab 3-18 hours.

Staff

The student will participate in faculty research. This project may build toward the dissertation or contribute to methodological or substantive expertise. The quality of this project will be sufficient for presentation and/or publication.

INTERDEPARTMENTAL

250.02 Clinical Research Rotation. (1-6) § S, F, W, Sp. Prerequisite: Completion of first year of doctoral study and consent of adviser. Lab 3-18 hours.

Staff

The student will participate in a faculty clinical research project. This project may build toward the dissertation or contribute to methodological or substantive expertise. The quality of this project will be sufficient for presentation and/or publication.

INTERDEPARTMENTAL

251. Advances in Vascular Nursing. (3) § SS1, SS2, SU, F, W, Sp. Prerequisite: Consent of instructor. Learning modules 10 hours.

P. Skov, C. Hubner

Course examines the theoretical basis of prevention, intervention, adaptation, and rehabilitation in peripheral vascular insufficiency utilizing relevant research. Computer simulations facilitate synthesis and application of content. PHYSIOL NURS

252. Int/Cross-Cultural Nsg Issues. (3) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 3 hours.

A. Davis

Seminar examining selected international nursing issues including primary care, nursing education and nursing service, women's roles and patients' rights. MENT HLTH COM ADM

254. Fetal-Newborn Development. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

M. Lynch

Course is a study of body system development during embryonic, fetal, and postnatal growth. Emphasis is on normal anatomical and physiologic development, critical periods of development alterations, and transitions for extra-uterine adaptation. Implications for nursing practice are explored. FAM HLTH

255.01. Pediatric Health Assessment. (3) Sp. Prerequisite: Consent of instructor. Lecture 2 hours, Lab 3 hours.

A. Alkon, D. Goldman

Course presents theoretical principles and assessment techniques for determining health status of children, including health history and physical examination. Focus is on collection and interpretation of clinical data. Laboratory and concurrent practicum required. FAM HLTH

255.02. Child Health Maintenance. (2-3) § F. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 0-3 hours.

B. Durand

Course provides exploration of theories, concepts and knowledge for comprehensive child health maintenance, encompassing prevention and promotion. Emphasis is on parents as participants in assessment, decision-making, and management of common health problems and normal developmental stresses in infancy and childhood. FAM HLTH

255.03A. Common Pediatric Illness Management. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours.

P. Jackson

Course presents theories, concepts, and knowledge for comprehensive assessment and management of common pediatric illnesses. Emphasizes the most common acute conditions managed by a PNP in collaboration with pediatrician. Integrates history taking, physical findings, diagnosis, and management. FAM HLTH

255.03B. Common Pediatric Illness Management. (4) § W. Prerequisite: Consent of instructor. Lecture 4 hours.

P. Jackson

Course presents theories, research, and knowledge for comprehensive assessment and management of common acute and chronic pediatric illnesses. Emphasizes integration of content within clinical settings and collaborating care between nurse, family, and physician. FAM HLTH

256. Transitions & Health. (3) § W, Sp. Lecture 3 hours. Course may be repeated for credit.

A. Meleis

Critical and analytical review of theories and research that links health of the individual and families to relocations and transitions. Focuses on responses and coping with situational, developmental, health-illness, and sociocultural transitions. Nursing therapeutic theories will also be explored. MENT HLTH COM ADM

257. Health of the Aging Family Member. (3) § F. Prerequisite: Consent of instructor. Lecture 3 hours.

Staff

Course focuses on health promotion and maintenance of the older person within the family context. Exploration of applicable theories, concepts and principles. Special emphasis on physical, emotional and social resources for the frail elderly. PHYSIOL NURS

258A. Family/Childbearing: Theory. (3) § F. Lecture 2 hours. Lab 3 hours.

J. DeJoseph

Course critically analyzes psychosocial and physiological factors as they impact on the family during pregnancy and childbirth. Emphasis on evolving maternal/paternal roles and tasks related to pregnancy, body image, sexuality, childbirth and parenting. FAM HLTH

258B. Family/Childbearing: Theory. (3) § W. Lecture 2 hours. Lab 3 hours.

D. Affonso

Course critically analyzes psychosocial and physiological factors as they impact on the family during childbirth and early parenting. Emphasis is on transition to parenthood, parental and couple concerns, and issues in effecting change to provide optimal nursing care. FAM HLTH

258C. Family & Childbearing. (2) § Sp. Prerequisite: Nursing 258A and 258B. Seminar 2 hours.

M. Gershwin

This clinically-focused seminar addresses the psychosocial and psychophysiological issues of pregnancy, childbirth, parenting, and family/marital relationships during the childbearing period. Emphasis is on the role of midwife as facilitator of health adaptation. FAM HLTH

259.01. Women's Reproductive Health. (1-5) § F. Lecture 1-5 hours.

W. Star, M. Shannon

Provides exploration of theories, concepts and knowledge necessary to maintain and promote women's health. Emphasis is on application of current research: decision-making and management of pregnancy, the interconceptional period, and

the climacteric, including collaboration with health team members. FAM HLTH

259.02. Special Problems in Women's Health. (1-4) § W. Prerequisite: Consent of instructor. Lecture 1-4 hours. Seminar optional 1 hour.

W. Star, M. Shannon

Emphasis is on theory and management of bio-psychosocial deviations from normal in women before and during pregnancy, interconceptional period, and climacteric. Emphasis placed on critical analysis of research in metabolic, infectious, and functional disorders including collaborative management of women manifesting these disorders. FAM HLTH

259.03. Women's Health: Advanced Seminar. (2) § Sp. Prerequisite: Consent of instructor. Seminar 2 hours.

L. Sammons

Course is an in-depth exploration of theoretical and management aspects of selected complications in obstetrics and gynecology applicable to the nurse practitioner role. FAM HLTH

260A. Cultural Concepts in Hlth Care. (3) § F, W, Sp. Seminar 3 hours.

J. Lipson

Course introduces basic concepts and issues in medical anthropology and transcultural nursing. Provides opportunity to critically review research literature and discuss implications for nurses and other health care professionals. MENT HLTH COM ADM

260B. Intl & Cross-Cultural Theories. (2) § F, W, Sp. Prerequisite: Nursing 251 and 260A. Seminar 2 hours.

A. Meleis

Course explores theoretical and conceptual aspects of international and cross-cultural nursing. Topic areas covered include culture and ethnicity; social policy and international development; health planning; ethics; and cross-cultural communication. MENT HLTH COM ADM

261. Mental Health Nursing and the Law. (2) § W, Sp. Prerequisite: Enrollment in MS program in Psychiatric Nursing or consent of instructor. Lecture 2 hours.

G. Gresham

Course reviews history and development of mental health legislation and decisional law in the U.S. and California. Explores current mental health laws as they relate to and influence the practice of psychiatric nursing in the public and private sectors. MENT HLTH COM ADM

262A. Women's Health Roles/Issues I. (1) § F. Prerequisite: Enrollment in Women's Health Nurse Practitioner Program or consent of instructor. Seminar 2 hours (every other week).

L. Sammons

Seminar focuses on critical analysis of issues influencing role transition, role enactment, scope and control of practice, and professional growth of the women's health care provider. FAM HLTH

262B. Women's Health Roles/Issues II. (1) § W. Prerequisite: N262A. Seminar 1 hour.

L. Sammons

Seminar focuses on critical analysis of issues influencing restraints and enhancements of contemporary practice for women's health care providers. Impact of current legal, legislative, technological, and health care delivery trends are examined. FAM HLTH

263B. Restorative Care: Geron/LTC. (3) § Sp. Prerequisite: Nursing 263A. Consent of instructor. Lecture 2 hours. Seminar 1 hour.

Staff

Examines restorative nursing care, including supporting principles, concepts, and theories. Explores prescribed nursing care, outcomes and evaluations for various institutional and community settings. Emphasis is on goal achievement and independence of each individual. Concurrent practicum is required. PHYSIOL NURS

264A. Model Specification. (2-3) § F. Prerequisite: Enrollment in Doctoral program and graduate level statistics course. Lab 0-3 hours. Seminar 2 hours.

Staff

Course reviews and analyzes the theoretic and mathematical bases of specifying and testing causal/predictive models in nursing. Analysis of the model includes assessment of mathematic and causal model assumptions and remedial steps to correct for distributional and/or specification violations. FAM HLTH

264B. Model Testing and Respecification. (3) § W. Prerequisite: N264A. Seminar 3 hours.

Staff

Advanced methods in exploratory analysis of data sets and respecification of models in nursing. Students test their own model using their own or a faculty-provided data base. Course emphasis is on using quantitative analysis for theory building. FAM HLTH

265. Management of Clinical Occupational Health Problems. (3) § F, W, Sp. Prerequisite: Consent of

instructor. Lecture 1 hour. Seminar 2 hours.

J. Cone

Course explores clinical management of occupational medical problems. Case-oriented discussion of problems in occupational health, using medical, nursing, industrial hygiene, and epidemiological principles. Emphasis is on clinical diagnostic strategies and epidemiologic methods used in evaluation of occupational health problems. MENT HLTH COM ADM

266. Applied Pathophysiology of AIDS. (3) § W, Sp. Prerequisite: Undergraduate biology or consent of instructor. Lecture 1 hour. Seminar 2 hours.

N. Lovejoy

Course describes theories of the natural history of AIDS and AIDS-related diseases. Symptomatology, diagnostic tools, treatment, and investigational protocols will also be reviewed. Clinical cases and nursing management using secondary prevention techniques will be emphasized. PHYSIOL NURS

267. Ethical Dilemmas & Nursing Prac. (2) § F, W. Prerequisite: Graduate standing. Lecture 2 hours.

A. Davis

Exploration of selected ethical theories and dilemmas in health care and nursing practice. Focus is on selected case studies depicting ethical dilemmas in nursing practice, nursing research, and health policy. MENT HLTH COM ADM

268. Psychiatric Liaison Nursing. (2) § F, W, Sp. Prerequisite: Nursing 211A and enrollment in the child or adult psychiatric nursing specialty tracks, Department of Mental Health, Community, and Administrative Nursing, or consent of instructor. Lecture 2 hours.

L. Chafetz

Course reviews the emerging literature on psychiatric liaison nursing. Reports on roles of psychiatric nurses in medical settings will be critically analyzed, as well as clinical studies from the area of general hospital psychiatry. Comparative models of practice are discussed. MENT HLTH COM ADM

269. Historical & Contemporary Issues. (2-3) § F, W, Sp. Lecture 2 hours. Seminar optional 1 hour.

M. Styles

This course is designed to explore major issues and trends in contemporary nursing and health care delivery as they relate to nursing practice, education and research. MENT HLTH COM ADM

270. Health Assessment of the Adult. (4) § SS2. Prerequisite:

Consent of instructor. Lecture 6 hours.

D. DeAmicis

Course introduces assessment techniques for determining health status of adults. Focuses upon collection and interpretation of clinical data derived from the history and physical examination. Emphasizes identification of actual and potential stressors as well as adequate responses. MENT HLTH COM ADM

271A. Clinical Management in Adult Primary Care. (1-4) § F. Prerequisite: Nursing 270 or consent of instructor. Lecture 1-4 hours.

S. Fugaro

Introduces primary health care concepts essential to management of common physical illness in adults. Emphasis is on promotion of optimum client adaptation, selection of clinical interventions congruent with clients' adaptive potential, and incorporation of the nursing process into clinical decision-making. MENT HLTH COM ADM

271B. Clinical Management in Adult Primary Care. (1-4) § W. Prerequisite: Consent of instructor. Lecture 1-4 hours.

T. Mendelson

Introduces primary health care concepts essential to management of common physical illness in adults. Emphasis is on promotion of optimum client adaptation, selection of clinical interventions congruent with clients' adaptive potential, and incorporation of the nursing process into clinical decision-making. MENT HLTH COM ADM

271C. Clinical Management in Adult Primary Care. (2-4) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Independent projects optional for 3-4 units.

Staff

Introduces primary health care concepts essential to management of common physical illness in adults. Emphasis is on promotion of optimum client adaptation, selection of clinical interventions congruent with clients' adaptive potential, and incorporation of nursing process into clinical decision-making. MENT HLTH COM ADM

272. Chronic Illness: Child & Family. (3) § Sp. Prerequisite: Nursing 238A, Anthropology 235, Psychology 205, or consent of instructor. Lecture 3 hours.

B. Holaday

Course offers study of chronic illness in childhood and its effects upon the individual and his/her family. The presentation of content is based upon developmental and interactional models. Clinical con-

tent considers systematic assessment and intervention. FAM HLTH

273A. Current Concepts in Occupational Health Nursing. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour.

B. Resnik

Course analyzes the structure and organization of the occupational health system, regulatory control mechanisms for worker protection, labor management relations, and issues. Major issues and trends in occupational health as they relate to the occupational health nursing role are explored. MENT HLTH COM ADM

273B. Current Concepts in Occupational Health Nursing. (2) § W, Sp. Prerequisites: Consent of instructor and concurrent enrollment in OHN practicum (2U). Lecture 2 hours.

B. Burgel

Course analyzes the role of the OHN in managing an occupational health service. Emphasis is on planning, development, and evaluation of occupational health programs. MENT HLTH COM ADM

274. Health and Safety Hazards/Workplace. (4) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours. Lab 3 hours.

D. DeAmicis

Course introduces principles of industrial hygiene and safety for identification of chemical, biologic, physical, ergonomic, and safety hazards of work. Student will identify environmental monitoring methods, select health surveillance and safety measures, and discuss methods to control exposures and injuries. MENT HLTH COM ADM

275A. Physiological Basis for Nursing. (1-3) § F. Lecture 1-3 hours.

M. Muwaswes

Study of physiological theories applicable to nursing. Focus is on normal cell functions and nervous and endocrine systems functions which serve as a basis for nursing practice. PHYSIOL NURS

275B. Physiological Basis for Nursing. (1-3) § W. Lecture 1-3 hours.

S. Janson-Bjerkle

Study of physiological theories applicable to nursing. Focus is on normal function of gastrointestinal, cardiovascular, renal and pulmonary systems which serve as a basis for nursing practice. PHYSIOL NURS

275C. Neonatal Pathophysiology. (2) § W. Lecture 2 hours.

M. Lynch

Provides a study of the major disease processes encountered in the neonate and their relevance to nurs-

ing practice. The course will address etiology, manifestations and treatment during the acute phase of illness. FAM HLTH

275.01. Pediatric Physiology Seminar. (1) § F. Seminar 1 hour.

M. Lynch

Course studies organ system functions as modified by developmental needs and system immaturity. Application to pediatric critical care nursing assessment and intervention is provided. Course content is the pediatric adaptation of the content presented in N 275A. FAM HLTH

275.02. Pediatric Physiology Seminar. (1) § W. Prerequisite: N275.01. Seminar 1 hour.

M. Lynch

Course is a study of cardiovascular, pulmonary, renal, and gastrointestinal system function as modified by developmental needs and system immaturity. Adaptation of system function as presented in N 275B will be made to the pediatric critical care population. FAM HLTH

276. Theoretical Perspectives for Nsg Practice. (3) § F. Lecture 3 hours.

P. Benner

Comparative study of selected nursing conceptions and theories and their implications for nursing practice, curriculum development and research. Critique of theories will address key questions relevant to nursing goals, intervention focus and outcomes, recipient of nursing, and social significance. PHYSIOL NURS

277. Critical Care Pathophysiology (4) § Sp. Lecture 4 hours.

R. Sisson

Course offers study of the multi-system effects of frequently occurring pathologic states in the critically ill. Emphasis is on major mechanisms and consequences of the disorders which provide the basis for nursing assessment. PHYSIOL NURS

278. Nursing Science History & Philos. (4) § F. Prerequisite: Doctoral standing and consent of instructor. Lecture 2 hours. Seminar 2 hours.

S. Gortner

Course provides an analysis of the history and development of nursing science and research in the United States, addressing the origins of scientific questions and methods in nursing, and the debates currently ongoing regarding definition, credibility, design, conduct, and outcomes of research. FAM HLTH

279A. Family Nursing Theory. (3) § F. Lecture 2 hours. Seminar 2 hours every other week.

J. Ventura

Course provides an introduction to family theories about systems, development, and stress. Lectures identify relation of stressors with family health or illness and examine ways to apply family theories to nursing practice. Seminars focus on interviewing techniques to assess family health. FAM HLTH

279B. Family Nursing Interventions. (3) § W. Prerequisite: N279A (Family Nursing Theory). Seminar 3 hours.
C. Gilliss

Course integrates family theoretical and therapeutic concepts. The focus is on nursing assessment and intervention strategies for identified family problems. The primary framework will utilize a systems model. FAM HLTH

279C. Cultural Issues in Family Health. (2) § W. Prerequisites: Concurrent enrollment in N 279B and consent of instructor. Lecture 1 hour. Seminar 1 hour.
F. Dreier

Course involves analysis of family, cultural, and behavioral theories and issues leading to clinical intervention in family primary care. FAM HLTH

279D. Family Self Care. (2-3) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours (optional).

B. McLain
Course examines self care activities of families and their members from a primary care perspective. Emphasis includes reviewing current theories, research, and practices related to family self care in health and illness. FAM HLTH

281A. Res Sem: Hlth & Its Correlates. (2) § W. Prerequisite: Enrollment in Ph.D. program in nursing or consent of instructors. Seminar 2 hours.

A. Davis
Course critically examines nursing research involving personal and environmental factors as they influence health and illness. MENT HLTH COM ADM

281B. Res Sem: Hlth & Its Correlates. (4) § Sp. Prerequisite: N281A and enrollment in Ph.D. program in Nursing, or consent of instructor. Lab 3 hours. Seminar 3 hours.

M. Dodd
Course critically examines faculty research investigating nursing science from the perspective of person, environment and health. PHYSIOL NURS

282. Pregnancy & Early Motherhood. (3-4) § W, Sp. Prerequisite: Enrollment in doctoral program.

Lecture 2 hours. Field work 3-6 hours.

R. Mercer
Course analyzes pregnancy and early motherhood including the relationship of physiological and developmental to psychological and social phenomena. Students will develop a model to explain a phenomenon occurring during pregnancy or early motherhood. FAM HLTH

283. Institutional Care of the Aged. (3) § F, W, Sp. Prerequisites: Nursing 211 or equivalent and graduate standing. Lecture 3 hours.

V. Kayser-Jones
Using a theoretical, historical, and cross-cultural approach, the seminar focuses on issues, problems, and trends in institutional care of the elderly. Research studies will be discussed and analyzed, and the health professional's role in providing care will be explored. PHYSIOL NURS

284. Adolescent Health Care. (2) § F. Prerequisite: Consent of instructor. Seminar 2 hours.

M. Savedra, J. Broering
Examination and analysis of theory and research related to health care of adolescents and their families in a variety of settings. Emphasis will be on adaptation to selected stresses including trauma, chronicity, hospitalization, terminal illness and disability. FAM HLTH

285. Physiological Nursing: ECG. (3) § F, W. Prerequisite: Graduate standing or consent of instructor. Lecture 3 hours.

B. Wold
Course will focus on electrophysiological events present in normal and pathological states. A theoretical and research base in 12-lead ECG will provide the foundation for bedside arrhythmia interpretation, intervention, and evaluation. PHYSIOL NURS

286A. Research in Stress & Coping. (3-4) § F. Prerequisite: Consent of instructor or doctoral-level theory development. Lecture 3 hours.

P. Benner
Course critically analyzes the relationship of stress and coping to health and illness. Examines theoretical and empirical links between coping strategies and therapeutic interventions. Emphasis is on research programs. PHYSIOL NURS

286.01B. Stress & Coping-Cardiopulmonary. (3-4) § W. Prerequisite: Nursing 286A. Lecture 3 hours. Proposal development optional one unit.

P. Benner
Course examines the current nursing, behavioral, medicine, and epidemiological research relating stress and coping to the etiology and course of cardiopulmonary disease. Theoretical and empirical links between coping resources, strategies, and helping interventions are also included. PHYSIOL NURS

286.02B. Stress & Coping in Cancer. (3-4) § W. Prerequisite: Consent of instructor. Lecture 3 hours.

P. Benner
Course examines the current nursing, behavioral, medicine, and epidemiological research relating stress and coping to the etiology and course of cancer. Theoretical and empirical links between coping resources, strategies, and helping interventions are also included. PHYSIOL NURS

287A. Organizational Theory & Research. (3) § F. Prerequisite: Consent of instructor. Lecture 3 hours.

M. Flood
A critical review and analysis of major organizational theories and research. Emphasis is on open-system theories to examine characteristics of health service organization and the role of management. MENT HLTH COM ADM

287B. Behavior in Organizations. (3) § W. Prerequisite: Nursing 287A and consent of instructor. Lecture 3 hours.

V. Cleland
Examination of the characteristics, causes, and consequences of behavior and experiences of individuals as they function in organizations. Emphasis is on personnel management and other managerial functions. MENT HLTH COM ADM

287C. Processes in Administration. (3) § Sp. Prerequisite: Nursing 287A and 287B or consent of instructor. Lecture 3 hours.

S. Neidlinger
Course provides a synthesis and application of management theories and administrative processes. Emphasis on leading, planning, organizing, controlling, decision-making, managing change, and evaluating. MENT HLTH COM ADM

288A. Executive Nursing Administration. (3) § F, W. Prerequisite: Consent of instructor. Seminar 3 hours.

Staff
Seminar offered to doctoral students, analyzing theories and research relative to executive nursing roles in academic and service settings. Course examines administra-

tive concepts pertaining to governance, use of power, corporate designs, and executive scholarship. MENT HLTH COM ADM

288B. Decision Theory Seminar. (3-4) § W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Conference 1-2 hours.

Staff
Seminar offered to doctoral students in nursing administration, which synthesizes and evaluates major decision theories and approaches to decision analysis relative to roles of the nurse administrator. MENT HLTH COM ADM

288C. Academic Administration Seminar. (3) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 3 hours.

Staff
Seminar designed for doctoral students in nursing administration interested in the field of administration. Course analyzes and evaluates theories, models, principles, and practices relative to administrative roles in diverse academic settings. MENT HLTH COM ADM

289. Labor Relations. (3) § W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

W. Neff
Course critically analyzes organization and exchange theories relative to managing employer-employee relations in health care and educational settings. Emphasis is on labor movement, labor legislation and regulation, contract negotiations and grievance procedures. MENT HLTH COM ADM

290.01. Family Health Nursing Theory. (3-4) § W. Prerequisite: Enrollment in doctoral program. Lab 0-3 hours. Seminar 3 hours.

M. Savedra
Comparative analysis of classical theories and methodologies for deriving a theory base for family health nursing. Emphasis is on interactional, role, structural-functional, and systems theories. FAM HLTH

290.02. Family Health Theory. (3-4) § Sp. Prerequisite: Nursing 290.01. Seminar 3 hours. Other 0-3 hours.

M. Savedra
Course is a comparative analysis of theories/approaches for deriving a theory base for family health nursing. Emphasis is on developmental, ecological, field, conflict, stress, and adaptation theories. FAM HLTH

290.03. Family Health Theory. (3) § F. Prerequisite: Nursing 290.01 and 290.02 or consent of instructor. Enrollment in doctoral pro-

gram. Seminar 3 hours. Other 3 hours.

C. Gilliss
Individual development of a framework or model for study of a specific problem in family nursing. Emphasis is on critique of models generated by students and their applicability to research problems. FAM HLTH

291A. Pediatric Pathophysiology. (1-2) § W. Lecture 1-2 hours.

Staff
A study of pathophysiology applicable to pediatric nursing. Emphasis is on fluid and electrolyte imbalance, and hemopoietic, nervous, and endocrine system dysfunctions and their implications for nursing care. PHYSIOL NURS

291B. Pediatric Pathophysiology. (3) § Sp. Lecture 3 hours.

K. Moore
A study of pathophysiological theories applying to pediatric nursing. The focus is on body system dysfunctions and the implications for nursing care. PHYSIOL NURS

291.01 Pediatric Pathophysiology Seminar. (2) § Sp. Prerequisite: Concurrent enrollment in N 291B. Seminar 2 hours.

M. Lynch
Seminar explores the pathophysiological alterations in organ system function as influenced by developmental needs and system immaturity. Nursing course content presented in N 291B will be applied to the nursing of pediatric critical care population. FAM HLTH

292A. Physiology of Pregnancy. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

L. Mayberry
Course reviews and analyzes advanced physiology and pathophysiology of pregnancy and their impact on the maternal-fetal unit as a basis for nursing practice and research. Emphasis is on reproductive and endocrine systems affecting adaptation and development during pregnancy. FAM HLTH

292B. Physiology of Pregnancy. (2) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

L. Mayberry
Course reviews and analyzes advanced physiology and pathophysiology of pregnancy as a basis for practice and research. Emphasis is on cardiovascular, hematologic, neuroendocrine, and renal systems affecting adaptation and development during pregnancy. FAM HLTH

293. Nursing Serv & Educ Evaluation. (3) § F, W, Sp. Prerequisite:

Consent of instructor. Seminar 3 hours.

W. Holzemer
Case studies are utilized to demonstrate program evaluation in nursing service and education. JCAH and NLN criteria are examined. Evaluation designs, instrumentation, data utilization, and political components of evaluation for policy decision-making are critically analyzed. PHYSIOL NURS

294. Computer Management & Clinical Data. (3) § W. Prerequisite: Preference given to students in critical care specialty. Others admitted with consent of instructor. Lecture 2 hours. Lab 3 hours.

K. Miller, N. Stotts
Course is an analysis of critical care patient data using the computer. Emphasis is on conceptualizing the set of data needed for decision making and using the computer to aid in clinical decision making. PHYSIOL NURS

295. Quasi-Experimentation in Nsg Res. (3) § F, Sp. Prerequisite: Consent of instructor. Seminar 3 hours.

W. Holzemer
Seminar addresses validity issues of quasi-experimentation in nursing research. Designs examined in nursing literature include non-equivalent control group designs, interrupted time-series designs, passive observation, and randomized experiments. PHYSIOL NURS

296. Teaching-Learning Processes. (4) § SS1 or SS2, W. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 2 hours.

N. Okamoto
Analysis of principles, theories and research in the field of teaching with emphasis on teaching strategies and evaluation methods applicable to clinical and educational settings. A microteaching format is incorporated for application and evaluation of selected teaching interactions. PHYSIOL NURS

297. Financial Management. (3) § W, Sp. Lecture 2 hours. Lab 3 hours.

V. Cleland
Course offers introduction to financial accounting principles as they relate to financial management in health care settings. Emphasis is on the manager's role and responsibilities in budgeting, monitoring, controlling, and in costing nursing care. Laboratory permits skill development. MENT HLTH COM NURS

298. Thesis or Comprehensive Exam. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and

permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree or taking a comprehensive examination required for the master's degree.

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Doctor of Nursing Science (D.N.S.) or Doctor of Philosophy in Nursing degree.

401. Teaching Residency. (4-12) F, W, Sp. Prerequisite: Consent of instructor. Lab 12-36 hours.

Staff

Opportunity to apply and evaluate theories, concepts, and skills in the work setting under the supervision of a preceptor.

402. Administration Residency. (4-12) F, W, Sp. Prerequisite: Completion of Nursing 287A-B-C and 297, each with a grade of 'B' or higher, and consent of instructor. Lab 12-36 hours.

Staff

Opportunity to apply and evaluate theories, concepts, and skills in the work setting under the supervision of a preceptor.

403. Consultation Residency. (4-12) F, W, Sp. Prerequisite: Consent of instructor. Lab 12-36 hours.

Staff

Opportunity to apply and evaluate theories, concepts, and skills in the work setting under the supervision of a preceptor.

404. Clinical Residency (4-12) F, W, Sp. Prerequisite: Consent of instructor. Lab 12-36 hours.

Staff

Student has opportunity to apply and evaluate theories, concepts, and skills in the work setting under the supervision of a preceptor.

INTERDEPARTMENTAL

404.01. Adult Primary Care Nursing-Clinical Preceptorship. (4-12) F, W, Sp. Prerequisite: Consent of instructor. Lab 12-36 hours.

Staff

Course provides an opportunity to apply and evaluate theories, concepts, and skills in the work setting under the supervision of a preceptor. MENT HLTH COM ADM

404.06A. Ped Clin Residency. (5) F. Prerequisite: Consent of instructor. Lab 12 hours. Seminar 2 hours. Conference 1 hour.

B. Durand

Course offers opportunity to apply and evaluate theories, concepts, and skills in the work setting under supervision of a preceptor. Focus is on development of the pediatric clinical specialist role in ambulatory child health care. FAM HLTH

404.06B. Ped Clin Residency. (5) W. Prerequisite: Consent of instructor. Lab 12 hours. Seminar 2 hours. Conference 1 hour.

B. Durand

Course offers opportunity to apply and evaluate theories, concepts, and skills in the work setting under supervision of a preceptor. Focus is on development of the pediatric clinical specialist role in ambulatory child health care. FAM HLTH

404.06C. Ped Clin Residency. (5) Sp. Prerequisite: Consent of instructor. Lab 12 hours. Seminar 2 hours. Conference 1 hour.

B. Durand

Course offers opportunity to apply and evaluate theories, concepts, and skills in the work setting under supervision of a preceptor. Focus is on development of the pediatric clinical specialist role in ambulatory child health care. FAM HLTH

405. Practicum in Mental Hlth & Com Nurs. (1-8) F, W, Sp. Prerequisite: Consent of instructor. Lab 3-24 hours.

Staff

Opportunity to apply theory in clinical practice to further develop skills and to extend clinical expertise in selected aspects of mental health and community nursing. Guided clinical-laboratory experience is designed to develop mastery of advanced skills. MENT HLTH COM ADM

405.01. Health Assessment of the Adult Clinical Practicum. (3) SSII. Prerequisite: Must be taken concurrently with N 270. Lab 4 hours. Clinical 5 hours/week.

Staff

Application of health assessment concepts and skills under supervision of clinical preceptors. Performance of systematic health assessment of adults leading to a growing ability to differentiate between normal and abnormal findings to identify stressors that arise from physical, social, and developmental services, and to formulate an initial problem list that reflects the above. FAM HLTH

406. Practicum in Family Hlth Care Nurs. (1-8) F, W, Sp. Prerequisite: Consent of instructor. Lab 3-24 hours.

Staff

Opportunity to apply theory in clinical practice to further develop skills

and to extend clinical expertise in selected aspects of family health care nursing. Guided clinical laboratory experience is designed to develop mastery of advanced skills. FAM HLTH

407. Practicum in Physiological Nursing. (1-8) F, W, Sp. Prerequisite: Consent of instructor. Lab 3-24 hours.

Staff

Opportunity to apply theory in clinical practice to further develop skills and to extend clinical expertise in selected aspects of physiological nursing. Guided clinical laboratory experience is designed to develop mastery of advanced skills. PHYSIOL NURS

410. Teaching Practicum. (1-8) F, W, Sp. Prerequisite: Consent of instructor. Lab 3-24 hours.

Staff

Supervised practice in selected components of the teaching role in nursing.

411A. Introduction to Computers. (2) § F, W, Sp. Lecture 2 hours.

R. Slaughter

Course presents overview of the impact of computer technology upon nursing. Focus is upon hardware and software for nursing in the mainframe to micro environment. Word processing for scientific writing using IBM PC is an integral part of the class. PHYSIOL NURS

411B. Fiscal Modeling. (2) § W. Prerequisite: Nursing 411A. Priority of space available to Administration students. Lecture 2 hours.

R. Slaughter

Course emphasis is on the use of the computer as a tool for the nurse manager in financial planning. PHYSIOL NURS

411C. Computers in Administration. (2) § Sp. Prerequisite: Nursing 411A-B. Lecture 2 hours.

R. Slaughter

Course provides an introduction to administrative information systems and their impact upon patient care. Emphasis will be on data base management systems in a nursing administration environment. PHYSIOL NURS

411E. Data Management. (2) § SS1, F, W, Sp. Prerequisite: None. B 185A and B185B or B187 are recommended. Lecture 1 hour, Lab 3 hours.

S. Paul

Course offers a hands-on experience with computers and programs that can be used for data management and statistical analysis. The benefits of considering options for data collection, entry, analysis, and preparing research strategy before data

are collected is emphasized. PHYSIOL NURS

NUTRITION

200. Maternal & Infant Nutrition. (2-4) § W. Prerequisite: Consent of instructor. Lecture 2-4 hours. Y. Gutierrez

Application of current maternal nutrition research to train students in working with other health professionals to offer interdisciplinary maternal nutrition counseling in the prevention of low birth weight. Emphasis will be on cross-cultural factors in assessment and counseling. FAM HLTH

202. Family Nutrition Counseling. (3) § F, Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

Y. Gutierrez

Theory and practice in the interpretation of current concepts, principles, and research in nutrition for family counseling. Emphasis on cultural dietary patterns. FAM HLTH

208. Childhood Nutrition. (2-3) § Sp. Lecture 2 hours, Module 1 hour.

Y. Gutierrez

Course provides study of nutritional principles, concepts, and knowledge related to infants and children, both healthy and ill. Emphasis is on growth processes, feeding practices, disease-induced nutritional deficiencies, common problems, and intervention approaches. Cross-cultural aspects included. FAM HLTH

OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE SCIENCES

110. Ob/Gyn Core Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 132A-B-C.

Jaffe and Staff

Basic principles and fundamental techniques in obstetrics and gynecology, including the psychiatric aspects of obstetrics and gynecology, are discussed in a series of seminars, case discussions, and teaching clinics. Students gain practical experience in clinics, wards, delivery room, and operating room under direct supervision. OB GYN R S

140.02A-B. Advanced Clinical Clerkships. (1½ per week) Su, F, W, Sp. Prerequisite: Obstetrics and Gynecology 110, consent of instructor, and approval of department at off-campus hospital.

Braga, R. Glass

Advanced clinical clerkship. Senior clerkships in both inpatient and outpatient obstetrics and gynecology are

available at K and other hospitals by arrangement. OB GYN R S

140.05. Advanced Ob/Gyn Clerkship-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Satisfactory completion of Obstetrics and Gynecology 110, Pediatrics 110, and Medicine 110 or Surgery 110. Open only to 4th year medical students of schools in U.S.A. and Canada.

Reyes, Cooke, Sueldo

Practical clinical training in obstetrics and gynecology at Valley Medical Center of Fresno. Time is divided between labor and delivery experience, gynecology ward, and obstetrics and gynecology outpatient clinic. Students will have the opportunity to see normal, high risk, and adolescent pregnancies. OB GYN R S

140.06. Advanced Ob/Gyn Clerkship-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Obstetrics and Gynecology 110, Pediatrics 110, and either Medicine 110 or Surgery 110, or consent of instructor.

R. Sweet and Staff

The clerk will function as an acting intern on the gynecology inpatient service. Some gynecologic outpatient and emergency room experience will be possible as well as inpatient and surgical gynecology. OB GYN R S

140.07. Advanced Gyn Clerkship-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Obstetrics and Gynecology 110, Pediatrics 110 and Medicine 110 or Surgery 110, or consent of instructor.

Braga, R. Glass

The clerk functions in the role of an acting resident on the gynecology service. Responsibilities are primarily on the inpatient service and will include both surgical and nonsurgical aspects of gynecologic oncology, endocrinology, infertility, and general gynecology. OB GYN R S

140.08. Ob/Gyn Preceptorship. (1½ per week) Su, F, W, Sp. Prerequisite: Obstetrics and Gynecology 110 and consent of instructor and chairperson of the department.

Staff

Clinical experience in a subspecialty area or general obstetrics and gynecology under the direction of a member of the faculty. OB GYN R S

150.01. Research in Ob/Gyn & Repro Sci. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor and chairperson of the department.

Staff

A nonclinical research project under the direction of a member of the faculty. OB GYN R S

160.01. First- and Second-Year Ob/Gyn Preceptorship. (1) Su, F, W, Sp. Field work 3 hours.

Brown

An opportunity for first- and second-year students to spend time in clinical faculty offices and be exposed to the field of general Ob/Gyn. OB GYN R S

170.01. Sociocultural Aspects of Nutr. (1) Sp. Seminar 1 hour.

Abrams

A survey of the social, cultural and psychological factors that determine food behavior in the individual. Lectures, discussion and readings will identify barriers to healthy food patterns. Brief written assignments and class discussions will develop practical approaches to the provision of nutritional care. OB GYN R S

198. Supervised Study. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. OB GYN R S

199. Laboratory Project. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. OB GYN R S

222. Reproductive Endocrinology Sem. (1) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

Kuhn

Seminar presentations in areas of current interest in reproductive endocrinology by guest speakers and members of the Reproductive Endocrinology Center. Students will be required to submit a term paper. Course may be repeated for credit. OB GYN R S

230. Biology of Reproduction. (2) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Siiteri

Topics include hormonal regulation of development, growth, and function of reproductive tract organs with special emphasis on the ovaries and uterus. OB GYN R S

231. Hormone Receptor Binding. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours.

J. Roberts

An in-depth assessment of the characterization of hormone receptor interactions by ligand binding methods. Lectures, assigned readings, and problems will focus on theoretic

cal and practical aspects of techniques and data analysis. OB GYN R S

400. Staff Conferences. (1) § Su, F, W, Sp.

Jaffe and Staff

Conferences comprised of formal discussions by staff, faculty, and visiting lecturers. OB GYN R S

401. Surgical Pathology Seminar. (1) § Su, F, W, Sp.

E. Hill, Braga, H. Jones

Seminar includes the presentation of pathologic material from the obstetric and gynecologic services with formal instruction and discussions. OB GYN R S

402. House Staff Seminar. (1) § Su, F, W, Sp.

Laros

Seminars include presentations of special topics, literature reviews, and discussions. Discussions of resident staff functions also are held. OB GYN R S

450. Clinical Obstetrics & Gynecology. (10) § Su, F, W, Sp.

UC Laros, SFGH R. Sweet, C Webb

Residents are responsible for the care of patients in the hospital and outpatient clinic. Formal and individual instruction is conducted. OB GYN R S

OPHTHALMOLOGY

First-Year Coordinated Instruction—Medicine 131A-B-C. Lecture-demonstrations and section work devoted to the supervised examination of patients.

Core Clerkship—Surgery 110 and 111 include lectures and clinical experience in the diagnosis and care of eye diseases.

140.01A. **Advanced Ophthalmology Clkshp—UC.** (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Surgery 110 or consent of instructor.

Drake

Students will serve as subinterns on the ophthalmology wards. They will work up and present patients, and attend surgery and postoperative clinics. This is an intensive clerkship where students will be on twenty-four hour call the entire time. OPHTHALMOL

140.01B. **Advanced Ophthalmology Clkshp—UC.** (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

O'Donnell

Students will observe, work up and present ophthalmology outpatients at the Eye Clinic. They will attend department rounds and conferences. OPHTHALMOL

140.02. **Off-Campus Clerkship.** (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

O'Donnell and Staff

Clinical clerkship in approved hospitals by special arrangement and approval by the dean and the chairperson of the department. OPHTHALMOL

140.03A. **Comprehensive Clerkship in Ophthalmology—SFGH.** (1½ per week) Su. Prerequisite: Medicine 110 or consent of instructor. One student per block.

Seiff

Students serve as subinterns on the Ophthalmology Service. They work up and present cases in the outpatient clinic and on the wards; and have the opportunity to participate in the operating room. On-call and weekend responsibilities should be expected. OPHTHALMOL

140.03B. **Clinical Clerkship—SFGH.** (1½ per week) SS1, SS2, Su, F, W, Sp. Prerequisite: Consent of instructor. Two students per block except summer when one student per block.

Goodner

Clinical observations of patients in clinic, wards, and surgery at San Francisco General Hospital. OPHTHALMOL

140.04. **Adv Ophthalmology Clerkship—L.** (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Kearney

Clinical observation of patients in the clinics, wards, and surgery at L. OPHTHALMOL

140.05. **Adv Ophthalmology Clerkship—VMC.** (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Whitten

Under close supervision, students are involved in the clinical observation of patients in the Eye Clinic, on the wards and in surgery, and participate in departmental conferences. Main objective of the course is to enable students to perform a complete eye examination. OPHTHALMOL

140.06. **Adv Ophthalmology Clerkship—VA.** (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Stanley

Clinical observation of patients in clinics, wards and surgery. OPHTHALMOL

150.02. **Ophthalmology Research.** (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor and chairperson of the department.

S. Kramer

A research project under the direction of a member of the faculty carried out in the Department of Ophthalmology. OPHTHALMOL

198. **Supervised Study.** (1-5) F, W, Sp.

S. Kramer

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. OPHTHALMOL

199. **Laboratory Project.** (1-5) F, W, Sp.

S. Kramer

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. OPHTHALMOL

400. **Staff Conference.** (1) F, W, Sp.

S. Kramer

Residents prepare and present diagnostic and therapeutic problem cases. Discussion by faculty and visitors follows. Residents also present papers on various aspects of medicine and ophthalmology, which are discussed by faculty members. OPHTHALMOL

401. **Staff Conference.** (1) F, W, Sp. Prerequisite: First- and third-year residents.

S. Kramer

Conferences include grand rounds and case presentations of hospital patients, review of recent literature in ophthalmology, and assigned reading with required reports. OPHTHALMOL

402. **Special Topics Seminar.** (6) F, W, Sp.

S. Kramer

Seminars include didactic lectures in practical work covering pathology, neuro-ophthalmology, uveitis, physiological optics, refraction, ocular motility, glaucoma, and microbiology. OPHTHALMOL

403. **Basic Ophthalmologic Science.** (6) Su. Required for first-year residents.

S. Kramer

Didactic lectures and demonstrations cover the basic sciences as applied to ophthalmology. These include anatomy, histology, biochemistry, physiology, and pharmacology. OPHTHALMOL

450. **Clinical Ophthalmology.** (1½ per week) Su, F, W, Sp.

M. Drake

Residents, under supervision, are responsible for patients in the Eye Clinic. First-year residents assist in eye surgery and the Eye Bank program. Specialty clinics include external diseases, extraocular mus-

cles, medical ophthalmology, ophthalmoscopy, refraction, cataract, glaucoma, neuro-ophthalmology, plastic surgery, and tumor. OPHTHALMOL

454. **Clinical Ophthalmology.** (1½ per week) Su, F, W, Sp.

UC Beard, CHMC E. Stern

Residents, under supervision, are responsible for patient care including diagnostic studies and treatment of medical eye care, diagnosis, surgery, and follow-up treatment of surgical eye cases. Residents consult for other hospital services. OPHTHALMOL

455. **Fourth-Year Residency.** (1½ per week) Su, F, W, Sp.

S. Kramer

Fourth-year residency taken at UC or at any approved institution subject to the approval of the chairperson of the department and the dean. OPHTHALMOL

457. **Clinical Ophthalmology.** (1½ per week) Su, F, W, Sp.

PH A. Schwartz, STM R. N. Shaffer, Schatz, CHS, SRM Rathbun, RDMC T. Moore

Residents or fellows, under supervision, are responsible for patient care, including diagnostic studies and treatment of medical eye care, diagnosis, surgery, and follow-up treatment of surgical eye cases. OPHTHALMOL

490. **Clinical Ophthalmology.** (1½ per week) Su, F, W, Sp.

Goodner

Residents, under supervision of the attending staff, are responsible for patient care on wards and in the follow-up clinic, including diagnostic studies and consultation. This rotation is combined with patient-care assignments in the Otolaryngology Service. OPHTHALMOL

ORAL BIOLOGY

111. **First Year Special Study.** (2) F. Prerequisite: Passing placement examination and consent of instructor. Lecture 2 hours.

Newbrun, Beirne, Bhatnagar

Discussion of biological problems of interest in dentistry including saliva, mineral metabolism, hydroxylapatite crystal structure, connective tissue, bacterial cell walls, oral bacterial metabolism, and blood coagulation. STOMATOLOGY

126. **Introduction to Oral Biology.** (2½) F. Prerequisite: Anatomy 118. Lecture 2½ hours. Lab 4 hours.

Christie

Introduction to oral biology correlating morphology, chemistry, function of dental and paradental tis-

sues. Topics include head and neck embryology, enamel, dentin, cementum, pulp and pulpal disease, dental caries, dental anomalies, tooth eruption, periodontium and periodontal disease, oral mucous membranes. STOMATOLOGY

128A. **Intro to Caries & Perio.** (1) F. Prerequisite: Biochemistry 110A-B, Microbiology 126A. Lecture 1 hour.

Robertson, Newbrun, Armitage

Introduction to the etiology, pathogenesis, and diagnosis of dental caries and periodontal disease. STOMATOLOGY

128B. **Microbiology of Caries & Perio.** (1) W. Prerequisite: Oral Biology 128A. Lecture 1 hour.

P. Murray

Introduction to the microbiology of caries and periodontal disease. The formation and pathogenic potential of dental plaques are discussed. STOMATOLOGY

128C. **Caries & Periodontal Disease.** (3) Sp. Prerequisite: Oral Biology 128A-B, Microbiology 126B. Lecture 2 hours. Seminar 2 hours.

Newbrun, Robertson, Armitage

Principles in the prevention and treatment of caries and periodontal disease. Dietary factors in the pathogenesis of caries and periodontal disease are covered and the role of fluorides in caries prevention is discussed. Practical experience in the diagnosis/treatment of periodontal diseases will be provided. STOMATOLOGY

175A-B-C. **Oral Immunology and Immunopathology.** (2-2-2) F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Greenspan

Lectures and seminars on immunological mechanisms and their contribution to oral diseases. Topics covered include the immunology of periodontal disease, oral microbial diseases, oral autoimmune disease, and discussions of the interface of immunopathology and inflammation. STOMATOLOGY

181. **Scientific Writing.** (1) F. Enrollment limited to 8. Lecture 1 hour.

Robertson, Pritchard, Leash

Lecture and discussion on the organization, content, preparation, and submission of a scientific research paper, the principles of clear, concise, and precise scientific writing, and resources for scientific authors. STOMATOLOGY

186. **Introduction to Biological Sciences.** (1) Su. Lecture, Laboratory, Demonstration: 9 hours for 3 weeks.

Christie

Introduction to the biological sciences taught in the first year in dentistry (anatomy, biochemistry, physiology). This course includes one half-day per week orientation to the campus community. STOMATOLOGY

202A-B-C-D. **Experimental Techniques in Oral Biology.** (1-1-1-1) § Su, F, W, Sp. Lecture 1 hour.

Newbrun and Staff

Principles and methods employed in oral biology such as radioisotope techniques, spectroscopy, chromatographic techniques, use of animal models, cell fractionation and enzyme purification, methods in cell mediated immunology, antibody quantitation, immunomorphology, antibiotic sensitivity testing, and indices for quantitating dental diseases. ORAL MED

208A-B-C. **Oral Immunology and Immunopathology.** (2-2-2) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Armitage, P. Murray, Greenspan

Lectures and seminars on immunological mechanisms and their contribution to oral diseases. Topics covered include the immunology of periodontal disease, oral microbial diseases, oral autoimmune disease, and discussions of the interface of immunopathology and inflammation. STOMATOLOGY

209. **Connective Tissue Biology.** (2-3) § W, Sp. Prerequisite: Biochemistry 207 or consent of instructor. Lecture 2-3 hours.

Staff

A course in connective tissue biology, concerned mainly with the development, differentiation, and pathology of connective tissues, including topics such as regulatory controls of connective tissue macromolecules, fibrosis, wound healing, inflammation, tissue destruction, and selected genetic disorders. STOMATOLOGY

210. **Topics in Virology.** (1) § Sp. Prerequisite: General knowledge of microbiology, immunology, molecular biology, or consent of instructor. Seminar 1 hour.

Pereira

Small group tutorial in which special topics in virology and correlated reading will be selected for discussion by students and staff members. STOMATOLOGY

215. **Laboratory Rotation.** (4) § F, W, Sp. Prerequisite: Consent of instructor. Lab 12 hours.

Staff

A laboratory rotation course to familiarize first-year graduate students with various approaches to re-

search in Oral Biology.
STOMATOLOGY

220. Current Topics. (1½) § F, W, Sp. Seminar 1½ hours
Staff

A seminar series covering current advances in research in oral biology in a systematic manner. Current literature will be critically reviewed by students under faculty supervision, or by faculty or guest lecturers. **STOMATOLOGY**

221. Extracellular Matrices. (2) § F. Prerequisite: Consent of graduate advisor and instructor. Seminar 2 hours.

Fisher, Damsky, Kramer

Assembly and composition of extracellular matrices, including interactions that occur between cells and matrices. Emphasis on the role of various extracellular matrices during development, function of cell-matrix interactions in the adult, and the perturbation of these relationships that accompanies various disease processes. **STOMATOLOGY**

222. Mineralization. (1) § W. Prerequisite: Oral Biology 221. Consent of graduate advisor and instructor. Seminar 1 hour.

Dansky

Recent information on cell biology and physiology of mineralized tissues, and cell biology and development of cell types that produce the extracellular matrices that are subsequently mineralized. Emphasis on process of mineralization and the hormone regulation of mineral deposition and mobilization. **STOMATOLOGY**

223. Saliva and Salivary Glands. (2) § Sp. Prerequisite: Consent of graduate advisor and instructor. Seminar 2 hours.

Newbrun

This course will present recent information on the composition, regulation and function of the secretions from the major and minor salivary glands. Special consideration will be given to salivary gland dysfunction and its consequences. **STOMATOLOGY**

224. Host Response. (2) § F. Prerequisite: Consent of graduate advisor and instructor. Seminar 2 hours.

Daniels, Khoury, Pappo

Components of the immune system, survey of the various immunologic mechanisms in host responses, and current working concepts of the immune system. Overview of consequences that failure, exaggeration, or inability to distinguish self from non-self, may have for the host. **STOMATOLOGY**

225. Oral Microbiology I. (2) § W. Prerequisite: Consent of graduate advisor and instructor. Seminar 2 hours.

Felton, Newbrun, and Staff

Current information on pathogenic mechanisms involved in oral diseases, with emphasis on the structure metabolism, genetics and ecological relationships of oral microorganisms. **STOMATOLOGY**

226. Oral Microbiology II. (2) § Sp. Prerequisite: Oral Biology 225. Consent of graduate advisor and instructor. Seminar 2 hours.

Felton, Newbrun, and Staff

Continuation of Oral Microbiology studies begun in Oral Biology 225. **STOMATOLOGY**

250. Research. (1-8) § F, W, Sp. Staff
STOMATOLOGY

297. Special Study. (1-3) § F, W, Sp. Staff

Reading and conferences under the direction of a member of the staff. **STOMATOLOGY**

298. Thesis. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree. **STOMATOLOGY**

300A-B-C-D. Teaching Practicum. (1-4, 1-4, 1-4, 1-4) § F, W, Sp, SS1. Prerequisite: Consent of instructor. * Staff

Practice in teaching in a course in oral biology under the supervision of the instructor in charge. **STOMATOLOGY**

406A-B-C. Selected Topics. (1-1-1) § F, W, Sp. Seminar 1 hour.

Staff

A wide spectrum of selected topics related to oral biology is presented with emphasis on basic and applied research methodology, pertinence of problems, significance of findings, and critical evaluation of data. **STOMATOLOGY**

ORAL MEDICINE AND HOSPITAL DENTISTRY

109.01. Clinical Oral Medicine. (0-2) F, W, Sp. Prerequisite: Oral Medicine and Hospital Dentistry 120, 126, and 127. Lecture and clinic 2 hours.

Chinn, Caswell and Staff

Group rotation through two five-week sections: clinical diagnosis—patient presentation entailing his-

tory-taking, examination, diagnosis, treatment, and follow-up; and medicine—introduction to internal medicine and physical diagnosis. **STOMATOLOGY**

122. Oral Medicine. (4) Sp. Prerequisite: Oral Pathology 127A and 127B. Lecture 4 hours.

Olson, Silverman, Chinn

Introduction to recognition, diagnosis and treatment of oral manifestations of systemic diseases, and principles of clinical medicine through presentation of the mechanism, diagnosis and treatment of common organ system diseases. Will present modifications necessary for the dental treatment of patients with these diseases. **STOMATOLOGY**

130. Infectious Diseases. (1½) Su, SS3. Prerequisite: Oral Medicine 120 and 121; junior standing. Lecture 2 hours per 8 weeks.

Silverman, Olson, Chinn

History taking and differential diagnosis. Signs, symptoms and diagnosis of infectious diseases with emphasis on AIDS, hepatitis, herpes and candidiasis. Management problems and solutions. Infectious disease control guidelines. **STOMATOLOGY**

139. Clinical Acute Dental Care. (0-1) W, Sp. Clinic 15 hours per quarter.

Rosenquist, Danford

Clinical experience and small group seminar discussion on topics including diagnosis, treatment, and pain and infection control of acute dental problems. **STOMATOLOGY**

149. Acute Dental Care Clinic. (0-1) SS, F. Clinic 15 hours per quarter.

Rosenquist, Danford

Expanded clinical experience in the diagnosis and treatment of acute dental conditions. **STOMATOLOGY**

171. Advanced Oral Medicine. (2) F, W, Sp. Prerequisite: Oral Medicine and Hospital Dentistry 126 and consent of instructor. Seminar 2 hours.

Ryder

Advanced study of the oral tissues, with emphasis on their histophysiological aspects. **STOMATOLOGY**

180A-B-C. Clinical Pathology Conference. (1-1-1) F, W, Sp. Prerequisite: Fourth-year standing. Lecture 1½ hours.

S. Silverman and Staff

Clinical pathology conference; biology, diagnosis, and treatment of various oral lesions and associated patient problems. Some oral conditions are critically re-evaluated in the light of current research ad-

vances. Specific medical knowledge is related to patient care. **STOMATOLOGY**

189. Acute Dental Care Clerkship. (1-10) Su, F, W, Sp. Clinic 30 hours per week.

Rosenquist, Danford

Advanced instruction and clinical experience in the diagnosis and treatment of acute dental problems. **STOMATOLOGY**

189.01. Clinical Oral Dentistry. (1) F, W, Sp. Prerequisite: Oral Biology 109.01 and consent of instructor. Clinic 3 hours.

S. Silverman

Participation in the Oral Medicine Clinic: apply knowledge of history-taking and differential diagnosis; utilize various diagnostic techniques such as biopsy, cytology, and certain clinical pathology laboratory tests; interpret results, prescribe treatment and follow-up; hospital rounds and weekly seminar. **STOMATOLOGY**

189.03. Adv General Dentistry Clerkship. (1½ per week) F, W, Sp. Prerequisite: Fourth-year standing and approval of Clinic Review Committee.

S. Silverman, Ware

Students provide comprehensive dental care to patients assigned to them, under supervision of staff in the medical and hospital environment. Students also attend seminars and conferences. **STOMATOLOGY**

190. Oral Medicine. (1½) W. Lecture 1½ hours.

S. Silverman, T.E. Daniels, J. Olson

Review of oral diseases most relevant to physicians. Etiology, diagnosis, management and prevention are covered. Subjects include introduction to dentistry, caries, fluoride, periodontal disease, precancerous lesions, oral cancer, saliva, salivary gland disease, oral aphthae, herpes, smoking, diseases of the tongue. **STOMATOLOGY**

199. Laboratory Project. (1-5) F, W, Sp. Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. **STOMATOLOGY**

206. Oral Medicine Seminar. (1-4) § F. Seminar 1-4 hours.

Silverman

A wide spectrum of selected topics related to oral biology is presented with emphasis on basic and applied research methodology, pertinence of problems, significance of findings, and critical evaluation of data. **STOMATOLOGY**

207. Oral Pathology. (1-4) § F, W, Sp.

S. Silverman

Advanced considerations in the field of histopathology. Applications of newer techniques and concepts are presented to increase understanding of the oral cavity in health and disease. Etiology, diagnosis, and therapeutics are discussed. **STOMATOLOGY**

400. Maxillofacial Prosthodontics. (0-1) § F, W. Lecture 1 hour.

Zlotolow

Course is designed to acquaint residents and fellows with the multidisciplinary aspects of maxillofacial prosthetics. Lectures will be given on maxillofacial prosthetic techniques, oncology, head and neck surgery, plastic surgery, oral surgery, therapeutic radiology, psychology, and related oral biology. **STOMATOLOGY**

489.01. Oral Medicine. (1) § F, W, Sp. Clinic 3 hours.

S. Silverman

Participation in the Oral Medicine Clinic applying knowledge of history-taking and differential diagnosis; utilizes various diagnostic techniques such as biopsy, cytology, and certain clinical pathology laboratory tests; interprets results, prescribes treatment, and follows up; hospital rounds; and weekly seminars. **STOMATOLOGY**

489.02. Oral Medicine. (1) § F, W, Sp. Prerequisite: D.D.S. degree and consent of instructor. Clinic 3 hours.

Staff

Participation in the Temporomandibular Joint Clinic applying knowledge of history-taking and differential diagnosis; utilizes such diagnostic techniques as lamina-graphic X rays, occlusal analysis, and other specific joint tests; interprets results, prescribes treatment, and follows up with patient reviews. **STOMATOLOGY**

ORAL PATHOLOGY

127A-B. Introduction to Oral Pathology. (0-5½) F, W. Prerequisite: Oral Biology 126. Lecture 4½ hours. Lab 3 hours.

J. Greenspan, T.L. Green

Course correlates clinical oral pathology with histologic changes. Emphasis is placed on the microscopic and laboratory interpretation of cellular, tissue, and chemical alterations. Laboratory sessions concentrate on clinical presentation of oral diseases. **STOMATOLOGY**

172. Current Oral Pathology. (1-2) Sp. Prerequisite: Registration in postgraduate specialty program. Seminar 1-2 hours.

L. Hansen and Staff

A seminar designed to acquaint postdoctoral students with current advances, techniques, trends, and developments in the field of oral pathology. **STOMATOLOGY**

176A-B. Oral Pathology Seminar. (3-3) F, W. Seminar 3 hours.

Daniels

Lectures and seminars on diseases of the jaws, oral mucosa and salivary glands. Disease entities are studied through review of current literature and presentation of their clinical and histopathological features, with emphasis on pathogenesis, diagnosis and management. **STOMATOLOGY**

181. Forensic Odontology. (1) F, Sp. Lecture 1 hour.

T. L. Green

Identification by means of dental evidence is known as forensic odontology. Course includes identification procedures in single and multiple deaths including homicides and mass disasters, forensic dental radiology, bite-marks and bite injury, the medico-legal autopsy, fire research, and forensic anthropology. **STOMATOLOGY**

408A-B. Oral Pathology Seminar. (3-3) F, W. Seminar 3 hours.

Daniels

Lectures and seminars on diseases of the jaws, oral mucosa and salivary glands. Disease entities are studied through review of current literature and presentation of their clinical and histopathological features, with emphasis on pathogenesis, diagnosis and management. **STOMATOLOGY**

ORAL RADIOLOGY

109.01. Intro to Clinical Radiology. (0-1) W, Sp. Prerequisite: Oral Radiology 121. Clinic and seminar 15 hours.

Rosenquist

Clinical experience in full-mouth radiography, emergency radiography, laminagraphy, panoramic radiography, darkroom technique, and quality control. Application of anatomy, pathology and previous didactic experience in radiology in interpreting radiographs and in establishing differential diagnosis. **STOMATOLOGY**

109.02. Advanced Clinical Radiology. (0-1) S, F. Prerequisite: Oral Radiology 121 and 109.01. Clinic and seminar 15 hours.

Rosenquist

Clinical experience and small group instruction is provided in oral radiology at the advanced predoctoral level. Course will provide advanced experience in intraoral and ex-

traoral radiographic techniques and introduce students to the full range of X-ray imaging techniques. STOMATOLOGY

111. Principles of Diagnostic Radiology. (1) Sp. Lecture 1 hour.
Kircos

Introduction to principles of diagnostic radiology with foundations in physical and biological science. Includes historical contributions to radiology, production of X-radiation, interactions of X rays with matter, biological effects of ionizing radiation, applications of radiological health, radiographic image formation, and photochemistry. STOMATOLOGY

121. Radiographic Interpretation. (1) F. Lecture 1 hour.
Kircos

An introduction to the fundamentals of radiographic interpretation, some of the basic physics of X-ray generation, and radiation biology. STOMATOLOGY

129. Introduction to Clinical Intraoral Radiology. (½) W, Sp. Prerequisite: Oral Radiology 111; Oral Radiology 121. Lab 2 hours. Seminar 1 hour. Conference 2 hours.

Rosenquist, Straub, Danford, Kirkland, Angin, Meadows
Introduces the sophomore dental student to intraoral radiographic techniques. Through use of mannequins, provides basic radiographic experiences necessary for transitions to the clinics. Equals the lab exercises required by the California Board of Dental Examiners for radiation safety. STOMATOLOGY

131. Radiographic Interpretation. (1) Sp. Prerequisite: Oral Radiology 121. Lecture 1 hour.
Kircos

Course is a continuation of Oral Radiology 121 and is intended to broaden the scope of radiographic interpretation. Additional aspects concerning radiation biology are also included. STOMATOLOGY

159. X-Ray Technique. (1) W. Lab 3 hours.

Rosenquist
A course in intraoral X-ray technique including instruction in the long cone paralleling method and practice on mannequins and skulls. STOMATOLOGY

169. Intraoral & Panoramic Radiography. (0-1) F, W, Sp. Prerequisite: Oral Radiology 150 and 159. Clinic 3 hours.

Rosenquist, Straub, Meadows, Danford, Angin, Kirkland, Lezman
Clinical instruction and experience in intraoral and extraoral radiography. STOMATOLOGY

175. Advanced Diagnostic Oral Radiology. (1) W. Lecture 1 hour.
Kircos

Advanced diagnostic oral radiology emphasizing new concepts in the principles of image formation. Introduction to CT, SPECT, MR, and digital imaging and their applications to maxillofacial imaging. STOMATOLOGY

186.01. Advanced Oral Radiology. (0-3) F, W, Sp. Prerequisite: Oral Radiology 121. Approval of Clinic Review Committee. Seminar 1-2 hours. Clinic 0-6 hours.

Parks
Continuation of Oral Radiology 121 and 131 in a seminar teaching format. STOMATOLOGY

199. Laboratory Project. (1-5) F, W, Sp.
Staff
A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. STOMATOLOGY

ORAL SURGERY

109. Clinical Oral Surgery. (0-7½) SS, F, W, Sp. Prerequisite: Third-year standing. For senior rotation, student must have passed Oral Surgery 120, 130A, 130B, 130C, 131 and 132 or have consent from the division chairperson. Clinic variable.

R. Smith
Students learn to recognize and treat common dental and medical emergencies; perform routine exodontia and minor oral surgical procedures; assist on major procedures in operating room setting; utilize common techniques of pain and anxiety control; assist with admission, work-up and discharge of hospital patients. STOMATOLOGY

120. Local Anesthesia. (½) Sp.
R. Smith, Gordon

Course covers local anesthetics and techniques as they pertain to the dentition and oral cavity. STOMATOLOGY

130A. Dentoalveolar Surgery. (1) SS. Prerequisite: Anatomy 117A-B and Microbiology 126A-B. Lecture and seminar.

Gordon, R. Smith
An introduction to the basic principles of exodontia, dentoalveolar surgery, postoperative care, hemorrhage control, and management of common complications. STOMATOLOGY

130B. Pain & Anxiety Control. (1) F. Prerequisite: Anatomy 117A-B and Microbiology 126A-B. Lecture 1 hour.

Gordon, R. Smith

A didactic course outlining the basic principles and techniques of pain and anxiety control in the dental office. Emphasis is on nitrous oxide and oxygen and intravenous sedation. STOMATOLOGY

130C. Diagnosis & Treatment of Pain. (1) W. Prerequisite: Anatomy 117A-B and Microbiology 126A-B. Lecture 1 hour.

R. Smith, Gordon
A didactic course covering current advances in the field of pain and a variety of topics such as physical evaluation of the pained patient, temporomandibular joint dysfunction, myofascial pain, and neuralgic pain. STOMATOLOGY

131. Reconstructive Oral & Maxillofacial Surgery & Implantology. (1) Sp. Prerequisite: Oral Surgery 130A, 130B and 130C or consent of instructor. Lecture 1 hour.
R. Smith, N. Gordon, Kaban, Pogrel, Devlin

Procedural skills and academic knowledge the general dentist should be familiar with: includes preprosthetic surgery and implantology, treatment of developmental and acquired deformities of the jaws, infections, temporomandibular joint, fractures of the jaws and contiguous structures, osteomyelitis. STOMATOLOGY

132. Patient Evaluation in Med Emer. (½) F.
R. A. Smith

Medical evaluation of dental patients and in-depth evaluation and treatment of patients with medical problems. Evaluation and treatment of cardiac arrest. Discussion of emergency drugs and development of an office emergency kit. Demonstrations of parenteral administration of drugs. STOMATOLOGY

171. Applied Surgical Anatomy. (1) F, W, Sp. Prerequisite: Limited to interns and residents. Lab 3 hours.

Pogrel
Relationships of gross anatomical structures of the head and neck are studied during laboratory dissections. Emphasis is placed on the correlation of cadaver dissection findings to diagnosis and operating room surgery. STOMATOLOGY

173. Orthognathic Surgery Seminar. (0-3) F, W, Sp. Prerequisite: Enrollment in oral surgery residency or general practice residency program. Conference 0-3 hours.

Kaban
Residents will participate in evaluation and defining treatment options for patients with facial and dental deformities. STOMATOLOGY

174. Oral Surgery Seminar. (1) F, W, Sp. Prerequisite: Limited to interns and residents. Seminar 1 hour.

R. Smith
Seminar includes presentation of case studies, literature review, clinical pathology presentations, and occasional guest lectures. STOMATOLOGY

175. Advanced Clinical Oral Surgery. (1½ per week) Su. Prerequisite: Limited to oral surgery interns. Hospital and clinic 40 hours.
Kaban

Interns and residents, under supervision, are responsible for preparation of case records, laboratory work, preoperative patient preparation, attendance at surgery, postoperative care, and attendance at follow-up clinics. In addition, senior residents have certain administrative, teaching and clinical responsibilities. STOMATOLOGY

189.04. Advanced Clinical Oral Surgery. (0-16½) Su, F, W, Sp. Prerequisite: Fourth-year standing and approval of departmental chairpersons.

R. Smith, Gordon
Clerkships may be at UC, SFGH, MZ, VA, or at another affiliated institution. Students participate in oral surgery care of hospital inpatients and outpatients, attend seminars and lectures. STOMATOLOGY

199. Laboratory Project. (1-5) F, W, Sp.
Kaban

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. STOMATOLOGY

489.01. Clinical Oral Surgery. (1) F, W, Sp. Prerequisite: Enrollment in dental internship program. Clinic ½ day.

R. A. Smith
Course is designed to teach the dental intern exodontia procedures under close supervision in the oral surgery clinic. The trainee takes responsibility for care of the oral surgery patient including preoperative evaluation, surgery planning, and postoperative care. STOMATOLOGY

ORTHODONTICS

109. Clinical Orthodontics. (0-5) F, W, Sp, SS1, SS2. Prerequisite: Orthodontics 121 and 131A-B. Orthodontics 131B may be taken concurrently.

R. Boyd
Evaluation and treatment of clinical orthodontic problems as experi-

enced in general dental practice. Students will treat problems and refer others to specialists. Observation of specialists' management of the more difficult problems is included. GR DEVEL

121. Development of Occlusion. (1) Sp. Lecture 1 hour.

Vargervik
Course describes the mode of growth of the craniofacial complex. General aspects of growth with clinical implications for the growing child are discussed, including the eruption of teeth and their correlation with facial growth. GR DEVEL

131A-B. Orthodontics in General Practice. (0-3, 0-3) F, W. Prerequisite: Orthodontics 121. Lecture 2 hours F; 1 hour W.

R. Boyd
Recognition and treatment of the problems most commonly seen by the general practitioner. GR DEVEL

160. Orthodontic Concepts. (1) Sp. Lecture 1 hour.

E. West
A discussion of recognition, etiology, and principles of orthodontics for the dental hygienist. GR DEVEL

170A-B-D-E. Orthodontic Diagnosis. (1-1-1-1) SS1, SS2, F, W. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 1 hour.

E. West
Classification, etiology, and diagnosis of malocclusion. The various diagnostic modalities used in patient evaluation and treatment planning will be presented. GR DEVEL

170.01A-B-C. Journal Club. (1-1-1) F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Seminar 1 hour.

E. West
A participation course in the review, analysis, and critical evaluation of the professional literature dealing with orthodontics and its related fields. GR DEVEL

171. Orthodontics in Periodontic Prac. (1) W. Prerequisite: Consent of instructor and enrollment in a postdoctoral specialty program. Lecture 1 hour.

E. West
Course includes orthodontic principles and technics that are applicable in a periodontic practice. GR DEVEL

171.01D. Concepts of Occlusion. (1) SS1. Prerequisite: Enrollment in postdoctoral orthodontic or pedia-

tric dentistry program or consent of instructor. Lecture 1 hour.

I. Nielsen
Various concepts of occlusion and its biological determinants will be discussed as they affect functional problems of the temporomandibular joint. GR DEVEL

171.02A-B-C. Practice Management. (2-2-2) F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontics or pediatric dentistry program or consent of instructor. Lecture 2 hours.

R. Meyer
A survey course intended to prepare the student to deal with the realities of managing an orthodontic practice. Thirty-six topics are explored and discussed by students and faculty. Several visitors representing different areas are invited to present guest seminars. GR DEVEL

171.03. Functional Appliance Therapy. (2) SS1, SS2. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 2 hours.

Scholz
This course is designed to provide the skills necessary to select the appropriate functional appliance, design the appliance, instruct the laboratory in the making of the appliance, and manage the patient's treatment to a successful conclusion. GR DEVEL

172A-B-C-D-E. Evaluation of Facial Form I. (2-2-2-2-2) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 2 hours.

Nielsen, Quinn
Use of diagnostic radiography in the evaluation of dental and facial morphology is presented. Evaluation of morphological relationships, facial growth and development, skeletal maturation, the biological response to treatment modalities, and the complex interrelationship of these factors will be discussed. GR DEVEL

172.01A-B-C. Research Design. (1-1-1) F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 1 hour.

Word, Baumrind
Principles of statistics and research design will be explored. Topics include statistical inference, hypothesis testing, analysis of variance, correlation, and multiple regression. The design of experimental and quasi-experimental research will be discussed and experience in

computer software usage provided.
GR DEVEL

172.02. Independent Research. (0-3) SS1, SS2. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor.

Litt, Baumrind

Independent research experience.
GR DEVEL

172.03A-B-C. Evaluation of Facial Form II. (2-2-2) F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontics or pediatric dentistry program or consent of instructor. Lecture 2 hours.

Nielsen

Course teaches diagnosis, treatment planning, and treatment of all types of malocclusions on a systematic basis. The biologic basis for orthodontic treatment with respect to facial growth and development and the application of differential diagnosis is presented. GR DEVEL

173A-B-C. Orthognathic Surgery Conference. (1-1-1) F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 1 hour.

Litt

Postdoctoral students in orthodontics, prosthodontics, and oral and maxillofacial surgery will participate in evaluating and planning treatment for patients with facial and occlusal deformities requiring combined multidisciplinary therapy. Periodic review and presentation of previously treated patients will be included. GR DEVEL

173.02. Private Practice Seminar. (0-3) F, W, Sp. Prerequisite: First-year postdoctoral Orthodontic program. Seminar 1 hour.

Righellis

This seminar is designed to integrate the second-year residents' postdoctoral orthodontic education with the private practice of orthodontics. GR DEVEL

174. Biomechanics & Tooth Movement. (2) W, SS1, SS2. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 2 hours.

Yoshikawa

Fundamental concepts of force systems will be presented. Included are equilibrium, force equivalency, and free-body analysis. Concepts will be related to orthodontic tooth movement, appliance design, and biological response to force application. GR DEVEL

174.01. Periodontics & Orthodontics. (1-2) F, Sp. Prerequisite: Enrollment in postdoctoral orthodon-

tic or pediatric dentistry program or consent of instructor. Lecture 1-2 hours.

R. Boyd

Current literature in periodontics and orthodontics is reviewed and discussed. Case presentations involving treatment between the two specialists are discussed and evaluated by students and faculty. Emphasis is placed on the advances in preventive procedures and their impact on orthodontic practice. GR DEVEL

174.02. Orthodontic Techniques. (1) SS1, SS2. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lecture 1 hour.

Nielsen

A lecture and participation course designed to familiarize the postdoctoral student with orthodontic appliances, their fabrication, and adjustment. GR DEVEL

175A-B-C. TMJ Pain & Dysfunction Seminar. (0-3) F, W, Sp. Prerequisite: Resident standing in Orthodontics. Seminar 1 hour.

McNeill, Nielsen

This course will provide the resident with the basic cognitive skills for recognizing, diagnosing, and treating patients with TMJ pain, TMJ dysfunction, and craniofacial pain in a "team environment" (i.e., prosthodontist, orthodontist, oral surgeon, psychologist, neurologist, ENT, physical therapist, etc.). GR DEVEL

176A-B-C. TMJ Pain & Dysfunction Clinic. (0-3) F, W, Sp. Prerequisite: Resident standing in Orthodontics. Clinic 3 hours.

West, Nielsen, McNeill

This course will provide the resident with the basic clinical skills for recognizing, diagnosing, and treating patients with TMJ pain, TMJ dysfunction, and craniofacial pain in a "team environment" (i.e., prosthodontist, orthodontist, oral surgeon, psychologist, neurologist, ENT, physical therapist, etc.). GR DEVEL

179.01A-B-C-D-E. Clinical Orthodontics I. (0-7) SS1, SS2, F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontics or pediatric dentistry program or consent of instructor. Lab variable. Clinic 0-21 hours.

Lee

Diagnosis, treatment, and evaluation of clinical postdoctoral orthodontic problems as experienced in modern orthodontic practice. Students will treat patients with a broad spectrum of orthodontic problems. Students will work with other

specialists in the management of complex orthodontic problems. GR DEVEL

179.03A-B-C-D-E. Clinical Orthodontics II. (0-7) SS1, SS2, F, W, Sp. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Lab variable. Clinic 0-21 hours.

Boyd

Diagnosis, treatment, and evaluation of clinical postdoctoral orthodontic problems as experienced in modern orthodontic practice. Students will treat patients with a broad spectrum of orthodontic problems. Students will work with other specialists in the management of complex orthodontic problems. GR DEVEL

179.05A-B-C-D-E. Ortho General Interaction. (1-1-1-1-1) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral orthodontic or pediatric dentistry program or consent of instructor. Clinic 3 hours.

R. Boyd

Evaluation and treatment of clinical orthodontic problems, as experienced in general dental practice. Postdoctoral students will assist and supervise general dental students in the diagnosis, evaluation, and treatment of orthodontic problems. Emphasis is on the relationship between generalist and specialist. GR DEVEL

181. Adv Orthodontics in Gen Practice. (0-3) F, W, Sp. Prerequisite: Orthodontics 131B. Seminar 1 hour.

R. Boyd and Staff

Third- and fourth-year dental students will participate in weekly one-hour discussions of clinical aspects of orthodontic therapy using patient records as a basis of discussion. Students may elect to participate two hours per week in off-campus seminars. GR DEVEL

ORTHOPAEDIC SURGERY

First-Year Coordinated Instruction—Medicine 131A-B-C. Lecture-demonstrations and section work devoted to the supervised examination of patients.

Core Clerkship—Surgery 110 and 111 include seven to eight orthopaedic lectures, case presentations, and outpatient clinic assignments. Students are given instruction in methods of examination of patients with musculoskeletal disorders with emphasis on diagnosis and principles of treatment.

140.01A-B-C-D. Clin Clkshp—UC-SFGH-SFGH ER-VA. (1½ per week) Su, F, W, Sp. Prerequisite:

Surgery 110 and 111. Must be a senior.

W. Murray, Day, Maurer

Students, assigned to inpatient and outpatient services, receive instruction and experience in examination and treatment of patients. Assistance in surgery and in use of treatment modalities is required. Clinical demonstrations, seminars, and conferences form the basis for didactic instruction. ORTHO SURG

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111.

W. Murray

Orthopaedic surgery clinical clerkships are offered in off-campus hospitals approved by the chairperson of the department and the dean. ORTHO SURG

140.03. Rehabilitation Medicine—S & VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or Pediatrics 110.

Carpendale

Course will provide knowledge and skills in electrodiagnosis, neurologic rehabilitation, spinal cord injury, closed head trauma, the rheumatoid patient, orthopaedic rehabilitation, hazards of bed rest, and acute and chronic low back pain. ORTHO SURG

150.01. Research in Orthopaedic Surgery. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111 and permission of instructor.

Day

Research project under direction of a member of the faculty. ORTHO SURG

160.01. Fracture Conference. (1) Su, F, W, Sp. Conference 1 hour.

Skinner

Fracture conference on patients admitted to the emergency room, with emphasis on X-ray findings and treatment modalities. ORTHO SURG

401. Orthopaedic Pathology. (1) F, W, Sp. Prerequisite: Third- and fourth-year residents.

UC J. Johnston

A lecture series covering tumors and infections of the musculoskeletal system, illustrated by microscopic slides and photographs of gross specimens. ORTHO SURG

402. Musculoskeletal System Physiol. (1) F, W, Sp.

UC Day

Seminars cover connective tissue metabolism; muscle, bone, and joint physiology; preoperative and postoperative management of patients; wound infections; microbiology; and surgical principles. ORTHO SURG

403. Gross & Functional Anatomy. (1) F, W, Sp.

UC Day

Course includes lectures by students and faculty on gross and functional anatomy, laboratory dissections of cadaver material and demonstrations of surgical approaches. ORTHO SURG

404. Orthopaedic Literature. (1) F, W, Sp. Residents at C, RDMC, SFGH, SSF, UC and VA.

UC Day

Seminars are student presentations of selected orthopaedic surgery subjects featuring historical review complete with bibliography. They are moderated by an assigned faculty member. ORTHO SURG

406. Orthopaedic Medical Staff Conf. (1) Su, F, W, Sp.

UC W. Murray

Clinical instruction in the care and management of orthopaedic problems in rheumatoid arthritis and allied diseases. Cases are presented by residents to attending staff and rheumatology consultants. ORTHO SURG

407. Orthopaedic Surgical Conference. (1) Su, F, W, Sp.

H Slabaugh

Seminars include presentation of problem cases by residents for consideration of diagnosis, treatment, and discussion by the attending staff. ORTHO SURG

408. Orthopaedic Surgical Conference. (1) Su, F, W, Sp.

SFGH L. Day

Selected problems are illustrated by cases treated or under treatment. Cases are presented by the resident staff and discussed by members of the attending staff. ORTHO SURG

409. Orthopaedic Surgical Conference. (1) Su, F, W, Sp.

SSF Ashley

Conference with emphasis on children's problems in which residents make case presentations of inpatients for review and of new patients for consideration of diagnosis and therapeutic plan. ORTHO SURG

411. Orthopaedic Surgical Conference. (1) Su, F, W, Sp.

VA Maurer

Conference includes review of admissions and discharges of hospitalized patients by the attending and consulting staffs. Cases are presented by the residents. ORTHO SURG

412. Orthopaedic Clinical Seminar. (1) Su, F, W, Sp.

CHMC Debenham, H Slabaugh, SM Jensen

Seminars are held in rotation at each of these hospitals with residents from all three hospitals attending. They include literature review and demonstrations related to surgical approaches, anatomical dissections, diagnosis and treatment. ORTHO SURG

413. Orthopaedic Surgical Conference. (1) Su, F, W, Sp.

Staff

Residents prepare and present case histories of inpatients and selected outpatients. Course includes discussions on diagnostic procedures, indications for surgery, immediate postoperative follow-up, and problem cases (consultations). ORTHO SURG

414. Hand Surgery Conference. (1) Su, F, W, Sp.

L. Gordon

Conference includes presentation of case studies in hand surgery with central subject for each session. ORTHO SURG

450. Clinical Adult Orthopaedics. (1½ per week) Su, F, W, Sp.

RDMC Bloom, PMC McCarroll, KP J. Johnston, MZ Glick, UC W. Murray

Residents are responsible for patient care in the wards and outpatient clinics including history-taking, physical examinations, laboratory tests, elective surgery, fracture treatment, plaster techniques, and consultations. ORTHO SURG

451. Clinical Pediatric Orthopaedics. (1½ per week) Su, F, W, Sp.

C L. Larsen, CHMC Debenham, SSF Ashley

Residents are responsible for patient care in the wards and outpatient clinics including history-taking, physical examinations, laboratory tests, elective surgery, fracture treatment, plaster techniques and consultations. ORTHO SURG

452. Traumatic & Adult Orthopaedics. (1½ per week) Su, F, W, Sp.

SFGH L. Day, SM Jensen, VA-Maurer, H Slabaugh

Residents are responsible for patient care in the wards and outpatient clinics including history-taking, physical examinations, laboratory tests, elective surgery, fracture treatment, plaster techniques, and consultations. ORTHO SURG

453. Clinical Orthopaedics. (1½ per week) Su, F, W, Sp. Chief resident.

UC W. Murray

Under faculty supervision, the chief resident organizes care and referral of staff patients; supervises a weekly follow-up clinic; administers the teaching-bed fund; independently performs operative procedures

in selected cases; advises interns, residents, and fourth-year medical students; participates in paramedical teaching. ORTHO SURG

455. Clinical Sports Medicine. (1) Su, F, W, Sp.

J. Glick and Staff

Clinical instruction in the care and management of orthopaedic problems in athletic injuries. Course consists of clinical practice under supervision as well as didactic lectures every third week. ORTHO SURG

490. Clinical Orthopaedics-SFGH. (1½ per week) Su, F, W, Sp. SFGH L. Day

Residents-I rotate through orthopaedic wards and follow-up clinics. They are responsible for patient care under the direction of the attending staff, including history-taking, physical examinations, X-ray conferences, and consultations. ORTHO SURG

OTOLARYNGOLOGY

First-Year Coordinated Instruction—Medicine 131A-B-C. Lecture-demonstrations and section work devoted to the supervised examination of patients.

Core Clerkship—Surgery 110 and 111 include lectures and case demonstrations on the examination and diagnosis of otolaryngological diseases, particularly those related to trauma and infection. Instruction is given in the examination and diagnosis of ward and clinic patients with otolaryngological surgical diseases.

140.01A. Adv Otolaryngology Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and Surgery 110.

Boles

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered. OTOLARYN

140.01B. Adv Otolaryngology Clerkship—VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and Surgery 110. Kaplan

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered. OTOLARYN

140.01C. Adv Otolaryngology Clerkship—SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and Surgery 110. Wildes

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered. OTOLARYN

140.01D. Adv Otolaryngology Clerkship—L. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and Surgery 110.

R. Wong

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered. OTOLARYN

140.01E. Adv Otolaryngology Clerkship—NRM. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and Surgery 110. Staff

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered. OTOLARYN

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C and Surgery 110.

Boles

Clinical clerkships in off-campus hospitals approved by the chairperson of the department and the dean. OTOLARYN

140.03. Otology and Neurotology. (1½ per week) Su, F, W, Sp. Prerequisite: Third or fourth year (fourth preferred).

Jackler, Schindler

A course in basic audiometric and vestibular testing; diagnosis and management of diseases of the ear and skull base; and experience with surgery for hearing restoration, treatment of vertigo, and for removal of ear and skull base neoplasms. OTOLARYN

198. Supervised Study. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

R. Schindler

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. OTOLARYN

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Merzenich

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. OTOLARYN

400. Didactic Lectures. (2) Su, F, W, Sp.

Sooy

Lectures cover the anatomical, physiological, and clinical aspects of otolaryngology. OTOLARYN

401. Head & Neck Surgical Anatomy. (1) Su. Seminar 2 hours. Kaplan

Didactic sessions in the surgical anatomy of the head and neck. Supplemental dissections included. OTOLARYN

404. Staff Rounds. (2) Su, F, W, Sp.

Boles

Weekly seminars are held with discussion of current problems concerning diagnosis and management of patients with references to current literature, modern theory, and controversial aspects. OTOLARYN

406. Tumor Conference. (1) Su, F, W, Sp. UC Kaplan

Conference includes presentation of patients, study of histories, and discussion of the treatment of the patient in light of modern progress in the field. OTOLARYN

407. Head & Neck Plastic Surgery. (1) Sp. Seminar 2 hours. Wildes

Basic science and clinical aspects of cosmetic facial surgery and reconstructive surgery of the head and neck are covered in a weekly one-hour seminar. Slide presentations, videotape movies, didactic lectures, and anatomic dissections constitute the curriculum. OTOLARYN

410. Temporal Bone Anat & Pathology. (½-½) F. Laboratory 2 hours. Jackler

A laboratory course conducted in the ear, nose, and throat pathology laboratory. All resident staff members are required to familiarize themselves thoroughly with the microscopic anatomy of the temporal bone under formal staff instruction. OTOLARYN

412. Tumor Board. (1) Su, F, W, Sp.

VA Kaplan

Tumor cases are presented for diagnosis and recommendations for treatment. OTOLARYN

413. Audiology Conference. (1) Su, F, W, Sp.

VA Kaplan

Combined Audiology and Otolaryngology Staff Conference where all patients evaluated for hearing problems are presented, and diagnosis and treatment recommendations are made. OTOLARYN

415. Otolaryngology Fundamentals Course. (1) W. Seminar 2 hours.

Jackler, Kaplan, Sooy

A review of fundamental principles of otolaryngology head and neck surgery, encompassing both the basic and clinical sciences. This course is intended as a comprehensive review for the yearly "in service" training examination as well as preparation for board certification. OTOLARYN

450. Clinical Otolaryngology. (10) Su, F, W, Sp.

UC Boles, SFGH Wildes, VA Kaplan, C P. Bartlett

Residents, under supervision, are responsible for patient care in the wards and outpatient clinics including history-taking, physical examination, laboratory tests, preoperative and postoperative care, minor surgery, audiometry, vestibular testing, and consultations. Senior resident has certain administrative, teaching, and clinical responsibilities. OTOLARYN

490. Clinical Otolaryngology—SFGH. (1½ per week) Su, F, W, Sp.

Wildes

Interns, under supervision of the attending staff, are responsible for patient care on wards and in the follow-up clinic, including history-taking, examination, and consultation. This rotation is combined with patient-care assignments in the Ophthalmology Service. OTOLARYN

PARASITOLOGY

135. Medical Parasitology. (3) W. Lecture 2 hours. Lab demonstration 2 hours.

Heyneman and Staff

An introduction to the protozoa, helminths, and arthropods that parasitize man. Parasite ecology and disease epidemiology, clinical and diagnostic aspects of parasite diseases and their treatment are considered in lecture and laboratory. Emphasis in the laboratory is on demonstration. EPID INTL HLTH

PATHOLOGY

101. General & Systemic Pathology. (4) F. Prerequisite: Substantive

courses in anatomy, biochemistry, physiology, histology, microbiology (or concurrent enrollment), concurrent enrollment in Medicine 132A. If in doubt as to adequacy of preparation, consult the instructor. Lecture 3 hours. Lab 2 hours. Bottles

Mechanisms and language of disease are discussed, with emphasis on cell injury, inflammation, infectious agents, repair, regeneration, hemodynamic derangements, neo-

plasia. Recent advances and classical concepts of diseases as they affect the heart and blood vessels, lungs, gastrointestinal tract are presented. PATHOLOGY

102. Systemic Pathology. (3) W. Prerequisite: Pathology 101. Lecture 3 hours. Lab 2 hours.

Bottles

Recent advances and classical concepts of diseases as they affect the following organ systems are presented: pancreas, liver, central nervous system, kidney, endocrine system, skin. Emphasis will be on correlation of functional and morphologic characteristics of diseases of organ systems. PATHOLOGY

103. Systemic Pathology. (3) Sp. Prerequisite: Pathology 102. Lecture 3 hours. Lab 2 hours.

Bottles

Recent advances and clinical concepts of diseases as they affect the following organ systems are presented: reproductive systems, skeletal system, hematopoietic system, and lymph nodes. Emphasis will be on correlation of functional and morphologic characteristics of diseases of organ systems. PATHOLOGY

126. General Pathology. (5) § F. Prerequisite: Substantive courses

in biochemistry, physiology, histology, microbiology (first quarter, concurrent) or an introduction to immunology. If in doubt as to adequacy of preparation, consult the instructor. Lecture 3 hours. Lab 6 hours.

Biava and Staff

Mechanisms and language of disease are discussed, with emphasis on the dynamic nature of fundamental disease processes: cell injury, immunopathology, inflammation, responses to infectious agents, repair, regeneration, hemodynamic derangements, genetic disorders, disturbances of cell growth, and neoplasia. PATHOLOGY

127. General Pathology. (2) F. Prerequisite: Courses in biochemistry, physiology, histology, microbiology, and an introduction to immunology. Lecture 4 hours for five weeks.

Biava and Staff

Mechanisms of disease are discussed, with emphasis on the dynamic nature of fundamental disease processes: cell injury, immunopathology, inflammation, responses to infectious agents, repair, regeneration, hemodynamic derangements, disturbances of cell growth, and neoplasia. PATHOLOGY

135. General Pathology. (3) F. Prerequisite: Substantive courses in

biochemistry, physiology, histology, microbiology (first quarter, concurrent) or an introduction to immunology. If in doubt as to adequacy of preparation, consult the instructor. Lecture 3 hours.

Biava

This course is identical to the lecture portion of Pathology 126. PATHOLOGY

150.01. Autopsy Dissection Principles. (1½ per week) Su, F, W, Sp. Prerequisite: Pathology 101. Consent of instructor. Enrollment limited.

Warnock

Performance of one to two autopsies. Emphasis will be on review of normal anatomy and histology and systematic observations and descriptions of pathologic material. Objective of the course is to provide a better understanding of clinical pathologic correlations. PATHOLOGY

150.02. Off-Campus Pathology Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Pathology 101 and 102.

Bainton

Clinical clerkships in off-campus hospitals approved by the chairperson of the department and the dean. PATHOLOGY

150.03. Pathology Clerkship—SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Pathology 102 and consent of instructor.

Margaretten, Howes, Bottles

Students prepare surgical specimens, perform autopsies under supervision, and participate in teaching conferences. PATHOLOGY

150.04. Pathology Clerkship—UC & VA. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Surgery 110. Consent of instructor.

Staff

Students work closely with the faculty and house staff in the performance of autopsies and in the diagnostic work-up of surgical specimens. They actively participate in departmental conferences and seminars. Opportunity provided for development of specific areas of investigation. PATHOLOGY

150.05. Research. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor and chairperson of the department.

Staff

A research project under the direction of a member of the faculty. PATHOLOGY

150.06. Surgical Pathology—VMC. (1½ per week) F, W, Sp. Prerequisite: Pathology 102 and consent of instructor.

H. M. Price, Bezmalinovic
Clerkship is designed to acquaint students with available techniques of tissue analysis, from light microscopic to micromolecular levels, and their application in diagnosis and surgical care. Experience includes postmortem examination, review of surgical biopsies and frozen sections, electron microscopy.
PATHOLOGY

170.01. Clinical Cytology. (3) Sp. Prerequisite: Anatomy 102, Pathology 101 and 102.

E. King, E. Hill

Lectures on basic fundamentals of cytology, normal cells, malignant cells, abnormal non-malignant cells, collection, and preparation methods. Microscopic examination of specimen and correlation of cellular and tissue pathology with colposcopic and clinical findings on examination of the patient.
PATHOLOGY

170.04. Anatomy Pathology Conference. (1) F, W, Sp. Prerequisite: Medicine 110 and Surgery 110. Conference 1 hour.

Staff

Presentation of selected current cases seen in the hospital pathology laboratory. Discussion of pathological findings, and correlation with clinical and radiologic findings, and treatment. **PATHOLOGY**

170.05. Neuropathology. (2) W. Prerequisite: Pathology 102. Third- or fourth-year standing. Lecture and seminar 2 hours.

D. Davis, DeArmond

Emphasis is placed on clinicopathological correlation of neurological diseases by means of study of gross and microscopic material and participation in conferences.
PATHOLOGY

170.08. Studies in Pathology. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor and chairperson of the department.

Staff

Studies in pathology at other institutions with the approval of the chairperson of the department.
PATHOLOGY

180.01. General Pathology. (3) F. Prerequisite: Anatomy 118. Lecture 3 hours.

Biava and Staff

This course is identical to the lecture portion of Pathology 126. Elective in the dental hygiene curriculum. **PATHOLOGY**

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.
PATHOLOGY

199. Laboratory Project. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. **PATHOLOGY**

209. Applied Pathology. (3) § W. Prerequisite: Microbiology 126A-B and Pathology 126 or equivalents.

J. Greenspan

Weekly seminars are designed to provide students with an understanding of the basic principles of pathology. Emphasis is placed on research; students will critically review current literature in the field, under faculty supervision.
PATHOLOGY

215. Laboratory Rotation. (3) § F, W, Sp. Prerequisite: Consent of instructor. Lab 9 hours.

Parslow

A laboratory rotation course, to familiarize students with various approaches to experimental pathology and research in the basic medical sciences, particularly in relationship to human disease processes. Intended primarily for new graduate students. **PATHOLOGY**

225. Connective Tissue Research Sem. (4) § F, W, Sp. Seminar 4 hours.

R. Stern

Students and faculty review literature and discuss current concepts and experiments in connective tissue research. Included are role of structural proteins, such as collagen and elastin in pathology, cell matrix, interactions in developmental biology and morphogenesis.
PATHOLOGY

230. Experimental Pathology Seminar. (2) § F, W, Sp. Prerequisite: Permission of the graduate advisor of the department. Lecture 1 hour. Seminar 1 hour.

Parslow

Presentation of current research by graduate students. Topics in pathology and disease mechanisms. Faculty from basic and clinical sciences will discuss current research in a disease process. Advanced reading in that disease will be assigned before class. There will be formulation of test-hypothesis and discussion of an experimental design lead by a student leader at each session.
PATHOLOGY

250. Research. (1-8) § F, W, Sp. Staff

PATHOLOGY

297. Molecular Biology of Human Disease. (3) § Sp. Prerequisite: Open to graduate students, house-staff, and SMSTP students. Lecture 1 hour, seminar 2 hours.

McKerrow

The course is designed to provide students with an up-to-date summary of our knowledge of atherosclerosis with particular emphasis on application of techniques of molecular and cell biology to understand both the pathogenesis and genetics of the disease. **PATHOLOGY**

298. Thesis. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree. **PATHOLOGY**

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. **PATHOLOGY**

301. Teaching Practicum. (3) F, W, Sp. Prerequisite: Consent of instructor. Lecture 3 hours. Lab 2 hours.

Warnock, Margaretten

Practice in teaching pathology under faculty supervision. Students supervise laboratory work, conduct conferences, and assist in preparing and grading examinations. Responsibilities are assigned according to the individual's stage of development. **PATHOLOGY**

400. Pathology & Lab Med Seminar. (1) F, W, Sp. Interns and residents. Prerequisite: Medicine 110 and Surgery 110 or consent of instructor. Seminar 1 hour.

Staff

Recent developments in diagnosis and research in pathology and laboratory medicine are discussed by faculty and guest speakers.
PATHOLOGY

401. Special Topics Seminar. (Units to be arranged) Su, F, W, Sp. Interns and residents.

Staff

Seminars focusing upon the pathology of specific organ systems are conducted by specialists. Emphasis is on the correlation between clinical manifestations of the disease and pathologic findings.
PATHOLOGY

402. Pathology Research. (1-8) Su, F, W, Sp. Interns and residents. Staff

Students, under supervision, pursue original investigation in pathology and allied subjects. Investigators review the literature, make observations, and correlate physiological with pathologic concepts.
PATHOLOGY

405. Dermatopathology. (2) F, W, Sp. Prerequisite: Pathology 101 or equivalent by consent of instructor. Lab 2 hours. Seminar 1 hour.

Sagebiel

Survey of inflammatory and neoplastic skin diseases by study of histopathological changes and discussion with emphasis on clinical-pathologic correlations.
PATHOLOGY

450. Pathologic Anatomy. (5-10) Su, F, W, Sp. Required for interns; elective for residents.

Staff

Theory and methodology of pathologic anatomy, interpretation and correlation of data, and study of literature. **PATHOLOGY**

455. Electron Microscopy Seminar. (1) W. Prerequisite: Medicine 110 and Surgery 110 and consent of instructor. Lecture 1 hour. Elective for interns and residents.

Staff

Course covers basic electron microscopic techniques, indications for use of electron microscopy in pathologic diagnosis, and the specific ultrastructural features of normal and diseased tissue. Emphasis is placed on renal biopsy and tumor diagnosis. Documented attendance is required. **PATHOLOGY**

495. Pathologic Anatomy. (1½ per week) Su, F, W, Sp. Required for interns.

Staff

Theory and methodology of pathologic anatomy, interpretation and correlation of data, and study of literature. **PATHOLOGY**

PEDIATRIC DENTISTRY

109.01A-B-C. Clinical Rotation. (0-1) F, W, Sp. Prerequisite: Third-year standing. Clinic 30 hours.

M. Morris and Staff

Clinic rotation will introduce students to examination of the child patient, treatment planning, prevention instruction, dietary analysis and counseling, and performing operative procedures. Proper management of the child patient will be stressed. **GR DEVEL**

109.02A-B-C-D-E. Clinical Rotation. (0-2) F, W, Sp, SS1, SS2. Prerequisite: Fourth-year standing and satisfactory completion of Restorative Dentistry 139. Clinic 0-60 hours.

M. Morris, Braham and Staff

Oral examination, treatment planning, treatment of children including behavioral management. Time will be spent at UCSF Pediatric Dental Clinics and Children's Hospital Medical Center, Oakland. Course will involve clinic, seminar, and treatment in hospital operating room with general anesthetic.
GR DEVEL

130B-C. Pedodontic Procedures. (1, 2) W, Sp. Prerequisite: Satisfactory completion of Operative Dentistry 125 A-B-C. Lecture W. 1 hour; Sp. 2 hours

Leggott

Lecture course presenting dental procedures unique to, or modified to meet, the needs of the child. Examination, diagnosis, treatment planning, pain control and management, restorative procedures, preventive orthodontics, diet analysis, and caries control are stressed.
GR DEVEL

170D-E. Intro to Ped Dent. (2-2) SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Lecture 2 hours.

Leggott and Staff

Course is offered to the incoming postdoctoral student as an introduction to the philosophies and techniques of rendering clinical treatment to patients in pediatric dentistry. **GR DEVEL**

171A-B-C-D-E. Advanced Ped Dent Sem. (5-5-5-5-5) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry or orthodontic program or consent of instructor. Seminar 5 hours.

Leggott and Staff

Will discuss the state of the art of all aspects of contemporary pedodontic diagnosis and treatment. The instruction embraces not only a review of historical perspectives but also research and clinical essays in current diagnostic activities and treatment modalities.
GR DEVEL

172D-E. Pediatric Physical Diagnosis. (1-1) SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Lecture 1 hour.

Rothman

Course is designed to provide knowledge of clinical pediatrics. It will include didactic and clinical experiences in history-taking and physical diagnosis. **GR DEVEL**

172.11A-B-C. Pediatric Medicine. (1-1-1) F, W, Sp. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Seminar 1 hour.

Rothman

Course will provide information on various topics of health care of children. Emphasis will be placed on the etiology, diagnostic procedures, prognosis, and management of common pediatric conditions.
GR DEVEL

173C. Clinical Uses of Fluorides. (2) Sp. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Lecture 1 hour. Seminar 1 hour.

Leggott
Course gives a comprehensive update on the clinical uses of fluoride in pediatric dentistry. It is a combined lecture and seminar course. A term paper on an assigned topic is also required. **GR DEVEL**

173.11B-C. Dentistry for the Disabled. (1-1) W, Sp. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor.

Braham and Staff

Course provides knowledge of the congenital and acquired disabilities in children and adolescents. There is emphasis on the etiology, diagnosis, medical, and dental management, and prognosis of these conditions. **GR DEVEL**

174A-B-C-D-E. Lit Survey in Ped Dent. (1-1-1-1-1) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry or orthodontic program or consent of instructor.

Barkin and Staff

Course reviews the latest issues of pediatric dentistry and related journals and critically evaluates the philosophies, clinical treatment, and applications to the practice of dentistry for the child patient.
GR DEVEL

176A-B-C-D-E. Practice Teaching. (1½-1½-1½-1½-1½) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Seminar 1 hour. Clinic 1½ hours.

M. Morris and Staff

Student teaches junior and senior dental students in the pediatric dentistry clinics. In addition, the student will teach selected topics in a seminar format. **GR DEVEL**

177A-B-C-D-E. Hospital Dentistry. (3-3-3-3-3) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Seminar 1 hour. Clinic 6 hours.

Rothman and Staff

Course is specifically designed to provide the student with a working knowledge of dental rehabilitation procedures in a hospital operating

room under general anesthesia and the associated hospital protocol. GR DEVEL

177.11A-B-C-D-E. Conscious Sedation. (1½-1½-1½-1½-1½) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Lecture 1 hour. Clinic 1½ hours.

Rothman and Staff

A multiplicity of medications, routes of administration, and monitoring techniques will be employed under the direct supervision of a faculty person. The student will administer the medications and monitor the patients before, during, and after the procedure. GR DEVEL

178A-B-C-D-E. Research Seminar. (2-2-2-2-2) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry or orthodontic program or consent of instructor. Lab 3 hours. Seminar 1 hour.

Leggott and Staff

Course will cover how to critically review research literature and do a term paper on a selected subject. It will discuss research methodologies and the development of a protocol and completion of a research project. GR DEVEL

179A-B-C-D-E. Advanced Clinical Ped Dent. (1-10) F, W, Sp, SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry program or consent of instructor. Clinic 3-30 hours.

M. Morris and Staff

Course covers the clinical activities of the student and has the broad objective of providing a wide experience in all phases of contemporary pedodontic diagnosis and treatment. Students must demonstrate clinical competencies in care for the special child. GR DEVEL

179.12D-E. General Anesthesia Rotation. (4-4) SS1, SS2. Prerequisite: Enrollment in postdoctoral pediatric dentistry or orthodontic program or consent of instructor. Clinic 30 hours.

Rothman and Staff

A practical rotation in the operating room of the Children's Hospital Medical Center of Northern California is provided under the supervision of senior staff anesthesiologist. GR DEVEL

180.01C. Advanced Ped Dent Seminar. (½) Sp. Prerequisite: Completion of third-year pediatric dentistry lecture series. Approval of the Dean. Lecture ½ hour.

Barkin and Staff

Seminars on advanced pediatric dentistry involving anesthesiology,

oncology and hematology, periodontology, diagnosis, practice management, future ideas, and ethics. Designed for students interested in advanced study and those considering pediatric dentistry as a specialty. Counseling is provided for postdoctoral education. GR DEVEL

180.02A-B-C-D-E. Pediatric Hospital Dentistry. (0-3) S, F, W, Sp. Prerequisite: Satisfactory progress in all previous pediatric dental courses. Seminar 3-5 hours per week in Hospital O.R.

Braham

Experience is provided in history-taking, admissions procedures, hospital dental protocol, laboratory tests, and chart documentation. Opportunity to work with the instructor in the hospital operating room, providing care for the handicapped and other refractory management cases, using a general anesthetic. GR DEVEL

PEDIATRICS

100. Medical Genetics. (2) F. Lecture 2 hours.

C. Epstein

Basic aspects of human genetics are presented in a context relevant to the diagnosis, treatment, and counseling of genetic disorders and congenital malformations. Emphasis is placed on the application of genetic knowledge to actual counseling problems. PEDIATRICS

110. Ped Core Clerkship—UC-SFGH-L-C. (1½ per week) Su, F, W, Sp. Prerequisite: Core curriculum in basic sciences.

Dallman

Practical experience in the ward, newborn nursery, and outpatient clinics with emphasis on case assignments. Teaching and supervision by attending and resident staffs. Required seminars cover aspects of pediatrics, infectious diseases, and child psychiatry. PEDIATRICS

140.01. Advanced Pediatric Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Dallman

Advanced clerkship including: Normal newborn and IC Nursery; OPD Acute Care Unit; Inpatient at UC; OPD at SFGH; Outpatient clinics at I; Inpatient and outpatient at CHMC; Inpatient and outpatient at NRM. PEDIATRICS

140.01A. Ambulatory Pediatrics—UC. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Pantell

Students gain experience in well child care and in dealing with children with acute problems. Emphasis is placed on health maintenance, preventive care and anticipatory guidance. Conferences focus on general pediatric issues and a review of patients seen in the emergency room. PEDIATRICS

140.01B. Ambulatory Pediatrics—SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Brown, Coulter, O'Connor

Students evaluate and treat children with a variety of acute and chronic conditions. Patients with a high degree of acuity. There are morning conferences and ER case reviews. Supervision is provided by senior residents, chief resident, and faculty. PEDIATRICS

140.01D. Outpt Pediatric Clerkship—CHMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Gerdsen

Students are assigned patients. They are supervised by attending and resident staff. They attend conferences when their patients are being discussed. They rotate through a variety of specialty clinics as well as the General Medical Clinic and the Emergency Room. PEDIATRICS

140.01E. Adv Inpt Pediatric Clerkship—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Gerdsen

Students are assigned patients. They are supervised by attending and resident staff. They present patients on wards, assist with procedures, and attend specialty conferences when their patients are being discussed, as well as all daily formal teaching conferences. PEDIATRICS

140.01F. Outpt Pediatric Clerkship—KP. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Burnip

Students are assigned patients under supervision of attending and resident staff. They present patients on wards, assist with procedures, and attend specialty conferences for discussion of patients. PEDIATRICS

140.01G. Inpatient Pediatric Clerkship—K. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Shinefield

Students are assigned patients under supervision of attending and resident staff. They present patients on wards, assist with procedures, and attend specialty conferences for discussion of patients. PEDIATRICS

140.01H. Outpatient Pediatric Clkshp—NRM. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Van Meter

Students are assigned patients under supervision of attending and resident staff. They present patients on wards, assist with procedures, and attend specialty conferences for discussion of patients. PEDIATRICS

140.01I. Inpatient Pediatric Clkshp—NRM. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Van Meter

Students are assigned patients under supervision of attending and resident staff. They present patients on wards, assist with procedures, and attend specialty conferences for discussion of patients. PEDIATRICS

140.01J. Intensive Care Nursery—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Phibbs

Students gain experience in evaluation and management of sick pre-term and term infants. Supervision is provided, and it is expected that students will assume the role of primary physician in matters of clinical decision-making as well as diagnostic and therapeutic procedures. PEDIATRICS

140.01K. Neonatology—SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Partridge, D. F. Wong

Students develop skills in assessment of newborns in the setting of a high-risk patient population. The experience involves care of patients, ranging from the healthy term newborn to the infant requiring intensive supportive care. PEDIATRICS

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Rudolph

Clinical clerkship in off-campus hospitals approved by the chairperson of the department and the dean. PEDIATRICS

140.03. Outpatient Pediatrics—VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

McCann

Experience caring for sick and well children with 27,000 patient visits/year. Preventive medicine and anticipatory guidance along with principles of growth and development. All activities closely supervised by either senior residents or faculty. Daily morning conferences, chart rounds, assigned readings. PEDIATRICS

140.04. Pediatric Cardiology. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Open to UCSF students only.

Silverman

Experience in clinical evaluation of children with cardiac abnormalities is emphasized. Daily ward rounds on pediatric cardiology patients, attendance at designated cardiac surgical procedures, catheterization, weekly catheterization conference, extensive reading assignments, and daily attendance in private office setting are included. PEDIATRICS

140.05. Pediatric Private Practice. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor. Open to UCSF students only.

L. P. Smith

Working experience with a pediatrician on the clinical faculty as the pediatrician sees patients in the office and in the hospital. Student may select time in small group, large group or subspecialty practice, or a combination of these. PEDIATRICS

140.06. Adolescent Medicine. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Gareis

Clinical clerkship in adolescent medicine with emphasis on outpatient clinical experience in a wide range of health problems of the adolescent. PEDIATRICS

140.07. Developmental Pediatrics in Fresno. (1½ per week) W, Sp. Prerequisite: Pediatrics 110.

D. M. Snyder

Students learn to identify children with developmental disabilities and direct their remediation to allow for achievement of their greatest potential. Various settings are used in acquiring skills in developmental assessment. PEDIATRICS

140.08. Ambulatory Pediatrics. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

J. E. Anderson

Clinical experience in teaching hospital's busy pediatric clinic, working as member of health care team. Supervision from attending physicians with emphasis on developmental/behavioral approach to pediatric practice. Continuity of care is encouraged and opportunity exists to follow patients admitted to ward. PEDIATRICS

behavioral approach to pediatric practice. Continuity of care is encouraged and opportunity exists to follow patients admitted to ward. PEDIATRICS

140.10. Pediatric Hematology—UC-SFGH—CHMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor. Open to UCSF students only.

Koerper, Lubin, Mentzer

The student will participate in ward rounds, outpatient clinic, and laboratory evaluation of blood and bone marrow specimens. The pursuit of special interests in the clinic or laboratory is encouraged. PEDIATRICS

140.11. Cardiology—CHMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Higashino

Students participate in clinical experience including outpatient evaluation, instruction in the noninvasive methods of diagnosis, care of ward medical and surgical cardiac patients, cardiopulmonary laboratory, and cardiovascular conferences. Emphasis is on the physiological principles of diagnosis and management. PEDIATRICS

140.13. Endocrinology—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Grumbach, S. L. Kaplan, F. Conte

Participation in the clinical and investigative aspects of endocrine and metabolic problems in children. Students spend time in the laboratory, on the wards, and in the clinics. PEDIATRICS

140.14. Juvenile Diabetes. (1½ per week) Su. Prerequisite: Medicine 110 and Pediatrics 110.

Olney

Work under the direction of the instructor in Diabetic Camp, clinical and management aspects of diabetes. Students have an opportunity to participate in the operation of the camp program and treatment of many aspects of diabetes in children, adolescents, and young adults. PEDIATRICS

140.15. Oncology—UC. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Ablin, K. Matthey, Zoger

Participation in management of patients with solid tumors and leukemia; attendance at pediatric tumor board, ward rounds and outpatient clinic. Special emphasis on psychosocial problems; supervised reading

and discussion with preceptor.
PEDIATRICS

140.16. Pediatric Nephrology—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.
D. E. Potter

Introduction to general nephrology with children having nutritional problems, ESRD, and chronic renal failure. Post-transplant and dialysis consultations, new cases from the nursery, and cases requiring TPN. Research projects may be arranged with instructors.
PEDIATRICS

140.17. Genetics—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

C. Epstein, D. Cox

Evaluation and management of children and adults with hereditary (including cytogenetic) diseases, with particular emphasis on genetic counseling, patterns of human malformation, and the biochemical and genetic mechanisms involved in the pathogenesis and transmission of these conditions.
PEDIATRICS

140.19. Advanced Inpatient Pediatrics—C. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Giammona

Students participate in patient care in close association with the house staff and clinical fellows, both in wards caring for sick children and in Newborn Intensive Care Unit, and in rounds and conferences conducted by senior staff.
PEDIATRICS

140.20. Advanced Outpatient Pediatrics—C. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Giammona

Students participate in the comprehensive care of children. Experience with various illnesses is provided in appropriate specialty clinics. A wide variety of child care problems will be seen during visits to offices of senior pediatricians participating in the program.
PEDIATRICS

140.21. Allergy—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

Frick

Participation in the activities of allergy-immunology trainees, including basic clinical immunology course, journal club, and seminars.
PEDIATRICS

140.23. Neonatal Care—C. (1½ per week) Su, F, W, Sp. Prerequisite:

Medicine 110 and Pediatrics 110. Consent of instructor.

Lewis

Students participate in the care of infants in the intensive care nursery in close association with the house staff, fellows, and senior staff and in conferences conducted by senior staff.
PEDIATRICS

140.24. Neonatal Care—MZ. (1½ per week) F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110. Consent of instructor.

R. Ballard

Experience in normal newborn and intensive care nurseries, according to student's interests and skills. Student participates in the care of transport infants, and on night call.
PEDIATRICS

140.25. Devel & Behavioral Peds—MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Gorski and Staff

Practical orientation and training for assessment and intervention of motor, cognitive, and social development of normal and high-risk children. Course includes didactic seminars in medical ethics, child psychiatry, neurodevelopmental and behavioral pediatrics.
PEDIATRICS

140.26. Comprehensive Pediatric Care—KP. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Schoen

Within the country's largest prepaid health care program students will participate in office visits, urgent ambulatory care, health education, and inpatient care. They will work with staff and resident physicians, nurse practitioners and health educators.
PEDIATRICS

140.27. Inpatient Pediatrics—KP. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Schoen

Students will perform histories and physical examinations on the pediatric ward under supervision of resident and attending physicians. They will attend resident conferences, see urgent clinic cases with resident and participate in outpatient clinic for discharged patients.
PEDIATRICS

140.29. Inpatient Pediatrics—VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110, Pediatrics 110 and consent of instructor.

Northway

Students are assigned to a clinical team of house officers, faculty, and practitioners, and participate in the care of acutely ill hospitalized chil-

dren. Students refine skills in history-taking, physical examinations, case write-ups and presentations, assist in special procedures and attend daily conferences.
PEDIATRICS

140.30. Gastroenterology & Nutrition. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Heyman, Thaler

Students participate with fellows and staff in the diagnosis and treatment of gastrointestinal and hepatic diseases, and nutritional deficiencies in infants and children. They present patients on wards and in the outpatient clinic, assist with procedures, and attend specialty conferences.
PEDIATRICS

140.31. Inpatient Pediatric Clkshp—VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Nilson

Opportunity to develop and perfect skills in history-taking, physical examination, case write-ups, presentations, and procedures. Supervised problem-oriented learning/teaching environment fosters basic diagnostic and management skills. Conferences, case work-ups and presentation, night call with resident, and assigned reading.
PEDIATRICS

140.32. Infectious Diseases—FRESNO. (1½) Su, F, W, Sp. Prerequisite: Pediatrics 110, Medicine 110.

McCarty

Experience with common and unusual infections such as meningitis, osteomyelitis, pneumonia, perinatal infections, and infections in immunocompromised hosts. Emphasis on discussion of consult patients, close interaction with the microbiology laboratory, assigned readings. Students will also review fundamentals of antimicrobial therapy.
PEDIATRICS

140.33. Pediatric Immunology/Rheumatology. (1½ per week) Su, F, W, Sp. Prerequisite: Pediatrics 110, Medicine 110, and consent of instructor.

Wara, Cowan

Evaluation and care of children with primary immunodeficiency diseases and rheumatologic disorders. Emphasis on ontogeny of immune response as it relates to immunodeficiency, immunologic dysfunction involved in pathogenesis of the disorders, laboratory studies required for diagnosis, and care of children with chronic disease.
PEDIATRICS

140.34. Medical Genetics. (1½ per week) Su, F, W, Sp. Prerequisite: 4th year standing.

Curry, Winter

Experience will be gained in medical genetics, including dysmorphology, biomedical genetics and prenatal diagnosis. Rotation will provide general exposure to all these areas and give a basic understanding of methods used to reach specific genetic diagnoses and exact prenatal detection course for future pregnancies.
PEDIATRICS

140.35. Infectious Disease—UC & SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Pediatrics 110.

Grossman, Tureen, Wintrub

Students will learn principles of diagnosis and management of common infectious conditions, infectious complications in the immunocompromised host, and neonatal infections; will learn to properly interpret microbiologic data and use the microbiology laboratory.
PEDIATRICS

150.04. Research in Pediatrics—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Pediatrics 110.

Grumbach and Staff

Student research projects under guidance of faculty members. Programs must be approved by instructors. Students may initiate or continue research programs under supervision of faculty members.
PEDIATRICS

160.01. Clinical Correlation in Peds—UC. (2) Su, F, W, Sp. Prerequisite: Pediatrics 110, Medicine 110.

Rudolph

Students prepare case presentations weekly from patients on the pediatric wards. Course correlates patients' problems with work in the required curriculum. Experience on the ward in the clinical setting.
PEDIATRICS

170.01. Peds Devel Resource Overview. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

L. Crain

Weekly seminar and reading assignments correlated with observation of the spectrum of community and institutional services; diagnostic, preventive and program services for individuals with developmental disabilities included.
PEDIATRICS

170.02. Primary School Health Educ. (1-2) F, W, Sp. Prerequisite: Consent of instructor. Attendance of initial orientation by the curriculum department of the San Francisco Unified School District, scheduled at the first session of the quarter. Field work 3 hours plus class participation. Topic paper optional with consent of instructor for 2 units.

L. Crain, Ernster

Health professions students are oriented to working with Primary Grades Health Curriculum Program, and participate, under guidance of qualified instructors, in implementing PGHCP for K-3 grade children in local schools.
PEDIATRICS

170.03. Health Professional and Nuclear War. (2) F. Seminar 2 hours.

Kiefer, Newman

Seminar exploring nuclear weapons effects, technology, and strategy, and the implications of these for health professionals.
PEDIATRICS

180. Human Biochemical Genetics. (1) F, W, Sp. Prerequisite: Pediatrics 110 or equivalent. Seminar 1 hour.

Packman

Selected topics in human biochemical genetics, emphasizing research and concepts of current interest. Course is directed toward physicians, postdoctoral fellows, medical students, and genetic counselors. A seminar format will be used, with directed reading and discussion.
PEDIATRICS

180.01A-B-C-D. Adolescent Development. (2) § F, W, Sp, Su. Prerequisite: Consent of instructor. Seminar 2 hours.

Irwin

A four-quarter course covering the physiologic, psychologic, cognitive and social development of adolescence. Also included is material on sexuality, nutrition, family interaction, cultural differences, legal issues, school behavior, substance abuse and psychiatric problems, and common medical problems.
PEDIATRICS

198. Supervised Study. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Grumbach and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.
PEDIATRICS

199. Laboratory Project. (1-5) Su, F, W, Sp. Prerequisite: Consent of instructor.

Grumbach

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department.
PEDIATRICS

400. Staff Conference. (1½) Su, F, W, Sp. Interns and residents.

UC Rudolph

Conferences include house staff preparation and presentation of patient case histories with reference to the literature, laboratory work, and

special studies. Faculty members and consultants from other departments as well as other universities discuss recent developments in their respective fields.
PEDIATRICS

401. Pediatric-Roentgenology Conf. (1½) Su, F, W, Sp. Interns and residents.

UC Gooding

Conferences include review and discussion of recent X-ray studies of pediatric cases in the wards and outpatient service.
PEDIATRICS

402. Clinical Seminar. (1½) Su, F, W, Sp.

UC Rudolph
Seminar includes review and discussion of selected cases of unusual interest, reports on special topics with review of recent literature, and clinicopathological conferences on pediatric cases.
PEDIATRICS

420. Family Interviewing Seminar. (1) Su, Fa, W, Sp. Prerequisite: Graduate level student in health sciences health care providers only. Consent of instructor. Seminar 2 hours.

Baum and Staff

Seminar topics include family systems, communication patterns, family interviewing, presenting a difficult diagnosis, psychosomatic illness, chronic illness, common behavioral problems. Teaching methods include group discussion, role play and video taping. Emphasis is placed on learning through experience.
PEDIATRICS

421. Behavioral Research Seminar. (1) F, W, Sp. Prerequisite: Graduate level student in health sciences. Consent of instructor. Seminar 2 hours alternate weeks.

Boyce and Staff

A survey of basic principles in epidemiologic research, with special emphasis on issues relevant to behavioral pediatrics.
PEDIATRICS

422. Behavioral/Developmental Core Curriculum. (1½) F, W, Sp. Prerequisite: Post-M.D. or graduate nursing students and consent of instructor. Seminar 6 hours.

P. Kaiser and Staff

Lectures and discussion of child development theory, clinically relevant research, and related common behavioral issues. Emphasis is on applicability of behavioral pediatrics in clinical practice. Includes screening, temperament, attachment, hospitalization. Supervised experiences at daycare centers and schools.
PEDIATRICS

423. Child Development Literature Seminar. (1) F, W, Sp. Prerequisite: Graduate level student in health sciences and consent of in-

structor. Seminar 1½ hours alternate weeks.

Tanner and Staff

This seminar presents classic theoretical and current research-based formulations of child development. Assigned literature readings are essential to seminar participation. Material covering pregnancy through school age years is presented over two-year cycle.
PEDIATRICS

424. Neurodevelopmental Assessment and Therapy. (1) W. Prerequisite: By instructor approval; pediatric residents and fellows in behavioral/developmental pediatrics. Lecture 1 hour. Lab 1 hour.
Tanner and Staff

Overview of theories and principles of neuromotor development and treatment modalities available for children with developmental disabilities. Includes assessing normal and abnormal sensory-motor development, neurodevelopmental therapy, sensory integration, pre-speech, and feeding therapy. Lecture, discussion, audiovisual aids, and patient demonstration.
PEDIATRICS

450. Clinical Pediatrics-UC. (1½ per week) Su, F, W, Sp. Interns and residents.
UC Rudolph

Residents, under supervision, are responsible for patient care in the wards and outpatient clinic including history-taking, physical examination, laboratory tests, diagnosis and treatment. In addition, the chief resident has certain administrative, teaching, and clinical responsibilities.
PEDIATRICS

451. Clinical Pediatrics-SFGH. (1½ per week) Su, F, W, Sp. Residents.
M. Grossman

Residents, under supervision, are responsible for patient care in the wards, communicable disease section, and outpatient clinic including history-taking, physical examination, laboratory tests, diagnosis, and treatment. Emphasis is on diagnosis and management of infection trauma, and pediatric emergencies.
PEDIATRICS

462. Clinical Primary Care. (1½ per week) Su, F, W, Sp.
Rudolph

Interns in the Primary Care Track of Pediatrics are responsible for patient care in a multispecialty primary care clinic. Other rotations include those common to the regular Pediatrics Internship Program as well as related clinical services such as Dermatology, Otolaryngology.
PEDIATRICS

463. Clinical Primary Care. (1½ per week) Su, F, W, Sp.
Rudolph

Residents in the Primary Care Track of Pediatrics are responsible for patient care in a multispecialty primary care clinic. Other rotations include those common to the regular Pediatrics Residency Program as well as related clinical services such as Dermatology, Otolaryngology.
PEDIATRICS

490. Clinical Pediatrics-SFGH. (1½ per week) Su, F, W, Sp.
M. Grossman

Interns rotate through newborn nursery, pediatric wards and clinic, communicable diseases ward, and emergency room. They are responsible for the care of patients, under the direction of the attending staff, including history-taking, physical examination, laboratory tests, and consultation.
PEDIATRICS

495. Clinical Pediatrics. (1½ per week) Su, F, W, Sp. Interns.
UC Grumbach

Interns, under supervision, are responsible for patient care in the wards and outpatient clinic including history-taking, physical examination, laboratory tests, diagnosis and treatment.
PEDIATRICS

PERIODONTOLOGY

109. Clinical Periodontics. (0-6) F, W, Sp. Prerequisite: Periodontology 110, 119, 121 and 129. Clinic variable.

Taggart, S. R. Miller

Treatment of a variety of periodontal diseases under the direct supervision of faculty.
STOMATOLOGY

131A. Periodontal Therapy. (1) F. Prerequisite: Periodontology 121. Lecture 1 hour.

Taggart

Introduction to the surgical management of periodontal lesions. Emphasis will be placed on the rationale for various treatment modalities.
STOMATOLOGY

131B. Periodontal Therapy. (2) W. Prerequisite: Periodontology 131A. Lecture 2 hours.

Taggart

Introduction to the surgical management of periodontal lesions. Emphasis will be placed on the rationale for various treatment modalities.
STOMATOLOGY

131C. Periodontal Therapy. (1) Sp. Prerequisite: Periodontology 131B. Lecture 1 hour.

Taggart

Introduction to the surgical management of periodontal lesions. Emphasis will be placed on the rationale for various treatment modalities.
STOMATOLOGY

160B. Periodontal Diseases. (1) W. Prerequisite: Periodontology 150. Lecture 1 hour.

Whitten, Taggart

Classification of periodontal diseases and methods of their prevention. Principles of pathology are correlated with therapeutic procedures. A faculty panel discusses the role of the hygienist in dental practice.
STOMATOLOGY

160C. Periodontal Diseases. (2) Sp. Prerequisite: Periodontology 150. Lecture 2 hours.

Armitage, Taggart

Classification of periodontal diseases and methods of their prevention. Principles of pathology are correlated to therapeutic procedures. A faculty panel discusses the role of the hygienist in dental practice.
STOMATOLOGY

161. Advanced Periodontal Therapy. (1) W. Prerequisite: Periodontology 160. Lecture 1 hour.

Taggart

The demonstration and rationale of surgical treatment of periodontal lesions. The role of the dental hygienist in dental practice, especially related to prevention, recognition, and aid in treatment of periodontal diseases.
STOMATOLOGY

170A-B-C. Histopathology of Periodontium. (2-2-2) F, W, Sp. Lecture 1 hour. Lab 3 hours.

Dienstein (F, W), Ryder (Sp)

Dynamics of inflammation and its role in the periodontal tissues.
STOMATOLOGY

171. Clinical Periodontics. (0-8) F, W, Sp, SS1. Prerequisite: Enrollment in postgraduate periodontology program. Clinic 12 hours.

Shibata

Clinical procedures in periodontal therapy.
STOMATOLOGY

172. Examination & Treatment Planning. (1) F. Prerequisite: Enrollment in postgraduate specialty program or consent of instructor.

Shibata

Lectures on examination and treatment planning.
STOMATOLOGY

172.01. Hospital Anesthesiology. (6) SS. Prerequisite: Consent of instructor. Seminar 10 hours. Clinic 24 hours.

Shibata

Practical course in operating room anesthesia. Instruction in hospital administration, physical and pre-anesthesia evaluation of the patient, monitoring of vital signs, administration of intravenous psychosedation, general anesthesia, and handling of resultant medical emergencies. Clinical instruction is

supplemented by seminars.
STOMATOLOGY

172.02. Hospital Periodontics. (2) F, W, Sp. Prerequisite: Periodontology 171A-B-C. Lecture 4 hours given in alternate weeks.

Shibata

Clinical periodontics integrated into the regular medical and rehabilitative activities of MZ. Course provides patients with quality dental care, appreciation for preventive dentistry, and concept of total health care. Students are exposed to various medical conditions.
STOMATOLOGY

173.01. Periodontal Therapy. (2) SS. Prerequisite: Periodontology 171A-B-C. Clinic 60 hours.

Shibata

Clinical procedures in periodontal therapy. This course is an enlargement on earlier clinical experience.
STOMATOLOGY

173.02. Periodontal Therapy. (4) F, W, Sp, SS1. Prerequisite: Enrollment in postgraduate periodontology program. Clinic 12 hours.

Shibata

Advanced clinical procedures in periodontal therapy.
STOMATOLOGY

173.03. Periodontal Therapy. (2) SS. Prerequisite: Periodontology 173.02C. Clinic and seminar 60 hours.

Shibata, E. Green and Staff

Advanced surgical techniques in management of periodontal lesions.
STOMATOLOGY

174. Orthodontic & Periodontic Prob. (1) SS. Prerequisite: D.D.S. degree. Seminar 1 hour.

Parr

A seminar to discuss and evaluate the problems common to the specialties of orthodontics and periodontics.
STOMATOLOGY

175. Treatment Planning & Surgery. (0-3, 0-3, 0-3, 1) F, W, Sp, SS1. Seminar 1 hour.

Shibata

Students present and discuss management of their cases that are either planned for treatment or currently under treatment. They are expected to defend their treatment plan and therapeutic procedure based on relevant literature and clinical experience.
STOMATOLOGY

175.01. Adv Treatment Planning & Surgery. (1) F, W, Sp, SS1. Seminar 1 hour.

Shibata

Students present and discuss management of their cases that are either planned for treatment or currently under treatment. They will

be responsible for defending their treatment plan and therapeutic procedures based on relevant literature and clinical experience.
STOMATOLOGY

176. Original Investigation. (1-5) F, W, Sp. Prerequisite: Enrollment in postgraduate specialty program or consent of instructor. Lab 3-15 hours.

Armitage

Research.
STOMATOLOGY

177. Periodontal Surgery Seminar. (2) F, W, Sp. Prerequisite: D.D.S. degree and consent of instructor. Lecture 2 hours.

Raust

Study in depth with literature review and seminar discussions on surgical techniques used to treat lesions involving the hard and soft tissue of the periodontium.
STOMATOLOGY

180. Periodontics in General Practice. (1) W. Lecture 1 hour.

Nathan

Implementation of the skills and knowledge of periodontology in the private practice environment.
STOMATOLOGY

180.02A-B-C. Advanced Perio Lit. (1-1-1) F, W, Sp. Prerequisite: Periodontology 131 and consent of instructor. Seminar 1 hour.

Abe

Study in depth, with literature review and seminar discussions of areas of periodontology having major clinical significance.
STOMATOLOGY

180.03. Periodontal Surgical Techniques. (1) F. Prerequisite: Periodontology 131. Lecture 1 hour.

Shibata

Surgical techniques are presented which may be used to treat lesions occurring in the hard and soft tissues of the periodontium.
STOMATOLOGY

189.01. Clinical Periodontics. (0-9) F, W, Sp. Prerequisite: Periodontology 109. Clinic variable.

Taggart

Continuation of clinical experience beyond the level of Periodontology 109.
STOMATOLOGY

199. Laboratory Project. (1-5) F, W, Sp.

Taggart

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department.
STOMATOLOGY

201A-B-C. Experimental Design. (0-3, 0-3, 0-3) § F, W, Sp. Lecture 0-2 hours. Lab 0-3 hours.

Shibata (F), Chambers (W), Bhatnagar (Sp)

Elements of experimental design, statistical inference, and methods of laboratory and clinical research.
STOMATOLOGY

202A-B. Molec & Biochem Basis of Disease. (2-2) § F, W. Prerequisite: Biochemistry 100A-B or equivalent introduction to biochemistry. Lecture 2 hours. Seminar 1 hour.

Bhatnagar

Course reintroduces students to the principles of biochemistry and molecular biology in relation to current concepts in the molecular basis of major disease entities including cancer, metabolic disorders, fibrotic and degenerative disorders of connective tissues, inflammation and wound healing.
STOMATOLOGY

209. Literature Review. (2) § F, W, Sp. Seminar 2 hours.

Staff

Seminar designed to correlate basic sciences with problems in periodontology and evaluate concepts in the direction of research, clinical application, and teaching. Selected papers in the literature are reviewed and evaluated. Other instructors are invited to participate.
STOMATOLOGY

PHARMACEUTICAL CHEMISTRY

120. Principles of Pharm Chem. (3) § F. Prerequisite: Chemistry 113. Lecture 3 hours.

Ortiz de Montellano

A study of physicochemical and biological factors which contribute to drug action; in vivo and in vitro biotransformations of drugs and related organic compounds.
PHARM CHEM

121. Principles of Pharmaceutical Chemistry. (2) W. Prerequisite: Pharmaceutical Chemistry 120 and concurrent enrollment in Pharmacology 121. Lecture 2 hours.

Kahl

A systematic survey of the chemical features of synthetic drugs, including correlations between chemical structure and biological activity. Emphasis on steroids, prostaglandins, peptide hormones, and drugs for metabolic disorders.
PHARM CHEM

122. Autonomic & Cardiovasc Drugs. (3) Sp. Prerequisite: Pharmaceutical Chemistry 120. Lecture 3 hours.

C. C. Wang

A systematic survey of the chemical features of synthetic drugs, including correlations between chemical structure and biological activity.

Emphasis on drugs affecting the autonomic nervous and cardiovascular systems as well as renal function. PHARM CHEM

132. Drugs Acting on CNS. (3) F. Prerequisite: Pharmaceutical Chemistry 120. Lecture 3 hours. Cashman

A systematic survey of the chemical features of synthetic drugs, including correlations between chemical structure and biological activity. Emphasis on drugs affecting the central nervous system. PHARM CHEM

134. Chemotherapeutic Drugs. (2) W. Prerequisite: Pharmaceutical Chemistry 120 and concurrent enrollment in Pharmacology 134. Lecture 2 hours.

Oppenheimer

A systematic survey of the chemical features of synthetic drugs, including correlations between chemical structure and biological activity. Emphasis on anti-infective and anti-neoplastic drugs. PHARM CHEM

152. Radionuclides in Biol/Med/Pharm. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours.

Peng

Discussion on radionuclides in frequent use in biology and medicine including radionuclides used as pharmaceuticals, with emphasis on dosage form design, quality control, clinical application, and other related aspects. PHARM CHEM

157. Bioanalytical Theory & Technique. (3) W. Lecture 2 hours. Lab 3 hours.

E. Lin

Analytical theory and techniques for determining drugs and metabolites in biological fluids. PHARM CHEM

162. Radioisotope Imaging. (1) § Sp. Prerequisite: Pharmaceutical Chemistry 152 or consent of instructor. Lecture 1 hour.

D. Price

This course will treat the theory and methodology in the application of radionuclides to organ imaging in nuclear medicine. PHARM CHEM

170. Group Studies. (1-4) § F, W, Sp. Prerequisite: Consent of instructor and adviser.

Agabian

Group studies of selected topics in pharmaceutical chemistry. PHARM CHEM

198. Supervised Study. (1-5) F, W, Sp. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHARM CHEM

199. Laboratory Project. (1-5) F, W, Sp. Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PHARM CHEM

200. Phys Chem Prop & Biolog Actvty. (1) § W. Prerequisite: Consent of instructor. Lecture 1 hour. Kollman

Lectures and conferences dealing with the relationship between physical properties and biological activity, with special emphasis on the uses of computer simulations and calculations. PHARM CHEM

201. Adv Survey of Medicinal Chem. (3) § F. Prerequisite: Consent of instructor. Lecture 3 hours.

C. C. Wang

Basic principles of medicinal chemistry and a survey of the relationships between structure and biological action for major drug classes. PHARM CHEM

202. Macromolecular Structure. (2) § W. Prerequisite: Consent of instructor. Lecture 2 hours.

Kuntz, Langridge

A review of protein and nucleic acid structures. Emphasizes the general principles which govern secondary and tertiary structure, with an introduction to the current approaches to this problem for proteins and transfer RNA. PHARM CHEM

203. Drug Metabolism. (3) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Seminar 1 hour. Literature project.

Sadee

Study of the in vivo and in vitro biotransformation of foreign compounds with particular emphasis on drugs. When possible, detailed chemical and biochemical mechanisms are considered. PHARM CHEM

205. Molecular Biochemistry. (3) § Sp. Lecture 3 hours.

Craik

The emphasis of the course will be on modern principles covering structural and functional aspects of nucleic acid and proteins; molecular biochemical methodologies that focus on topics of pharmaceutical interest; basic theories of molecular biology, plasmids, bacteriophage, nucleic acid and protein characterizations, site-directed mutagenesis,

hybridomas and automated microchemical methods for protein and nucleic acid sequence determination. PHARM CHEM

212A-B. Pharm Sci Computer Prog. (1, 2) § F, W. Prerequisite: PC 212A or equivalent is prerequisite to PC 212B. Lecture A, 1 hour; B, 2 hours. Lab A, 1 hour; B, 1 hour.

Upton

A course in computer programming using examples from the pharmaceutical and biomedical sciences. PHARM CHEM

213. Kinetics of Drug Absorp & Disposn. (3) § F. Prerequisite: Chemistry 115. Calculus background is recommended. Lecture 2 hours. Conference 2-3 hours.

Øie, Giacomini, Hoener

A basic study of the concentration-time course of drugs in the body, methods of pharmacokinetic analysis and modeling, and discussion of pharmacokinetic/physiologic interrelationships. Conference/workshop emphasizes problem-solving in pharmacokinetics. PHARM CHEM

214. Adv Kinetics of Absorp & Disposn. (3) § W. Prerequisite: Pharmaceutical Chemistry 213 and Biochemistry 202 or equivalents. Lecture 2 hours. Conference 2-3 hours.

Benet, Tozer

Advanced consideration of pharmacokinetics including multicompartment models, assessment of intrinsic absorption and disposition parameters, nonlinear kinetics, and correlation of pharmacological response with the concentration-time course of a drug. Conference involves problem-solving exercises. PHARM CHEM

216. Biomathematical Modeling. (2) § Sp. Prerequisite: Pharmaceutical Chemistry 212A, 212B or equivalent, or consent of instructor. Lecture 2 hours.

Siegel

Mathematical techniques relevant to research in pharmacokinetics, pharmacodynamics, and drug delivery. PHARM CHEM

219. Enzyme Mechanisms. (2-3) § F or Sp. Lecture 2-3 hours.

Kenyon, Santi

Selected topics on enzyme mechanisms. General survey of enzyme catalysis; general acid-base catalysis, propinquity effects, strain and conformational change. Covalent intermediates in enzyme catalysis. The role of cofactors in enzyme catalysis. Phosphate transfer reactions. PHARM CHEM

220. Research Conf in Pharmaceutics. (1) § F, W, Sp. Lecture 1 hour.

Benet

A program involving the presentation of core material in pharmaceutical chemistry in the pharmaceuticals pathway. The presentations are made by graduate students and examination is by a series of cumulative examinations. PHARM CHEM

221. Research Conf in Pharm Chem. (1) § F, W, Sp. Prerequisite: Graduate standing in the Department of Pharmaceutical Chemistry. Lecture 1 hour.

Kenyon

A series of weekly research conferences in medicinal chemistry given by visiting lecturers, faculty, and advanced graduate students. PHARM CHEM

222. Physical Chemistry Seminar. (1) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour. Kuntz and Staff

Topics of current research interest in physical and biophysical chemistry. PHARM CHEM

225A-B. Graduate Research Opportunities. (1-1) § F, W. Prerequisite: Graduate standing in the Department of Pharmaceutical Chemistry. Lecture 1 hour.

Kenyon

A series of weekly presentations of the research interests of the basic science faculty. The purpose is to acquaint new graduate students with the research in the Departments of Pharmacy and Pharmaceutical Chemistry. PHARM CHEM

230A. Spectroscopy. (3) § Sp. Prerequisite: Chemistry 162 or equivalent. Lecture 3 hours.

Kollman

The theory and application of molecular electronic and vibrational spectroscopy; optical rotatory dispersion and circular dichroism. PHARM CHEM

230B. Spectroscopy. (3) § F or W or Sp. Lecture 3 hours. Offered in alternate years. Not offered 1988-89.

T. James

Theory and application of nuclear magnetic resonance and electron-spin resonance. PHARM CHEM

230C. Spectroscopy. (2) § W. Lecture 3 hours. Lab 2 hours.

Basus

Laboratory work in nuclear magnetic resonance. PHARM CHEM

231. Spectroscopy. (3) § F or W or Sp. Lecture 3 hours. Offered in alternate years. Offered 1988-89.

T. James

Selected topics in spectroscopy and related areas. PHARM CHEM

235. Mass Spectrometry in Life Sci. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours. Offered in alternate years. Not offered 1988-89.

Burlingame

Elucidation of molecular structure, characterizations of mixtures, and quantitative measurements. Presentation of basic tools, concepts, and strategies in the complementary usage of currently available techniques in present biochemical and biomedical research. PHARM CHEM

236. Transport & Reaction Processes. (3) § Sp. Prerequisite: Pharm Chem 260. Lecture 3 hours.

Guy, Siegel, Bentz

Basic principles applicable to transport and reaction processes in model membrane and biological systems. PHARM CHEM

237. Membrane Transport and Biophysics. (2-3) § F. Prerequisite: Pharm Chem 236, Pharm Chem 260. Lecture 2-3 hours.

Szoka, Guy

Biophysical consideration of membrane structure; passive and active transport mechanisms and implications for targeted and controlled drug delivery. PHARM CHEM

238. Chemistry and Physics of Polymeric Systems. (2-3) § W. Prerequisite: Pharm Chem 236, Pharm Chem 260. Lecture 2-3 hours.

Siegel, Dill, Heller

Chemistry and physics of polymers relevant to the design and function of programmable drug delivery systems. PHARM CHEM

240. Radiochemical Synthesis. (1-2) § F, W, Sp. Prerequisite: Consent of instructor. Lab 3-6 hours.

Peng

Theory and techniques related to the synthesis of isotopically labeled organic compounds. Course may be repeated for credit. PHARM CHEM

242. Radiotracer Methodology. (1) § W. Prerequisite: Pharmaceutical Chemistry 152 or 160, or consent of instructor. Lecture 1 hour.

Peng

Discussions on the theory and principles in the use of radionuclides as tracers in biological systems. Emphasis is on the design of experiments and data evaluation. PHARM CHEM

250. Research. (1-8) § F, W, Sp. Staff PHARM CHEM

260. Computer Graphics. (3) § Sp. Prerequisite: Experience in programming and consent of instructor. Lecture 2 hours. Lab 3 hours. Offered in alternate years. Offered 1988-89.

Langridge, Ferrin

Application of interactive three-dimensional computer graphics to modeling complex biological systems, particularly large molecules and their interactions. Elements of hardware and a detailed discussion of software. Demonstration and self-scheduled projects using the computer graphics laboratory. PHARM CHEM

266. Research Planning Conference. (1) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour.

Staff

Discussion and practice in research problem formulation and design selection. Core classes and small group sessions are organized around students' interests by faculty within the area of specialization. PHARM CHEM

298. Thesis. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree. PHARM CHEM

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. PHARM CHEM

PHARMACOLOGY

100A-B. Medical Pharmacology. (4-4) W, Sp. Prerequisite: Biochemistry 100A & 100B or equivalent; Physiology 120 and 125 or equivalent. Lecture 3 hours. Conference 2 hours.

Katzung

Systematic presentation of pharmacologic agents based on drug group classification. Major emphasis is on mechanism of action of clinically important agents. PHARMACOL

121. Pharmacology. (1) W. Prerequisite: Concurrent enrollment in Pharmaceutical Chemistry 121. Lecture 1 hour.

Burkhalter

Systematic survey of action and uses of drugs with emphasis on steroids, hormones, and drugs for metabolic disorders. PHARMACOL

125. Pharmacology & Toxicology. (4) Sp. Prerequisite: Biochemistry 120A-B and Physiology 120 and 125. Lecture 3 hours. Conference 2 hours.

Burkhalter

Systematic survey of action and uses of drugs acting on autonomic nervous and cardiovascular systems and the kidneys. PHARMACOL

126B-C. Dental Pharmacology. (2, 4) § W, Sp. Prerequisite: Physiology 110. Lecture 2 hours W; 3 hours Sp. Lab 3 hours Sp.

Trevor

Objective of the course is to acquaint dental and dental hygiene students with the fundamentals of pharmacology. Various classes of drugs are examined in regard to actions, absorption, fate, excretion, and toxicity. Agents useful in dentistry are emphasized. PHARMACOL

130. Clinical Toxicology. (2) Sp. Prerequisite: Pharmacology 125 and 136. Lecture 2 hours.

Burkhalter

The occurrence, mode of action, recognition, and treatment of poisoning by environmental chemicals and therapeutic agents. PHARMACOL

134. Pharmacology. (2) W. Prerequisite: Concurrent enrollment in Pharmaceutical Chemistry 134. Lecture 2 hours.

Burkhalter

Systematic survey of action and uses of anti-infective and anti-neoplastic drugs. PHARMACOL

136. Pharmacology & Toxicology. (4) F. Prerequisite: Pharmacology 125. Lecture 3 hours. Conference 2 hours.

Burkhalter

Systematic survey of action and use of drugs acting on the central nervous system. PHARMACOL

150.01. Pharmacology Research. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor. Lecture and lab to be arranged.

Staff

Students perform individual research in a field of their choice under the guidance and supervision of a member of the faculty. PHARMACOL

170. Group Studies. (1-4) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Group studies of selected topics in pharmacology. PHARMACOL

193. Survey of Departmental Faculty Research. (1-3) F. Enrollment restricted to Pharmacology graduate students. Seminar 1-3 hours.

Trevor and Staff

An overview of Pharmacology faculty research interests presented in a seminar format to introduce first year graduate students to the various areas of ongoing investigation in the Department of Pharmacology. PHARMACOL

198. Supervised Study. (1-5) § F, W, Sp.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHARMACOL

199. Laboratory Project. (1-5) § F, W, Sp.

Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PHARMACOL

206A. Mechanisms of Drug Action. (3) § W. Prerequisite: Consent of instructor. Students must register for both Pharmacology 206A and 206B to receive full credit after completion of both quarters. Seminar 3 hours.

Bourne and Staff

Lecture/seminar dealing with fundamental aspects of interactions between chemical compounds and components of biological systems. Mechanisms of drug action at molecular, biochemical and membrane levels are considered. PHARMACOL

206B. Mechanisms of Drug Action. (3) § Sp. Prerequisite: Pharmacology 206A. Seminar 3 hours.

Lansman

Second quarter of 2-quarter lecture/seminar dealing with fundamental aspects of interactions between chemical compounds and components of biological systems. Mechanisms of drug action at molecular, biochemical, and membrane levels are considered. PHARMACOL

208. Oxidative Drug Metabolism. (2) § F. Prerequisite: Consent of instructor. Lecture 2 hours.

Correia, Ortiz de Montellano

The biochemical, regulatory, and chemical aspects of mixed function oxygenases with particular emphasis on cytochrome P-450. PHARMACOL

220. Seminar. (0) § F, W, Sp.

Staff

Presentations by guests and staff on current research in pharmacology. PHARMACOL

250. Research. (1-8) § F, W, Sp.

Staff

PHARMACOL

298. Thesis. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the thesis for the master's degree. PHARMACOL

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. PHARMACOL

300A-B-C. Teaching Practicum. (1-3, 1-3, 1-3) F, W, Sp. Prerequisite: Advancement to candidacy for the Ph.D. degree.

Staff

Opportunity is provided to participate in a formalized way in the teaching of pharmacology under the direction of the faculty. PHARMACOL

PHARMACY

111. Non-Prescription Products. (1) W. Conference 2 hours.

Yee

Evaluation and comparison of non-prescription medications and applications. Discussion on their patterns of use in the community is included. Emphasis is on verbal communications. PHARMACY

112. Non-Prescription Products. (1) Sp. Prerequisite: Pharmacy 111. Conference 2 hours.

Yee

Continuation of Pharmacy 111. PHARMACY

114. Biopharmaceutics & Phys Pharmacy. (3) F. Prerequisite: Concurrent enrollment in Chemistry 115. Lecture 3 hours.

Hoener, Guy, Siegel

A study of the physical, chemical, and biological factors which interact and dominate the design of dosage forms as drug delivery systems, including an introduction to the analysis of clinical data. PHARMACY

115. Biopharmaceutics & Phys Pharmacy. (4) W. Prerequisite: Pharmacy 114 and concurrent enrollment in Chemistry 116. Lecture 3 hours. Lab 3 hours.

C. Hunt, Dill, R. Day, Bentz, Siegel, Blake

Continuation of Pharmacy 114 with the addition of laboratory preparation of basic drug delivery systems. PHARMACY

116. Biopharmaceutics & Phys Pharmacy. (4) Sp. Prerequisite:

Pharmacy 115. Lecture 3 hours. Lab 3 hours.

Szoka, Siegel, Day, Guy, Blake

Continuation of Pharmacy 115. PHARMACY

123. Non-Prescription Drugs. (1) F. Prerequisite: Pharmacy 112. Conference 2 hours.

C. Yee

Continuation of Pharmacy 112. PHARMACY

127. Biopharmaceutics & Dispensing. (4) F. Prerequisite: Pharmacy 116 and Pharmacy Administration 112. Lecture 2 hours. Lab 6 hours.

R. Day, Benet, Siegel

Continuation of Pharmacy 116 with the addition of training in the professional and dispensing aspects of pharmacy. PHARMACY

128. Pharmacokinetics. (3½) W. Prerequisite: Pharmacy 116. Lecture 3 hours. Conference 1-2 hours.

Hoener, Giacomini

Course covers the pharmacokinetic basis of variability in the therapeutic, pharmacologic, and toxicologic effects of drugs. PHARMACY

129. Pharmacokinetics. (3½) Sp. Prerequisite: Pharmacy 128. Lecture 3 hours. Conference 1-2 hours.

Giacomini, Oie

Continuation of Pharmacy 128. PHARMACY

151. Community Health Education. (2) Sp. Lecture and discussion 2 hours. Participation in at least four community health education programs.

R. Gibson

Course is designed to train students for participation in community health programs dealing with drug abuse education and other drug-health related areas, such as poison prevention, venereal disease, and birth control. Course may be repeated for credit. PHARMACY

152. Special Topics in Pharmaceutics. (2) Sp. Prerequisite: Pharmacy 116 or concurrent enrollment. Lecture 2 hours.

Szoka

An intermediate course offering an opportunity to explore, in greater depth, special drug delivery systems and some fundamental relationships involved in their design or action. PHARMACY

153. Seminar Preparation Techniques. (1) F. Prerequisite: Consent of instructor. Seminar 1 hour. Conference 1 hour.

Hunt, Goyan

Preparation, presentation and evaluation of research seminars. PHARMACY

154. Percutaneous Absorption. (2) W. Prerequisite: First-year standing. Lecture 2 hours.

Wester, Guy

Course presents material dealing with the penetration of drugs and other chemicals across the skin. PHARMACY

155. External Drug Products. (3-4) W, Sp. Prerequisite: Pharmacy 127. Lecture 2-3 hours. Lab 3-6 hours.

Blake, Hoener

Discussion and laboratory exercises on the formulation of products for external use, including drugs and cosmetics. The course deals with the properties and ingredients of such products. PHARMACY

156. Parenteral Products. (3) F, W, Sp. Prerequisite: Pharmacy 127. Lecture 2 hours. Lab 3 hours.

Blake

Introduction to the formulation and technology of parenteral preparations. Laboratory includes participation in hospital activities in which parenterals are made and administered. PHARMACY

164. Veterinary Products. (3) Sp. Prerequisite: Microbiology 120, 127, Pathology 135, Pharmacology 136 and Pharmacy 116. Lecture 3 hours.

Enos

Course is designed to familiarize the student with common ailments of domestic animals and livestock, products used for the prevention and treatment of such diseases, the interrelationship of pharmacist, veterinarian and animal owner, and legal limitations on veterinary product dispensing. PHARMACY

165. Pharmaceutical Technology. (3) F. Prerequisite: Pharmacy 116. Lecture 1 hour. Lab 6 hours.

Blake, Gibson

An introduction to the technology of liquid and semisolid pharmaceuticals. Special emphasis is given to the problems encountered and the materials used in pharmaceutical manufacturing. PHARMACY

166. Pharmaceutical Technology. (3) W. Prerequisite: Pharmacy 165. Lecture 1 hour. Lab 6 hours.

Blake, Gibson

An introduction to the technology of solid dosage forms, especially tablets and capsules. Emphasis is placed on problems encountered in preparation of this type of medication. PHARMACY

167. Pharmaceutical Technology. (3) Sp. Prerequisite: Pharmacy 166. Lecture 1 hour. Lab 6 hours.

Blake, Gibson

An advanced study of the relationship of the art and science of pharmaceutical technology to solid dosage forms. PHARMACY

168. Clinical Pharmacokinetics-UC. (2) F, W, Sp. Prerequisite: Fourth-year standing or consent of instructor. Reports and conferences 6 hours. Enrollment limited.

Tozer, Winter, Upton, Salazar
Discussion and review of the literature in the clinical application of pharmacokinetic principles in drug therapy. PHARMACY

168.02. Clinical Pharmacokinetics-UCI. (2) F, W, Sp. Prerequisite: Fourth-year standing or consent of instructor. Reports and seminar 3 hours. Enrollment limited.

Shimomura
Discussion and review of the literature on the clinical application of pharmacokinetic principles in drug therapy. PHARMACY

170. Group Studies. (1-4) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Group studies of selected topics in pharmacy. PHARMACY

170.05. Clinical Drug Investigations. (2) W, Sp. Prerequisite: Introductory statistics recommended. Lecture 2 hours.

Williams, Wester, Schwartz

A ten-week course that will discuss methods for generating data about drug risk and efficacy in clinical investigations, with emphasis on the randomized clinical trial. Statistical methods used in modern clinical trials will be discussed. PHARMACY

170.06. Molec & Cell Biology in Drug Devel. (2) Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Szoka

Introduction to the role of cellular and molecular biology in developing new drugs, hormones or therapeutic agents. PHARMACY

170.07. Communication Skills. (1½) Sp. Prerequisite: First-year standing. Lab 2 hours. Seminar 1 hour. Enrollment limited.

Lem

Aspects of communication which focus on skills pertinent to contemporary pharmacy settings. Discussion of principles of communication and practice of specific techniques in simulated practice situations. PHARMACY

170.08. CPR Education. (½) F, W, Sp. Seminar 6 hours.

Lem

Experience in preparing course materials and presenting coursework on CPR (cardiopulmonary resuscitation) to health professionals and/or lay audiences interested in obtaining CPR certification or recertification. PHARMACY

198. Supervised Study. (1-5) F, W, Sp. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHARMACY

199. Laboratory Project. (1-5) F, W, Sp. Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PHARMACY

PHARMACY ADMINISTRATION

111. Pharmacy Laws. (2) W. Lecture 2 hours.

J. R. Nielsen

Introduction to court systems and administration boards and their relationship to the health professions. Discussion of basic principles of criminal law, negligence, and business law with particular emphasis on the legal relationship and responsibility of the practitioner to the patient. PHARMACY

112. Pharmacy Laws. (2) Sp. Lecture 2 hours.

J. R. Nielsen

A detailed examination of federal and state drug, cosmetic, and narcotic laws; their promulgation, enforcement, and effect upon the practice of pharmacy. Course involves some administrative work. PHARMACY

150. Marketing. (4) W. Lecture 4 hours.

Lucaccini

An analysis of the marketing functions that facilitate the flow of pharmaceutical products from production to consumption, and of the decision-making processes of marketing institutions. Emphasis is given to the environmental factors affecting marketing decisions. PHARMACY

154. Community Pharmacy Management. (4) Sp. Prerequisite: Basic economics or consent of instructor. Lecture 4 hours.

Lucaccini

Principles of management, specially directed toward developing familiarity with current problems peculiar to community pharmacy operation. Emphasis is given to elements

in locating, organizing, operating, and adapting a pharmacy. PHARMACY

155. Accounting. (3) F. Lecture 1 hour. Discussion 2 hours.

Lucaccini

Consideration of the fundamental concepts of accounting and its applied uses, with special emphasis on the accounting requirements of the community pharmacy. Problem cases and demonstrations are presented. PHARMACY

160. Hlth Prof Family & Business Law. (2) Sp. Lecture 2 hours.

J. R. Nielsen

A survey of laws relating to landlord-tenant dissolution, property division, support payments, probate and decedent's estates, with particular emphasis on how pharmacists may expect their practice to be affected by these laws, and some practical preventive legal techniques. PHARMACY

170. Group Studies. (1-4) F, W, Sp. Prerequisite: Consent of instructor.

Staff

Group studies of selected topics in pharmacy administration. PHARMACY

180A-B-C. Legal Problems in Health Care. (2-2-2) F, W, Sp. Prerequisite: Third-year standing and consent of instructor.

J. R. Nielsen

Selected problems with directed readings and library research on current legal (statutory and case law) issues affecting the delivery of pharmacy services. Discussion and paper. PHARMACY

198. Supervised Study. (1-5) F, W, Sp. Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHARMACY

PHYSICAL THERAPY

100. Gross Anatomy. (6) Su. Prerequisite: Completion of course prerequisites for admission to the University and the Curriculum in Physical Therapy. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 3 hours. Lab 9 hours.

McKenzie, Nordschow

A fundamental building block of physical therapy; this course presents the gross structure of the human body studied through regional and systemic correlation by means of dissection, demonstration, surface and cross-sectional anatomy. PHYS THER

101. Pathology. (3) F. Prerequisite: Completion of course work in summer term. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 3 hours.

Biava

Mechanisms and language of diseases are discussed with emphasis on the dynamic nature of fundamental disease processes such as cell injury, immunopathology, inflammation, response to infectious agents, repair and regeneration, hemodynamic arrangements, genetic disorders, disturbances of cell growth and neoplasia. This course is identical to Pathology 135. PHYS THER

104A. Physical Therapy Procedures. (3) SS3. Prerequisite: Completion of course prerequisites for admission to the University and the Curriculum in Physical Therapy. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours. Lab 4 hours.

Asturias, Byl, Richards

This course begins a four-quarter series presenting theory, skills and application of physical therapy procedures in patient care assessment, treatment, evaluation and education. Course addresses surface anatomy, kinesiology, physical therapy tests and measurement with emphasis on normal neuromusculoskeletal function. Introduction to critiquing research publications in physical therapy. PHYS THER

104B. Physical Therapy Procedures. (5) F. Prerequisite: Completion of course work in summer term in the Physical Therapy Curriculum. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours. Lab 8 hours.

Asturias, Byl, Richards

Second course in a series of four courses in physical therapy procedures. Assessment, goal setting, treatment, evaluation and problem solving of musculoskeletal pathologies. A library review of the literature is also required in preparation for the development of a research proposal. PHYS THER

104C. Physical Therapy Procedures. (5) W. Prerequisite: Completion of course work in summer term and fall quarter. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours. Lab 8 hours.

Radtka, Chape, Byl

Continuation of Physical Therapy Procedures series. Basic neurophysiological and neuroanatomical principles of normal and pathological motor function presented. Var-

ious physical therapeutic concepts of assessment, goal setting, treatment planning, treatment, evaluation and problem solving presented for the patient with neurological dysfunction. Patient demonstrations included; field work coordinated through PT 104A. PHYS THER

104D. Physical Therapy Procedures. (3) Sp. Prerequisite: Completion of course work in summer term, fall and winter quarters. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours. Lab 4 hours.

Asturias, Richards

Continuation of Physical Therapy Procedures series. Physical therapy approach to assessment and treatment of pediatric conditions. Theory, assessment, treatment, physiological and functional ramifications of amputations, prosthetics and orthotics. Patient evaluation and treatment of dysfunction of the cardiopulmonary, vascular and integumentary systems. Patient demonstrations; practical applications in field work in PT 410A. PHYS THER

105. Physical Med & Rehabilitation. (3) W. Prerequisite: Completion of course work in summer term.

Open only to students enrolled in the Curriculum; or consent of program director. Lecture 3 hours.

Berrol

Course presents the philosophy of rehabilitation and medical management of chronic diseases and the multiple handicapped person. Particular emphasis is on brain damage, spinal cord injuries and cerebrovascular accidents. PHYS THER

106A. Specialty Management of Disease: Orthopedics. (2) F. Prerequisite: Completion of course work in summer term. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours.

Hoaglund

Course presents the diagnostic, medical, and surgical concerns and techniques which guide the decision making of the orthopedic surgeon. Contraindications, precautions, and prognosis are discussed to guide the decision making of the physical therapist. PHYS THER

106B. Specialty Management of Disease: Pediatrics. (1) Sp. Prerequisite: Completion of course work in summer term. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 1 hour.

Kaufman

Course presents the diagnostic, developmental and medical concerns of the normal youngster, as well as the child with acute/chronic disease. Establishing guidelines for normal children, provides a foundation for the physical therapist to understand neurodevelopment and the impact of impairment on normal function. PHYS THER

106C. Specialty Medical Management of Disease: Neurology. (2) W. Prerequisite: Completion of course work in fall quarter. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours.

McAuliffe

Course presents the diagnostic and medical concerns which guide the decision making of the neurologist. Contraindications, precautions, and diagnosis of the different neurological diagnosis are discussed to provide a basis for decision making by the physical therapist. PHYS THER

106D. Specialty Medical Management of Disease: Internal Medicine. (3) W. Prerequisite: Completion of course work in fall quarter. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 3 hours.

Roost

Course presents the diagnostic and medical concerns that guide the internist in decision making. Outlining the contraindications, precautions, and prognosis helps guide the physical therapist in designing management programs for patients with primary or secondary internal medical problems. The health care team and team relationships are also presented. PHYS THER

106E. Specialty Medical Management of Disease: Psychiatry. (2) Sp. Prerequisite: Completion of course work in fall quarter. Open only to students enrolled in the Curriculum; or consent of program director. Lecture 2 hours.

Byl

Course presents the psycho-social diagnostic and management concerns of patients with medical problems, those with common emotional and social problems, and those challenged with adjustment to physical disability. The physical therapist learns techniques of history taking and counseling appropriate to physical therapeutic management strategies. PHYS THER

107. Physical Therapeutic Modalities. (1) SS3. Prerequisite: Completion of course prerequisites for admission to the University and the Curriculum in Physical Therapy; open only to students enrolled in the Curriculum; or con-

sent of program director. Lab 3 hours.

Asturias, Byl, Richards

The principles of physiological physics, indications, contraindications and the procedures for utilizing therapeutic modalities are presented and practiced within a laboratory setting. PHYS THER

108. Basic Medical Procedures. (2) Sp. Prerequisite: Completion of course work in summer term, fall and winter quarters. Lecture 1 hour. Lab 2 hours.

Simpson

Presentation of basic procedures for total and emergency care of the patient. Emphasis on interpretations of vital signs, temporary emergency intervention, sterile techniques, wheelchair prescription, burn evaluation and treatment, as well as communication in various situations. PHYS THER

109A. Practice, Professionalism, and Administration. (2) SS3. Prerequisite: Enrollment in academic program in Physical Therapy. Open only to students enrolled in the Curriculum or by consent of program director. Seminar 2 hours.

Byl

This is part of a series of professional seminars preparing students to functionally apply statistics to research, review methods to control for internal and external validity, critically read research articles, prepare abstracts of research articles, and begin to review the literature to develop a research question. PHYS THER

109B. Practice, Professionalism, and Administration. (3) Sp. Prerequisite: Enrollment in academic program in Physical Therapy. Completion of coursework in summer, fall, and winter. Open only to students enrolled in the Curriculum or by consent of program director. Seminar 3 hours.

Radtka

This series of seminars develops the concepts of teamwork, interpersonal communication, documentation, quality assurance, ethics, standards of practice, medical legal rights, scope of professional practice and licensing, and principles of preparing educational programs for patients. PHYS THER

109C. Practice, Professionalism, and Administration. (2) Sp. Prerequisite: Enrollment in academic program in Physical Therapy. Completion of coursework in summer, fall, and winter. Open only to students enrolled in the Curriculum or by consent of program director. Seminar 2 hours.

Byl

This series of seminars builds a foundation of knowledge in health care administration including personnel management, budgeting, financial planning, third-party payors, Medicare, MediCal, and trends in physical therapy education and practice. PHYS THER

198. Independent Study. (1-5) Su, F, W, Sp. Prerequisite: Enrollment in the Curriculum of PT and approval by instructor. Open only to students enrolled in the Curriculum in Physical Therapy.

Byl, Radtka

This course is designed to permit physical therapy students to do independent clinical research under the supervision of faculty. This course can be repeated as approved by faculty. It cannot be used as a substitute for core curriculum coursework. PHYS THER

410A. Clinical Clerkship. (7) Sp. Prerequisite: Completion of course work in summer term, fall and winter quarters. Open only to students enrolled in the Curriculum; or consent of program director.

Radtka

Students begin part time concurrent clerkships in clinical facilities. Under close supervision, appropriate physical therapy assessment, treatment planning, treatment and evaluation services are provided to patients. PHYS THER

410B. Clinical Clerkship. (15) Su. Prerequisite: Completion of course work in preceding summer term, fall, winter and spring quarters. Open only to students enrolled in the Curriculum; or consent of program director.

Radtka

Course is required for and permitted to graduate students only. Students provide patient care under decreasing supervision in associated clinics. Students also submit case reports, present in-services and attend scheduled campus seminars. PHYS THER

PHYSIOLOGY

100. Organ System Physiology. (6) § W. Prerequisite: Anatomy 100 and 102, and concurrent enrollment in Biochemistry 100A-B; or consent of instructor. Lecture 4 hours. Lab 4 hours. Conference 2 hours.

Lisberger

Normal function of the cardiovascular, respiratory, and renal systems and the metabolic functions of the body as a whole are studied in lectures, conferences, laboratory ex-

ercises, demonstrations, and clinical illustrations. PHYSIOLOGY

101. Endocrinology & Gastroenterology. (5) § Sp. Prerequisite: Anatomy 100, Biochemistry 100A-B, Physiology 100, or consent of instructor. Lecture 5 hours. Lab 1 hour.

Lingappa

The structure of the endocrine glands and the physiology of the endocrine and gastrointestinal systems, together with selected aspects of the pathology and pharmacology of these systems, are studied in lectures and laboratory. PHYSIOLOGY

110. Integrative & Nutritive Systems. (6) § Sp. Prerequisite: College-level biology, physics, and chemistry, or consent of instructor. Lecture 5 hours. Conference 3 hours.

A. Miller

Introduction to organ systems with emphasis on nervous, endocrine, circulatory, respiratory, and alimentary function in vertebrates. Importance of organ systems for the success of multicellular forms serves as focus. Fundamental cell processes are also discussed, emphasizing differential function. PHYSIOLOGY

120. Mammalian Physiology. (2½) W. Prerequisite: Physiology 125 required for students in School of Pharmacy; may be taken separately by graduate students with consent of instructor only. Lecture 2 hours.

Reid and Staff

Physiology of the human gastrointestinal and endocrine systems will be studied. PHYSIOLOGY

120.01. Mammalian Physiology. (2½) W. Prerequisite: Physiology 125.01 required for students in Curriculum in Physical Therapy. Open only to students enrolled in the Curriculum in Physical Therapy or consent of instructor. Lecture 2 hours. Conference 1 hour.

Reid

Study of the integrative systems of the mammalian organism, particularly the gastrointestinal and endocrine systems. PHYSIOLOGY

125. Mammalian Physiology. (6) F. Prerequisite: Consent of instructor. Lecture 4 hours. Lab 4 hours. Conference 2 hours.

Mines

Physiology of the human cardiovascular, respiratory and renal systems is stressed, with special attention to developing problem solving skills using the material. PHYSIOLOGY

125.01. Mammalian Physiology. (5) F. Prerequisite: Completion of

course work in summer term. Open only to students enrolled in the Curriculum in Physical Therapy or consent of instructor. Lecture 4 hours. Conference 2 hours.

Mines

Physiology of the human cardiovascular, respiratory and renal systems is stressed, with special attention to developing problem solving skills using the material. PHYSIOLOGY

126. Neuroscience for Pharmacy. (4) W. Prerequisite: Physiology 125 or consent of instructor. Lecture 3 hours. Lab 1½ hours. Conference 1 hour.

Korenbrodt and Staff

Course is designed primarily for students in the School of Pharmacy. The course will present an integrated approach to the physiological operations of the nervous system and the morphological or anatomical substrates in which these occur. PHYSIOLOGY

150.01. Research in Physiology. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor. Lecture and lab to be arranged.

Staff

Individual research in endocrinology, respiratory physiology, neurophysiology, cardiovascular physiology, cell physiology, or other areas offered by individual staff members. PHYSIOLOGY

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Ganong and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PHYSIOLOGY

199. Laboratory Project. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Ganong and Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PHYSIOLOGY

200. Directed Reading Seminar. (0) § F, W, Sp. Prerequisite: Consent of instructor.

Ganong and Staff

Directed reading organized in a seminar or tutorial fashion to review aspects of physiology under supervision of a member of the faculty. PHYSIOLOGY

201. Organ System Physiology. (8) § W. Prerequisite: Consent of instructor. Lecture 5 hours. Lab 4 hours. Conference 2 hours.

Reid, Lisberger, Coleridge

Normal function of the cardiovascular, renal, and respiratory sys-

tems studied in lectures, conferences, and laboratories. PHYSIOLOGY

204. Topics in Physiology. (2-3) § Sp. Prerequisite: A minimum of six units of introductory physiology. Seminar 2 hours.

Rothman

This seminar discusses selected topics in cellular and integrative physiology. Readings are drawn from primary and secondary sources. PHYSIOLOGY

206. Adv Kidney & Electrolyte Physiol. (2-3) § Sp. Prerequisite: Physiology 100 or 125 and consent of instructor. Lecture 2-3 hours. Offered in alternate years. Not offered 1988-89.

C. Berry

Current theories regarding renal hemodynamics and regulation of whole body acidbase, electrolyte and fluid balance will be discussed. Emphasis will be placed on the transport mechanisms operating across renal tubular membranes. PHYSIOLOGY

210. Cellular Mechanisms of Secretion. (2) § Sp. Prerequisite: Physiology 101, Biochemistry 245, or consent of instructor. Lecture 1 hour. Seminar 1 hour.

J. A. Williams, Lingappa

Discussion of current literature pertaining to the mechanism of synthesis, packaging, and release of secretory proteins including hormones and digestive enzymes. PHYSIOLOGY

211. Membrane Physiology. (2) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Widdicombe and Staff

Introduction to mechanisms by which ions and small molecules cross biological membranes in response to both physical forces and cellular metabolism. PHYSIOLOGY

221. Cardiovasc-Renal-Pulmonary Sys. (2) § F, W, Sp. Prerequisite: Physiology 100 or equivalent. Lecture 2 hours.

Staff

Course includes critical reviews of topics of current importance, presentation of unsolved problems of staff, and critical evaluation of published articles by the group. The total program is presented over six successive quarters. PHYSIOLOGY

222. Endocrinology Seminar. (1) § F, W, Sp. Seminar 1 hour. Course may be repeated for credit.

Ganong

Guest lectures alternating with reports of research in progress by members of the graduate group in

endocrinology. A different topic of endocrinological interest is the subject of guest presentations each quarter. PHYSIOLOGY

223. Physiology Research Seminar. (1) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour. Course may be repeated for credit.

Ganong

Seminar presentations by guest lecturers, alternating with discussion by Physiology staff members of their current research. Each quarter a different topic of physiological interest is the subject of guest presentations. PHYSIOLOGY

224. Molec Biol of Lipid Metabolism. (2) § Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Offered in alternate years. Offered 1988-89.

Taylor, Fielding

The structure and regulation of the genes and proteins that control lipid metabolism, including plasma apolipoproteins, receptors, and enzymes. Molecular and cellular biology of mammalian lipid metabolism examined with respect to regulation of various proteins involved in transport, binding, and utilization of lipids. PHYSIOLOGY

250. Research. (1-8) § F, W, Sp. Prerequisite: Consent of instructor. Lab variable.

Ganong and Staff
PHYSIOLOGY

298. Thesis. (0) § Su, F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Ganong and Staff

For graduate students engaged in writing the thesis for the master's degree. PHYSIOLOGY

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Ganong and Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. PHYSIOLOGY

300. Teaching Practicum. (0) § F, W, Sp. Prerequisite: Previous training in physiology and consent of instructor. Lecture and lab variable.

Ganong and Staff

Practice in teaching physiology under faculty supervision. Students supervise laboratory work, conduct conferences, deliver lectures, and assist in preparing and grading examinations. Responsibilities are assigned according to the individual's stage of development. PHYSIOLOGY

301. Scientific Writing. (0) § Su, W. Prerequisite: Consent of instructor. Seminar 4 hours.

Coleridge, Zeiger

A seminar designed to teach post-doctoral fellows and graduate students how to best put into words, tables and figures work done in the laboratory, and how to do so clearly, simply, precisely, convincingly, and briefly, so that others may understand. PHYSIOLOGY

302. Teaching Techniques. (0) § F, W. Prerequisite: Consent of instructor. Lecture 1½ hours. Enrollment limited.

Staub

A course in teaching techniques. Students present short lectures, and videotapes of these presentations are analyzed by self- and group criticism. PHYSIOLOGY

PREVENTIVE DENTISTRY AND COMMUNITY HEALTH

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. DENT PUB HLTH

PSYCHIATRY

First-Year Coordinated Instruction—This course provides a first opportunity to interview medical patients in small group settings, guided by experienced clinicians. Useful medical information is gathered in a comfortable, professional interchange, and one's identity as a physician also begins emerging in the process.

PGY I Courses—The Department of Psychiatry is currently developing new courses for PGY I residents. Please refer to the quarterly Schedule of Classes for a listing of those courses in the 400 series.

100A. Psychological Basis of Medicine. (2) F. Lecture 2 hours. Seminar 1 hour.

Horowitz, Marmar

Introduction to the basic psychological principles underlying response to the stress of illness and its treatment with emphasis on mental mechanisms, development, death and dying, and various types of doctor-patient relationships. PSYCHIATRY

100B. Illness Behavior. (1) W. Seminar 2 hours.

Brodsky, F. Cohen

Introduction to psychological principles influencing health behaviors and the physician-patient relationship. Presentation of the social and cultural factors that affect patients' health and illness behavior when well, when they fear illness, when ill, during rehabilitation and after recovery. PSYCHIATRY

110. Psychiatry Core Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C, Psychiatry 100A, 100B and 131A-B. Open to UCSF students only.

Kaltreider

Four-week assignment to a psychiatric service at UC, SFGH, VAMC, MZ, L, or VAF. Students, under supervision, are responsible for patient evaluation and participation in treatment planning. They attend seminars related to clinical work, and make field visits to other types of psychiatric facilities. PSYCHIATRY

131A-B. Intro to Clinical Psychiatry. (2-2) W, Sp. Lecture 1 hour. Seminar 2-3 hours.

Kaltreider

Introduction to clinical psychiatry with particular emphasis upon knowledge important in general medical practice. Course format includes lectures, small group teaching, interviewing patients, syllabus reading, and the use of clinical videotapes and film. PSYCHIATRY

135. Psychiatric Aspects of Med Prac. (0) Su, F, W, Sp. Prerequisite: Satisfactory completion of the first and second years in the School of Medicine as specified in the prerequisite for the 110 clerkships listed below. Clinical seminar 2 hours.

M. Katz

A weekly two-hour clinical seminar, offered at all training sites, and a required part of the following clerkships: Family and Community Medicine 110, Medicine 110, Neurology 110, Obstetrics, Gynecology and Reproductive Sciences 110, Pediatrics 110, and Surgery 110. PSYCHIATRY

140.01. Advanced Psychiatry Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Psychiatry 110 and consent of Department of Psychiatry.

Kaltreider

Participation, with supervision of attending and resident staff of the Department of Psychiatry, in psychiatric assessment, treatment and/or consultation-liaison with adult or child inpatients or outpatients. Seminars, assigned reading and case presentation may be required. PSYCHIATRY

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of Department of Psychiatry.

Kaltreider

Clinical clerkship in off-campus hospitals, approved by the chairperson of the department and the dean. PSYCHIATRY

140.04. Adv Psychiatry Clkshp-VAF & VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Psychiatry 110 and consent of Department of Psychiatry.

DeSoto

Clinical clerkships based in a variety of community settings in Central California. Course includes working with patients and families and emphasizes preventive, rehabilitative, and consultative services, especially to underserved rural and minority populations. PSYCHIATRY

140.05. Clinical Psychiatry. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of Department of Psychiatry.

Kaltreider

Participation, under close supervision in accordance with students' level of experience and special interests, in clinical psychiatric treatment of adult or child inpatients or adult outpatients. PSYCHIATRY

140.06. Consultation Clerkship-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Psychiatry 110 and consent of Department of Psychiatry.

Ahles

Supervised evaluation and treatment of patients on the Psychiatry Consultation Service, Liaison Units, Psychosomatic Clinic, and Emergency Room. Learning opportunities include teaching rounds, consultation seminar, biopsychosocial rounds, and consultation syllabus. PSYCHIATRY

150.01. Psychiatric Research. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of Department of Psychiatry.

Callaway and Staff

Participation according to students' level of experience in experimental work in areas such as neurophysiology, operant conditioning, psychophysiology, immunochemistry, and nonlexical communication. All work is under the close supervision of members of the faculty. PSYCHIATRY

150.03. Sex Therapy & Medical Practice. (1½ per week) F, W, Sp. Prerequisite: Consent of instructor and Department of Psychiatry.

Gendel

Effect of sex roles, self-esteem, attitudes, and values of clinician on

treatment of sexual problems. Case studies, role playing, group discussion, film used to develop skills in introductory sex counseling. Readings, research project or special interest paper may also be done. PSYCHIATRY

160.07. Outpatient Psychotherapy. (2-7) Su, F, W, Sp. Prerequisite: Psychiatry 110 and consent of Department of Psychiatry. Lecture 2 hours. Lab 0-15 hours.

Amini

Practical experience in psychotherapeutic work with outpatients to increase students' understanding of psychopathology, psychodynamics, and psychotherapeutics. Students are assigned patients under supervision of a member of the faculty. Assigned reading, seminars, and chart writing. PSYCHIATRY

170.01. Intro to Study of Suicide.

(2) § F, W, Sp. Prerequisite: Consent of Department of Psychiatry. Lecture 2 hours.

Motto

Suicide is surveyed from a multidisciplinary approach in seminars led by persons working in the field. PSYCHIATRY

170.02. Alcoholism. (1) F. Lecture 1 hour.

P. Stewart

General issues in substance abuse as well as the pharmacologic, medical, and neurologic aspects of alcohol abuse. Treatment issues will be considered with emphasis on Alcoholics Anonymous. Family issues arising from alcohol abuse and special concerns for the health professional. PSYCHIATRY

170.12. Medical Scholars Program Workshops. (1-2) F, W, Sp. Prerequisite: Permission of the instructor. Workshop 2-4 hours.

Fullilove

Workshops in anatomy, neuroanatomy, cell biology, and physiology, offered concurrent to the first-year course, will present challenging material in the form of problem sets which students will solve in groups. Material, geared toward high-achieving students, will augment basic coursework with clinical and basic science information. PSYCHIATRY

170.14. Research Conference. (1) F, W, Sp. Workshop: 2 hours.

Fullilove

This conference provides an opportunity to gain insights into the role of research, examine the methodologies for conducting research, and learn to present research findings. PSYCHIATRY

170.17. Issues in Psychiatry. (1½) F, W, Sp. Prerequisite: Consent of

Department of Psychiatry. Seminar 1½ hours.

Zegans and Staff

Course is a seminar for exploring and surveying current issues in psychiatry. Each week an assigned paper will be discussed by students, seminar leaders and an occasional guest discussant. Topics will include current research, new theories, social issues and clinical innovations. PSYCHIATRY

170.18. Psychotherapy Research.

(3) Sp. Prerequisite: Course in statistics and consent of Department of Psychiatry.

M. Horowitz

Participation in research activities at the Center for the Study of Neuroses. Lectures, laboratory, individual guidance to readings, and patient observation are included. PSYCHIATRY

180. Sexual Issues in Medical Practice. (2) W. Seminar 2 hours.

Gendel, Bonner

Social, behavioral, and clinical aspects of human sexuality are covered in a series of lectures and seminars. Lectures present didactic material and seminars focus on clinical and ethical problems related to sex and medical practice. PSYCHIATRY

198. Supervised Study. (1-5) § F, W, Sp. Prerequisite: Consent of Department of Psychiatry.

L. J. Epstein and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PSYCHIATRY

199. Laboratory Project. (1-5) § F, W, Sp. Prerequisite: Consent of Department of Psychiatry.

L. J. Epstein and Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. PSYCHIATRY

214. Practice of Clinical Social Work. (1½) § F, W, Sp. Prerequisite: 1 year of clinical social work. Restricted to interns in clinical social work. Lecture 1½ hours.

H. Roth

This course aims at integrating developmental and clinical theories with clinical social work practice toward enhancing clinical, conceptual, and consultative knowledge and skills. PSYCHIATRY

400. Com Mental Health System. (1) Su, W. Required for first-year residents in Psychiatry. Seminar 1 hour.

Surber

Focus is on special treatment issues involved in the care of the chronically disabled patient and of patients of various ethnic and minority backgrounds. PSYCHIATRY

401. Intro to Clinical Interviewing.

(1) S, W. Prerequisite: Required for first-year residents in Psychiatry. Seminar 1 hour.

Jacobs, Goldfinger

Course teaches the rudiments of interviewing psychiatric inpatients. PSYCHIATRY

402. Introduction to Psychopathology. (1) Su, W. Required for first-year residents in Psychiatry. Seminar 1 hour.

Lu

Course provides a grounding in phenomenology and descriptive diagnostic features of the major psychopathologies, including the following types of disorders: schizophrenic, affective, organic mental, severe personality, and substance abuse. PSYCHIATRY

403. Intro to Psychopharmacology.

(1) Su, W. Required for first-year residents in Psychiatry. Seminar 1 hour.

Batki

Course addresses basic issues in prescribing, including patient compliance, the placebo effect, and the dynamic significance of medications. Also includes a review of basic neurochemical processes. PSYCHIATRY

404. Intro to Child Development. (1) Su, W. Required for first-year residents in Psychiatry. Seminar 1 hour.

Hanson

An introduction to developmental framework, with emphasis on ages 0-3 years. PSYCHIATRY

411. Forensic Psychiatry. (1½) W. Required for second-year residents in Psychiatry. Seminar 1½ hours.

Terr

An elective seminar discussing the major aspects of forensic psychiatry relevant to the practice of the clinician. Topics covered include competency, commitment, and criminal responsibility. PSYCHIATRY

413. Psychol Aspects of Psychr. (1) F, W. Prerequisite: Required for second-year residents in Psychiatry. Seminar 1 hour.

Marmar

Examination of neurotic and character disorders from a psychodynamic perspective. PSYCHIATRY

414. Psychobiology. (1) F, W, Sp. Prerequisite: Required for second-year residents in Psychiatry. Seminar 1 hour.

J. Mueller

Seminar explores biochemistry, physiology, and neuroanatomy as related to mental functioning and behavior, and applies concepts to the understanding of etiology and biological treatment of psychoses. Phenomenology and psychopathology of disorders and rationale for various psychological interventions are studied. PSYCHIATRY

415. Intro to Clinical Research. (1) W. Prerequisite: Psychiatry Resident II standing. Seminar 1 hour.

Zegans, Temoshok

Course will introduce residents to clinical research as an essential body of knowledge and skills which can be integrated into present and future clinical work. Consideration of research within four broad paradigms: intrapsychic, sociocultural, behavioral psychological, and psychobiological. PSYCHIATRY

416. Psychoanalytic Theory. (1) F, W, Sp. Prerequisite: Required for second-year residents in Psychiatry. Seminar 1 hour.

Baumbacher

Seminar offers instruction in the theoretical bases of psychoanalysis. PSYCHIATRY

417. Child Psychopath/Psychotherapy. (1) Su, F. Prerequisite: Required for second-year residents in Psychiatry. Seminar 1 hour.

Binger, I. Philips

Seminar covers the theory and implementation of the technique of psychotherapy with children. Emphasis is placed on play therapy. The seminar will also cover psychopathology as manifested in children, including descriptions and possible ideologies. PSYCHIATRY

421. Psychoanalytic Psychotherapy. (1) F, W, Sp. Required for third-year residents in Psychiatry. Seminar 1 hour.

Amini, Baumbacher

Course explores the application of psychoanalytic theory to psychotherapy. PSYCHIATRY

422. Social Psychiatry. (1½) F, W, Sp. Prerequisite: Required for third-year residents in Psychiatry, or consent of instructor. Seminar 1½ hours.

F. A. Johnson, Pearlin

Course introduces residents to various aspects of social and community psychiatry. Topics include social psychiatry prior to 1950, development of community mental health programs in the U.S., related social sciences, and current developments in the field. PSYCHIATRY

423. Group Therapy. (1) F, W. Required for third-year residents in Psychiatry. Seminar 1 hour.

Zeitlin

Course provides a didactic introduction to the practice of outpatient group psychotherapy. PSYCHIATRY

431. Neurology. (1) W. Prerequisite: Required for fourth-year residents in Psychiatry. Lecture 1 hour.

Palatucci

Review of clinical neurology with emphasis on neurological disorders that may have psychiatric implications. PSYCHIATRY

450. Psychopharmacology for Psych OP. (1) F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

Lannon, Stoterau

A seminar where participants read and present current psychopharmacological literature. Topics focus on 1) decision making regarding clinical syndromes in which medications would be helpful; 2) objective measures of treatment response; 3) practical drug management. PSYCHIATRY

451. Psychiatric Grand Rounds.

(1½) F, W, Sp. Lecture 1½ hours.

Barondes

Members of the Department of Psychiatry and distinguished guests make clinically centered presentations reflecting diverse areas of the field. PSYCHIATRY

452. Jungian Perspective Case Conf. (1) F, W, Sp. Prerequisite:

Resident in Department of Psychiatry or consent of instructor. Conference 1 hour.

Irvine, Singer

An elective continuous case conference focusing on transference and countertransference from a Jungian perspective. Major theoretical concepts will be discussed in context of the cases being presented. PSYCHIATRY

453. Dreams from the Jungian Perspective. (1) Sp. Prerequisite:

Resident in Department of Psychiatry or consent of instructor. Seminar 1 hour.

Richman

Seminar presenting the theoretical aspects of dreams and clinical application within the Jungian framework. PSYCHIATRY

454. Research Psychotherapy. (1)

F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

M. Horowitz, Marmar, Weiss

Discussion of issues in clinical research, focusing on questions in clinical research design in the study of psychotherapy. PSYCHIATRY

456. Brief Psychotherapy. (2) W,

Sp. Prerequisite: Graduate clinical

trainee standing at SFGH, or consent of instructor. Lab 3 hours.

Seminar 1 hour. E. Burke, J. Cohen

Review of the literature on psychodynamically oriented brief psychotherapy and review of completed cases. PSYCHIATRY

457. Advanced Psychotherapy. (1)

Su, F, W, Sp. Prerequisite: Consent of instructor. Lecture 1 hour.

Horowitz, Kaltreider, Marmar

Course covers psychotherapy of selected cases with recordings of the process, supervision during treatment, and group seminars in which the therapy is reviewed in retrospect using microanalytic and macroanalytic levels of abstraction. PSYCHIATRY

458. Research on Mental Processes.

(1½) Su, F, W, Sp. Prerequisite: Graduate standing in Psychology, or PGY 2-5 in Psychiatric Residency. Minimum commitment of one year, exception to some medical students for a one-quarter commitment. Seminar 1½ hours.

Horowitz, Marmar, Weiss

Guided research using an apprenticeship model involving recorded information from psychotherapy, research interviews, and experimental procedures using cognitive science methods. Systematic readings in the literature on meaning structures and defensive processes, including issues of motivation, attention, learning, and emotion. PSYCHIATRY

459. Evaluation of Psychotherapies.

(1½) F, W, Sp. Prerequisite: Resident in Department of Psychiatry or consent of instructor. Seminar 1½ hours.

Marmar

Course provides framework for residents which will enable them to take a systematic and rational approach in evaluation of various psychotherapies, including a method of assessing the conceptual consistency and validity of a given approach. PSYCHIATRY

460. Theories of Personality. (1) F,

W. Prerequisite: Resident standing in Department of Psychiatry or consent of instructor. Seminar 1 hour.

E. Burke

Focus is on personality theories other than Freudian, such as Piaget, Skinner, and Rogers. Course includes an examination, study, and discussion of contemporary personality theories, their concepts, systematic application to the behavioral sciences, and research potentials. Parallel reading is required. PSYCHIATRY

461. Occupational Mental Health.

(1) W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

Larsen

Course provides an introduction into the interpersonal dynamics, organizational constructs, cultural underpinnings, and sociodemographics associated with occupation and mental health. PSYCHIATRY

462. Psychol Aspects Medication

Usage. (1) F, W. Prerequisite: Consent of instructor. Seminar 1 hour.

Nevins

Course explores the psychological implications of prescribing medications. PSYCHIATRY

463. Clinical Case Conference. (1½)

F, W, Sp. Prerequisite: Consent of instructor. Conference 1½ hours.

Gootnick

The theory of an individual outpatient psychotherapy is presented. The case in treatment is followed on a weekly basis. PSYCHIATRY

464. Adult Continuous Case Conference. (1½) F, W, Sp. Prerequisite:

Consent of instructor. Seminar 1½ hours. Course given at San Francisco Psychoanalytic Institute Library.

Oremland

Seminar reviewing the literature pertinent to psychotherapy of the severely disturbed, predominantly borderline patient. A case will be presented and discussed. PSYCHIATRY

465. Psychobiography & Creativity.

(2-5) F, W, Sp. Prerequisite: Consent of instructor. Lecture 2-5 hours.

Ostwald

Course emphasizes the effects of mental illness on the lives of artists, scientists, statesmen, and other public figures. Biographical, autobiographical, and clinical studies of exceptional people will be compared. Students will be encouraged to select individual subjects for research. PSYCHIATRY

466. Behavioral Sciences Research.

(1½) Su, F, W, Sp. Prerequisite: Consent of instructor. Lab 4½ hours.

Callaway, Halliday and Staff

Course consists of supervised clinical and basic research in behavioral abnormalities, psychopathology, and experimental psychiatry. Specific subjects for research are chosen in conjunction with members of the staff. PSYCHIATRY

467. Group Therapy Videotape

Demo. (1) F, W, Sp. Prerequisite: Resident in Department of Psychiatry or consent of instructor. Seminar 1 hour.

D. Farrell

Demonstration of group therapy to be viewed on videotape. Material viewed will serve as a focus for the discussion of theory and technique in group therapy. PSYCHIATRY

481. Child Care Observation. (1)

Su. Prerequisite: Required for first-year child psychiatry fellows, or consent of instructor. Field work 1¼ hours.

Vaughan

Participate and observe activities at UCSF Child Care/Study Center. Experiences are discussed with supervisor. Experience to be enlarged to include observations at elementary and junior high school. PSYCHIATRY

482. Growth & Development Seminar. (1) F, W, Sp. Prerequisite:

Required for first-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

Metcalf

Provides theoretical understanding of normal growth and development. Format is primarily presentations and group discussions. PSYCHIATRY

483. Principles of Therapeutic

Meth. (1) F, W, Sp. Prerequisite: Required for first-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

I. Philips

Discussion of philosophy and practice of clinical work with patients. Includes history, principles, and methods of child psychiatry as well as all stages of child development and modalities of treatment. PSYCHIATRY

484. Family Therapy Seminar. (1)

Sp. Prerequisite: Required for first-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

Ponton

Discussion of theoretical issues and literature as well as review of clinical experience assigned to each trainee. Various modes and styles of family therapy are included. PSYCHIATRY

485. Psychopathology Literature

Sem. (1) F, W, Sp. Prerequisite: Required for first-year child psychiatry fellows, or consent of instructor for others. Seminar 1 hour.

Binger and Staff

Extensive review of pertinent readings in child and adolescent psychiatry. PSYCHIATRY

486. Devel Disabilities Seminar. (2)

Su. Prerequisite: Required for first-year child psychiatry fellows, or consent of instructor. Seminar 2 hours.

Flohr

Lectures focus on mental retardation, deafness, blindness, and cerebral palsy, with emphasis on the developmental, family, and social aspects. PSYCHIATRY

487. Adolescent Continuous Case

Seminar. (1½) F, W, Sp. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor for others. Seminar 1½ hours.

Gelber

Participation with senior staff member to discuss ongoing dynamics of psychotherapeutic work with adolescents. PSYCHIATRY

488. Child Psychiatry Clinical Conf.

(1½) F, W, Sp. Prerequisite: Required for first- and second-year child psychiatry fellows, or consent of instructor for others. Conference 1½ hours.

Sikorski

The Child and Adolescent Service has developed a continuing education program of distinguished speakers in the field of child psychiatry and related disciplines. Clinical problems and mini-courses are presented. PSYCHIATRY

489. Social & Legal Issues: Their

Impact on Clinical Practice. (1) W, Sp. Prerequisite: Required for first-year child psychiatry fellows; others with the consent of the instructor. Seminar 1 hour.

Reece

Covers current social and legal issues, policy questions, mental health legislation, and major court decisions which have impact on clinical practice and services. Areas included: divorce and child custody/support, domestic violence, day care, juvenile justice, schools, and cross-cultural psychiatry. PSYCHIATRY

490. Psychological & Educational

Evaluation. (½) SS2. Prerequisite: Required for first-year child psychiatry fellows or consent of instructor for others.

D. Morrison

Seminar is focused on the most common and prevalently used methods of assessing intelligence, educational achievement, perceptual-motor integration, and personality in children. Actual testing materials as well as supporting research are covered. Participation is required. PSYCHIATRY

491. Res Methodology in Child

Psychr. (1) F, W, Sp. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

D. Morrison

Review of basics of experimental design and methodology such as reliability and validity of measuring techniques, statistical inference, control group designs, and pre- and post-test designs. Clinical research with children provides a focus for discussion of relevant issues. PSYCHIATRY

492. Ped Consultation Orientation.

(1½) Su. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1½ hours.

Shatkin

Discussion of goals, attitudes, and skills required in child psychiatry consultation/liaison work. PSYCHIATRY

493. Pediatric Consultation Seminar. (1½) F. Prerequisite:

Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1½ hours.

Shatkin

Discussion of formal consultations of cases requested by the Pediatric Inpatient Service, Child Study Center, Family Medicine Clinic, etc. PSYCHIATRY

494. Com Consultation Literature

Sem. (1) Su. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

Reece, Sikorski

Review of literature and discussions on community consultation. PSYCHIATRY

495. Child Continuous Case Seminar. (1½) F, W, Sp. Prerequisite:

Required for second-year child psychiatry fellows, or consent of instructor for others. Seminar 1½ hours.

Amini

Participation with senior staff member to discuss ongoing dynamics of psychotherapeutic work with a preschool or latency-aged child. PSYCHIATRY

496. Teaching & Supervision Seminar. (1) Su, F, W, Sp. Prerequisite:

Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

I. Philips

Discussion of supervision of general psychiatry residents and medical students. PSYCHIATRY

497. Adolescent Psychiatry. (1) F,

W, Sp. Prerequisite: Required for second-year child psychiatry fellows, or consent of instructor. Seminar 1 hour.

M. Schwartz

Discussion of clinical problems of adolescents. PSYCHIATRY

498. Biological Basis of Child & Adolescent Psychiatry. (1) SS2. Prerequisite: Required for first-year child psychiatry fellows. Seminar 1 hour.

Binger, Lowe

Review of biological bases and psychopharmacological approaches to child and adolescent psychiatry. PSYCHIATRY

499. Child and Adolescent Forensic Seminar. (¾) SS2. Prerequisite: Required for second-year child psychiatry fellows. Seminar 2 hours.

Terr

A seminar discussing the major aspects of forensic child and adolescent psychiatry relevant to the practice of the clinician. Topics covered include childhood sexual abuse, trauma, court evaluations, and custody issues. Required for Child Psychiatry Fellows. PSYCHIATRY

PSYCHOLOGY

180.01. Seminar in Psychology. (1) W. Seminar 1 hour.

Plainfield

Weekly discussions in which students' clinical cases are analyzed by dynamic application of behavioral theory. DENT PUB HLTH

180.02. Psychol Aspects of Treatment Plan. (1) Sp. Seminar 1 hour.

Plainfield

This course integrates students' basic training from the specialty courses in dentistry with knowledge of the psychological considerations necessary to individualize treatment. Appropriate treatment may then be planned to the practitioners' awareness of the unique needs of patients. DENT PUB HLTH

180.03. Adv Psychol for Dental Hygiene. (1) Sp. Seminar 1 hour.

Plainfield

Seminar discussions on the emotional aspects of interpersonal transactions among office personnel, therapists, and patients. DENT PUB HLTH

180.05. Stress among Hlth Professionals. (2) § Sp. Seminar 2 hours.

Garfield

Course will focus on a theoretical understanding of the origins of job stress and the nature of burnout, and on practical and programmatic methods of reducing the stress overload incurred by physicians, nurses, and other health care professionals. PSYCHIATRY

180.06. Clin Health Psych Seminar. (1½) § F, W, Sp. Prerequisite: Experience and/or course work in either research methods or clinical theory and intervention. Consent of instructor. Seminar 1½ hours.

Temoshok

Participants and invited guests will present their in-progress research ideas and proposals, data analyses, and/or manuscript drafts for critique. Relevant literature reports will also be discussed. PSYCHIATRY

180.08. Brain-Behavior Research Methods. (3) § Sp. Prerequisite: Survey of physiological psychology, or equivalent. Lecture 2 hours. Seminar 1 hour. Offered in alternate years. Not offered 1988-89.

Galín and Staff

An extensive survey of techniques and strategies emphasizing critical appreciation of principles and range of appropriateness rather than how-to-do-it. Topics include clinical lesion studies, microscopic anatomy, neuroradiology, neurochemistry, psychopharmacology, autonomic psychophysiology, scalp electrophysiology, behavioral genetics, neuropsychological assessment. PSYCHIATRY

181.02. Cerebral Hemispheric Specializ. (2) § Sp. Prerequisite:

Background in neurophysiology, anatomy, cognitive psychology; intended for advanced students. Consent of instructor. Seminar 2 hours. Offered in alternate years.

Galín

Group discussions of readings in seminar format of neuropsychology of hemispheric specialization for cognitive function, and integration of the two hemispheres; developmental, psychiatric, and educational implications; evaluation of data from study of brain lesions, electrophysiological recordings, and behavioral testing. PSYCHIATRY

181.07. Coping with Stress in Med School. (1) § F, W, Sp. Seminar 1 hour. Enrollment limited. Priority given to medical students.

Blackwell

Consideration of psychological processes utilized under stress and of alternative constructive methods for coping, with practice in using these techniques. Course is designed to help students handle stress and apply such principles to management of patients. PSYCHIATRY

185. Nonverbal Communication. (1) W. 8-hour workshop plus research project.

Ekman

Reading messages from the face and body; what patients reveal without words about their feelings and personality, and what you are revealing to them. PSYCHIATRY

198. Supervised Study. (1-5) § F, W, Sp.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. PSYCHIATRY

200. Learning & Cognition. (4) § F. Prerequisite: Graduate standing in Health Psychology Program, or upper division courses in learning and cognitive psychology, and consent of instructor. Seminar 4 hours. Offered in alternate years. Not offered 1988-89.

G. Stone, Peeke, Halliday

Course provides a basis for continued reading of current research and theory in learning and cognition, and for designing interventions in health transactions based on readings; identifies and traces history of major issues and viewpoints. PSYCHIATRY

202A-B. Comptr Simulation of Hum Interact. (3-3) § W, Sp. Prerequisite: Psychology 257 or equivalent. Lecture 1 hour. Lab 6 hours.

Starkweather

The development and testing of theoretical models of personality are explored by means of computer programs. Students program the computer for simulation and symbol manipulation. PSYCHIATRY

203. History & Systems in Psychology. (3) § F. Seminar 3 hours. Offered in alternate years. Offered 1988-89.

Stone

The history of psychology will be surveyed from the perspectives of contemporary views of the philosophy of science and of psychology. Major systems of thought, perspectives, and approaches used will be reviewed, from earliest times to the present. PSYCHIATRY

205. Child Development. (3) § Sp. Prerequisite: Consent of instructor. Lecture 3 hours.

C. Lewis

Course will focus on major issues, theories, and findings in child development. Topics covered will include attachment; Piagetian and other theories of cognitive development; language development; moral development and pro-social behavior; aggression, and self-esteem and competence. PSYCHIATRY

210. Personality Psychology. (4) § F. Prerequisite: Consent of instructor. Lecture 4 hours. Offered in alternate years. Not offered 1988-89.

F. Cohen

General and systematic issues in the study of personality; theoretical and methodological issues in the assessment of personality and in re-

search on personality.

PSYCHIATRY

211A-B-C. Theories of Personality. (2-2) § F, W, Sp. Prerequisite: Graduate standing and consent of instructor. Psychology 211A is prerequisite to 211B & 211C, but may be taken independently. Seminar 2 hours. Enrollment limited.

J. Fisher

Survey of major contemporary theories of personality, including some more recent, selected philosophic points of view; study of their structure, how they conceptualize personality development, how they relate to empirical phenomena, and what research is generated by them. PSYCHIATRY

212. Psychological Stress & Coping. (4) § W. Prerequisite: Consent of instructor. Seminar 4 hours. Offered in alternate years. Offered 1988-89.

F. Cohen

Course examines stress and coping theory and research from clinical, field, and laboratory settings; measures of stress; issues in stress research; the nature of coping and coping processes. PSYCHIATRY

213. Emotion Seminar. (1) § F, W. Prerequisite: Knowledge in at least one or two substantive areas such as social psychology, cognition, psychopathology, cultural anthropology. Seminar 2 hours biweekly.

Ekman

Seminars will cover discussions of a variety of theories and research concerned with emotion, such as definitions; expression and behavior; physiological concomitants; relationships with cognition, consciousness, and culture; philosophical implications; and biopsychosocial applications. Guest speakers included. PSYCHIATRY

221. Prog Eval in Hlth & Human Serv. (2) § Sp. Prerequisite: Intended for graduate and professional students. Consent of instructor. Seminar 2 hours. Not offered 1988-89.

Attkisson

A seminar course designed to provide a basic overview of the organizational context of program evaluation; design and implementation of information systems; assessment of community needs; evaluation of program quality and effectiveness, and training of evaluators. PSYCHIATRY

222. Practicum in Program Evaluation. (2-4) § F, W, Sp. Prerequisite: Graduate standing and some experience in interviewing. Lab 3 hours. Seminar 6 hours during first 4-6 weeks.

Blackwell

After an intensive seminar introduction to basic concepts of evaluation, students will carry out various evaluations on clinical clerkships in the School of Medicine. The length of the introductory period will depend on previous experience of students. PSYCHIATRY

223A-B. Research Consultation. (2) § W, Sp. Lecture 2 hours.

Blackwell, Lewis, Gerbert

Course will introduce graduate students to the consultant role by identifying concepts/skills in consulting, exploring problems in consultation, and presenting ethical, legal, and business aspects of consulting. Exercises will assist students in developing skills and personal consultation style. PSYCHIATRY

225. Teaching Methods. (3) § W. Seminar 3 hours.

Gerbert

Course will introduce students to educational theory and practice through didactic and experiential activities. Topics covered include developing objectives, instructional design, lecture and small group facilitation as well as other methods of teaching, and student and course evaluations. PSYCHIATRY

230. Physl Aspects of Hlth Psychol. (4) § F. Prerequisite: Graduate standing in Health Psychology program or consent of instructor. Lecture 4 hours. Offered in alternate years. Not offered 1988-89.

Naifeh

An overview of major organ systems of the human body stressing psychological impacts on their functioning and psychological consequences of abnormality. Course will prepare student for reading medical literature and interacting effectively with health professionals in planning research. PSYCHIATRY

231. Introduction to Biopsychology. (4) § W. Prerequisite: Consent of instructor. Lecture 4 hours.

Staff

An overview of the following four areas and their relationship to health behavior: brain sciences, psychoneuroimmunology, psychoendocrinology, and psychopharmacology. PSYCHIATRY

235. Psychophysiology. (2) § W. Lecture 2 hours. Lab 1 hour.

Kamiya

Survey of relationships between psychological and physiological processes during continuous monitoring of autonomic activity, as seen in biofeedback training, medical settings, and in the laboratory. Lectures, readings, demonstrations. PSYCHIATRY

236A-B-C. Human Neurophysiology. (1-1-1) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour.

Yingling

A journal club format seminar course which will examine the current literature in human EEG and evoked potentials, with emphasis on identification of cerebral sources. Students will make oral class presentations. PSYCHIATRY

237. Neurophysiological Mech of EEG. (3) § W. Prerequisite: At least one course in physiological psychology or neurobiology, or consent of instructor. Lecture 1 hour. Seminar 2 hours.

Yingling

Course will examine the neuroanatomical and neurophysiological mechanisms underlying the generation and regulation of EEG and Event-related Potentials, their measurement and clinical uses. Emphasis on the nature and limitations of inferences concerning brain activity obtainable from scalp recordings. PSYCHIATRY

240. Social Psychology. (4) § W. Prerequisite: Consent of instructor. Lecture 4 hours. Offered in alternate years. Not offered 1988-89.

Lieberman

A critical review of social psychological theory and research. Topics include role theory, attribution theory, group dynamics, interpersonal relations, social influence, decision-making, attitude formation and change, and the application of social psychology to problems of health and health care. PSYCHIATRY

248. Independent Study. (1-6) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Independent study under the supervision of a member of the faculty. PSYCHIATRY

250. Research. (1-8) § F, W, Sp. Staff PSYCHIATRY

254A. Research Methods. (4) § Sp. Prerequisite: Consent of instructor. Lecture 4 hours. Offered in alternate years. Not offered 1988-89.

S. Hall, C. Lewis

An overview of research strategies and their associated strengths and weaknesses; experimental and quasi-experimental designs, correlational approaches, interview techniques, survey and questionnaire construction, uses of archival data, and observational techniques. PSYCHIATRY

254B. Research Methods. (4) § Sp. Prerequisite: Consent of instructor. Lecture 4 hours. Offered in alternate years. Offered 1988-89. N. Adler

An in-depth study of the research process with emphasis on quasi-experimental design, ethics of research and grant writing. PSYCHIATRY

257. Intro to Comptr for Beh Sci. (3) § F. Prerequisite: Elementary statistics and consent of instructor. Lecture 1 hour. Lab 6 hours. Starkweather

The computer is studied as a useful tool for data analysis and controlled experiment. Students will learn to make use of existing program systems. PSYCHIATRY

260. The Health System. (4) § W. Prerequisite: Graduate standing in Health Psychology Program, or consent of instructor. Lecture 2 hours. Seminar 2 hours. Offered in alternate years. Offered 1988-89.

Attkisson

Function and tasks of the health system with emphasis on the study of health service organizations and health services delivery from the perspective of living systems theory and organizational psychology. PSYCHIATRY

261A-B-C. Intro to Health Psychology. (1) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour. Offered in alternate years. Not offered 1988-89.

Staff

Provides an overview of the entire field of health psychology and places it in relationship to other areas of psychology and allied disciplines. Scientific, professional, ethical, and educational issues will be considered by means of lectures, discussion, and guest speakers. PSYCHIATRY

262. Proseminar in Health Psychology. (4) § Sp. Prerequisite: Consent of instructor. Lecture 4 hours. Offered in alternate years. Not offered 1988-89.

Cohen

Examination of empirical research and theoretical perspectives in certain problem areas within the health system where psychological knowledge is of direct relevance, such as information-processing in patient and physician, compliance, coping with the stress of illness. PSYCHIATRY

263A-B-C. Research Placement & Seminar. (4-4-4) § F, W, Sp. Prerequisite: Consent of instructor. Seminar 1 hour. Lab 9 hours. Of-

fered in alternate years. Offered 1988-89.

N. Adler

Students will be placed in an ongoing research project in which they will carry out an individual project. They will participate in a concurrent seminar, where research methods and strategies, ethics, and problems of research will be discussed. PSYCHIATRY

265. Stress & Bodily Disease. (4) § W. Prerequisite: Consent of instructor. Seminar 4 hours.

F. Cohen

Examination of the psychological and physiological models and empirical research linking stress and other psychological factors to the development of bodily disease. PSYCHIATRY

266. Reproductive Behavior. (3) § Sp. Prerequisite: Consent of instructor. Seminar 3 hours. Offered in alternate years. Offered 1988-89.

N. Adler

Examination of the role that psychological and social factors can play in a variety of reproductive behaviors: pregnancy, obstetrical complications, postpartum reactions, infertility, contraceptive use and nonuse, spontaneous and induced abortion. PSYCHIATRY

270A-B. Commun Skills in Health Trans. (2-2) § W, Sp. Prerequisite: Graduate standing in Health Psychology Program, or consent of instructor. Lecture 1 hour. Lab 3 hours. Offered in alternate years. Offered 1988-89.

Stone, Gerbert

A two-part course that teaches a number of skills involved in face-to-face interactions and prepares the student to do research on communication, and to teach the skills to others. PSYCHIATRY

281A-B-C-D. Clinical Research Seminar. (1½-1½-1½-1½) § Su, F, W, Sp. Prerequisite: Consent of instructor. Seminar 1½ hours.

Attkisson

Seminar discussions of contemporary research in clinical psychology. Issues covered include major problems in conducting clinical research, skills and methods required in clinical research, and career development for the clinical psychologist. Course is intended primarily for advanced clinical psychology students. PSYCHIATRY

285A-B-C-D. Intermediate Family Therapy. (1½-3-3-3) § SS2, F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours. Four-quarter course.

Hatcher

Stages in family development, communications analysis, role definitions, family myths, power and resistance systems, growth models of family therapy, and intervention techniques. Emphasis on clinical and practical issues, videotape presentations of families in treatment, clinical supervision of ongoing cases. PSYCHIATRY

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. PSYCHIATRY

300. Teaching Practicum. (0) § F, W, or Sp. Prerequisite: Consent of instructor. Lecture and lab variable.

Staff

Supervised classroom or tutorial teaching experience. PSYCHIATRY

RADIATION ONCOLOGY

140.01. Radiation Oncology Clerkship—UC. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C.

Larson

Participation in examination of cancer patients under treatment in radiation oncology. Students participate in rounds, conferences and clinics, and see demonstrations on the use of newer radiotherapeutic techniques. RADIOLOGY

140.03. Radiation Oncology Clerkship—UCB. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C.

J. Castro

Participation in examination of cancer patients under treatment in radiation oncology. Students participate in rounds, conferences, and clinics, and see demonstrations on the use of newer radiotherapeutic techniques. RADIOLOGY

140.06. Radiation Oncology Clerkship—MZ. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C.

J. Castro

Participation in examination of cancer patients under treatment in the Claire Zellerbach Saroni Tumor Institute at MZ. Students participate in rounds, conferences, and clinics, and see demonstrations on the use of newer radiotherapeutic techniques. RADIOLOGY

150.01. Research Selective. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C.

Dewey

Individual research in radiation oncology by arrangement with the chairperson of the department. Students work under close supervision of a member of the staff. RADIOLOGY

403. Radiation Oncology Grand Rounds. (1) Su, F, W, Sp. Lecture 1 hour.

T. Phillips

Rounds include presentation of problem cases with discussions of diagnosis and treatment as well as biologic implications. Frequent guest lectures are used to cover important aspects of oncology. RADIOLOGY

404. Cancer Specialty Seminar. (3) Su, F, W, Sp. Seminar 3 hours.

T. Phillips

Seminars include discussions of the diagnosis, treatment, and results of specialty oncology problems, including head and neck, gynecologic, otolaryngologic, pediatric, dermatologic, lymphomatous, and general malignancies. RADIOLOGY

415. Radiobiology Seminar. (1) F, W, Sp. Seminar 1 hour.

Dewey

Study of principles of radiobiology and their application to radiotherapy. Seminars deal in depth with textbooks, selected readings and prepared seminars leading to understanding of mechanisms of action of radiation in clinical radiotherapy. Oriented to radiotherapy fellows and residents. RADIOLOGY

423. Therapeutic Treatment Planning. (10) Su, F, W, Sp. Prerequisite: Residents assigned to therapeutic radiology. One-month workshop course.

V. Smith

A workshop course to provide residents in therapeutic radiology with the elements of treatment planning and dose calculations. RADIOLOGY

424. Therapeutic Radiology Physics. (1) F, W, Sp. Prerequisite: Residents assigned to therapeutic radiology. Lecture-seminar 1 hour.

Ling

A lecture-seminar course with practical sessions to provide the resident with a basic knowledge of radiological physics with special reference to those aspects relating to therapeutic radiology. RADIOLOGY

454. Clinical Therapeutic Radiology. (1½ per week) Su, F, W, Sp.

T. Phillips

Residents, under supervision, are responsible for diagnosis, treatment, and follow-up of patients referred to radiation therapy from the wards and outpatient clinics. Ra-

diation therapy rounds include discussion of newly referred patients; chart rounds include the discussion of patients under treatment. RADIOLOGY

RADIOLOGY

100. Intro to Clinical Radiology. (2) F, W, Sp. Prerequisite: Anatomy 100 and 103, Medicine 130, Pathology 102, and Psychiatry 130; concurrent enrollment in Medicine 131A-B-C. Lecture 1 hour. Lab 1 hour.

S. Ross

Course provides instruction in basic aspects of therapeutic and diagnostic radiology and nuclear medicine. Illustration of diagnostic and therapeutic modalities in specific disease states provides instruction in use of radiologic resources. RADIOLOGY

140.01. Advanced Roentgen Diagnosis. (1½ per week) Su, F, W, Sp. Prerequisite: Radiology 140.03 or 140.09 or 140.17. Consent of instructor.

Carlsson

Advanced clinical clerkship for students interested in a career in academic radiology. Students observe clinical work, observe or participate in research, and write a term paper. RADIOLOGY

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C.

Carlsson

Clinical clerkship in approved hospital by special arrangement and approval of the chairperson of the department and the dean. RADIOLOGY

140.03. Diagnostic Radiology. (1½ per week) Su, F, W, Sp. Prerequisite: Third-year Medicine 131A-B-C. Fourth-year Medicine 110 and Surgery 110.

Carlsson, S. Ross

Clerkship in radiology for third- and fourth-year students. Observation of procedures, review of pathology, pathophysiology, diagnosis, and natural history of selected diseases through study of roentgenograms with case histories. Potentials and limitations of radiologic method included. RADIOLOGY

140.04. Nuclear Medicine. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 131A-B-C.

Hattner

Observation of basic nuclear medicine procedures and participation in diagnostic tests employing radiotopic tracers. RADIOLOGY

140.09. Diagnostic Radiology—SFGH. (1½ per week) Su, F, W,

Sp. Prerequisite: Fourth-year standing or consent of instructor.

Minagi

Students serve a clerkship in the Diagnostic Section of the Department of Radiology. They observe performance of radiologic procedures and interpretation of films, attend conferences, and learn basic philosophy of conducting radiologic examinations and the basic rules of interpretation. RADIOLOGY

140.14. Diagnostic Radiology—VAF & VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing, or third-year standing with consent of instructor.

M. Anderson, J. L. Williams and Staff

Acquaints students with available techniques in diagnostic radiology, including nuclear medicine, ultrasound, computed tomographic scanning, angiography, other special procedures, conventional X-ray examination, fluoroscopy, and provides an introduction to "routine" film interpretation. Students have assignments at VAF, VMC, community hospitals. RADIOLOGY

140.16. Basic Nuclear Medicine—STA. (1½ per week) Su, F, W, Sp. Prerequisite: Fourth-year standing.

Corbus, Touya

Imaging techniques including nuclear cardiology, single photo emission tomography, and computerized processing at St. Agnes Medical Center, Fresno. RADIOLOGY

140.17. Clinical Radiology. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Wall

Students may be involved in clinical diagnostic procedures such as body and neuro computed tomography, ultrasound, fluoroscope, chest, bone, and interventional radiography, with concentration on any one of these areas. Clinical or research projects may be undertaken with permission of the instructor. RADIOLOGY

150.01. Research in Radiology. (1-1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and approval of instructor. For students seriously interested in a career in academic medicine.

Carlsson, S. Ross

A research project under the direction of a member of the faculty. RADIOLOGY

170.01. Clinical Application of Anatomy & Pathology. (1-2) F, W, Sp. First-year standing. Lecture 1-2 hours.

S. Ross, Colangelo

Course demonstrates anatomy in the living through the use of radiographs. Objectives are to show the usefulness of knowing anatomy, to begin acquiring a medical vocabulary, the elements of clinical thinking, and useful habits in learning. **RADIOLOGY**

170.02. Clinical Application of Anatomy & Pathology. (1-3) F, W, Sp. Second-year standing. Lecture 1-3 hours.

S. Ross, Colangelo

A lecture course limited to small groups, with active participation on selected aspects of pathological anatomy and its usefulness in understanding disease, its origins, development and clinical manifestations. **RADIOLOGY**

170.08. Nuclear Medicine Physics & Imaging. (2,2) F, W. Prerequisite: B.A. or M.D. degree. Given concurrently with Radiology 170.09. Lecture 2 hours a week for 6 weeks. Independent study 10 hours.

Perez-Mendez

Introduction to the physics of radioactivity, nuclear instrumentation and gamma-ray imaging techniques. **RADIOLOGY**

170.09. Introduction to Nuclear Medicine. (3½) Su, F, W, Sp. Prerequisite: Given concurrently with Radiology 170.08. Lecture 5 hours a week for 6 weeks. Independent study 10 hours.

D. Price

Introduction to basic nuclear medicine diagnostic procedures, both in vivo and in vitro, and therapy with radiopharmaceuticals. **RADIOLOGY**

170.10. Radiologic Aspects of Surgery. (1) Su, F, W, Sp. Prerequisite: Third-year surgery. Seminar 1 hour.

Minagi, Laing

Weekly seminar covering the radiologic studies of surgical cases emphasizing indications, risks, and information derived from procedures. Active participation in X-ray interpretation is included. **RADIOLOGY**

170.11. Emergency Radiology. (1) Su. Lecture 1 hour.

Minagi

An elective course for fourth-year medical students. Consideration of the role of the radiologist as a consultant in the emergency room. Topics covered include head injuries, fractures, dislocations, chest, abdominal and genito-urinary trauma, and management of contrast reactions. **RADIOLOGY**

198. Supervised Study. (1-5) F, W, Sp.

Carlsson and Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. **RADIOLOGY**

199. Laboratory Project. (1-5) F, W, Sp.

Carlsson and Staff

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. **RADIOLOGY**

220. Radiol Physics for Physicists.

(2) § F, W, Sp. Prerequisite: Bachelor's or higher degree in the physical sciences.

Staff

Seminars provide physicists with an in-depth knowledge of radiological physics. **RADIOLOGY**

400. Diagnostic Radiology Seminar.

(1) Su, F, W, Sp. Lecture 1 hour.

H. Goldberg

Faculty from radiology and other departments lecture and discuss various diseases of all systems of the body. Residents prepare case histories stressing roentgen findings and correlative surgical and laboratory work, special studies, library and film research. **RADIOLOGY**

401. Diagnostic Case Rounds. (2) Su, F, W, Sp.

Margulis, Gooding

Films of interesting cases from the daily work are presented and reviewed. Roentgenograms of surgically and pathologically proved cases are correlated with the gross and microscopic pathologic findings. **RADIOLOGY**

402. Diagnostic Specialty Seminar.

(3) F, W, Sp. Required for UC residents in diagnostic radiology.

Margulis

Seminars require preparation and presentation of roentgen findings on patients under discussion at medical, surgical, pediatric, obstetric and gynecologic departmental conferences and seminars on congenital heart disease, disease of the gastrointestinal tract, and orthopaedics. **RADIOLOGY**

403. Emergency Radiology. (1) F, W. Prerequisite: Required for first-year residents in radiology. Lecture 1 hour.

Minagi

Role of radiologist as consultant in the emergency room; head injuries, fractures, dislocations, blunt and penetrating chest trauma, blunt and penetrating abdominal trauma, trauma to genito-urinary system; management of contrast reactions; indications for, conduction of,

interpretation of special radiologic procedures. **RADIOLOGY**

405. Radiological Research. (1-8) Su, F, W, Sp. Elective.

Margulis

Numerous research projects are conducted in the department and facilities are available for new ones. Residents are encouraged to take advantage of these opportunities. **RADIOLOGY**

408. Radiology Specialty Sem-SFGH. (3) Su, F, W, Sp.

Coulson

Interdepartmental seminars in which the radiological picture of problem cases either of diagnostic or therapeutic nature is presented. This course includes surgical and medical radiological rounds, consultative tumor board, clinicopathological conferences, and other department grand rounds. **RADIOLOGY**

409. Radiology Specialty Seminar-VA. (3) Su, F, W, Sp. Seminar 3 hours.

Akin

Interdepartmental seminars in which the radiological picture of problem cases either of diagnostic or therapeutic nature is presented. These include medical-surgical, clinicopathological, chest, medical X-ray, rheumatology, neurology, and neurological surgery conferences; consultative tumor board; and surgical and orthopaedic grand rounds. **RADIOLOGY**

410. Radiat Effects on Genes & Chrom. (2) W. Prerequisite: Consent of instructor. Lecture 2 hours.

S. Wolff

Concepts and mathematics of target theory related to damage of genetic apparatus. Biophysical and biochemical studies on induction of intragenic and intergenic mutations that give insight into the structure of chromosomes and interaction of radiation with biological material. **RADIOLOGY**

412. Pathology. (1) Su, F, W, Sp. VA Hinchcliffe

Course includes review of surgical pathology material and attendance at autopsy rounds. **RADIOLOGY**

414. Physics of Diagnostic Radiology. (2) W, Sp. Lecture 1½ hours. Lab 2 hours.

R. Gould

Course is designed to acquaint residents with the physical principles of diagnostic radiology. Topics include generation and extraction of radiologic information, image conversion, recording methods, and special-purpose equipment. CT and

ultrasound physics are discussed. **RADIOLOGY**

419. Growth Kinetics—Cells & Tumors. (2) Sp. Prerequisite: Consent of instructor. Lecture 2 hours.

Cleaver, Patt

An analysis of cell population growth in tissues, tumors, and cultures. Emphasis is given to radioactive tracers such as thymidine and its biochemistry, and experimental methods for studying cell proliferation in vivo and in vitro. **RADIOLOGY**

420. Nuclear Medicine Seminar. (1) F, W, Sp.

Hattner and Staff

Rotating assignments of topics for discussion by residents in nuclear medicine training programs in all affiliated hospitals. Critical reviews of available information in limited areas are used to provide a broad review of nuclear medicine for all trainees. **RADIOLOGY**

450. Clinical Nuclear Medicine. (1½ per week) Su, F, W, Sp.

Hattner and Staff

Clinical experience in diagnostic and therapeutic nuclear medicine to satisfy requirements of American Board of Radiology for certification in diagnostic radiology and radiation therapy. **RADIOLOGY**

451. Clinical Diagnostic Radiology. (1½ per week) Su, F, W, Sp. Prerequisite: Radiology 450.

Margulis

Residents, under supervision, carry out radiological examination and interpretation of X-rays of patients referred from wards and outpatient clinics. The chief resident has certain administrative duties relative to the resident training program. **RADIOLOGY**

452. Clinical Diagnostic Radiology. (1½ per week) Su, F, W, Sp. Prerequisite: Radiology 450.

VA Akin

Residents, under supervision, are responsible for the diagnostic activities of the department, including diagnostic consultations and reports, history-taking, and physical examinations. In addition, the chief resident has certain administrative duties relative to the resident training program. **RADIOLOGY**

453. Clinical Radiology. (1½ per week) Su, F, W, Sp. Prerequisite: Radiology 450.

SFGH-Coulson

Residents are responsible for the diagnostic activities of the department under the direction of staff radiologists including diagnostic consultations and reports, history-taking,

and physical examinations. **RADIOLOGY**

REMOVABLE PROSTHODONTICS

400. Approaches to Maxofac Prosthodont. (1) F, W, Sp. Lecture 1 hour.

Zlotolow

Course is designed to acquaint residents with multidisciplinary aspects of maxillofacial prosthetics. Lectures will be given on maxillofacial prosthetic techniques, oncology, head and neck surgery, plastic surgery, oral surgery, therapeutic radiology, psychology and related oral biology. **RESTOR DENT**

489.01. Clinical Maxillofacial Prosthodont. (1-6) F, W, Sp. Lab variable.

Zlotolow

Residents and advanced prosthodontic students will observe and perform maxillofacial prosthodontic services for patients in the Maxillofacial Clinic. A detailed case history will be required each quarter. Attendance at related tumor board conferences and field trips to other therapy centers. **RESTOR DENT**

RESTORATIVE DENTISTRY

110A. Intro to Restorative Dentistry. (2) F. Prerequisite: Concurrent enrollment in Restorative Dentistry 115A. Lecture 2 hours.

Jendresen, Tueller, D. Graham

An introductory lecture course including tooth morphology, development and form of primary and permanent dentition, and theory of cavity design and preparation. **RESTOR DENT**

110B. Intro to Restorative Dentistry. (3) W. Prerequisite: Restorative Dentistry 110A. Concurrent enrollment in Restorative Dentistry 115B.

Jendresen, Tueller, McNeill, Lacy, Traweck

Continuation of Restorative Dentistry 110A, including application of individual tooth and arch forms to interarch relationships; physics, chemistry, metallurgy of dental materials; physical and chemical effects of gypsum, cements, resins, waxes, colloids, metals; and introduction to complete denture prostheses. **RESTOR DENT**

110C. Intro to Restorative Dentistry. (4) Sp. Prerequisite: Restorative Dentistry 110B and 115AB. Concurrent enrollment in Restorative Dentistry 115C. Lecture 4 hours.

Jendresen, Lacy, Traweck, Mendoza, Yip

Continuation of Restorative Dentistry 110B, including physical and

chemical responses to dental materials, principles involved in preparation, design, articulation, mounting, waxing, casting techniques for fixed prosthodontics; and biological background and clinical application of techniques used in complete denture prosthodontics. **RESTOR DENT**

115A. Intro to Restorative Techniques. (0-5) F. Prerequisite: Concurrent enrollment in Restorative Dentistry 110A. Lab 6 hours.

Jendresen, Hamaguchi

Introductory laboratory course in restorative dental techniques. Topics include study of individual tooth form and relationship to adjacent and opposing structures. **RESTOR DENT**

115B. Intro to Restorative Techniques. (0-5) W. Prerequisite: Restorative Dentistry 110A and 115A.

Concurrent enrollment in Restorative Dentistry 110B. Lab 9 hours. Jendresen, Hamaguchi, D. Graham

Continuation of restorative dental laboratory course. Topics include dental and anatomical relationships within the dental arch and between opposing arches; application of principles involved in cavity design and preparation. **RESTOR DENT**

115C. Intro to Restorative Techniques. (6) Sp. Prerequisite: Restorative Dentistry 110B and 115B. Concurrent enrollment in Restorative Dentistry 110C. Lab 18 hours. Jendresen, Green, Hamaguchi, Graham

Continuation of Restorative Dentistry 115B. Topics include basic techniques in fixed prosthodontics, operative cavity design and preparation, and basic technical and clinical procedures in complete denture prosthodontics. **RESTOR DENT**

116B-C. Primary Clinical Care. (0-3) W, Sp. Lecture 1 hour. Clinic 3 hours.

Jendresen, Braly, Eakle

Introduction to clinical dentistry: students perform a comprehensive baseline examination of the oral cavity and evaluation of the patient's health status. Students are introduced to infiltration local anesthesia, rubber dam application, making and mounting diagnostic casts, and chairside assisting. **RESTOR DENT**

120A. Restor Dent Techniques Theory. (4) F. Prerequisite: Restorative Dentistry 110C and 115C. Concurrent enrollment in Restorative Dentistry 125A. Lecture 4 hours.

Jendresen, Holmes, Graham, Lacy, Mendoza

Continued instruction in theory and principles of dental restorations, including fundamentals of bridge construction, ceramo-metal restoration, techniques in operative dentistry, fundamentals of partial denture design, and construction of the partial denture. RESTOR DENT

120B. Restor Dent Techniques Theory. (3) W. Prerequisite: Restorative Dentistry 120A. Concurrent enrollment in Restorative Dentistry 125B. Lecture 4 hours. Jendresen, Rosenberg, Lacy, Kouyoumdjian

Theory and principles of dental restorations: rationale for use of clinical restorative materials, manipulation, clinical application of restorative systems; introduction to endodontics, background for clinical practice, continuing discussions of theory and principles in operative dentistry, fixed and removable prosthodontics. RESTOR DENT

120C. Restor Dent Techniques Theory. (4) Sp. Prerequisite: Restorative Dentistry 120B. Prerequisite: Restorative 120B and 125B. Concurrent enrollment in Restorative Dentistry 125C. Lecture 4 hours. Jendresen, Lacy, McNeill, D. Graham, D. Curtis

This course concludes the preclinical lecture series in restorative dentistry. Theories and principles in the disciplines of biomaterials, endodontics, fixed prosthodontics, operative dentistry, and removable prosthodontics are interrelated, and clinical application of principles is stressed. RESTOR DENT

125A. Restorative Dental Techniques. (6) F. Prerequisite: Restorative Dentistry 110C and 115C. Concurrent enrollment in Restorative Dentistry 120A. Lab 18 hours. Jendresen, Kahl, D. Graham, J. Holmes

Laboratory instruction in the disciplines of fixed prosthodontics, operative dentistry, and removable prosthodontics. Topics include instruction in basic bridge construction, ceramo-metal restorations, cast gold restorations, and partial denture construction. RESTOR DENT

125B. Restorative Dental Techniques. (5) W. Prerequisite: Restorative Dentistry 120A and 125A. Concurrent enrollment in Restorative Dentistry 120B. Lab 18 hours. Jendresen, Rosenberg, T. Wood, A. Lacy

Continuation of laboratory instruction in the disciplines of endodontics, fixed and removable prosthodontics. Techniques include laboratory procedures involved in root canal therapy, instruction in ceramo-metal restoration, and fabrication

of immediate dentures. RESTOR DENT

125C. Restorative Dental Techniques. (5) Sp. Prerequisite: Restorative Dentistry 120B and 125B. Concurrent enrollment in Restorative Dentistry 120C. Lab 15 hours. Jendresen, Muncheryan, D. Graham

Continuing laboratory instruction in the disciplines of operative dentistry and removable prosthodontics. Techniques include buildup of teeth, bases, liners, and caries removal; composite/sealants/veneers and the replacement of missing teeth. RESTOR DENT

126A-B-C. Comprehensive Clinical Care. (0-3) F, W, Sp. Clinic 3 hours.

Jendresen, Braly, E. Maxwell

Thirty hours per quarter of clinic in comprehensive case workup of dental patients. Includes case history, clinical examination, diagnosis, and treatment planning to meet the patient's total dental needs. RESTOR DENT

130.01. Clin Application of Techniques. (1) SS. Prerequisite: Restorative Dentistry 120C and 125C. Lecture 2 hours.

Jendresen, Braly, Tueller

Introduction to work in the clinic. Emphasis is on application of techniques taught in the laboratories. Topics include diagnosis, occlusion, tooth preparation, and temporization. RESTOR DENT

130.02. Clin Application of Techniques. (5) F. Prerequisite: Restorative Dentistry 130.01. Concurrent enrollment in Restorative Dentistry 109. Lecture 5 hours.

Jendresen, Rosenberg, Tueller, Braly, A. Green, Lacy

Continuation of Restorative Dentistry 130.01, with emphasis on clinical application of restorative techniques. Topics include diagnosis and treatment of pulp disease, tooth preparation and impression materials, diagnosis and treatment of dental emergencies, and treatment planning for the edentulous patient. RESTOR DENT

130.03. Clin Application of Techniques. (3) W. Prerequisite: Restorative Dentistry 130.02. Concurrent enrollment in Restorative Dentistry 109. Lecture 3 hours.

Jendresen, Tueller, Braly, Finzen

Continuation of Restorative Dentistry 130.02, with emphasis on clinical application of restorative techniques. Topics include temporary restorations and occlusal therapies, rationale of cutting techniques and pulpal response to restorative treatment, and treatment

planning for removable partial dentures. RESTOR DENT

130.04. Clin Application of Techniques. (4) Sp. Prerequisite: Restorative Dentistry 130.03. Concurrent enrollment in Restorative Dentistry 139. Lecture 4 hours.

Jendresen, Rosenberg, Tueller, Braly, Chierici

Concluding lectures on clinical application of restorative techniques. Topics include understanding why clinical failures occur with selected materials; biological responses to dental materials; pulp protection; pulpal response to treatment; and prosthetic treatment of patients with congenital or acquired malformations. RESTOR DENT

136. Clinical Oral Diagnosis. (0-2) SS, F, W, Sp. Prerequisite: Completion of all second-year requirements in Restorative Dentistry. Must be taken concurrently with Restorative 139. Clinic variable.

Braly

Individual clinical instruction in primary care, and oral diagnosis and treatment planning. Student must present a clinical case in seminar. RESTOR DENT

139. Clinical Restorative Dentistry. (0-10) Su, F, W, Sp. Prerequisite: RD 120C, 125C, 126ABC. Concurrent enrollment in RD 130 lecture series required. Students are required to successfully complete a minimum of 5 units in RD 139. Clinic variable.

Jendresen, Braly, Holmes, Rosenberg, Tueller

Clinical instruction and practice in the disciplines of endodontics, fixed prosthodontics, operative and primary care, and removable prosthodontics. Course is graded after student passes qualifying examinations at the end of Spring quarter, third year. RESTOR DENT

146. Clinical Oral Diagnosis. (0-6) Su, F, W, Sp. Prerequisite: Completion of all third-year requirements in Restorative Dentistry. Must be taken concurrently with Restorative 149. Clinic variable.

Braly

Individual clinical instruction in primary care, and oral diagnosis and treatment planning. Written and clinical qualifying examinations are included. RESTOR DENT

148. Clin Restor Dent-Comm Clinics. (0-4) Su, F, W, Sp. Prerequisite: Concurrent enrollment in Restorative Dentistry 149; completion of all third-year qualifying examinations; fourth-year standing. Clinic variable.

Jendresen, Rosenberg, Braly, Holmes, Tueller

Clinical instruction and practice in the disciplines of Endodontics, Fixed Prosthodontics, Operative and Primary Care, and Removable Prosthodontics for fourth-year students at the UCSF Community Dental Clinics at SF General Hospital and Buchanan Street. Students will prepare written documentation of their most challenging case during their Community Clinic service. RESTOR DENT

149. Clinical Restorative Dentistry. (0-50) F, W, Sp. Prerequisite: Successful completion of Restorative Dentistry 139 and all third-year qualifying examinations.

Jendresen, Rosenberg, Braly, Holmes, Tueller

Clinical instruction and practice in the disciplines of endodontics, fixed prosthodontics, operative and primary care, and removable prosthodontics. Course is graded after student passes qualifying examinations at the end of Spring quarter, fourth year. RESTOR DENT

170A-B-C-D-E-F-G-H. Prosthodontics Literature Review. (0-4) A, E: Su, B, F: F, C, G: W, D, H: Sp. Prerequisite: Enrollment in Postgraduate Prosthodontics Program. Seminar 1-4 hours. Two-year course.

T. Curtis, Radke

Current and past prosthodontic literature will be studied and discussed. Students will learn to distinguish between appropriate, controversial, and inappropriate prosthodontics literature. RESTOR DENT

171A-B-C-D-E-F-G-H. Prosthodontic Treatment Planning. (0-2) A, E: Su, B, F: F, C, G: W, D, H: Sp. Prerequisite: Enrollment in Postgraduate Prosthodontics Program. Lecture 1 hour. Seminar 1 hour. Two-year course.

T. Curtis, Radke

A treatment plan will be discussed and developed for each patient after all diagnostic aids have been gathered. Students will be responsible for establishing an initial treatment plan prior to the seminar and for justifying it before the group. RESTOR DENT

172A-B-C-D-E-F-G-H. Prosthodontic Procedures. (0-2) A, E: Su, B, F: F, C, G: W, D, H: Sp. Prerequisite: Enrollment in Postgraduate Prosthodontics Program. Lecture 1 hour. Seminar 1 hour. Two-year course.

T. Curtis, Radke

Staff and program consultants will present lectures on various aspects of fixed and removable prosthodontics and related subjects on a graduate level. RESTOR DENT

174. Nutrition. (1) SS1. Prerequisite: D.D.S., D.M.D. or equivalent degree. Enrollment in a postdoctoral specialty program. Seminar 1 hour.

M. Wilkins

Course will emphasize the dietary requirements for the geriatric prosthodontic patient. A dietary analysis of the student and a prosthetic patient currently under treatment will be required. RESTOR DENT

175B-C. Biomaterials Science. (2-2) W, Sp. Prerequisite: D.D.S. degree. Open to dental residents, postdoctoral and postgraduate students only. Seminar 2 hours.

Jendresen

Course covers biomaterials science as applied to clinical restorative dentistry with emphasis on restorative material selection and use, based on acceptable physical and biological properties. Current research and new restorative materials will be discussed. RESTOR DENT

176. Craniofacial Pain-TMJ Seminar. (0-2) Su, F, W, Sp. Prerequisite: Enrolled postdoctoral specialty student. Seminar 1 hour. Clinic 3 hours.

McNeill

Allows residents to finish their training with a basic ability to recognize, diagnose, and treat craniofacial pain and TMJ dysfunction in an interdisciplinary environment. The treatment team will include medical and dental specialties. RESTOR DENT

179.01A-B-C-D-E-F-G-H. Removable Prosthodontics Clinic. (0-5) A, E: Su, B, F: F, C, G: W, D, H: Sp. Prerequisite: Enrollment in Postgraduate Prosthodontics Program. Clinic 15 hours. Two-year course.

T. Curtis

Various types of removable prostheses will be fabricated using different techniques and treatment philosophies. RESTOR DENT

179.02A-B-C-D-E-F-G-H. Fixed Prosthodontics Clinic. (0-5) A, E: Su, B, F: F, C, G: W, D, H: Sp. Prerequisite: Enrollment in Postgraduate Prosthodontics Program. Clinic 0-15 hours. Two-year course.

Noble

Fixed prosthodontics clinical procedures will be performed using a variety of treatment philosophies and articulating instruments. RESTOR DENT

179.03. Temporomandibular Joint Clinic. (0-2) Su, F, W, Sp. Prerequisite: D.D.S. degree. With consent of instructor, fourth-year students may take this course as an elective. Due to patient commit-

ments in the clinic, students, once selected, may not withdraw. Clinic 10-20 weeks.

McNeill

Participation in the Temporomandibular Joint Clinic applying knowledge of history-taking and differential diagnosis and utilizing such diagnostic techniques. RESTOR DENT

180. Clin Restor Preceptorship. (1-2) F, W, Sp. Prerequisite: Restorative Dentistry 139 and approval of instructor. Limited enrollment. Clinic 3 hours.

Jendresen and Staff

Under the preceptorship of full-time faculty, this Clinical elective allows students to treat their clinic patients in the Faculty Group Dental Practice. Allows students to extend their experience to procedures which often cannot be conveniently taught in the general clinics and to observe dental practice in a setting closer to the "real world." RESTOR DENT

180.01. Survey of Dental Materials. (1) Sp. Lecture 1 hour.

Jendresen

A survey of current research in the dental materials field, including evaluation of recently introduced materials and a review of the limitations and indications for all basic materials commonly used. RESTOR DENT

180.03. Advanced Fixed Prosthodontics Laboratory Techniques. (1) W. Prerequisite: Concurrent enrollment in Restorative Dentistry 149. Limited to 12 students. Permission of instructor. Seminar 1 hour.

Hamaguchi

This course is designed to enhance the student's knowledge and abilities in Fixed Prosthodontics laboratory procedures. Students will bring the lab phase of their current clinical cases to the seminars. Instructor will demonstrate and direct the processing of these cases with particular emphasis on ceramics. RESTOR DENT

180.04. Advanced Operative Theory. (1) F. Prerequisite: Completion of Restorative Dentistry 130.04. Lecture 1 hour.

Birtcil

Lectures and televised demonstrations covering quadrant dentistry, washed field technics, complex restorations, analysis of related research, and clinical applications of the various restorative procedures. RESTOR DENT

180.05. Prosthodontic Procedures. (1) W, Sp. Lecture 1 hour.

Brigante

An elective course offering instruction in procedures and materials

other than those normally used in the clinic. RESTOR DENT

181. Temporomandibular Joint Disease. (1) F. Prerequisite: Successful completion of Restorative Dentistry 139 and 130.04. Seminar 1 hour.

McNeill

Seminar series covering differential diagnostics techniques and treatment approach to temporomandibular joint disease. RESTOR DENT

181.01. Cosmetic Dentistry. (1) F, W. Prerequisite: Consent of instructor. Lecture 1 hour.

Lacy

Review of a variety of materials and techniques related to the delivery of cosmetic or esthetic dentistry. New materials and procedures in both operative dentistry and fixed prosthodontics are emphasized. RESTOR DENT

181.02. Advanced Endodontics Concepts. (1) W. Lecture 1 hour.

Rosenberg

Diagnosis, case selection, and management of pain and infection in endodontically-involved teeth; advanced techniques for treating difficult root canal system anatomy; refinements in obturation of the root canal system. RESTOR DENT

181.03. Fixed Pros Selected Topics.

(1) Sp. Enrollment limited. Seminar 1 hour.

Lum

Individual staff members will offer seminar-type instruction on selected topics related to fixed prosthodontics. RESTOR DENT

181.04. Advanced Operative Theory. (1) W. Prerequisite: Restorative Dentistry 180.04 (formerly Operative Dentistry 180). Lecture 1 hour.

Birtcil

Continuation of Restorative Dentistry 180.04. RESTOR DENT

182.03. Senior Restorative Elective. (1) F. Lecture 1 hour.

Meli

Advanced clinical restorative elective. Lectures will describe the restorative general practice. Topics to be covered include office layout, laboratory relations, treatment limitations, financial arrangements, scheduling, treatment failures. RESTOR DENT

182.04. Advanced Operative Theory.

(1) Sp. Prerequisite: Restorative Dentistry 181.04. Lecture 1 hour.

Birtcil

Continuation of Restorative Dentistry 181.04. Organization of the material is planned in relationship to progress of students enrolling in the 180 series. RESTOR DENT

182.05. Advanced Partial Denture Design. (1) Sp. Prerequisite: Completion of three removable partial dentures. Lecture 1 hour. Seminar 1 hour.

J. Holmes

Seminar to discuss and determine the reasons clinical cases failed and to recommend new treatment or designs for removable partial dentures. Emphasis will be on understanding design principles of routine situations, but unusual cases may be used to depict specific problems. RESTOR DENT

183.03. Special Occlusion Problems. (1) W. Prerequisite: Consent of instructor. Lecture 1 hour.

Pavone

Course covers the diagnosis and treatment of occlusal disorders of the adult dentition. The etiology of functional disturbances, analysis of occlusal relationships of the opposing arches, and a rationale for therapy will be presented and discussed. RESTOR DENT

183.05. Advanced Complete Prosthodontics. (1) F. Prerequisite: Fourth-year standing. Seminar 1 hour.

Finzen

Seminar to discuss concepts of complete denture fabrication and maintenance reviewing the rationale for procedures normally used in the clinic, and the selection of the appropriate alternate procedures where indicated. RESTOR DENT

186.04. Restorative Materials Procedures. (1) F, W, Sp. Prerequisite: Open to fourth-year students with the approval of the chairperson of the division. Enrollment limited. Clinic 3 hours.

Birtcil

Techniques and procedures for Class III restorations, using the conservative approach, as well as wedge and matrix. Work will also be done on Class V direct gold restorations. Students learn to use various materials such as fibrous gold, gold and electroly. RESTOR DENT

187.04. Adv Clinical Operative Dentistry. (0-4) Sp. Clinic 0-12 hours.

Braly

Advanced instruction in the field of clinical operative dentistry, utilizing procedures such as quadrants and plastics. RESTOR DENT

188.02. Advanced Clinical Endodontics. (0-4) Sp. Prerequisite: Fourth-year standing. Clinic variable.

Barkhordar

Advanced instruction in the field of clinical endodontics. RESTOR DENT

189. Clinical Restorative Dentistry. (0-50) F, W, Sp. Prerequisite: All previous courses in Restorative Dentistry curriculum sequence. Clinic variable.

Jendresen, Rosenberg, Tueller, Braly, Holmes

Continuation of clinical experience at the level of Restorative Dentistry 149. RESTOR DENT

189.04. Clinical Operative Dentistry. (1-4) Su, F, W, Sp. Prerequisite: Fourth-year standing and approval of the Clinic Review Committee. Clinic 30 hours. Minimum 1 week, maximum 4 weeks.

Braly

Students participate in the delivery of restorative dental care in various extramural sites under the direct supervision of members of the faculty. RESTOR DENT

199.01. Biomaterials Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor and approval of the chairperson of the department. Lab 3-15 hours.

Lacy

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. RESTOR DENT

199.02. Endodontics Laboratory Project. (1-5) SS1, F, W, Sp. Prerequisite: Consent of instructor and approval of the chairperson of the department. Lab 3-15 hours.

Rosenberg

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. RESTOR DENT

199.03. Fixed Pros Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor and approval of the chairperson of the department. Lab 3-15 hours.

Tueller

A laboratory research project under the direction of a member of the faculty with the approval of the chairperson of the department. RESTOR DENT

199.04. Oper Dent Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor and approval of the chairperson of the department. Lab 3-15 hours.

Braly

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. RESTOR DENT

199.05. Remov Pros Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor and approval of the chairperson of the department. Lab 3-15 hours.

Holmes

A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. RESTOR DENT

SOCIOLOGY

130. Sociocultural Variations in Hlth. (3) § W. Lecture 3 hours.

R. Staples

Course addresses socio-cultural variations in health with implications for nursing practice. SOC BEH SC

134. Women, Health, and Healing. (3) § F, W or Sp. Lecture 2 hours, Lab 3 hours.

V. Olesen

Course analyzes sex roles in general and women's roles in particular in health care receipt and delivery, with special emphasis on recruitment problems to health professions, images of women in therapeutic situations, and cross-cultural features of health care. SOC BEH SC

160. Policy & Politics of Health. (3) § Sp. Lecture 2 hours, Lab 3 hours.

C. Harrington

Course addresses the organization of health care and its politics, with emphasis on both United States and international health issues. SOC BEH SC

198. Supervised Study. (1-5) § F, W, Sp.

Staff

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. SOC BEH SC

203. Social and Psychological Aspects of Chronic Illness. (3) § F, W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

Staff

Course provides discussion of problems faced by chronically ill persons and their families including crisis management, handling symptoms, managing regimens, social isolation, phases of the disease, temporal difficulties, normalization, dying. Some policy issues, including those confronting health care personnel as well as the general public. SOC BEH SC

204. Sociology of Psychiatry. (3) § W, Sp. Lecture 2 hours. Lab 3 hours.

L. Schatzman

Course covers psychiatric practices, professional careers, and institutions conceptualized sociologically as historic, symbolic systems and interactional processes. SOC BEH SC

205. Soc of Hlth Profess & Occup. (3) § F. Lecture 2 hours. Lab 3 hours.

Staff

Course examines the nature of occupations and professions; their constellation in hospitals and clinics, the medical division of labor, specialties and specialization, professional and occupational ideologies, the sociology of work relationships, careers. SOC BEH SC

207. Sociology of Health & Medicine. (3) § Sp. Seminar 2 hours, Lab 3 hours.

C. Estes

Course introduces the student to classical perspectives in medical sociology and development of a critical perspective in the field to serve as a foundation for independent and advanced study in medical sociology. SOC BEH SC

208. Social Psychol of Hlth & Illness. (3) § F. Prerequisite: Required for graduate students in sociology. Lecture 2 hours. Lab 3 hours.

V. Olesen

Course covers the relationship of social class, ethnic identification, group membership, family structure, occupation and life style to health and illness, and therapeutic interaction of laymen and health professionals. SOC BEH SC

209. Sociology of Power. (2-4) § F, W, Sp. Prerequisite: Advanced standing and consent of instructor. Lecture 2-4 hours.

C. Estes

Course surveys the classical and contemporary sociological issues in theoretical and empirical work on power; exploration of underlying assumptions and paradigms emerging and reflecting a sociopolitical milieu; students become familiar with literature and debates on power structure research and theory. SOC BEH SC

212A. Sociological Theory. (3) § W. Lecture 2 hours. Field work 3 hours.

C. Estes

Course examines and evaluates classical and recent contributions to sociological theory. The main objective is the generation of a critical capacity with respect to received theory in both its formal and substantive varieties. SOC BEH SC

212B. Sociological Theory. (3) § Sp. Lecture 2 hours. Field work 3 hours.

L. Schatzman

Course consists of readings and discussions on interactionist theory in sociology, with emphasis on the origins and development of the Chi-

cago School of Sociology, as well as an examination of the link between philosophy of pragmatism and interactionism. SOC BEH SC

214A. Field Research. (3) § F, Sp. Prerequisite: Doctoral level. Lecture 2 hours. Lab 3 hours.

L. Schatzman, V. Olesen

Course offers sociological perspectives on the dimensions and properties of research in natural social settings. Focus upon developing skills in negotiating entree, in watching, listening, and in recording of data; emphasis upon developing conceptual schemata in preparation for analysis. SOC BEH SC

214B. Quantitative Analysis. (3) § W. Prerequisite: Doctoral level. Sociology 214A. Lecture 2 hours. Lab 3 hours.

V. Olesen, L. Schatzman

Course examines modes of analysis applicable to qualitative data; emphasis on dimensions and properties exhibited in student-presented data. SOC BEH SC

214C. Qualitative Analysis. (3) § F, W, Sp. Prerequisite: Doctoral level. Sociology 214A and 214B. Lecture 2 hours. Lab 3 hours.

Staff

Course provides qualitative analysis and the development of substantive and formal sociological theory. Emphasis is on student-presented data and their conceptualization. SOC BEH SC

215. Organizational Research. (2-4) § F, W, Sp. Prerequisite: Sociology 216 encouraged but not required and consent of instructor. Lab 3-9 hours. Conference 1 hour.

E. Lurie

Course will place students in organizations to provide opportunities to conduct research; apply and develop organizational theory; develop applied sociological, practical, and administrative skills and experience for students; and make sociologists attractive and salient to organizations outside academic settings. SOC BEH SC

216. Comp Orgs: National & Intl Perspec (3) § F. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 3 hours.

Staff

Course is a comparative review of contributions to the sociology of formal organizations of health care. A variety of organizational forms will be considered with special emphasis on national and international health care comparisons. SOC BEH SC

217. Future of the Family Seminar. (3) § F, W, Sp. Lecture 2 hours. Lab 3 hours.

R. Staples

Course explores changing dating, sexual, sex-role, marital, and familial patterns in the United States. Discussion of futuristic models of family life as affected by sociocultural forces. Special emphasis given to changing sex-role behavior as affecting male-female relationships. SOC BEH SC

218. Adv Topics in the Socio Analysis of Aging. (2-4) § W. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 0-6 hours.

C. Estes

The topics to be analyzed will vary each year with the instructor, but will be focused upon a specific area. SOC BEH SC

219. Social Policy & Aging. (2-4) § W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 0-6 hours.

C. Estes

Course will provide a critical analysis of major social, economic and political issues of growing old in America; will examine social policy in the public and private sectors including health, income, and social services; and consider prospects for social change and political movements. SOC BEH SC

220. Sociology Seminar. (2-4) § F, W, Sp. Prerequisite: Consent of instructor. Required for graduate students in Sociology. Seminar 2 hours. Lab 0-6 hours.

C. Estes

Doctoral students discuss methods and problems in current research. Course may be repeated for credit. SOC BEH SC

221A-B-C. Qualifying Examinations. (4-4-4) § A: F, W, Sp. B: F, W, Sp. C: F, W, Sp. Prerequisite: Preparation for qualifying examinations. Open to graduate students in Sociology only.

Staff

Qualifying examinations for graduate students in sociology are given in three areas: sociological theory, medical sociology, and special interest. The course will provide for preparation in each area. SOC BEH SC

223. Perspectives on Public Policy. (3) § W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, Lab 3 hours.

A. Benjamin

Course offers systematic overview of health policy in American government—its scope, dynamics, and conceptual and practical dilemmas. Students will become acquainted with major issues involved in formulating, financing, implementing, and assessing patterns of decision

(i.e., policy) established by government. SOC BEH SC

225. Policy & Hlth Care Institutions. (3) § F, W, Sp. Prerequisite: Nursing 287A or consent of instructor. Lecture 2 hours. Lab 3 hours.

R. Newcomer

Course describes and analyzes approaches to understanding the development of health policy and relationships between health policy and decision making within health care institutions. SOC BEH SCI

226. Families of the Third World. (3) § F, W. Lecture 2 hours. Lab 3 hours.

R. Staples

Course examines family structures and dynamics among Third World peoples. Families to be discussed include Africans and Afro-Americans, Asians, Native Americans, and Latinos. Emphasis is on continuities in the family life of these groups in their native land and in the United States. SOC BEH SCI

230. Socio-Cultural Issues in AIDS. (3) § W, Sp. Lecture 2 hours, Lab 3 hours.

V. Olesen

Course examines the history and social psychology of AIDS in relation to health, illness, disease, and death. Includes demographic trends, the cost burden, and special problems of minorities, women, and caregivers, along with policy issues. SOC BEH SC

232. Adv Problems in Soc Psychology. (2-4) § W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Field work 0-6 hours.

V. Olesen

An advanced seminar dealing with theoretical and conceptual problems in various areas of social psychology. Recent developments in theory and concept will be reviewed. SOC BEH SC

234. Health & Aging. (2-4) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, Lab 0-6 hours.

H. Lipton, C. Estes

Course examines the health status of the aged in the United States related to biological, behavioral, sociocultural, environmental factors. Social, cultural, economic factors affecting organization, financing, and delivery of health care to the aging population will be examined. SOC BEH SC

235. Health Factors in Marriage & Family Behavior. (3) § F, W, Sp. Prerequisite: Consent of instructor. Graduate standing. Lecture 2 hours. Lab 3 hours.

R. Staples

Course will explore how marital and family behavior generates mental and physical health problems. Topics are family violence, child abuse, sexually transmitted diseases, suicide, psychological problems, and the relationship of marital status to morbidity and mortality. SOC BEH SC

236. Race/Class Factors in Hlth Care Delivery. (3) § W. Prerequisite: Consent of instructor. Graduate standing. Lecture 2 hours. Lab 3 hours.

R. Staples

Course examines racial and class membership impact on access to health care services, variations in the quality of those services, and how professional and subprofessional roles in the health care system are organized along racial and class lines. SOC BEH SC

237. History of Sociological Thought. (3) § F. Lecture 2 hours. Field work 3 hours.

L. Schatzman

Graduate introduction to history of sociological thought. Provides perspective and vocabulary for examining major schools of thought which constitute sociological tradition. Discussion of conceptual paradigms and their relationship to theory will provide understanding of sociological work. SOC BEH SC

238. Studies in Women's Health. (2-4) § F, W, Sp. Seminar 2 hours, Lab 3-6 hours.

V. Olesen

Course offers students opportunity to work with both theoretical and research questions on the subject of women's participation in health and healing systems. Critical questions on appropriate method, relationship to theory, and articulation of questions will be considered. SOC BEH SC

239. Field Research Eval. (3) § F, W, Sp. Prerequisite: Sociology 214A and 214B. Non-doctoral students may enroll upon approval of instructor. Lecture 3 hours.

R. Newcomer, L. Schatzman

Course analyzes field work as evaluation method, as applied to health care settings and programs, contrasting this approach with quantitative methods predicated on analysis of outcomes. Conduct of such evaluative research, and relationship with audiences, such as policy-makers, analyzed. SOC BEH SC

240. Older Women and Their Health. (2-4) § F. Seminar 2 hours. Optional project for additional units.

V. Olesen, J. Zones

Course analyzes postmenopausal women's changing social roles and the interaction of actual and perceived role with health. Topics include demographic issues, economic trends, individual social and health status, policy implications for individuals and society. SOC BEH SC

241. Women, Work & Health. (2-4) § F. Seminar 2 hours. Optional project for additional units.

V. Olesen

How sociocultural systems place women in work roles, the implications for their health, their part in illness prevention and care of the sick. Analyzes "hidden careers," work and health in developing societies, relationship between work and mobility-mortality patterns. SOC BEH SC

242. Women's Health: Res. (2-4) § Sp. Prerequisite: One or more women's health courses and one survey course in social research methods or social epidemiology. Seminar 2 hours. Optional project for additional units.

V. Olesen, J. Zones

An advanced survey of quantitative research methods in analysis of women's health issues. Will focus on data sources, design types, evaluation methods, data analysis, and proposal and report writing. Exploration of current research controversies. SOC BEH SC

243. Qualitative Research in Women's Health. (2-4) § W. Prerequisite: One or more women's health courses and one course in qualitative methods. Doctoral students only. Seminar 2 hours. Optional project for additional units.

V. Olesen

An advanced survey of qualitative research methods in analysis of women's participation in health and healing systems. Will review epistemological assumptions, analytic strategies, design and modes to assure credibility, plausibility. Will focus on data sources and analysis of data. SOC BEH SC

245. Gender and Science. (3) § Sp. Seminar 3 hours.

A. Clarke

Course is a study of historical and contemporary issues in the social construction of biological and medical sciences, epistemological problems, and feminist perspectives. Focus is on impact of gender on scientific work and includes scientific constructions of gender and women's careers in science. SOC BEH SC

247. Policy Issues & Political Processes. (3) W, Sp. Lecture 2 hours, Lab 3 hours.

C. Harrington

Seminar focuses on issues and trends in legislation and politics of aging and long-term care. Discussions will cover professional roles and development of strategies to influence legislative and political processes that affect the planning and delivery of care. SOC BEH SC

249. Special Studies. (1-8) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Students select special problems to investigate on an individual or collaborative basis. These studies may be conducted through readings, the collection or analysis of empirical data, or the development of conceptual analysis or of methodologies. SOC BEH SC

251. Women's Health: Socio-Cultural. (2-4) § Sp. Prerequisite: Consent of instructor. Lab 0-6 hours. Seminar 2 hours.

V. Olesen, E. Lewin

Exploration of relationship between culture and health for women in non-Western societies. Effects of modernization and migration on utilization of traditional and cosmopolitan health care and on women's roles as providers will be discussed, and contemporary controversies will be analyzed. SOC BEH SC

252. Women's Health: Socio-Historical. (2-4) § W. Prerequisite: Consent of instructor. Lab 0-6 hours. Seminar 2 hours.

V. Olesen, S. Ruzek

Sociological analysis of women's health status, roles as providers and patients, and the development of medical ideas about women from a historical perspective. Emphasis on 19th and 20th century developments in industrialized societies. SOC BEH SC

253. Women's Health: Life Cycle. (2-4) § W. Prerequisite: Consent of instructor. Lab 0-6 hours. Seminar 2 hours.

V. Olesen

Issues in women's reproduction and sexuality, occupational health, and mental health over the life cycle examined from epidemiological, developmental, interactionist and political economy perspectives. Emphasis on applicability to policy, clinical practice, program evaluation and scientific theory building. SOC BEH SC

254. Women's Health: Policy Issues. (2-4) § W. Prerequisite: Consent of instructor. Lab 0-6 hours. Seminar 2 hours.

V. Olesen

Consideration of factors in the emergence of issues in women's health and related policy. Perspectives on women as policymakers and the implementation of policy on women's health, participation in care and healing systems and access to training. SOC BEH SC

255. Environmental Sociology. (2-4) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours. Lab 0-6 hours.

V. Olesen

Sociological analysis of health-related issues emergent from considerations of housing, occupation, urban contexts. Review of concepts of territoriality, privacy and ecology. Perspectives on social construction of environmental and energy issues and policies. SOC BEH SC

256. Introduction to Survey Research. (3) § F. Prerequisite: Biostatistics 181 or equivalent. Restrictions: Doctoral level; non-doctoral students may enroll upon consent of instructor. Lecture 2 hours, Lab 3 hours.

R. Newcomer

Course introduces sample theory, sample development, and methods of survey research. Course will include analysis of appropriateness, cost, and limitations of methods: face-to-face interviews, mail questionnaires, and telephone interviews. Course will provide rudimentary skills for those conducting their own research and large field surveys. SOC BEH SC

262. Health Care Economics. (3) § F. Lecture 2 hours. Lab 3 hours.

C. Harrington

Course is a critical analysis of economic theories and public and private financing of health care. Focuses on the effects of financing and reimbursement on health care delivery systems, professional practice, and individuals and families. SOC BEH SC

266. Leadership in Long-Term Care. (3) § W, Sp. Prerequisite: Consent of instructor. Seminar 2 hours. Lab 3 hours.

C. Harrington

Seminar examines leadership and administration in long-term care settings. Focuses on organization, budgeting, program planning, management, educational programs, and service delivery with emphasis on creative approaches and testing new models and theories. SOC BEH SC

270A. Quantitative Methods I. (3) § F. Restriction: Doctoral students in Sociology or consent of instructor. Lecture 2 hours, Lab 3 hours.

R. Newcomer, J. Swan

Course examines quantitative research methods used in sociological inquiry. The focus is on scientific models, problem formulation, use of theoretical frameworks, levels of analysis, settings and strategies, specification of constructs and selection of indices. SOC BEH SC

270B. Quantitative Methods II. (3) § W. Prerequisite: S 270A (Quantitative Methods I). Restriction: Doctoral students in Sociology or consent of instructor. Lecture 2 hours, Lab 3 hours.

R. Newcomer, J. Swan

Course examines quantitative research methods including issues of sampling, reliability and validity, data collection, data analysis, and inference. The course examines experimental, quasi-experimental, ex-post-facto, and correlational research, as well as survey and evaluation methods. SOC BEH SC

270C. Research Methods Seminar. (3) § Sp. Prerequisites: S 270A and S 270B (Quantitative Methods in Sociological Inquiry I & II). Restriction: Doctoral students in Sociology or consent of instructor. Seminar 3 hours.

Staff

Advanced seminar in research methods. Students will be able to appreciate the complexity of issues and challenge of integrating qualitative and quantitative research traditions through discussion and exercises which formulate alternate research approaches.

SOC BEH SC

271. Professional Issues Seminar. (2) § F, W, Sp. Restriction: Doctoral students in Sociology or consent of instructor. Seminar 2 hours.

Staff

Seminar addresses professional and career issues for sociologists, including teaching, research, writing for publication, and presentation of papers at professional meetings. Focuses on career and educational planning, resume development, internships, mentorships, and job interviews. SOC BEH SC

272. Dissertation Research Seminar. (3) § F, W, Sp. Restriction: Doctoral students in Sociology. Seminar 2 hours, Lab 3 hours.

Staff
Logic of research design and execution for students. Clarification of research question, delineation of work plan, and orientation to relevant theoretical literature or empirical data available. SOC BEH SC

273. Demography of Health and Aging. (3) § W, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, Lab 3 hours.

M. LaPlante

Course provides an overview of demographic studies of morbidity, disability, and mortality. Sociodemographic variations and changes over time in health and mortality profiles of populations and the relationship of morbidity, disability, and mortality trends will be covered. SOC BEH SC

274. Sociology of Human Sexual Behavior. (3) § F, W, Sp. Restriction: Doctoral students in Sociology or consent of instructor. Seminar 2 hours, Lab 3 hours.

R. Staples

Course examines contemporary sexual problems from a sociological perspective focusing on issues and their relationship to social structure. Topics will include sexually transmitted diseases, teenage pregnancy, sexual violence, sexual harassment, and incest.

SOC BEH SC

275. Mental Illness and the Elderly. (2-3) § W, Sp. Prerequisite: Consent of instructors. Lab 3 hours. Seminar 2 hours.

J. Swan, E. Lurie

Course considers current research, policy, and funding issues with regard to the mentally ill aged, within the context of the epidemiology, treatment options, utilization patterns, formal and informal treatment systems, and special issues of the mentally ill elderly.

SOC BEH SC

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. SOC BEH SC

SPEECH AND HEARING SCIENCE

201. Basic Hearing Mechanisms. (4) § F. Prerequisite: Consent of instructor. Lecture 3 hours, Lab 1 hour. Offered in alternate years. Not offered 1988-89.

Merzenich and Staff

Lectures and laboratory demonstrations reviewing surgical and comparative anatomy of the ear; cochlear development and mechanics; hair cell transduction; comparative physiology of hearing; bases of hearing loss; and strategies for objective evaluation of inner ear function in animals and man. OTOLARYN

202. Auditory Coding. (4) § W. Prerequisite: Consent of instructor. Lecture 3 hours, Lab 1 hour. Offered in alternate years. Not offered 1988-89.

Merzenich, and Staff

Lectures and laboratory demonstrations covering such topics as physiology and psychoacoustics of sound and speech coding; cochlear prostheses; central auditory system organization; physiology of binaural hearing in avians and mammals; and evaluation of auditory brain-stem function in animals and man. OTOLARYN

203. Forebrain Mechanisms. (4) § Prerequisite: Consent of instructor. Lecture 3 hours, Lab 1 hour. Offered in alternate years. Not offered 1988-89.

Merzenich and Staff

Topics include forebrain representation of complex spectra (including speech) and of sound localization (including echolocation in bats and whales); cognitive development related to hearing; auditory consequences of such pathologies as brain lesions and autism; and objective assessment of forebrain mechanisms. OTOLARYN

210. Fundmntl of Auditory Neurobiol. (1) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1-3 hours.

Staff

Reading and critical discussion of selected original research papers on the anatomy and physiology of the auditory system. Each level of the auditory nervous system from the periphery to the cortex will be considered in turn. OTOLARYN

211. Sound and Sound Analysis. (4) § F. Prerequisite: Consent of instructor. Lecture 3 hours, Lab 2 hours. Offered in alternate years. Not offered 1988-89.

Staff

Review of the physics of sound as it applies to study of speech and hearing. Theoretical and practical approaches to the analysis of signals and the fundamentals of system analysis. Practical application of acoustic research equipment. OTOLARYN

220. Speech and Hearing Science. (1) § F, W, Sp. Seminar 1 hour.

Turner

This seminar series will consist of weekly presentations by the faculty, students, research personnel in the department, and visiting scientists. Topics will cover the range of speech and hearing sciences, including anatomy, physiology, psychophysics, speech, clinical diagnosis, and rehabilitation. OTOLARYN

221. Electrophysiology & Audiology. (4) § F. Prerequisite: Consent of instructor. Lecture 3 hours, Lab 3 hours.

Gardi and Staff

Review of the development of electrophysiological approaches to studying auditory functions with particular emphasis on auditory-evoked response measurement. Lectures and laboratory exercises will stress equipment design and calibration, data collection, analysis, and interpretation. OTOLARYN

222. Auditory Psychophys & Physiol. (3) § Sp. Lecture 3 hours.

Staff
A coordinated coverage of basic auditory function. The physiology of the peripheral auditory system and basic perceptual correlates. Physics of sound, cochlear mechanics and microphonics, VIII nerve physiology, thresholds, masking, pitch, loudness, temporal adaptation, frequency analysis, binaural perception, and processing are included. OTOLARYN

224. Animal Psychophysics. (3) § Sp. Seminar 3 hours.

Jenkins

Reading and discussion of selected papers on modern behavioral methods for obtaining information on the sensory capacities of animals. Students will have access to equipment and a microcomputer so that one or more behavioral methods can be implemented. OTOLARYN

225. Inner Ear Form and Function. (3) § F, Sp. Prerequisite: Consent of instructor. Lecture 2 hours, Lab 3 hours.

Leake

This course will consider the gross morphology, histology, ultrastructure and function of the mammalian cochlea and vestibular sensory organs. Instruction will include lectures, demonstrations, dissections and student presentations. OTOLARYN

247. Special Studies. (1-3) § F, W, Sp. Prerequisite: Consent of instructor. Lecture 1-2 hours, Lab 0-3 hours.

Owens

Directed reading and laboratory work in the auditory process and its disorders. OTOLARYN

249. Independent Study. (1-5) § F, W, Sp. Prerequisite: Consent of instructor.

Staff

Students and instructor develop jointly a study plan involving tutorials, reading, and laboratory work. Students engage in intensive exploration of specific topics related to the anatomic, physiologic, psychophysical, and behavioral aspects of the speech and hearing sciences. OTOLARYN

250. Research. (1-8) § F, W, Sp. Prerequisite: Consent of instructor.

Merzenich and Staff

Students participate in ongoing research or initiate independent research project under guidance of supervising instructor. Assignments include literature review, design of research, execution of research, data reduction and analysis, and reporting. OTOLARYN

299. Dissertation. (0) § F, W, Sp. Prerequisite: Advancement to candidacy and permission of the graduate adviser.

Staff

For graduate students engaged in writing the dissertation for the Ph.D. degree. OTOLARYN

SURGERY

110. Surgery Core Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Surgery 110.

Pellegrini

Core general clerkship in surgery. Students assigned to wards and clinics at UC, SFGH, VA and C. The application of basic sciences, pathology, radiology, and psychiatry to surgery is emphasized in ward rounds and seminars. SURGERY

111. Advanced Surgery Core Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Surgery 110.

Rayner

Students are senior clerks on wards, in operating rooms at UC, SFGH and VA. Rounds, seminars focus on physiological approach to surgery. Clinical clerkships in surgical specialties may be taken with prior approval of specialty department and Department of Surgery. SURGERY

140.01. Advanced Surgery Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111.

F. Lewis

Senior clinical clerks participate in clinic, ward and operating room with direct involvement in postoperative and preoperative care at UC, SFGH, VA, C, RDMC, VMC and K. SURGERY

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Core curriculum in basic sciences and Medicine 110 or Surgery 110 and 111.

Debas

Clinical clerkship in approved hospitals in other universities by special arrangement and approval of the chairperson of the department and the dean. SURGERY

140.03. General Surgery-PMC. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.

Russell

Students serve as acting interns on general surgical service; participate in preoperative assessment, interoperative management and postoperative care of patients; participate in outpatient clinics as well as selected physicians' offices; participate in daily ward rounds and teaching conferences. SURGERY

140.04. Vascular Surgery Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110, Surgery 110 and 111.

Krupski

Students serve as acting interns on the vascular surgery team, participating in preoperative, intraoperative, and postoperative management of patients, as well as in clinics, rounds, and conferences. SURGERY

140.05. Operable Heart Disease. (1½ per week) Su, F, W, Sp. Prerequisite: Core curriculum in basic sciences and Medicine 110 or Surgery 110 and 111.

Turley

Ward rounds and conferences on patients with operable, congenital or acquired heart disease. Details of selection, differential diagnosis, and results of surgery are discussed. SURGERY

140.06. Emergency Medicine-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 or Surgery 110 & 111.

Cales

Students care for patients in the Emergency Department at SFGH as acting interns, and care for all medical and surgical problems. The rotation focuses on wound-care techniques (including suturing), didactic conferences, and bedside one-to-one instruction by senior residents and faculty. SURGERY

140.07. Shock & Trauma Research. (1½ per week) Su, F, W, Sp. Prerequisite: Core curriculum in basic sciences and Medicine 110 or Surgery 110 and 111.

F. Lewis

Course involves clinical and laboratory investigation and a detailed study of specific patients with trauma and shock. SURGERY

140.08. General Surgery-C. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 & Medicine 110.

V. Richards

Students work as interns on Surgical Service; they evaluate general surgical patients preoperatively; work with patients in operating room; assume graduated, increasing responsibility in postoperative management. Rounds and conferences enhance clinical experience;

interaction with staff in patient care emphasized. SURGERY

140.09. Trauma Surgery-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111 and consent of instructor.

F. Lewis
Clinical clerkship in the Trauma Service of the Department of Surgery at SFGH. The student will work at intern-clerk level as an integral part of the service. SURGERY

140.10. Cardiothoracic Surgery. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 & 111.
Verrier

As an integral member of the cardiothoracic team, the student directly and actively shares in preoperative evaluation, operative procedures, and postoperative care. Cardiac and thoracic conferences and daily ward rounds provide the didactic teaching. SURGERY

140.11. Burn Care-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.

J. Horn
Clinical rotation on a large Burn Center Service. Pathophysiology of thermal injury including pulmonary aspects will be stressed. Students act as integral members of the team and participate directly in patient care. SURGERY

140.12. Adv Plastic & Recons Surgery. (1½ per week) Su, F, W, Sp. Prerequisite: Medicine 110 and Surgery 111.

Mathes
Participation in clinical activities of plastic surgery. Students work on patients and take part in operative procedures, as well as manage the postoperative patient. Exposure to patients with general reconstructive problems; trauma to head and neck, hand surgery, and congenital anomalies. SURGERY

140.13. General Surgery-VAF. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111.

O'Hara
Students receive broad clinical experience in general surgery at VAF and with practicing surgeons in selected community settings in the central San Joaquin Valley. Balance between VAF and community assignments is individually arranged according to students' interests. SURGERY

140.14. Surgical Intensive Care Clerkship-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111. Fourth-year students only.
Parks

Clerkship offers an "organ systems" approach to critical surgical illness with experience in invasive and noninvasive monitoring and appropriate therapeutic interventions. Course is aimed at providing patient management experience and familiarity with basic science concepts and literature upon which surgical intensive care is based. SURGERY

140.15. Burn Center Clerkship-VMC. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111. Fourth-year students only.

Parks
Presents a clinical spectrum in critical-care medicine: burn wound infection control, resuscitative management, hemodynamic monitoring, with emphasis on appropriate nutritional and metabolic support. Also stressed are psychological and emotional needs of patients. Students participate as full members of the Burn Team. SURGERY

140.16. Nutritional Support Service-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.

Hickey, Weaver
Students will be instructed in the formulation and administration of parenteral and enteral feedings; the insertion of subclavian catheters; the management of metabolic/nutritional problems. Students will perform nutritional assignments and activity, and participate in daily rounds at San Francisco General Hospital. SURGERY

140.17. Pediatric Surgery. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110 and 111. Clinic 40.

deLorimier, Harrison
The student works as acting intern on a busy pediatric surgical service assisting in pre- and postoperative management and in the operation. An interesting, wide variety of problems is encountered. SURGERY

150.01. Research in Surgery. (1½ per week) Su, F, W, Sp. Prerequisite: Consent of instructor.

Way
Opportunities for research in one of the departmental laboratories by arrangement with the instructor. SURGERY

160.05. Advanced Surgery Reading. (2) F, Sp.

F. Lewis
A weekly seminar where previously assigned papers are discussed and critiqued. Papers representing the classical and current concepts in general surgery are covered. SURGERY

160.06. Total Parenteral Nutrition. (5) Su, F, W, Sp. Prerequisite: Surgery 110 and consent of in-

structor. Lecture 3 hours. Lab 6 hours.

Hickey
Course emphasizes nutritional and metabolic requirements of injured, ill, and malnourished patients. Clinical rotation involves methods of preparation, administration, and assessment of patients receiving caloric protein or amino acid support as part of specific therapy. SURGERY

198. Supervised Study. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Debas and Staff
Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department. SURGERY

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Debas and Staff
A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. SURGERY

400. General Surgery Staff Conf. (1½) F, W, Sp.
UC Debas, SFGH Lewis, VA L. Way

Conferences include presentation of case studies with reference to the literature, case records, laboratory tests, and special studies. Faculty and occasional guest lecturers discuss surgical problems. Death and complications are reviewed weekly. SURGERY

402. General Surgery Pathology Sem. (1) F, W, Sp. Interns and residents.

McKerrow
Seminars include case reports and demonstrations of the currently available gross and microscopic surgical pathological material from the operating rooms and pathology laboratories. SURGERY

403. General Surgery Seminar. (2) Su, F, W, Sp. Interns and residents.

RDMC Heer, SFGH Lewis, UC Debas, VA L. Way
Seminar is held in the surgical wards with discussion of current problems concerning the diagnosis and management of general surgical patients. SURGERY

450. Clinical Surgery. (1½ per week) Su, F, W, Sp.
UC Debas, SFGH Lewis, VA L. Way, RDMC Heer, C V. Richards, PMC Russell

Residents, under supervision, are responsible for the preparation of case records, laboratory work, pre-

operative patient preparation, assistance at operations, postoperative care, and attendance at follow-up clinic. Senior residents have certain additional administrative, teaching, and clinical responsibilities. SURGERY

452. Experimental Surgery Laboratory. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 450 and 452 may not be taken concurrently.

Debas and Staff
Course includes experimental investigations of general surgical problems and the development of technical and laboratory methods to be applied in general surgery. SURGERY

453. Clinical Experimental Surgery. (10) Su, F, W, Sp.
Debas

Assistant residents in off-campus hospitals approved by the chairperson of the department and the dean. Course includes clinical and experimental investigations of general surgical problems and the development of technical and laboratory methods to be applied in surgery. SURGERY

490. Clinical Surgery-SFGH. (1½ per week) Su, F, W, Sp.
SFGH Lewis

Interns rotate through the general surgical service, including the intensive care unit. Under the direction of the attending staff, experience is provided in vascular, chest, hand and plastic surgery, and surgery of maxillofacial injuries. SURGERY

495. Clinical Surgery. (1½ per week) Su, F, W, Sp.
Debas

Interns, under supervision, are responsible for the preparation of case records, laboratory work, preoperative patient preparation, assistance at operations, postoperative care, and attendance at follow-up clinic. SURGERY

TEACHING METHODOLOGY

170. Educational Technology. (1) F, W, Sp. Prerequisite: D.D.S. degree. Seminar 2 hours.
Staff

Course provides resource information in the form of a systematic overview of educational technology. This information is introduced in conjunction with the development by the individual student of an actual microcourse, teaching a single skill. GEN DENT

176. Practice Teaching. (1) F, W, Sp. Prerequisite: D.D.S. degree. Clinic 3 hours.
Staff

Practical teaching experience in selected courses under the supervision of members of the staff. GEN DENT

186.01A-B-C. Practice Teaching. (0-3, 0-3, 0-3) F, W, Sp. Lab 3 hours.
Staff

Practical teaching experience in selected courses under the supervision of senior members of the staff. GEN DENT

UROLOGY

Core Clerkship—Surgery 110 includes clinical clerkships in the outpatient clinics and hospitals, assistance at operations, and participation in residents' seminars.

140.01. Advanced Urology Clerkship-UC. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.
Tanagho

Students work as interns on the Urology Service at UC. They also attend rounds and scheduled seminars with residents and visiting staff. UROLOGY

140.02. Off-Campus Clerkship. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.
Tanagho

Clinical clerkship in off-campus hospitals approved by the chairperson of the department and the dean. UROLOGY

140.03. Advanced Urology Clerkship-VA. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.
R. D. Williams

Students work as interns on the Urology Service at VA. They also attend rounds and scheduled seminars with residents and visiting staff. UROLOGY

140.04. Advanced Urology Clerkship-SFGH. (1½ per week) Su, F, W, Sp. Prerequisite: Surgery 110.
McAninch

Students work as interns on the Urology Service at SFGH. They also attend rounds and scheduled seminars with residents and visiting staff. UROLOGY

170.01. Fundamentals of Urology. (2) F, W, Sp. Prerequisite: Consent of instructor.

Tanagho and Staff
Seminar and library research. UROLOGY

199. Laboratory Project. (1-5) F, W, Sp. Prerequisite: Consent of instructor.

Tanagho and Staff
A laboratory research project under direction of a member of the faculty with the approval of the chairperson of the department. UROLOGY

400. Urology Seminar. (1½) Su, F, W, Sp.
Tanagho

Seminar includes study of the basic sciences and urologic roentgenology with members of the attending staff. UROLOGY

401. Experimental Laboratory. (2) Su, F, W, Sp.
Tanagho

Course includes experimental investigation in urologic problems. UROLOGY

402. Urology Clinical Seminar. (2) Su, F, W, Sp.
Tanagho

Seminar includes discussion of diagnosis and treatment of patients in the urology wards with the attending staff. UROLOGY

403. General Urologic Staff Conf. (½) Su, F, W, Sp.
Tanagho

Conference includes presentation and discussion of urologic problems by the house staff and faculty. UROLOGY

450. Clinical Urology. (1½ per week) Su, F, W, Sp.
UC Tanagho, SFGH McAninch, VA R. D. Williams

First-year residents care for patients in the wards and outpatient clinics. Second- and third-year residents, under supervision, perform instrumental examinations on clinic patients. Senior residents, under supervision, perform instrumental and surgical procedures and have administrative, clinical, and teaching responsibilities. UROLOGY

490. Clinical Urology-SFGH. (1½ per week) Su, F, W, Sp.
SFGH McAninch

Interns rotate through urological wards. Under the direction of the attending staff they are responsible for the care of patients, including history-taking, physical examination, laboratory tests, and consultation. UROLOGY